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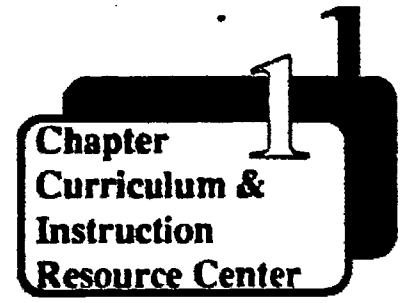
ABSTRACT

This workshop leader's guide is designed to assist Technical Assistance Center staff members and other inservice providers in conducting successful workshops on reading assessment for teachers, administrators, and others associated with Chapter 1 programs. The guide contains step-by-step procedures for preparing, organizing, and presenting a one- to three-hour workshop. Sections of the guide are entitled: (1) Getting Started (including an advance planner and a detailed checklist of the materials and equipment needed for the workshop); (2) Presenter's Guide (with detailed instructions for a one-hour workshop); (3) Transparency Masters; (4) Handout Masters; (5) Bibliography (a 127-item selected bibliography on reading assessment); and (6) Background Information (reprints of pertinent journal articles). (RS)



Specialty Option on Curriculum & Instruction

Region B Technical Assistance Center

WORKSHOP LEADER'S GUIDE

Reading Assessment:

How do we measure understanding?

Region B Technical Assistance Center/ PRC, Inc.
2601 Fortune Circle East, Suite 300A
Indianapolis, IN 46241
(317) 244-8160 (800) 456-2380

PLEASE COMPLETE AFTER 1st USE!

Evaluation of Workshop Leader's Guide
Reading Assessment: *How do we measure understanding?*

Directions: Please tell us how you used this Workshop Leader's Guide and how well it met your needs.

PART I: USER INFORMATION

Your affiliation is with: _____TAC _____R-TAC _____SEA/LEA _____ Other (please specify):

Your level of prior knowledge of this topic topic was: _____ high _____ medium _____ low

Check all of the blanks that describe your use of the guide:

Purpose	Method	Clients
___ to research a topic	___ presented with no changes	___ LEA
___ to prepare a workshop presentation	___ presented with few changes	___ SEA
___ other (please specify):	___ presented with many changes	___ Other (please specify):

Place a check in front of each section of the guide you used (some guides will not have all the sections listed):
___ Presenter's Guide ___ Transparency Masters ___ Handout Masters ___ Background Paper
___ Support Articles ___ Support Activities ___ Bibliography

To your clients, you distributed copies of:
___ Presenter's Guide ___ Transparencies ___ Handouts ___ Other (please specify):

PART II: CONTENT

The balance between theory and application in the guide was:
___ good ___ poor (too little theory) ___ poor (too little application)

The scope of the guide was: ___ appropriate ___ too broad ___ too specific

The material in the guide was: ___ timely ___ dated ___ too innovative

For my audience(s), the content was: ___ just right ___ over their heads ___ too rudimentary

If you or your audience found anything inappropriate in the guide, check the category and specify the problem and where it occurs: ___gender ___ race ___ ethnic ___ age ___regional ___ other (please specify):

PART III: DESIGN

The organization of the guide was: ___ satisfactory ___ unsatisfactory (please specify):

The graphics on the masters: ___ reinforced content ___ distracted from content

The quality of copies produced from the masters was: ___ satisfactory ___unsatisfactory (please specify):

Please write additional comments or suggestions at the top of the reverse side of this form. Fold the form so the comments are on the inside before mailing. THANK YOU!

Additional Comments & Suggestions:

Place
Stamp
Here

Chapter 1 Curriculum & Instruction Center
PRC, Inc.
2601 Fortune Circle Drive East, Suite 300A
Indianapolis, IN 46241

Specialty Option on Curriculum & Instruction

Region B Technical Assistance Center

WORKSHOP LEADER'S GUIDE

Reading Assessment:

How do we measure understanding?

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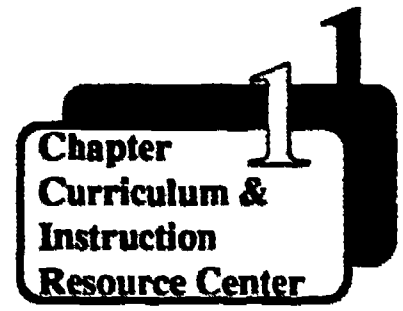
Region B Technical Assistance Center/ PRC, Inc.
2601 Fortune Circle East, Suite 300A
Indianapolis, IN 46241
(317) 244-8160 (800) 456-2380

June 1991



Curriculum & Instruction
Specialty Option
Workshop Leader's Guide

Reading Assessment:

How do we measure understanding?

Developed by :

Pamela Terry Godt, Project Manager
Dorothy Jensen, Curriculum Specialist
Marypat Ehlmann, Curriculum Specialist

Region B Technical Assistance Center / PRC, Inc.
2601 Fortune Circle East, Suite 300A
Indianapolis, IN 46241
(317) 244-8160 (800) 456-2380

Acknowledgements

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We wish to thank Ms. Donna Ormiston and Dr. Carol Lotven from Region B TAC and Region 2 R-TAC for contributing field tested activities and strategies. We also thank Ms. Ormiston, Ms. Cora Lea Jarrell, and Dr. Mary Quilling for reviewing drafts of the instructional handouts and Ms. Madeline Spangler for her assistance in all phases of the production process.

Table of Contents

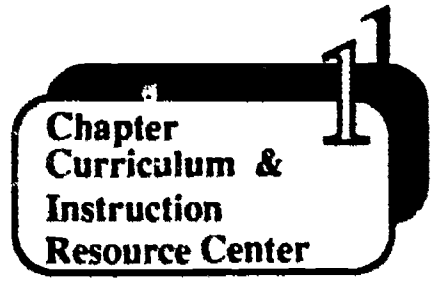
Workshop Leader's Guide

Understanding Reading: What do I do on Monday?

Reading Assessment:

How do we measure understanding?

Section 1: Getting Started



Getting Started

What's in this Guide?

This Workshop Leader's Guide is designed to assist Technical Assistance Center staff members and other inservice providers in conducting successful workshops on **reading assessment** for teachers, administrators, and others associated with Chapter 1 programs. This guide contains step-by-step procedures for preparing, organizing, and presenting a one- to three-hour workshop.

Contents:

Section 1, Getting Started, includes an Advance Planner and a detailed checklist for the materials and equipment needed to conduct a successful workshop on reading assessment. It also includes suggestions for conducting the workshop evaluation.

Section 2, the **Presenter's Guide,** includes detailed instructions for presenting a one-hour workshop including the goals of the workshop, specific activities, and recommendations for using the overhead transparencies and participant handouts. The outline for the one-hour workshop can be expanded with the handouts to provide the basis for a workshop up to three or more hours in length.

Section 3 contains the blackline masters for the overhead **Transparencies** referred to in the Presenter's Guide.

Section 4 contains the blackline masters for the **Handouts** referred to in the Presenter's Guide.

Section 5 contains a **Bibliography** of additional sources of information.

Section 6 contains **Background Information** to supplement the Presenter's Guide.

How to Use this Guide

This Guide contains the planning and presentation materials necessary to conduct a successful workshop on reading assessment. The materials were developed to allow a great deal of flexibility. Suggestions for workshop variations and a variety of activities are included so that the workshop can be adjusted to fit the needs and backgrounds of the participants. A wide range of approaches, types of activities, and specific research can be used in the actual workshop presentation. You may choose to change, add, or eliminate an activity or transparency. The sections in the Presenter's Guide are well suited for expansion or contraction, depending upon your presentation needs. Special notes and user instructions appear in boxes throughout the Guide.

Planning the Workshop

Begin your advance planning for the workshop by establishing some of the initial details, such items as date, place, and type of audience. (See **Advance Planner**, a simple checklist for planning a workshop, p.4.) Begin studying the contents of this guide by following the ***G-U-I-D-E*** steps outlined below: ***Glance***, ***Understand***, ***Investigate***, ***Develop***, and ***Edit***.

G-U-I-D-E

- *Glance* through the entire set of materials. This will give you a feel for the types of materials contained in the Guide (and their location) when you study the details later.

- *Understand* as many of the materials contained in the Guide as possible. Plan enough time to develop a full grasp of the materials in order to make more informed decisions about your workshop presentation.

- *Investigate* further. You may want to do additional research, try different problems, or experiment with various activities.

- *Develop* additional materials. These may be workshop notes, transparencies, handout pages, activities, or any item resulting from your "investigating" activities.

- *Edit*. Look carefully at the total picture, then elaborate or eliminate where necessary.

Begin planning as soon as possible. Even if you use only the materials in this Guide, the ***G-U-I-D-E*** steps will take time and should be included in your planning. It is especially important to allow yourself the opportunity to thoroughly explore and review the activities in the **Presenter's Guide** so the purpose and strategies for each activity will become more apparent to you. In addition, as you engage in the activities, you are likely to discover that you need or want to try additional activities from several sources. (See Section 5, **Bibliography** for additional ideas.) You may find that these materials are better suited to your particular workshop and, therefore, you may want to substitute them for the workshop materials specified in the Presenter's Guide.

What You Need for the Workshop:

✔ EQUIPMENT

- ____ **Overhead Transparency Projector**
  - ____ **extension cord**
  - ____ **3-way plug adaptor**
  - ____ **extra bulb or spare projector**
- ____ **Blank Overhead Transparencies**
  - ____ **pens for marking on transparencies**
- ____ **Screen**
- ____ **Microphone (if needed)**

✔ MATERIALS

- ____ **Presenter's Guide**
- ____ **Your Supporting Notes**
- ____ **Overhead Transparencies** (prepared from transparency masters in Section 3)
- ____ **Participant Handouts** (one from Section 4 for each participant)

✔ SUPPORT MATERIALS

- ____ **Chart paper and/or poster board**
- ____ **Markers and tape (or chalkboard and chalk)**
- ____ **Props for demonstrations or activities**

Before You Begin

Make copies of the overhead transparencies you plan to use in the workshop, and be sure you have one copy of the handouts for each participant. If you are presenting the workshop in a location with which you are unfamiliar, ask the local contact person to be sure the equipment listed above is available and in working order on the scheduled day and time of the workshop. If you will be supplying your own equipment, make arrangements for obtaining it well in advance of the workshop and make sure everything is in working order.

Workshop Advance Planner

Presentation Information

Title _____

Date _____ Day _____ Time _____

Place _____

_____

Audience Type _____ Number _____

Purpose _____

Contact Person _____ Phone _____

Planning Task	Notation	Date Completed
Contact Person(s) for Planning	_____	_____
Confirm Date, Time & Place	_____	_____
Make Travel and Hotel Plans	_____	_____
Arrange for Equipment	_____	_____
Send Workshop Agenda to Contact	_____	_____
Personalize Workshop Outline	_____	_____
Other _____	_____	_____

Reading Assessment:
How do we measure understanding?

Workshop Outline

Activating Prior Knowledge/ Providing Background Information	**10-15 minutes**
New Directions in Reading Assessment	**10-15 minutes**
Promising Practices and Applications for Chapter 1	**30-45 minutes**
Conclusion and Evaluation	**10-15 minutes**

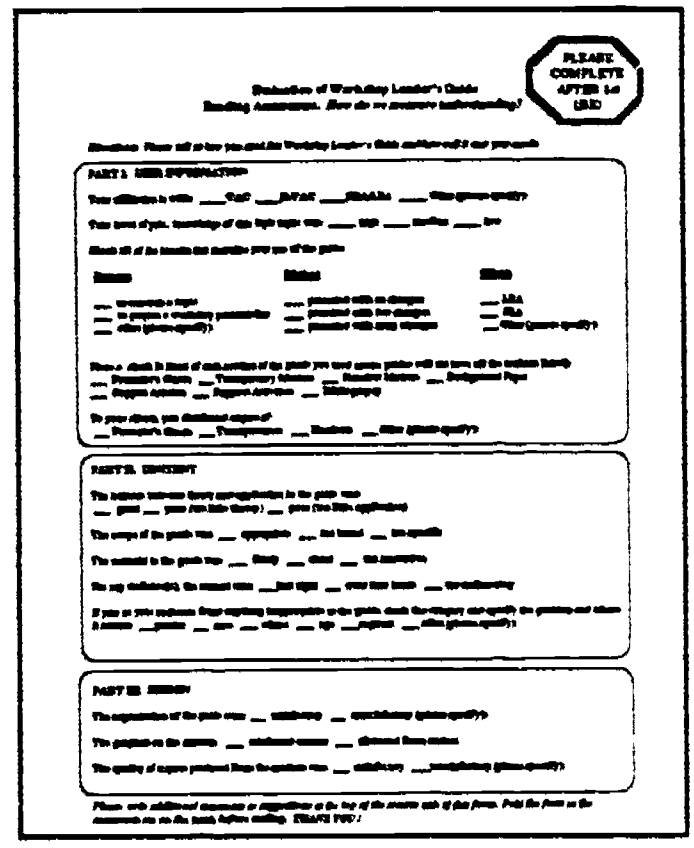
(**Please note:** While this workshop can be used for a one to one-and-a-half-hour presentation, there is enough material to extend it easily to two or even three hours by giving participants opportunities to work with the assessment measures described in the handouts.)

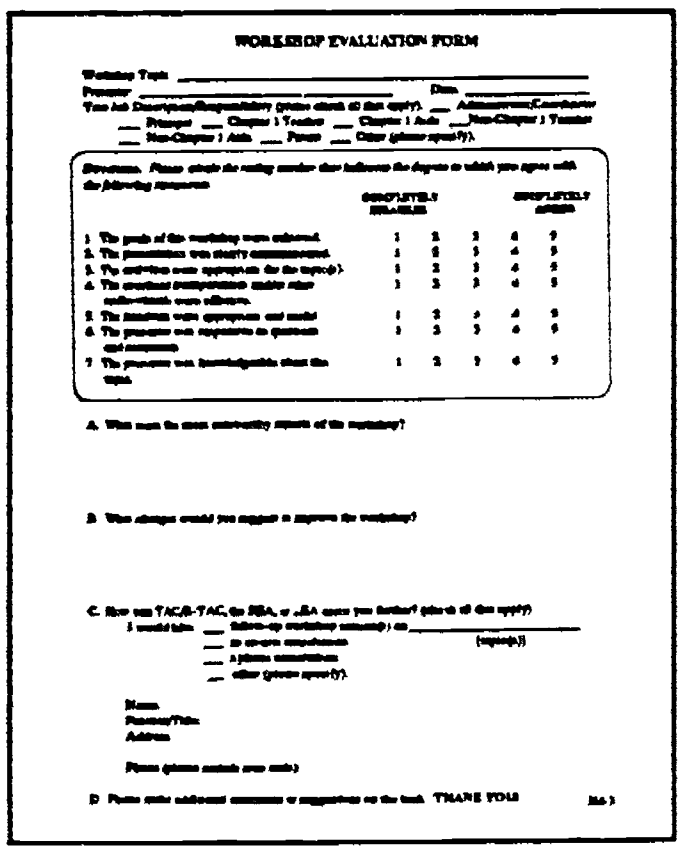
Workshop Evaluation

Workshop Leader's Guide Evaluation

It is important for us to know how well the various parts of the Workshop Leader's Guide worked for you and to receive your suggestions of ways to improve future workshops. Please take one of the evaluation forms we have put in the pocket just inside the cover of this binder (the form is illustrated on the right).

Please note your reactions as you review the materials in the Guide prior to your presentation. Complete the form as soon after your first presentation as possible. Fold the form so your written comments are covered, staple or tape the packet closed, stamp, and mail.





Workshop Evaluation

In the Presenter's Guide, we suggest you take the last few minutes to conduct your workshop evaluation. The choice of method and instrumentation is yours. In the handout section, we have included a sample of the form currently used by Region B TAC and Region 2 R-TAC (the form is illustrated on the left). Whatever basic form you use, we recommend you supplement it with questions related to your specific goals and audience.

If you receive specific comments about the materials from this Guide (i.e., transparencies, handouts, content used from the presenter's guide), please include a brief summary on your Workshop Leader's Guide Evaluation.

Reading Assessment:

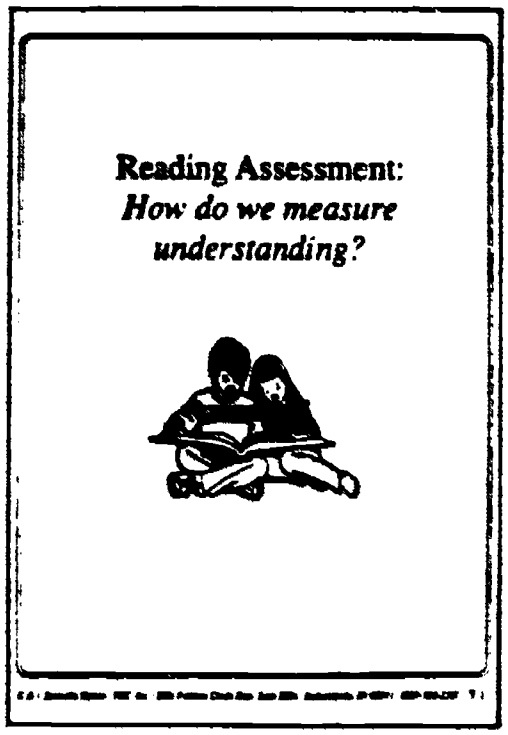
How do we measure understanding?

Section 2: Presenter's Guide

Chapter 1
Curriculum & Instruction Resource Center

Presenter's Guide

READING ASSESSMENT: HOW DO WE MEASURE UNDERSTANDING?



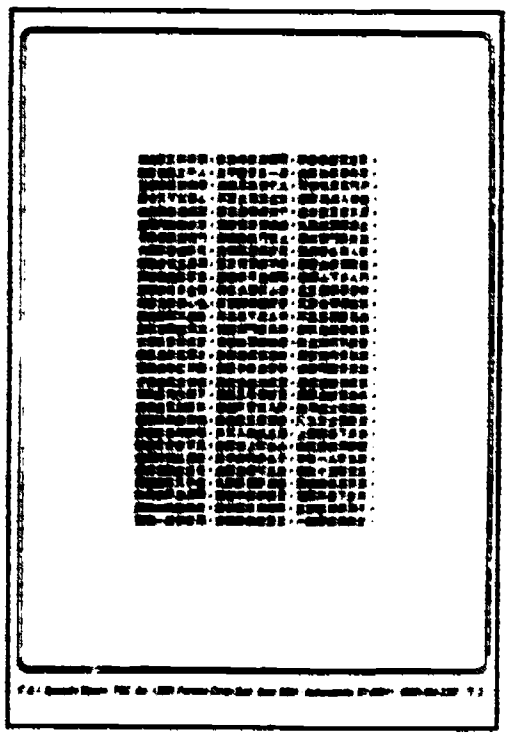
Display T-1 -- "Reading Assessment: How do we measure understanding?"

Starter Activity: "Test!"
(Activating Prior Knowledge)

Think of the word **"Test!"**

What comes to mind? Share your thoughts with the person sitting next to you. Can you remember an important test you have taken? Do you remember taking any *reading tests*? How old were you? How did you feel? Who was testing you? *Why* were you being tested?

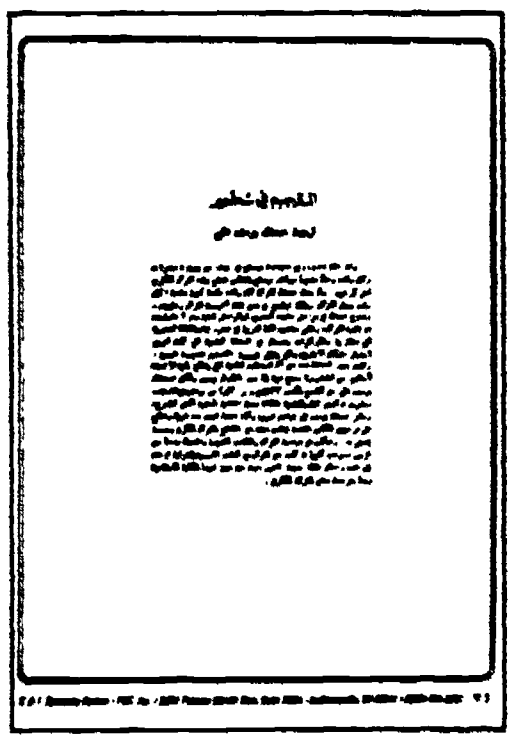
After exchanging information with each other, share your experiences with the group. [You may want to make this a brainstorming activity and use semantic maps (see Handout **H22**) to organize the information volunteered. This way you can model the use of some alternative assessment strategies during the workshop. Try to elicit all kinds of reactions, including emotional, educational, and philosophical to the idea of reading tests.]



Now -- I'm going to give you all a test right now on your reading ability. How do you feel? (Possibly smug? Complacent? Confident? Worried? Nervous?) You may exhibit a range of emotions, but virtually all of you are fluent readers and so should have little to worry about.

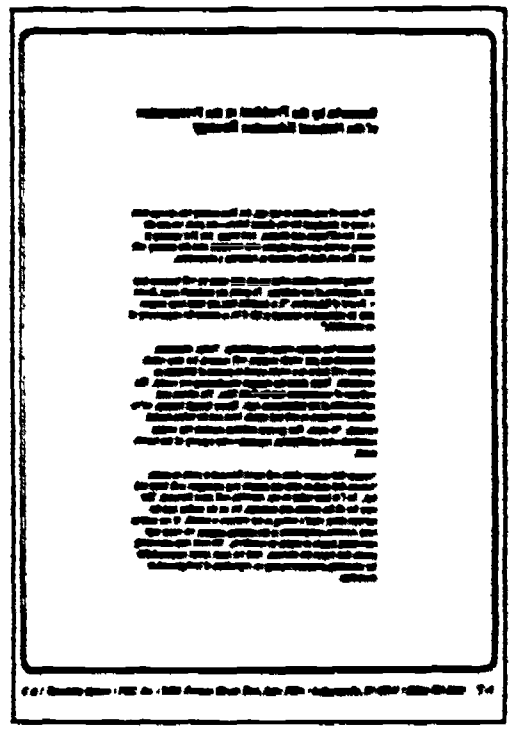
Display T-2 -- "Chinese Text"

However, if I show you this text in *Chinese* and ask you to read it and be prepared to explain its meaning to the group, can any of you do it? What if I give you more time to study it?



Display T-3 -- "Arabic Text"

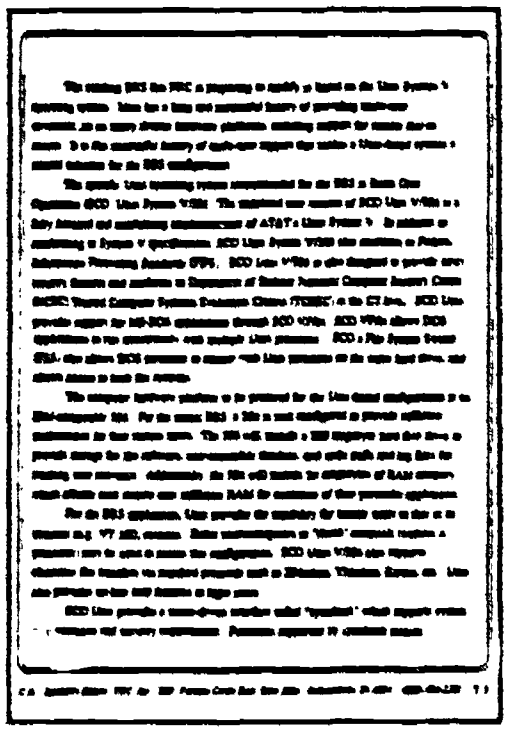
If I show you this reading passage in *Arabic* (from the Koran), can you do any better? You might complain that this test is unfair -- that it is not a true measure of your reading abilities, since you have not had a chance to learn to read Chinese or Arabic.



Display T-4 -- "Mirror-Image Text"

What if I show you a text in English from an address by the President of the United States, *but* show you the passage in *mirror-image*? (Leonardo da Vinci is said to have written all of his journals in mirror-image text.) All of the letters and words are exactly the same, but you are seeing them written backwards. Is this test a fair assessment of your abilities? Can someone volunteer to read the first sentence aloud?

How do you feel now? Mad? Upset? Challenged? Intrigued? What if I show you this next passage?



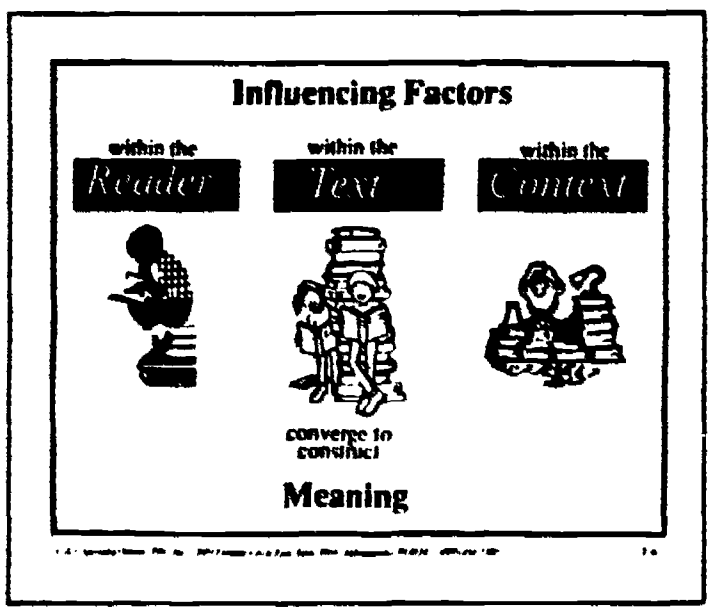
Display T-5 -- "'Computerese' English"

This is written in English, but many of you might have difficulty explaining its meaning, and your test score might well be below the true level of your reading ability.

What do reading tests measure? Your ability to decode and pronounce words accurately? Your ability to read with fluency? Your ability to understand the meaning of what was read? How important is context? Prior knowledge?

As part of their effective schools or educational reform initiatives, several states have adopted an "official definition" of reading based on current research. For example, as part of the 1985 Illinois Legislative Reform Act, the state adopted this definition (*Assessing reading in Illinois*, 1989):

Display T-6 -- "Interaction of Reader, Text, and Context"



"Reading is the process of constructing meaning through the dynamic (ever-changing) interaction of the reader, the text (written material), and the context of the reading situation."

- The reader brings to the process his or her abilities, prior knowledge, motivation, interest, attitudes, and expectations. The text presents illustrations and format. The context varies by the task and the intended uses of the information.

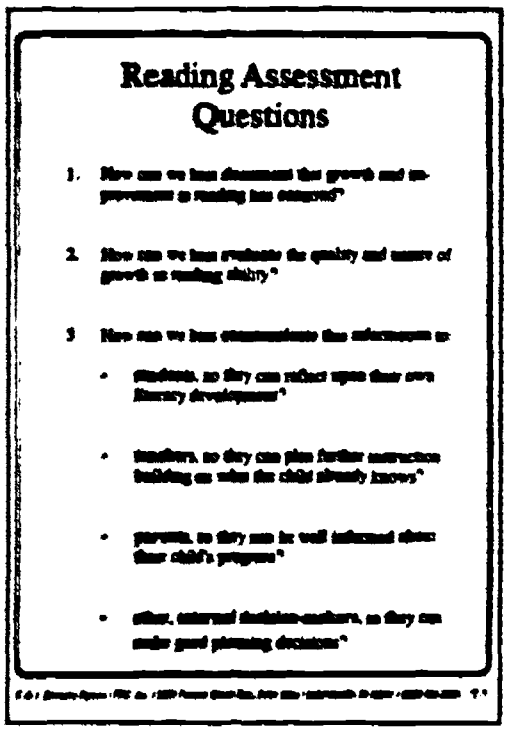
- The emphasis in this current view of reading on the interaction of these components contrasts with the traditional view as taught for the last 30-50 years.

This traditional view of reading focused on a "skills approach" which began with a heavy concentration on word recognition skills (e.g., phonics, sight words, structural analysis) and stressed comprehension only after students demonstrated competence at the literal level. The underlying supposition of the skills model is one of building blocks; the reader must acquire "lower level" skills before being able to handle more "advanced" skills. When a student acquires all of the skills, he/she is a "proficient reader." However, the fallacy in this supposition became apparent when teachers observed students who could perform skills well in isolation, yet still not read with

Interaction of Reader, Text, and Context (cont.)

comprehension. Or, they observed students who did poorly on isolated skill exercises, yet could still read with fairly good comprehension when reading words in context. Frequently, instruction for beginning readers has bogged down in an emphasis on word recognition and literal comprehension, leading to student misconceptions about the reading process as being the mere sounding out of words.

Purpose of Testing



Display T-7--" Reading Assessment Questions"

Why do we test children in reading? What are we trying to find out? What information is most useful to us? How can we best communicate this information to students, teachers, parents, and other external decision makers?

What are standardized reading tests like today for children? [Discuss the kinds of information the audience supplies as well as noting any gaps in the information.]

[You may want to list or create a semantic map of responses on a blank transparency as the group discusses them. When you ask what reading tests typically look like, you may get answers that describe a "reading passage followed by multiple choice literal recall questions," but you may also get descriptions of cloze procedures which involve words deleted from a passage, Informal Reading Inventories, or other types of assessment. This discussion should not extend much beyond 5 or 10 minutes. If individuals bring up more recent evaluation procedures such as the Michigan Assessment (see Appendix A, p.15) or performance assessment, explain that you're still reviewing procedures commonly used prior to more recent trends.

Participants may note several gaps in information supplied by standardized tests. Possible gaps may include these items and more:

- they fail to supply us with any products created by children;
- they don't show what children can accomplish given longer periods of time to complete a task;
- they don't use real problems or materials; instead they use artificial or contrived events;

Reading Assessment Questions (cont.)

- they don't supply specific information about improvement in abilities over time -- the quality of understanding versus the quantity, or depth of information versus breadth;
- a narrow sample is used to assess learning over large amounts of information;
- there is no opportunity for students to explain the reasoning behind their answers;
- children may be tested on information to which they have not yet been exposed or had a chance to learn;
- no student self-assessments are included.

Optional Activity

Show examples of test questions from a variety of standardized tests, such as:

California Achievement Test (CAT)
Comprehensive Test of Basic Skills (CTBS)
Iowa Tests of Basic Skills (ITBS)
Metropolitan Achievement Test (MAT)
Stanford Achievement Test (SAT)

or other more informal assessment instruments:

Degrees of Reading Power
Cloze Tests
Informal Reading Inventories

Examine the kinds of information measured via these test questions, e.g., literal, recognition or recall, definitions, generalizations, value judgments, interpretations, application of information, analyses, syntheses, evaluation.]

Summary

To sum up "where we've been" in assessment:

1. Standardized tests of reading almost always break reading down into subparts -- word recognition, vocabulary, and reading comprehension. Although most reading experts and many teachers would agree that vocabulary and (especially) comprehension are the better indicators of students' reading ability, it would be difficult to sell a test without subtests on word recognition.

2. Subtests on reading comprehension almost always are comprised of short passages followed by questions. The majority of the questions have always been literal recall, although more and more often, they include questions requiring inference or other critical reading strategies. Despite this, it has not been possible with any of the tests to separate out enough higher order questions to get a separate higher order thinking score.

3. Degrees of Reading Power (published by The College Board, New York) presents one example of a different approach on a standardized test of reading comprehension. Each DRP test consists of a number of prose passages based on nonfiction subjects. Students are expected to read the passages and supply missing words from five choices. Several sequential sentences are given before a deletion. Choices are all semantically plausible and syntactically correct, so the student must understand the material to make a correct selection. This test offers some advantages over other types of tests, but it has never really "caught fire" as the way to test reading comprehension.

4. The cloze procedure has been used informally to assess reading comprehension because the research has demonstrated that it assesses comprehension about as well as an Informal Reading Inventory (IRI), and one can generate independent, instructional, and frustration reading levels for a student as you do with an IRI. Cloze has the advantage that it is quite easy to develop, administer to a group, and score. [See **H12**]

5. Informal Reading Inventories (published and informally developed) have been used for decades to assess students' reading ability. As with the cloze procedure, the limitation is that they are designed to obtain an appropriate reading level for students, not to diagnose strengths and weaknesses or to determine a given student's repertoire of reading comprehension strategies.

Reading Assessment and the National Education Goals

Reading Assessment takes on an even more important role as states and local school systems begin implementing the new America 2000 strategies to work toward meeting the National Education Goals for the year 2000. These goals call for better and more accountable schools for students. Through an "accountability package, parents, teachers, schools, and communities can all be encouraged to measure results, compare results, and insist on change when the results aren't good enough" (*America 2000*, 1991, p. 21).

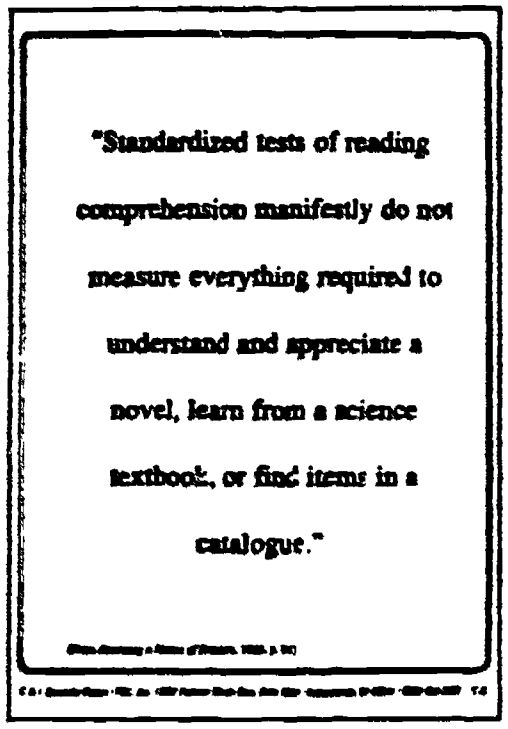
A National Education Goals Panel is developing standards for each of the five core subject areas, including reading (English). As stated in the National Education Goals, "achievement tests must not simply measure minimum competencies, but also higher levels for reading, writing, speaking, reasoning, and problem-solving skills." (*America 2000*, 1991, p. 71).

To summarize: Over the years, researchers and test makers have continually sought more valid and useful ways to assess reading comprehension, most commonly by using commercially-published standardized tests. With the strong emphasis today on educational accountability and talk of a national test, reading programs will probably still include some use of standardized tests, because they do have some definite advantages.

- They are relatively inexpensive;
- they are easy to administer to large groups of students at a time;
- they can be machine-scored in an objective fashion;
- they have been checked for validity and reliability;
- they supply normative data allowing comparisons between children, schools, and states.

New Directions In Reading Assessment

Despite some advantages, however, reading researchers and others are clearly becoming dissatisfied with the lack of instructional insights that can be gained from typical standardized tests.



Display T-8 -- "*Becoming a Nation of Readers* Quote"

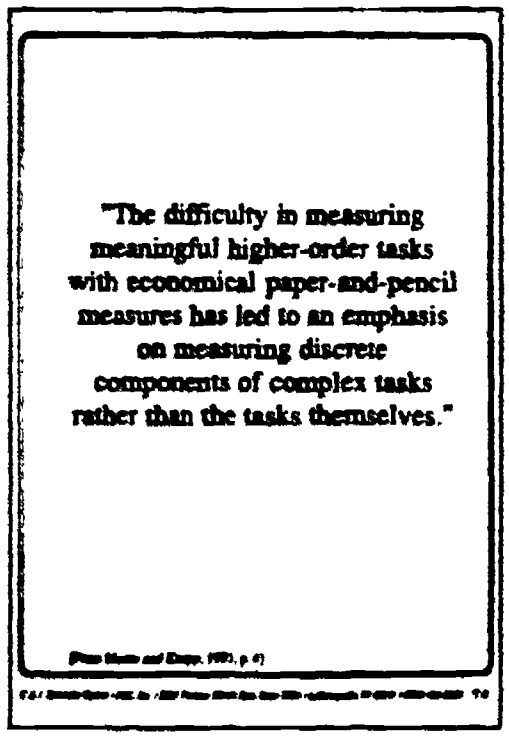
As stated in *Becoming a Nation of Readers* ,

> "Standardized tests of reading comprehension manifestly do not measure everything required to understand and appreciate a novel, learn from a science textbook, or find items in a catalogue" (Anderson, Heibert, Scott, & Wilkinson, 1985, p. 94)

Display T-9 -- "Means & Knapp Quote #1"

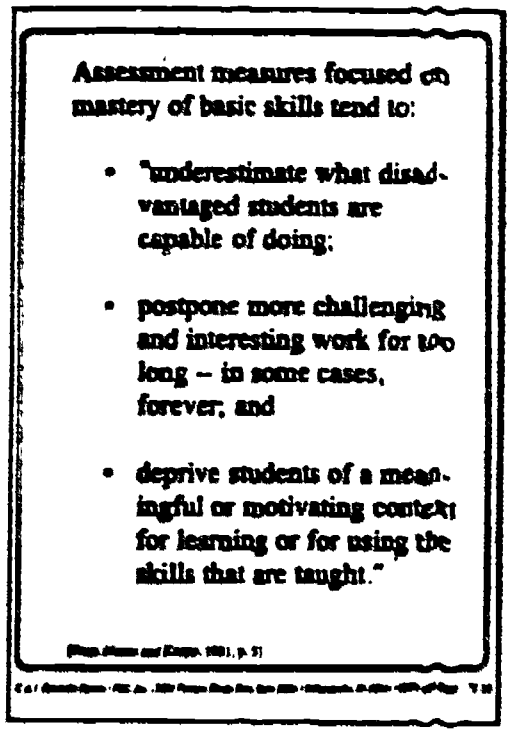
More recently, in the PSA/SRI report on *Teaching Advanced Skills to Educationally Disadvantaged Students*, Means & Knapp (1991, p. 4) noted,

> "The difficulty in measuring meaningful higher-order tasks with economical paper-and-pencil measures has led to an emphasis on measuring discrete components of complex tasks rather than t e tasks themselves."



Means & Knapp went on to point out that children can learn to reason about new information, relate information from different sources, ask questions, and summarize using orally presented text. "Research demonstrates quite clearly that students can acquire these comprehension skills -- which we have traditionally called advanced -- well before they are good decoders of the printed word."

However, disadvantaged students often do not receive much instruction in higher-order skills compared to their peers (Means & Knapp, 1991; Allington & McGill-Franzen, 1989; Oakes, 1986). Teachers are often more directive with them, breaking complex tasks down into smaller pieces for them, guiding them through problems step-by-step, "and in general, giving them less exposure to problem-solving tasks in which there is more than one possible answer and in which they have to structure the problem for themselves" (Anyon, 1980).



Display T-10 -- "Means & Knapp Quote #2"

Means & Knapp reiterated the 1990 findings of Knapp & Turnbull and concluded that these teaching practices, as well as the use of **assessment measures focused on mastery of basic skills** tend to:

- underestimate what disadvantaged students are capable of doing;
- postpone more challenging and interesting work for too long -- in some cases, forever; and
- deprive students of a meaningful or motivating context for learning or for using the skills that are taught (Means & Knapp, 1991, p. 3).

What We've Learned About Reading

Current research focuses on reading as a constructive process requiring the interaction of the reader and the text in a specific context. This process is affected by the nature of the reading task and the characteristics of the text as well as the reader's abilities and prior knowledge. Recent instructional changes now treat reading as a strategic process rather than an accumulation of subskills. Reading assessment (and sometimes reading instruction) as practiced in many Chapter 1 programs has not always reflected these trends.

[Summarize this section by discussing the fact that the recent research and thinking on reading comprehension has led to a reconsideration of methods used to assess reading, but changes have not been rapid.

Refer participants to the chart (**H1**), "A set of contrasts between new views of reading and current practices in assessing reading."

Note that the publication, *Reexamining Reading Diagnosis: New Trends and Procedures* (Glazer, Searfoss, & Gentile, 1988), also exemplifies efforts to apply the new research to reading assessment techniques.]

Promising Practices and Applications

Since the formal reading tests currently available do not supply all of the information needed to accurately assess children's reading ability, we need to supplement these tests with new types of information that more closely match the instruction that children are receiving today. For example, when children are not drilled on individual isolated letter-sound associations or on syllabication skills, but are still given tests to measure their proficiency on these subskill tasks, there is a mismatch between instruction and assessment.

Alternative reading assessment starts with a different focus. Instead of focusing on a list of basic skills that all children should know and administering formal standardized tests that provide information about children's deficits, alternative methods of assessment have a broader frame. They include information about children's areas of strength and the impressive intellectual accomplishments they have already achieved in addition to noting specific areas of weakness that need further attention.

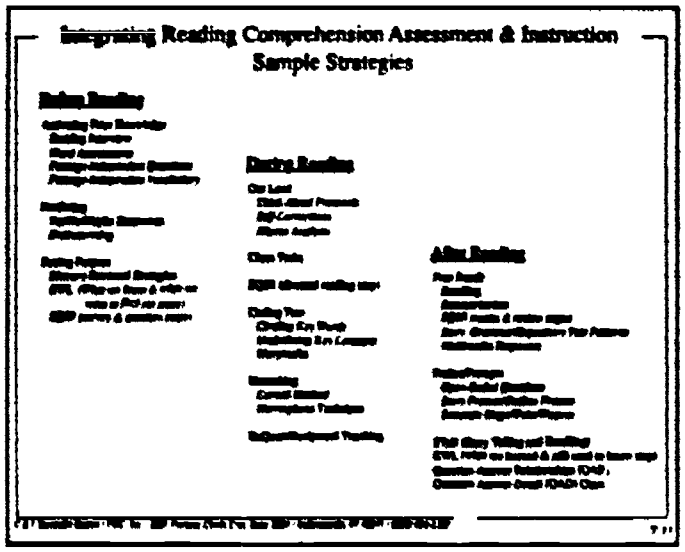
The early accomplishments that all children, including the disadvantaged, have achieved before entering school demonstrates to the children, the parents, and the teachers that all of the pupils are capable of doing serious intellectual work and are capable of becoming good readers. The fact that some children have had more prior exposure to literacy experiences does not mean that the other children are "dumb" or "slow", but merely that they haven't had as much practice yet. (Just as most of you had not had much practice in reading Chinese, Arabic, or even mirror-image text. However, given the opportunity and motivation, I'm sure all of you could eventually learn to read those passages.) Instructional methods that build on children's prior learning and experiences outside of school can also be assessed using new methods.

Teaching and assessing children's ability to perform both basic and advanced skills in real-world contexts makes the skills meaningful and available to the students for use in other, similar situations. They have immediate relevancy to their lives. Learning becomes a process of knowledge sharing. Teachers can provide students with authentic, complex tasks while supplying cues, prompts, and scaffolding to facilitate their success.

Often, teachers have lowered expectations regarding disadvantaged children's capabilities due to the limited background experiences they bring to school. Other teachers believe that these students can't do advanced skills unless they first master all of the basics. Alternative assessments can provide teachers with information that demonstrates what children can do, given the opportunity and some assistance. [See **H2** for an overview of alternative assessment. You might also want to discuss the Michigan Essential Skills Reading Test (Appendix A, p. 15) as an example of new standardized testing formats.]

Promising Practices and Applications (cont.)

The trend today is for teachers to integrate assessment with instruction in the form of more performance-based measures of students' reading abilities that can be used to supplement the information provided by standardized tests. This can include a variety of measures that can be used before, during, and after reading. [Refer to the chart, **H4**, on integrated instruction and assessment.]



Display T-11 [H4]-- "Integrating . . . . "

The alternative assessment measures described in the handouts of this workshop are integrated with instructional strategies. In addition, they are ongoing and dynamic, they measure process, they are based on reading tasks using actual classroom materials, they identify student strengths as well as instructional needs, they are often teacher constructed and/or conducted, they stress the use of multiple tools, environments, strategies, and texts, and they incorporate and develop student self-evaluation.

Demonstrations

[Choose one or more strategies from each phase *before, during,* and *after* reading, **Hs 5-24**, to demonstrate in some depth how the technique can be used for assessment purposes as well as instruction. Use any relevant transparencies **T-14 to T-29** to illustrate the assessment techniques.

For assessment *Before Reading*, you might refer to the handout on:

- K-W-L (Know-Want-Learn); Focus on how information derived from the "what we already know" and "what we want to find out steps" can be used to assess the degree of background information students are bringing to the task as well as any major bits of misinformation they may exhibit. This assessment information can guide the teacher's further instruction.

Demonstrations (cont.)

For assessment *During Reading*, you might demonstrate the use of:

- think alouds to assess students' awareness and use of information regarding text structure, or you might demonstrate the use of Cornell or Herringbone Notetaking Systems and then let the participants apply their knowledge for the rest of the session.

For assessment *After Reading*, you might go over the handout on:

- the use of multi-level questioning techniques or story retelling as ways to assess reading proficiency.

Feel free to select any handout you wish to from among the selections provided.]

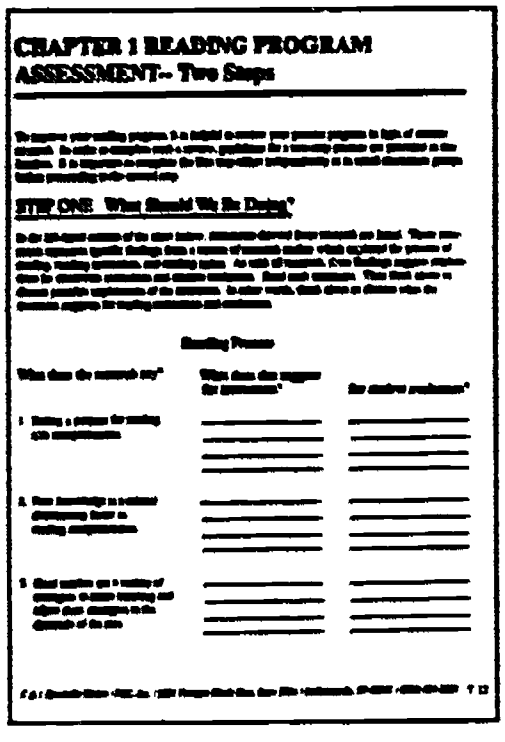
Portfolio Assessment

One of the most-discussed new trends in reading assessment today is the use of portfolios. Portfolio assessment can include a variety of measures demonstrating what a child has been able to achieve in the area of reading over a period of time, including the component of student **self-assessment** of reading abilities. Portfolio assessment:

- allows for ongoing assessment over a period of time;
- involves natural rather than artificially contrived literacy behaviors;
- assesses the child in context;
- can be unobtrusive;
- relates assessment closely to instructional goals;
- broadens the scope of procedures and materials used to assess reading proficiency;
- promotes an active self-assessment role for students.

However, we need to remember that just because something is a new and alternative form of assessment, does not make it automatically better. Portfolio assessment and other forms of alternative assessment can be misleading if misused and can present a false picture of children's learning if they are not representative or do not include consistent information across children, i.e., teachers can have strong biases and may interpret the same comments of two children very differently. However, if used effectively, portfolio assessment can provide helpful information. [See **H3**]

Question: Are all norm-referenced, multiple choice tests bad?


CHAPTER 1 READING PROGRAM
ASSESSMENT-- Two Steps

STEP ONE: What Should We Be Doing?

Reading Process

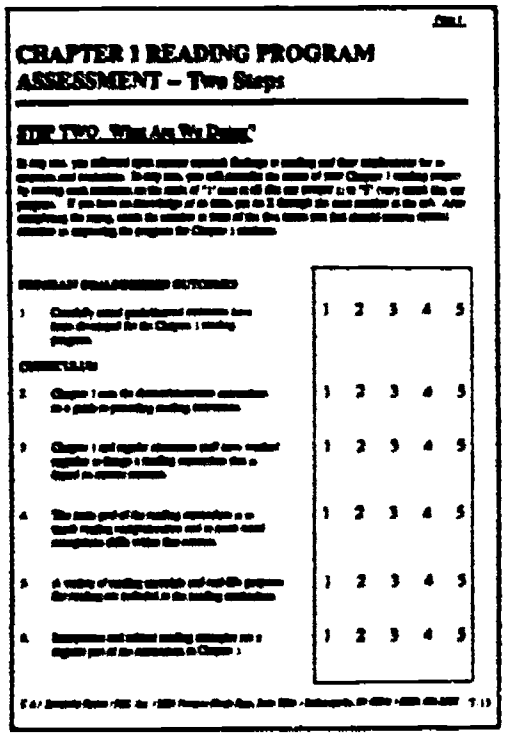
Portfolio Assessment (cont.)

No. They can supply some valid and reliable information that can be of value to teachers and others. But, ordinarily, the information supplied by these tests may be too narrow to supply any useful *instructional* information and thus needs to be supplemented with other sources of information. Alternative modes of reading assessment can enrich and expand the kinds of information gathered about what a child has learned about reading in order to better help our Chapter 1 children learn not only more effective reading strategies, but also gain greater self-confidence, perseverance, and motivation to continue reading throughout their lives.

Conclusion and Evaluation

To improve your Chapter 1 reading program, it is helpful to note current research findings and to review what implications these "effective practices" can have for integrating assessment into your instructional reading program.

Closing Activity [Use "Reading Program Assessment-- Two Steps," **H25**]


CHAPTER 1 READING PROGRAM
ASSESSMENT – Two Steps

STEP TWO: What Are We Doing?

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

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Display T-12 and T-13-- "Reading Program Assessment"

Step One: What should we be doing?

Form small groups to brainstorm both instructional and assessment implications of what research says are effective practices.

Step Two: What are we doing?

Individually rate your own reading program. If there are others from your school, compare notes to discover areas of strength and areas in need of further program improvement. Review and summarize final points concerning traditional and alternative methods of assessing reading.

[Following debriefing, hand out evaluation forms (**H26** or your own alternative) to assess your presentation.]

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APPENDIX A

Information Regarding the Michigan Essential Skills Reading Test

The Michigan Essential Skills Reading Test (MESRT) uses intact, full-length stories and subject area reading selections taken from real materials in the environment, such as children's magazines, literature anthologies, and text-books for different grade levels. The test focuses on the interaction among reader, text, and context. The test uses three types of items for measuring "constructing meaning" abilities:

1. intersentence items, in which the answer to the test item can be found in two to three contiguous sentences in the reading selection;

2. test items, in which one or more paragraphs of the reading selection must be read in order to construct meaning; and

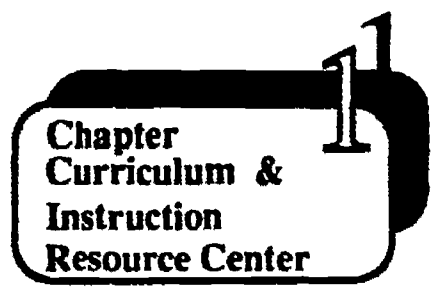
3. "beyond the test" items, in which the reader not only constructs meaning from the text, but must also add some information from his/her prior knowledge in order to answer the test item.

In addition, the test also includes self-report items that assess student knowledge that is drawn from "reading" the illustrations and from being aware of the text organization of specific reading passages. It also includes items that assess students' interest in and feelings about various reading selections. Initial reactions of parents and teachers to the test have been positive.

Reading Assessment:

How do we measure understanding?

Section 3: Transparency Masters



List of Transparency Masters for *Reading Assessment: How do we measure understanding?*

The transparency masters included in this section are listed below. An identification number appears in the lower right hand corner of each master to facilitate assembly of workshop packets and quick reference during presentations.

In order to make the workshop as flexible as possible, we have included a selection of transparency masters from which you may choose. Some masters contain graphics, but alternative versions without graphics are included so you can use graphics of your own choosing.

Transparency ID #	Transparency Title
T1	Reading Assessment: How do we measure understanding?
T2	Chinese Text
T3	Arabic Text
T4	Mirror-Image Text
T5	"Computerese" Text
T6	Interaction of Reader, Text, and Context
T7	Reading Assessment Questions
T8	*Becoming a Nation of Readers* Quote
T9	Means & Knapp Quote #1
T10	Means & Knapp Quote #2
T11	Integrating Reading Comprehension Assessment & Instruction: Sample Strategies
T12	Reading Program Assessment-- Step One
T13	Reading Program Assessment-- Step Two

Transparency ID #	Transparency Title
T14	Before Reading . . .
T15	. . . during reading . . .
T16	. . . after reading.
T17	Making Reading Meaningful
T18	ReQuest
T19	QAR
T20	Reciprocal Teaching
T21	KWL
T22	K-W-L [chart]
T23	Semantic Mapping
T24	Think along/Think aloud
T25	Reading Interview
T26	From assessing reading skills in isolation to . . .
T27	"Teaching is asking not telling"
T28	"As a tool for assessment, . . . "
T29	Student Strategies To Use In A Think Aloud

Reading Assessment:
How do we measure understanding?

從此君王不早朝・承歡侍宴無閒暇・春從春遊夜專夜・
後宮佳麗三千人・三千寵愛在一身・金屋妝成嬌侍夜・
玉樓宴罷醉和春・姊妹兄弟皆列土・可憐光彩生門戶・
遂令天下父母心・不重生男重生女・驪宮高處入青雲・
仙樂風飄處處聞・緩歌慢舞凝絲竹・盡日君王看不足・
漁陽鞞鼓動地來・驚破霓裳羽衣曲・九重城闕煙塵生・
千乘萬騎西南行・翠華搖搖行復止・西出都門百餘里・
六軍不發無奈何・宛轉蛾眉馬前死・花鈿委地無人收・
翠翹金雀玉搔頭・君王掩面救不得・回看血淚相和流・
黃埃散漫風蕭索・雲棧縈紆登劍閣・峨嵋山下少人行・
旌旗無光日色薄・蜀江水碧蜀山青・聖主朝朝暮暮情・
行宮見夜傷心色・夜雨聞鈴腸斷聲・天旋地轉迴龍馭・
到此躊躇不能去・馬嵬坡下泥土中・不見玉顏空死處・
君臣相顧盡霑衣・東望都門信馬歸・歸來池苑皆依舊・
太液芙蓉未央柳・芙蓉如面柳如眉・對此如何不淚垂・
春風桃李花開日・秋雨梧桐葉落時・西宮南內多秋草・
落葉滿階紅不掃・梨園子弟白髮新・椒房阿監青娥老・
夕殿螢飛思悄然・孤燈挑盡未成眠・遲遲鐘鼓初長夜・
耿耿星河欲曙天・鴛鴦瓦冷霜華重・翡翠衾寒誰與共・
悠悠生死別經年・魂魄不曾來入夢・臨邛道士鴻都客・
能以精誠致魂魄・爲感君王輾轉思・遂教方士殷勤覓・
排空馭氣奔如電・升天入地求之遍・上窮碧落下黃泉・
兩處茫茫皆不見・忽聞海上有仙山・山在虛無縹渺間・
樓閣玲瓏五雲起・其中綽約多仙子・中有一人字太眞・
雪膚花貌參差是・金闕西廂叩玉扃・轉教小玉報雙成・
聞道漢家天子使・九華帳裏夢魂驚・攬衣推枕起徘徊・
珠箔銀屏迤邐開・雲鬢半偏新睡覺・花冠不整下堂來・
風吹仙袂飄飄舉・猶似霓裳羽衣舞・玉容寂寞淚闌干・
梨花一枝春帶雨・含情凝睇謝君王・一別音容兩渺茫・

المترجم في سطور

ترجمة عبدالله يوسف علي

ولد عام ١٨٧٢م في مدينة بومباي في بيت من بيوت « بوهرة » وكان والده رجلاً متديناً من تجار بومباي. فاعتنى بتعليم ولده القرآن الكريم قبل كل شيء . ولما حفظ عبدالله القرآن أقام والده مأدبة كبيرة بمناسبة اكمال ولده حفظ القرآن وذلك ليطبع في نفس طفله أهمية القرآن وعظمته . وتدرج عبدالله في مراحل تعليمه العصري الى المراحل العليا وهو لا يفارق= = تلاوة القرآن، وتلقى مبادىء اللغة العربية في صغره بجانب الثقافة العصرية التي امتاز بها وفاق أترابه وفاز في المسابقة العلمية التي كانت تجري لاختيار الحكام الاداريين والتي يطلق عليها الخدمات المدنية الهندية . وكانت هذه المسابقة تعد من أهم المسابقات العلمية التي يتطلع إليها الأعباء لأبنائهم من الشباب ولا ينجح فيها إلا ذوو الحظوظ بينهم. وتمكن عبدالله يوسف علي من التشبع بالأدب الانجليزي و برّ كثيراً من مواطنيه في الانشاء، ونشرت له كبرى المجلات العلمية مقالاته مبدية إعجابها بأسلوبه الأدبي المطبوع، وسافر عبدالله يوسف الى عواصم اوروبا وأقام بمدينة لندن مدة طويلة واطلع على ترجمات الكتب المقدسة بجانب شغفه غير المنقطع بالقرآن الكريم وما يتصل به ، وعكف على دراسة القرآن والتفاسير القديمة والحديثة ، دحاً من الزمن استوعب كثيراً مما كتب عن القرآن في اللغات الاوربية والشرقية ثم عاد إلى الهند واستقر بمكانه بمدينة لاهور حيث عين فيها عميداً للكلية الإسلامية وبدأ بترجمة معاني القرآن الكريم .

Remarks by the President at the Presentation of the National Education Strategy

For more of you close to my age, the 21st century just always seem a kind of shorthand for the distant future—the place we put our most far-off hopes and dreams. And today, that 21st century is tearing toward us—and anyone who wonders what the century will look like can find the answer in America's classrooms.

Nothing better defines what we are and what we will become than the education of our children. To draw the fundamental case, Brown v. Board of Education, "It is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education."

Education has always meant opportunity. Today, education determines not just which singers will succeed, but also which nations will thrive in a world united in pursuit of freedom in current terms. Think about the changes transforming our world. The collapse of communism and the Cold War. The advent and acceptance of the information Age. Down through history, we've defined resources as soil and stone, land and the riches buried beneath. No more. Our greatest national resource lies within ourselves—our intelligence, ingenuity—the capacity of the human mind.

Nations that unlock ideas will move forward in years to come. Nations that stick to stale old notions and ideologies will falter and fail. So I'm here today to say, America will move forward. The time for all the reports and rankings, for all the studies and the surveys about what's wrong in our schools is passed. If we want to keep America competitive in the coming century, we must stop comforting parents to report on ourselves. We must stop comforting parents that report the opinions. And we must accept responsibility for educating every one among us, regardless of background or disability.

The existing BBS that PRC is proposing to modify is based on the Unix System V operating system. Unix has a long and successful history of providing multi-user environments on many diverse hardware platforms, including support for remote dial-in access. It is this successful history of multi-user support that makes a Unix-based system a natural selection for the BBS configuration.

The specific Unix operating system recommended for the BBS is Santa Cruz Operations (SCO) Unix System V/386. The unlimited user version of SCO Unix V/386 is a fully licensed and conforming implementation of AT&T's Unix System V. In addition to conforming to System V specifications, SCO Unix System V/386 also conforms to Federal Information Processing Standards (FIPS). SCO Unix V/386 is also designed to provide strict security features and conforms to Department of Defense National Computer Security Center (NCSC) Trusted Computer Systems Evaluation Criteria (TCSEC) at the C2 level. SCO Unix provides support for MS-DOS applications through SCO VP/ix. SCO VP/ix allows DOS applications to run concurrently with multiple Unix processes. SCO's File System Switch (FSS) also allows DOS partitions to coexist with Unix partitions on the same hard drive, and allows access to both file systems.

The computer hardware platform to be procured for the Unix-based configuration is an IBM-compatible 386. For the initial BBS, a 386 is well configured to provide sufficient performance for four remote users. The 386 will include a 300 megabyte hard disk drive to provide storage for the software, user-accessible database, and audit trails and log files for tracking user activities. Additionally, the 386 will include 24 megabytes of RAM memory which affords each remote user sufficient RAM for execution of their particular application.

For the BBS application, Unix provides the capability for remote users to dial-in as terminal (e.g., VT-100) sessions. Either microcomputers or "dumb" terminals (without a processor) may be used to access this configuration. SCO Unix V/386 also supports electronic file transfers via standard protocols such as XModem, YModem, Kermit, etc. Unix also provides on-line help features to login users.

SCO Unix provides a menu-driven interface called "sysadmsh" which supports system administration and security requirements. Functions supported by sysadmsh include:

Influencing Factors

within the
Reader

within the
Text

within the
Context

converge to
construct

Meaning

Reading Assessment Questions

1. How can we best **document** that growth and improvement in reading has occurred?

2. How can we best **evaluate** the quality and nature of growth in reading ability?

3. How can we best **communicate** this information to:

   - **students**, so they can reflect upon their own literacy development?

   - **teachers**, so they can plan further instruction building on what the child already knows?

   - **parents**, so they can be well informed about their child's progress?

   - other, **external decision-makers**, so they can make good planning decisions?

"Standardized tests of reading comprehension manifestly do not measure everything required to understand and appreciate a novel, learn from a science textbook, or find items in a catalogue."

[From *Becoming a Nation of Readers*, 1985, p. 94]

"The difficulty in measuring meaningful higher-order tasks with economical paper-and-pencil measures has led to an emphasis on measuring discrete components of complex tasks rather than the tasks themselves."

[From *Means and Knapp*, 1991, p. 4]

Assessment measures focused on mastery of basic skills tend to:

- "underestimate what disadvantaged students are capable of doing;

- postpone more challenging and interesting work for too long -- in some cases, forever; and

- deprive students of a meaningful or motivating context for learning or for using the skills that are taught."

[From *Means and Knapp*, 1991, p. 3]

Integrating Reading Comprehension Assessment & Instruction
Sample Strategies

Before Reading

Activating Prior Knowledge
- *Reading Interview*
- *Word Associations*
- *Passage-Independent Questions*
- *Passage-Independent Vocabulary*

Predicting
- *Yes/No/Maybe Statements*
- *Brainstorming*

Setting Purpose
- *Memory Retrieval Strategies*
- *KWL (What we know & what we want to find out steps)*
- *SQ3R (survey & question steps)*

During Reading

Out Loud
- *Think-Aloud Protocols*
- *Self-Corrections*
- *Miscue Analysis*

Cloze Tasks

SQ3R (directed reading step)

Coding Text
- *Circling Key Words*
- *Underlining Key Concepts*
- *Marginalia*

Notetaking
- *Cornell Method*
- *Herringbone Technique*

ReQuest/Reciprocal Teaching

After Reading

Free Recall
- *Retelling*
- *Summarization*
- *SQ3R (recite & review steps)*
- *Story Grammar/Expository Text Patterns*
- *Multimedia Responses*

Probes/Prompts
- *Open-Ended Questions*
- *Story Frames/Outline Frames*
- *Semantic Maps/Webs/Weaves*

STaR (Story Telling and Retelling)

KWL (what we learned & still need to know step)

Question-Answer Relationships (QAR)

Question-Answer-Detail (QAD) Chart

CHAPTER 1 READING PROGRAM ASSESSMENT-- Two Steps

To improve your reading program, it is helpful to review your present program in light of current research. In order to complete such a review, guidelines for a two-step process are provided in this handout. It is important to complete the first step either independently or in small discussion groups before proceeding to the second step.

STEP ONE: What Should We Be Doing?

In the left-hand column of the chart below, statements derived from research are listed. These statements represent specific findings from a variety of research studies which explored the process of reading, reading instruction, and reading habits. As with all research, these findings suggest implications for classroom instruction and student evaluation. Read each statement. Then think about or discuss possible implications of the statement. In other words, think about or discuss what the statement suggests for reading instruction and evaluation.

Reading Process

What does the research say?	What does this suggest . . . for instruction?	for student evaluation?
1. Setting a purpose for reading aids comprehension.		
2. Prior knowledge is a critical determining factor in reading comprehension.		
3. Good readers use a variety of strategies to attain meaning and adjust their strategies to the demands of the text.		

CHAPTER 1 READING PROGRAM ASSESSMENT -- Two Steps

STEP TWO: What Are We Doing?

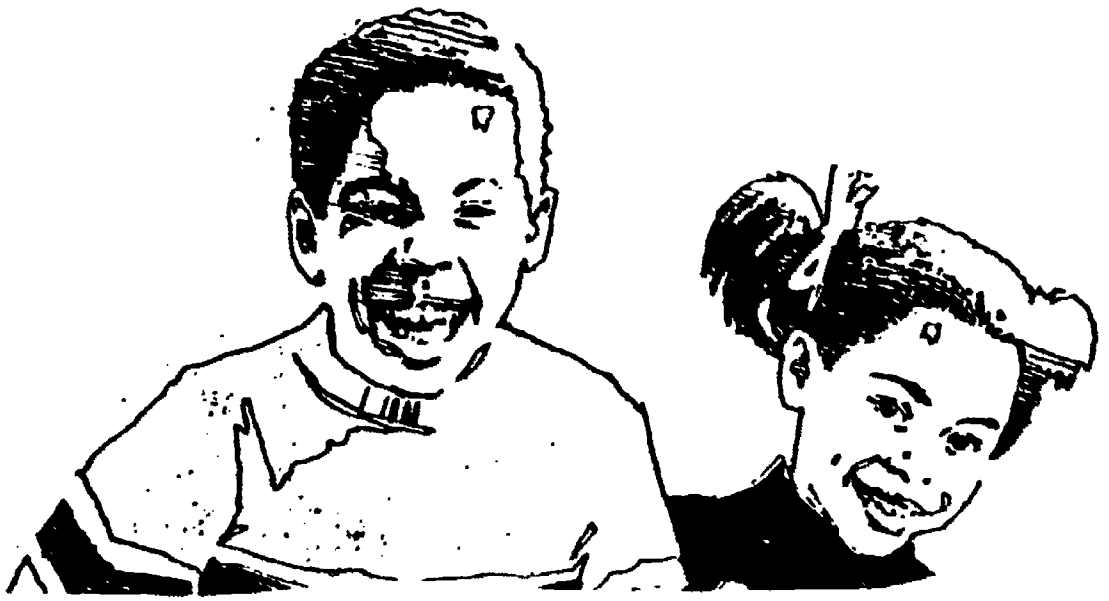
In step one, you reflected upon current research findings in reading and their implications for instruction and evaluation. In step two, you will describe the status of your Chapter 1 reading project by scoring each statement on the scale of "1" (not at all like our program) to "5" (very much like our program.) If you have no knowledge of an item, put an X through the item number at the left. After completing the rating, circle the number in front of the five items you feel should receive special attention in improving the program for Chapter 1 students.

	PROGRAM GOALS/DESIRED OUTCOMES	
1.	Carefully stated goals/desired outcomes have been developed for the Chapter 1 reading program.	1 2 3 4 5
	CURRICULUM	
2.	Chapter 1 uses the district/classroom curriculum as a guide to providing reading instruction.	1 2 3 4 5
3.	Chapter 1 and regular classroom staff have worked together to design a reading curriculum that is based on current research.	1 2 3 4 5
4.	The main goal of the reading curriculum is to teach reading comprehension and to teach word recognition skills within that context.	1 2 3 4 5
5.	A variety of reading materials and real-life purposes for reading are included in the reading curriculum.	1 2 3 4 5
6.	Interpretive and critical reading strategies are a regular part of the curriculum in Chapter 1.	1 2 3 4 5

Before Reading . . . .

. . . . during reading . . . .

. . . . after reading.



Making Reading Meaningful

Three-step student response --

What did you notice about the story?

How did the story make you feel?

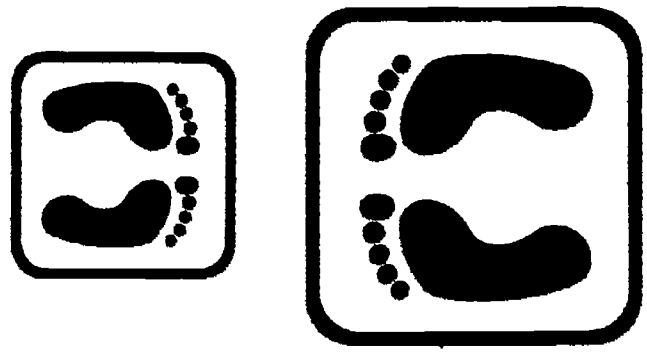
What does this story remind you of in your own life?

[From: Kelly, P. R. (March 1990). Guiding young students' response to literature. *The Reading Teacher*, 43 (7), 464-470.]

ReQuest

Read

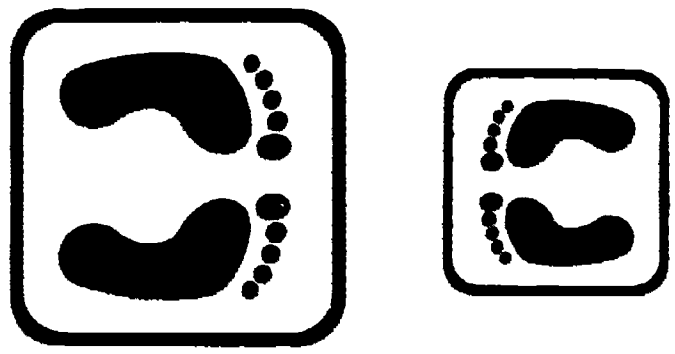
student
asks questions
of teacher



teacher answers
student's questions

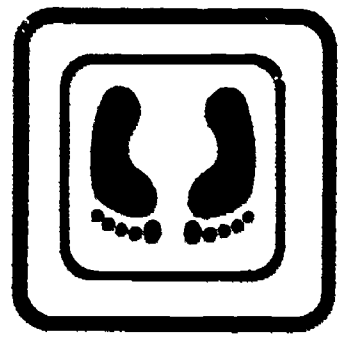
Keep reading

teacher
asks questions
of student

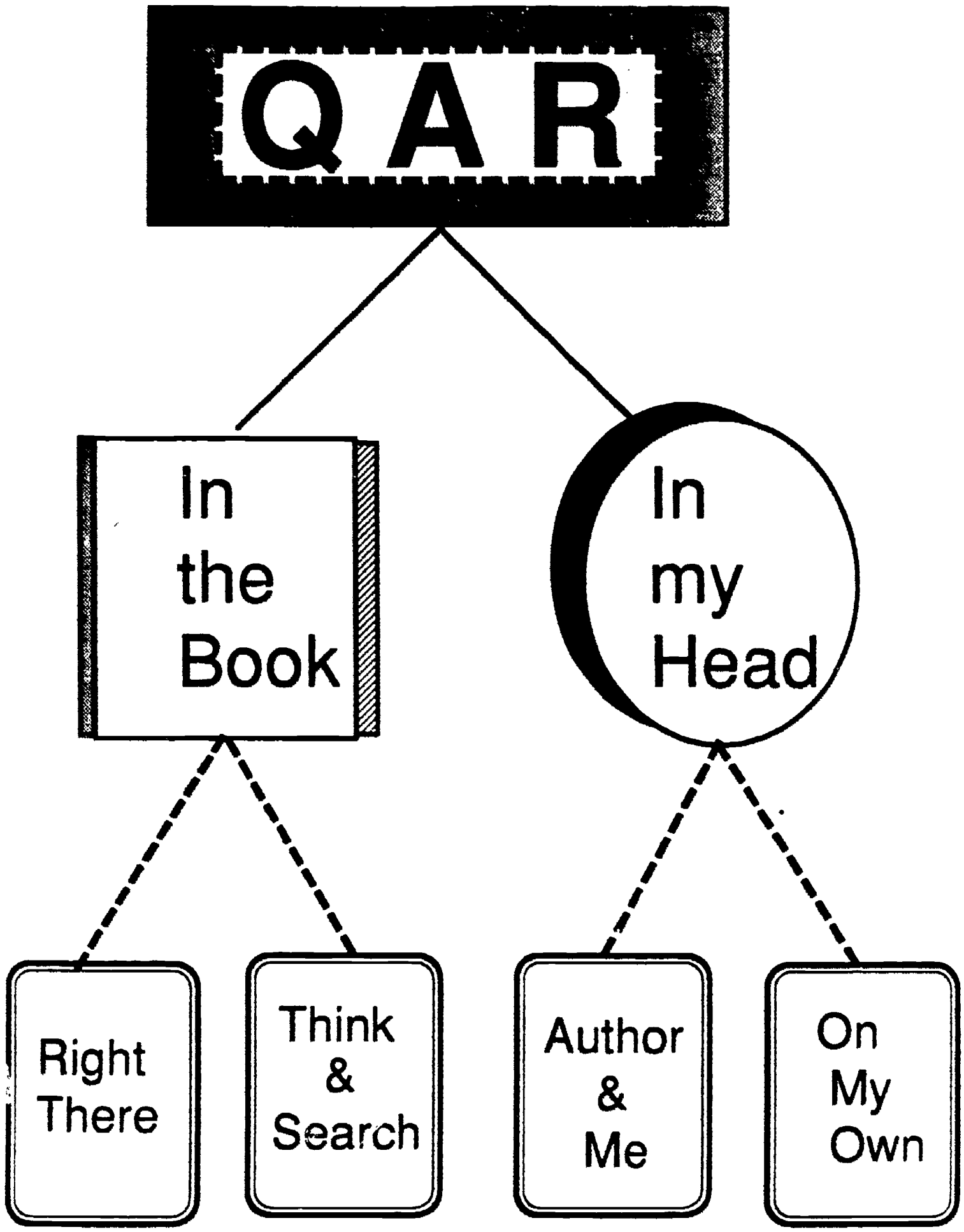


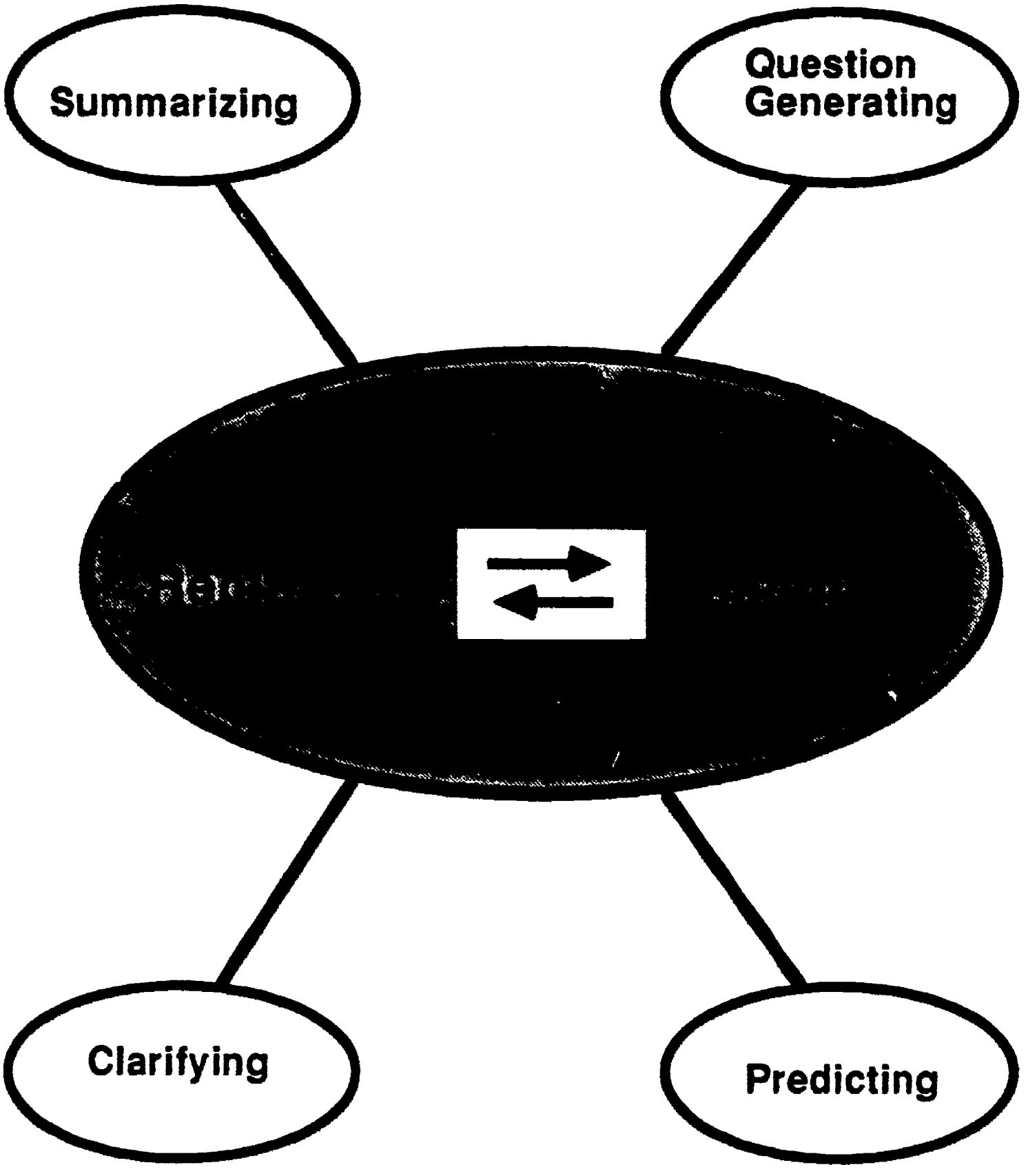
student answers
teacher's questions

Repeat
with next
text block
until



student can make
own predictions


QAR
In the Book
In my Head
Right There
Think & Search
Author & Me
On My Own


Summarizing
Question Generating
Clarifying
Predicting

K **W** **L**

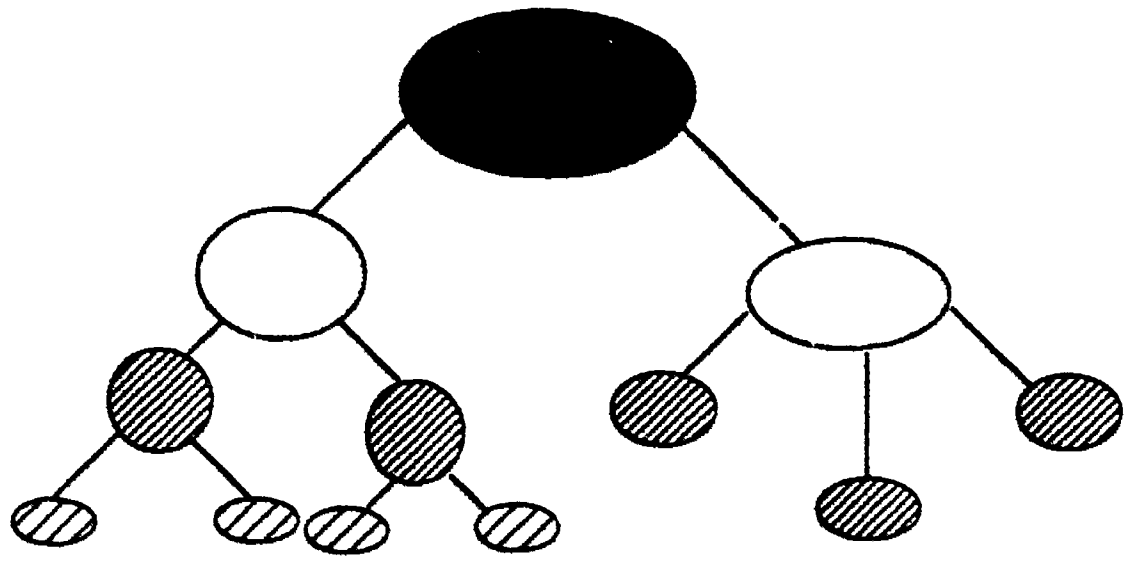
recalling what they **Know**

determining what they **Want** to know

identifying what they **Learn** as they read

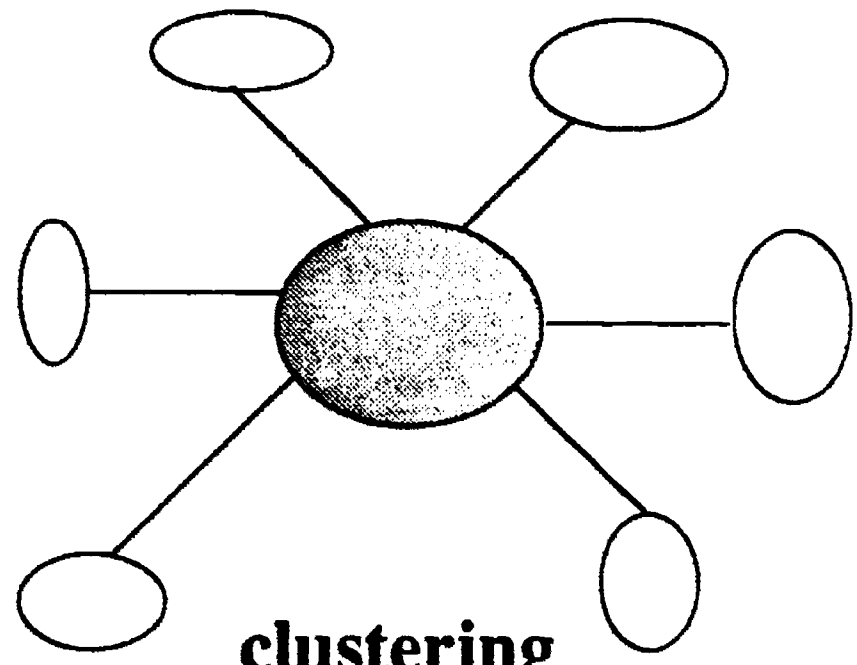
K-W-L

What I already KNOW	What I WANT to Know	What I LEARNED

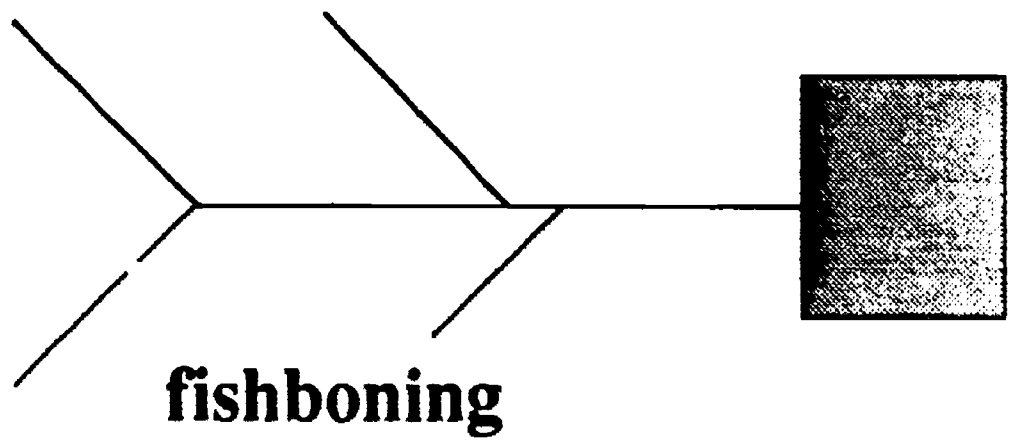


treeing

Semantic Mapping

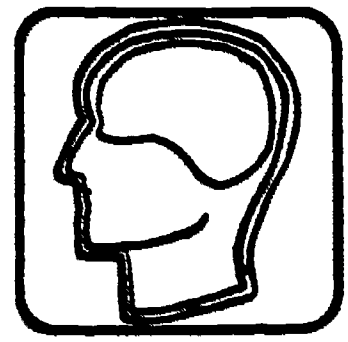


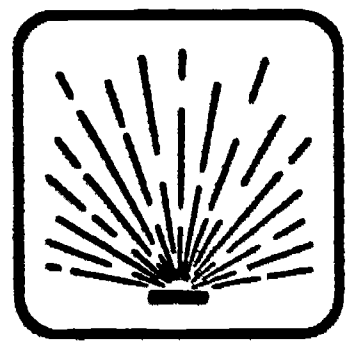
clustering



fishboning

Think along





Think aloud

Teacher models the process

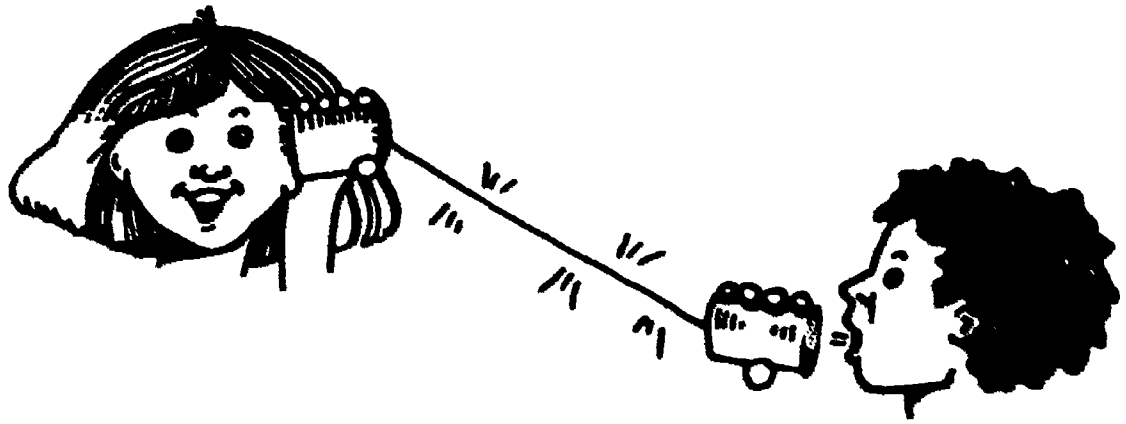
Students learn to frame higher-order questions

Students gain awareness of text structures

Teachers gain awareness of students' reading strategies

Reading Interview

How did you learn to read?



Do you think you are a good reader?

From:

Assessing reading skills
in isolation to . . .

Assessing reading
strategies in context . . .

Good teachers know that . . .

"Teaching is asking

not telling"

--- Jean Marzollo

[From: Marzollo, J. (1987). *The new kindergarten: Full day, child-centered, academic.* New York: Harper and Row Publishers.]

"As a tool for assessment, portfolios focus on a student's productive work -- what the student can do, rather than what he[she] cannot do."

[From *Mumme*, 1990]

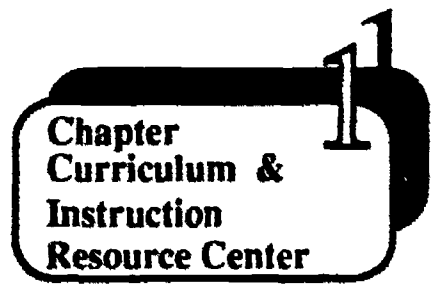
Student Strategies To Use In A Think Aloud

1. Guess the meaning of words
2. Use information in the title or in headings to make guesses
3. Use information in the pictures to help you understand
4. Use information you already know to guess what will happen next
5. Make predictions
6. Revise your predictions
7. Think about the sequence of events
8. Pretend you are the character
9. Talk about your feelings and emotions
10. Make mental pictures of what's happening in the story
11. Summarize what's happening
12. Reread sections to clarify their meaning
13. Stay open to new interpretations

Reading Assessment:

How do we measure understanding?

Section 4: Handout Masters



List of Handout Masters for *Reading Assessment: How do we measure understanding?*

The handout masters included in this section are listed below. An identification number appears in the lower right hand corner of the first page of each handout to facilitate assembly of workshop packets and quick reference during presentations. If the content of the handout has limited grade level applicability, the appropriate level is listed in italics under the identification number on the master.

The masters include sample student and program assessment instruments, structured overviews of current views of reading comprehension theory/traditional assessment methods and alternative assessment, and a range of strategies that can be used to integrate instruction and assessment. The handouts support assessments that:

- are teacher constructed/conducted
- are based on reading tasks with actual classroom materials
- are fully integrated with instruction
- identify student strengths as well as instructional needs
- incorporate and develop student self-evaluation
- measure process
- are ongoing and dynamic
- stress the use of multiple tools, environments, strategies, and texts

Handout ID #	Handout Title
H1	A Set of Contrasts Between New Views of Reading and Current Practices in Assessing Reading
H2	An Overview of Alternative Reading Assessment
H3	An Overview of Portfolio Assessment
H4	Integrating Reading Comprehension Assessment & Instruction: Sample Strategies
H5	Reading Interview
H6	Assessing Prior Knowledge
H7	Integrating Instruction and Assessment with Memory Retrieval Strategies

Handout ID #	Handout Title
H8	Integrating Instruction and Assessment with KWL
H9	Integrating Instruction and Assessment with SQ3R
H10	Integrating Instruction and Assessment with Think Alouds
H11	Integrating Instruction and Assessment with the Reading Miscue Inventory
H12	Integrating Instruction and Assessment with the Cloze Procedure
H13	Integrating Instruction and Assessment with Text Coding Strategies
H14	Integrating Instruction and Assessment with the Herringbone Technique for Note-Taking
H15	Integrating Instruction and Assessment with the Cornell Note-Taking System
H16	Integrating Instruction and Assessment with Reciprocal Teaching
H17	Integrating Instruction and Assessment with the ReQuest Procedure
H18	Integrating Instruction and Assessment with Story Retelling
H19	Integrating Instruction and Assessment with Expository Text Structures
H20	Integrating Instruction and Assessment with Multimedia Responses to Literature
H21	Integrating Instruction and Assessment with Teacher (and Student) Questions
H22	Integrating Instruction and Assessment with Semantic Maps and Story Schema
H23	Integrating Instruction and Assessment with Question-Answer Relationships
H24	Integrating Instruction and Assessment with Question-Answer Detail Charts
H25	Chapter 1 Reading Program Assessment-- Two Steps
H26	Workshop Evaluation Form

A Set of Contrasts Between New Views of Reading and Current Practices in Assessing Reading

What new views of the reading process tell us	What we traditionally do to assess reading comprehension
Prior knowledge is an important determinant of reading comprehension . . .	yet we mask any relationship between prior knowledge and reading comprehension by using lots of short passages on lots of topics.
A complete story or text has structural and topical integrity . . .	yet we use short texts that seldom approximate the structural and topical integrity of an authentic text.
Inference is an essential part of the process of comprehending units as small as sentences . . .	yet we rely on literal comprehension test items.
The diversity in prior knowledge across individuals as well as the varied causal relations in human experiences invite many possible inferences to fit a text or question . . .	yet we use multiple choice items with only one correct answer, even when many of the responses might, under certain conditions, be plausible.
The ability to vary reading strategeies to fit the text and the situation is one hallmark of an expert reader . . .	yet we seldom assess how and when students vary the strategies they use during normal reading, studying, or when the going gets tough.
The ability to synthesize information from various parts of the text and different texts is one hallmark of an expert reader . . .	yet we rarely go beyond finding the main idea of a paragraph or passage.
The ability to ask good questions of text, as well as to answer them, is one hallmark of an expert reader . . .	yet we seldom ask students to create or select questions about a selection they may have just read.
All aspects of a reader's experience, including habits that arise from school and home, influence reading comprehension . . .	yet we rarely view information on reading habits and attitudes as being important information about performance.
Reading involves the orchestration of many skills that complement one another in a variety of ways . . .	yet we use tests that fragment reading into isolated skills and report performance on each.
Skilled readers are fluent; their word identification is sufficiently automatic to allow most cognitive resources to be used for comprehension . . .	yet we rarely consider fluency as an index of skilled readers.
Learning from text involves the restructuring, application, and flexible use of knowledge in new situations . . .	yet we often ask readers to respond to the text's declarative knowledge rather than to apply it to near and far transfer tasks.

[Source: Pearson, P.D., & Valencia, S. (April 1987). Reading assessment: Time for a change. *The Reading Teacher*, 40 (8), 731.]

An Overview of Alternative Reading Assessment

Standardized testing provides us with a snapshot of the achievements of a student at one point in time. It is a method of measuring the student's knowledge and ability regarding specific information on a given day, in a group setting, in comparison with other children. Such results need to be used cautiously. While standardized testing has its place, it needs to be balanced with other forms of assessment to give a more complete picture of a student's capabilities.

The methods described in this overview reflect assessment practices congruent with the most current research-supported definitions of reading comprehension which emphasize the importance of prior knowledge; the interaction of reader, text, and context; and the use of metacognitive strategies. Together, these methods can be used as part of a program for conducting assessments that:

- are teacher constructed/conducted
- are based on reading tasks with actual classroom materials
- are fully integrated with instruction
- identify student strengths as well as instructional needs
- incorporate and develop student self-evaluation
- measure process
- are ongoing and dynamic
- stress the use of multiple tools, environments, strategies, and texts

The methods described in this overview can be used at a wide range of instructional levels, including early childhood, elementary, secondary, and adult basic education.

Alternative assessment is usually of two basic varieties: observation and performance-based. Observation assessment is teacher-oriented and depicts factual recording of observed activity. Performance-based assessment is designed by teachers and students and allows students to demonstrate their abilities through the development of student activities and products. An overview of the advantages and disadvantages of alternative assessment methods which can be used in reading as well as in other content areas is provided in a chart on the next page. Following the chart, there are additional pages of descriptions including information on each of the specific methods of assessment listed in the chart under the categories of observation assessment and performance-based assessment.

An Overview of Alternative Reading Assessment

Summary	Advantages	Disadvantages
OBSERVATION ASSESSMENT • *Anecdotal records* • *Checklists* • *Rating Scales* • *Participation Charts*	• Can be specifically related to current instructional objectives. • Helps detect problems as they arise, rather than waiting for the next testing cycle. • Assesses child in context rather than as an isolated individual. • Can be unobtrusive, and the child does not need to react in a specified fashion. • Can provide information not available in any other way. • Helps the teacher check for application and generalization of knowledge and skills. • Helps detect behavior patterns and changes in patterns.	• Can be very time consuming to collect and analyze data. • Can be difficult to coordinate classroom management to make observations. • Teachers need training and practice in order to know what to look for, how to record it, and how to use the information. • Data may be useless unless it is selectively gathered and carefully summarized. • Teachers may feel that they already observe students and that more systematic observation is unnecessary. • Observations might be too subjective unless carefully done.
PERFORMANCE-BASED ASSESSMENT • *Portfolios* • *Interviews* • *Questioning* • *Writing* • *Self-assessments* • *Peer group* (group evaluations) • *Student creations* (i.e. audiotapes, videotapes, computer demonstration, debates, art work)	• May be part of the child's regular daily activities. • May be specifically related to current instructional objectives. • Can be used to assess highly complex behaviors or tasks which approximate the conditions and resources children normally encounter in the classroom or in real-life settings. • Can be unobtrusive. • Provides the teacher with a valuable resource for assessing progress and sharing individualized information with parents of other teachers. • Allows for the triangulation of data with that from other sources-- can provide multiple examples of supporting information, thus providing information regarding the richness and depth of a student's learning. • Can measure process as well as product.	• Can be time consuming, particularly if the class is large. • Amount of data may be overwhelming unless gathered selectively and carefully summarized. • Teachers may have difficulty scheduling free time to analyze work samples. • Teachers need training and practice in order to know what to look for, how to summarize information, and how to use it. • Needs more coordination of evaluation criteria or standards when applied to the components of an instructional area to make the effort worthwhile. • Early work may be inappropriately judged if baseline and tracking procedures are not understood or not used correctly. • Storage demands may be burdensome.

OBSERVATION ASSESSMENT METHODS

Anecdotal Records are factual descriptions of observed activities.

- Anecdotal reports are best suited for recording unanticipated, spontaneous events or incidents.
- Descriptions must state clearly what happened in observable behaviors, when it happened, and under what circumstances.
- Description must be limited to one specific event.
- Evaluation needs to be supported with other verifying information.

Checklists consist of a series of statements about behaviors that are expected to occur. They contain space to record behavior if it has been observed. An ongoing checklist also should include a space for the date of the observed behavior.

- Checklists are used when behaviors can be anticipated and when there is no need to record the frequency and/or quality of the performance.
- Checklist items must be based on instructional objectives, and items must be clearly defined.

Rating Scales are lists of anticipated behaviors with information about the frequency and quality of performance.

- Rating scales must describe each degree, quality, or frequency of behavior as specifically as possible to avoid subjectivity.
- Components of a specific behavior need to be rated in separate scales or dimensions.

Participation Charts list the names of children and provide space to record their respective participation in a specific activity.

- Participation charts provide information on student participation in activities, e.g., number of books checked out from the library, number of books read, number of minutes spent on reading each day.
- Assessment through charts infers a range of participation over time for an individual student.
- Behaviors defining participation in a specific activity must be clearly determined to avoid subjective judgements.
- Several observations of episodes must occur to get representative samples of behavior.
- Data must be summarized to be meaningful.

PERFORMANCE-BASED ASSESSMENT METHODS

Portfolios are collections of student-produced artifacts that serve as evidence of proficiency. Items chosen for inclusion give an indication of what is valued. Dates are recorded on all papers as well as indications of whether the work is the result of individual or group activity.

- Enlarge the view of what kinds of learning are occurring.
- Provide evidence of performance beyond factual knowledge.
- Show student level of control of new processes.
- Allow a developmental look at progress.
- Provide the history of a piece of work and a permanent, long-term record of student progress reflecting the life-long nature of learning.
- Provide opportunities for improved student self-esteem since portfolios feature accomplishments rather than deficiencies.
- Facilitate the recognition and valuation of different learning styles.
- Provide an active self-assessment role for students by having them share joint responsibility with the teacher for assessing progress.

Peer Report/Group Evaluation consists of student analysis and assessment of peer proficiency using either established or self-generated criteria.

- Collaborative and cooperative classroom organization builds student knowledge of the talents of their peers and provides sound theory and methodological support for peer evaluation.
- An activity must be very carefully structured if students are to receive valid feedback from their peers.

Investigations involve students in assessment that is natural and non-invasive. During the investigation, assessment activities or questions are presented to the students much in the way they occur in regular classroom activities.

- Investigations may be related to other subject areas, thereby integrating curriculum, or they may be solely in one area.
- Although the most typical form of investigation is through a collection of student writing, diagrams, graphs, tables, or charts, there are also opportunities for observation or videotaping of student performance.

PERFORMANCE-BASED ASSESSMENT METHODS (cont.)

Investigations (cont.)

- In reviewing investigations, judgments can be made about students' ability in defining a problem and identifying relevant prior knowlege; making a plan; creating, modifying, and interpreting strategies; collecting needed information; organizing the information and looking for patterns; discussing, reviewing, revising, and explaining results; persisting; looking for more information if needed; and producing a quality product or report.

Interviews consist of structured or unstructured dialogue with a student in which the student reports his or her reaction or response to a question or questions. Questioning for the purpose of assessment can be brief and informal as in many typical classroom interactions between teacher and students, or it can occur over a more extended period of time where an interviewer really probes to get at what's going on in a student's mind.

- Interviews can be an opportunity to determine the student's depth of understanding rather than whether the student can provide the correct answer.
- Cues, prompts, or probe questions can be used to produce more assessment information.
- Interviews are not constrained by student's difficulties with written language.
- Wait time for the student to formulate an answer must be considered.

Writing opportunities include journal entries, reports of investigations, explanations of processes, and responses to open-ended questions.

- Writing enhances learning when concepts have to be formulated, organized, internalized, and evaluated.
- Feedback and self-assessment are vital to the student's growth in writing.

Self Assessment/Self Report are methods that empower students. Self assessments and reports provide a student's analysis of his or her perceived or desired level of proficiency. Those who are able to review their own performance, explain the reasons for choosing the processes they used, and identify the next step have a head start on lifelong learning.

- Students can show surprising insight into what they know and what they need to learn.
- This strategy helps students develop the skills of self-evaluation and self-involvement.

PERFORMANCE-BASED ASSESSMENT METHODS (cont.)

Self Assessment/Self Report (cont.)

- Self-assessment can be recorded through questionnaires or journals where "I learned" statements are answered by the student.

Questioning may involve searches for specific answers or may be open-ended. An open-ended question is one in which the student is given a situation and is asked to communicate a response. Questions may be more or less "open" depending on how many restrictions or directions are included. Questions and responses may be oral, written, or demonstrated by actions.

- Questioning contributes to a climate of thoughtful reflectiveness.
- Open-ended questions help match assessment to good classroom questioning strategies.
- Through responses to open-ended questions, it is possible to discover whether students can recognize essential points, organize and interpret information, report results, use appropriate language, write for a given audience, make generalizations, understand basic concepts, clarify and express their own thinking.

Other Student Products may include writing in the form of journals or open-ended questions, audiotapes, videotapes, computer demonstrations, debates, dramatic performances, reports, etc.

- Through products, students can demonstrate the following: understanding, originality, ability to present reports in an effective and attractive manner, growth in social/academic skills and attitudes, and success in meeting criteria.
- Products may be used to engage students who are not enthusiastic about school, bring education to life, and demonstrate to the community what students are achieving.
- Student products can provide a bridge between classroom and real world activities.
- Student performance observed through products allows for the integration of different subject areas, gives students flextime to do thoughtful work, permits students to work with others, and encourages creativity.

Parent Interviews consist of structured discussions with parents (or other primary care takers) about specific observations of children's behavior or progress.

Appropriate Uses:

- When confirmation of a child's behavior or performance is desired.
- When further information is needed to understand a child's behavior in class.
- When problems exist and a parent's input is needed to plan intervention.

Cautions:

- Information gained is strongly related to the interviewer's skills.
- Questions should be clearly defined in advance.
- Use of the information gained should be determined in advance.
- Many parents have had negative experiences with school and may be reluctant to participate.
- The parent point of view is often strongly biased positively or negatively.

ADDITIONAL SOURCES OF DATA FOR ASSESSMENT

Existing Records can be reviewed for information that has already been compiled by others. This may include any type of data which has been systematically collected or is a by-product of other activities. For example, school emergency forms, student records, local census forms, or parent meeting sign-up sheets may already contain information on children and families that can be useful in planning or evaluating programs.

Appropriate Uses:

- When there is a wide variety of information readily available.
- When objective, accurate information is needed to support more subjective interpretations.
- When cost and time are factors in obtaining the information.
- When staff time is limited.

Cautions:

- Records may contain incomplete or missing data.
- It may take some time and effort to extract the desired information from existing records.
- There may be legal requirements concerning confidentiality.
- Data may not be available in the form needed.

REFERENCES

Performance-Based assessment resource guide. (1990). Denver, CO: Colorado Department of Education.

Seppanen, P. S. (April 10-12, 1991). *Alternative child assessment strategies*. Paper presented at the U.S. Department of Education Regional Meeting Chapter 1 Preschool Programs Conference, St. Louis, MO.

Stenmark, J. K. (Ed.) (1989). *Assessment alternatives in mathematics: An overview of assessment techniques that promote learning*. California Mathematics Council and EQUALS. Berkeley, CA: Regents, University of California.

An Overview of Portfolio Assessment

When planning reading assessments, there are some key questions teachers need to ask themselves -- Why am I testing this child? How will I use the information? In what form can this information best be communicated to the target audience(s)? Traditional standardized norm-referenced tests are insufficient to validly and reliably represent the diversity of skills and abilities mastered by students over a period of time. There have been a number of recent suggestions about how to better "capture" the diversity, including the following:

- broaden the scope of the procedures and materials used to assess reading;
- use more observational data;
- use more informal, performance-based assessment; and
- relate the assessment more closely to instructional goals.

According to Pikulski (1989), the "portfolio philosophy of assessment" encourages the collection of diverse samples of literacy events, gathered in an on-going fashion in which readers interact naturally with text. Portfolios can help communicate to the students themselves and to others the message that "learning is never completed, instead it is always evolving, growing, and changing" (Valencia, 1990).

The Portfolio Approach to Reading Assessment

The portfolio approach has emerged as the current leader in alternative assessment methods as schools have moved toward more naturalistic forms of assessment. Used initially in the fine arts, portfolios have now become assessment tools for all content areas, including reading.

Portfolios offer an alternative means of documenting, evaluating, and communicating a student's growth in literacy. A portfolio approach has come to be defined as the collection of a variety of different types of evidence regarding student growth and progress in reading and literacy tasks over time. Portfolios provide a form of naturalistic evaluation because they are directly linked to instruction and involve real literacy activities that occur over a period of time. The variety of student products found in portfolios can include writings from journals, open-ended questions, videotapes, audiotapes, computer demonstrations, charts, graphs, diagrams, dramatic performances, bulletin boards, photographs, debates, group reports, student conference simulations, artwork, construction models, -- a list that is constrained only by the imagination of the student and the teacher.

Portfolios have been defined in numerous ways, including the following:

"[A portfolio is] a collection of evidence used by the teacher and student to monitor the growth of a student's knowledge of content, use of strategies, and attitudes toward the accomplishment of goals in an organized and systematic way." (Roettger & Szymczuk, 1990)

"A portfolio, quite simply, is a collection of student work. . . . It can be used to document progress rather than one's finest accomplishments. As a tool for assessment, portfolios focus on a student's productive work -- what the student can do, rather than what he cannot do." (Mumme, 1990)

"A portfolio is a purposeful, integrated collection of student work showing student effort, progress, or achievement in one or more areas. The collection is guided by performance standards and includes evidence of students' self-reflection and participation in setting the focus, selecting contents, and judging merit. A portfolio communicates what is learned and why it is important." (Paulson & Paulson, 1991)

Portfolios can be used to help meet several important education goals. These include "helping integrate instruction and assessment; providing students, teachers, parents, administrators, and other decision-makers with essential information about child progress and overall classroom activities; making it possible for children to participate in assessing their own work; keeping track of children's individual progress; and forming the basis for evaluating the quality of a child's overall performance" (Meisels & Steel, 1991).

Challenges and Benefits

Management issues are chief among the challenges facing educators interested in adopting the use of reading portfolios. The most common questions teachers and administrators have include the following (Mumme, 1990; Valencia, 1990):

- How and where are portfolios stored?
- Do they get passed on from grade to grade? How?
- Will portfolios take too much time? too much storage space?
- Who "owns" the portfolio? (the student? the school?)
- Are portfolios too product oriented?
- Is the information reliable?
- Is the information consistent or inconsistent?
- Are the quality and quantity of materials included in portfolios unequal across different classrooms and teachers?
- Are the products included varied enough to indicate learning across many situations, including before, during, and after reading instruction?
- Are materials that go in the portfolios, such as videotapes, audiotapes, or photographs, too expensive?

A chief benefit is the way that portfolios serve to encourage a number of positive attitudes and behaviors among students, teachers, and administrators. Johnson (1991) pointed out the following advantages:

Portfolios encourage students:

- to take more responsibility for their work
- to see themselves as apprentices
- to value daily work as a meaningful part of learning
- to see mistakes as opportunities for learning
- to see revision as an opportunity to succeed
- to spend more time thinking about their teacher's response
- to spend more time conferring with classmates
- to spend more time reconsidering and improving their work
- to be more creative, to feel more confident, to be more productive
- to take pride in their work, to perform, or display what they know

Challenges and Benefits (cont.)

Portfolios encourage teachers:

- to see themselves as professionals, as mentors, and facilitators
- to rediscover the power they have to challenge students
- to give assignments that help students to take on increasingly difficult tasks
- to allow time for student collaboration and reflection
- to help students learn how to revise and edit their work
- to explore a variety of ways to help students learn how to solve problems
- to assess student progress on a range of tasks and over time
- to evaluate the effectiveness of assignments in the light of student responses
- to see evaluation as part of the learning process, their's and the students'
- to share, display, and honor good work

Portfolios encourage teachers and administrators:

- to work together, to re-examine instructional objectives
- to reconsider and, if need be, to redesign curricula
- to prepare students for district and statewide tests
- to explore alternative forms of assessment
- to promote a schoolwide reading and writing program
- to spend more time conferring with parents and students
- to build in time for professional growth, classroom research, and reflection
- to honor a variety of good work, to celebrate students' achievements
- to find satisfaction in their own growth and good work

Content Selection and Evaluation Criteria

The goal when using reading portfolios is to assess a student as he or she is involved in natural literacy activities. It is then that the student's skills can be seen in an integrated, real-world context. In assessing portfolios, two factors are critical: (1) the selection of products to be included in the portfolio and (2) the criteria used for evaluating the portfolio contents.

Selection of products needs to be a process in which both the student and the teacher participate. The teacher needs to ensure that there are selections that can be used to answer the following questions:

- Is there progress from the earliest dated works to the most recently dated works?
- Is there evidence of sufficient variety to challenge all students and to allow each student an opportunity for success?
- Is there evidence of teacher/peer response to the student's drafts, and is there opportunity for the student to revise?

Content Selection and Evaluation Criteria (cont.)

Students can help select the work samples that they feel represent their "best" work. What is one's best work? An example of literacy work that the student feels represents his/her best achievement is one definition. A teacher may help the student select the piece of work. It may come from any class, and it may or may not address an academic subject. Students should have a chance to review the evaluation criteria before selecting their best pieces of work (*Vermont Writing Assessment*, 1990).

The key goals of reading instruction need to be defined and explicitly stated in order to establish criteria for both assessing student growth and selecting items to include in a student's portfolio. The portfolio should be used to expand upon information that is already available from other sources. For example, story maps can be used to assess a student's knowledge of plot structure in general as well as comprehension level with a specific reading.

According to Valencia (1990), all portfolios need two sections:

1) a section for the actual evidence and
2) a summary sheet.

The evidence forms the bulk of the portfolio since it includes all of the various representations of student work samples, reflective self-evaluations written by the student, teacher notes or anecdotal records, interviews, etc.

Different schools and teachers use various combinations of items in their portfolios. Some examples of the kinds of evidence of student learning most frequently included in portfolios are listed below.

- instructional tests
- results of standardized tests
- lists of books read by the student
- tapes or videotapes of oral reading (elementary grades)
- writing samples
- selected entries from reader's response journals
- books "published" by the student
- photographs of bulky student creations
- student self-assessments of his or her growth in reading abilities
- reading attitude/interest interviews or inventories
- teacher anecdotal/running records, interview transcripts, and observation reports
- evidence of the use of reading strategies
- student exhibits and work samples
- student drawings/illustrations inspired by stories or books

A summary sheet serves as an organizing framework for synthesizing the bulk of information for greater ease of use by parents, teachers, administrators and other staff members.

Content Selection and Evaluation Criteria (cont.)

In both selecting content and developing report formats, educators need to answer the following questions for their respective situations:

- How do you summarize a portfolio to validly and reliably communicate what a student has learned over long periods of time, such as a year or more?
- What information is most important to communicate *to a student* regarding his or her growth in literacy in order to motivate continued reading?
- What information do *parents* most want to know about what their son or daughter has learned over the year?
- What information does *next year's teacher* most want to know about what a particular student has learned in a year?
- What information does *an external decision-maker* most want to know about what a student has achieved during a school year?

There are a number of reports and guidelines available describing how various teachers, administrators, and school systems have addressed these and other questions; many of these materials include descriptions of the evaluation procedures and reporting forms that have been developed (e.g., Roettger & Szymczuk, 1990; *Vermont Writing Project*, 1990). The Test Center at the Northwest Regional Educational Laboratory has an extensive collection of documents on alternative and portfolio assessment as well as annotated bibliographies on both topics. Most of the documents are samples of informal assessment procedures developed for classroom use. Documents can be checked out and copies of the bibliographies can be obtained by calling the Test Center staff at (503) 275-9500 or writing to them at 101 S.W. Main Street, Suite 500, Portland, OR 97204. Another source of practical advice and materials are newsletters, such as *Portfolio News*, which was established by a network of educators in 1989 in order to facilitate the exchange of information about the development and implementation of portfolio assessment projects (copies of the newsletter can be obtained from Winfied Cooper and Jon Davies, Editors, c/o San Dieguito Union High School District, 710 Encinitas Blvd., Encinitas, CA 92024).

Examples of some of the methods being used to evaluate portfolios are listed below.

- checklists
- rating scales
- participation charts/frequency counts
- self-asessments (questionnaires or narratives)
- peer evaluations
- teacher informed judgments (anecdotal analyses/ outcome statements)
- wholistic scoring scales

Content Selection and Evaluation Criteria (cont.)

Alternative assessment, including the portfolio approach, is under study by the Compensatory Education Office of the California Department of Education. The office established a work group to examine the technical adequacy of mandated standardized tests for measuring the academic achievement of Chapter 1 students, to identify the need for and supporting evidence for alternatives and improvements to current testing requirements in Chapter 1, and to recommend policy to guide the use of performance-based assessments for California Chapter 1 students. [For more information, contact: Jackie Cheong, Chair of the Assessment Sub-Committee, Compensatory Education Office, California Department of Education, 721 Capitol Mall, Sacramento, CA 95814, Phone (916) 323-4775.] There are currently eighty Chapter 1 teachers field-testing portfolio assessments in English and/or mathematics in California [Contact Al Koshiyama at the Local Evaluation Unit, California Department of Education, 721 Capitol Mall, P.O. Box 944272, Sacramento, CA 94244-2720, Phone (916) 324-7147].

Chapter 1 teachers and administrators are particularly concerned about if and how data from portfolio assessments can be quantified and aggregated to report performance related to their program's desired outcomes. Meisels (1991) has suggested that teachers can aggregate portfolio information across groups of children to be able to make statements such as "80% of the children in the class can do [a specified activity]." He also suggests that teachers use a forced-choice procedure to place children into quartiles, e.g., top quartile or bottom quartile, in order to arrive at "a reasonably accurate description of how one child is doing compared to others."

In a paper presented at the Northwest Evaluation Association in August of 1990, Paulson and Paulson presented a "multidimensional, cognitive process model of assessment" designed to be broadly descriptive, while providing a framework for presenting high caliber quantitative and qualitative data. The Paulson and Paulson model, CMAP (Cognitive Model for Assessing Portfolios), is based on an integrated view of instruction and assessment. Portfolio evaluation in this model is multidimensional to reflect the complexity of learning outcomes and to meet the needs of various "stakeholders."

The Paulsons (April 1991) see the student as the primary stakeholder and self-evaluation as an important opportunity for him or her to reflect on his or her learning and develop "facility in using higher order thinking and metacognitive skills." Portfolios also offer other stakeholders the unique opportunity to assess the higher level skills that constitute "the thinking curriculum." The Paulsons recommend that we use analytic techniques to evaluate portfolios that "preserve the complexity" of the learning that portfolios chronicle and that we use rating scales with great caution. When data are used for large scale asessments, the Paulsons support using techniques that ensure "rigor, impartiality, representativeness, and, above all, diversity." They describe two methods that meet these criteria and that can be adapted to the use of portfolio assessment-- the *Environmental Beauty Estimation Method*, used by the U. S. Forest Service, and the *Comparative Method*, used by sociologists.

Teacher Response to Portfolio Assessment

After surveying 128 elementary and secondary reading educators, Johns and VanLeirsburg (June 1990) reported that 71 percent of the teachers rated their level of knowledge of the portfolio concept as "very little" or "none." No one felt "extremely knowledgeable," and only 8 percent indicated they knew "quite

Teacher Response to Portfolio Assessment (cont.)

a bit." When given an array of possible items to include in a portfolio and asked to rate those items, the item selected most frequently by these teachers was "a thoughtful selection of student work on important reading skills or strategies" followed by "writing samples related to reading" and "a listing of materials read." Only 35-43 percent of these reading teachers said that they would "definitely" or "probably" include audiotapes, videotapes, or photographs in a portfolio. The teachers viewed these items as too time-consuming, costly, or bulky to include.

When asked to rate possible practical problems in using portfolio assessment, nearly half of the teachers had "very serious" or "serious" concerns about planning, organizing, and managing information using portfolio assessment. Nearly three-fourths of the teachers expressed some concern with the issue of having portfolios replace standardized reading tests or achievement tests. The only area in which they did not have concerns was the use of portfolios in parent-teacher conferences. The teachers thought portfolios were ideal for showing parents what their children have accomplished in school over a period of time.

The Need for Staff Development

Teachers and administrators have many questions about the application and implementation of portfolio assessment. Professional development is crucial in addressing both those issues; ongoing staff development is essential in schools where portfolio assessment has been adopted. "Portfolio evaluation requires the careful planning and execution not only of the individual course, but also of a training program to support teachers using the system, thereby encouraging staff development. Benefits accrue to individual instructors, the students they teach, and the program in which they teach" (Burnham, 1986).

Staff development on portfolios and other alternative assessment methods provides users with the information to ensure that these new assessments are developed properly. If not done well and interpreted properly, data from performance-based and other alternative assessment methods can be just as misleading and biased as results from traditional tests. Some of the pitfalls are listed below (Arter, 1991).

- If the number of tasks included is too small, there may not be a true representation of what a student can do.
- The individual biases of those rating the performance may affect the evaluation;
- the criteria used to assess performance may not evaluate the most relevant and useful dimensions of a task.
- Some of the tasks that a student is asked to do can make one wonder what it is that is "natural" about performance assessment.
- There may be things in the performance assessment that make students unable to really demonstrate what they know or can do.

New users may not understand the limitations and may, as a result, both design poor performance assessments and misinterpret the results thereof. Teachers need the opportunity to experiment with portfolios and to have a voice in how and whether portfolios are used in their classrooms. As with change in any classroom practice, professional development needs to be a major part of the process (Mumme, 1990).

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Integrating Reading Comprehension Assessment & Instruction
Sample Strategies

Before Reading

Activating Prior Knowledge
- *Reading Interview*
- *Word Associations*
- *Passage-Independent Questions*
- *Passage-Independent Vocabulary*

Predicting
- *Yes/No/Maybe Statements*
- *Brainstorming*

Setting Purpose
- *Memory Retrieval Strategies*
- *KWL (What we know & what we want to find out steps)*
- *SQ3R (survey & question steps)*

During Reading

Out Loud
- *Think-Aloud Protocols*
- *Self-Corrections*
- *Miscue Analysis*

Cloze Tasks

SQ3R (directed reading step)

Coding Text
- *Circling Key Words*
- *Underlining Key Concepts*
- *Marginalia*

Notetaking
- *Cornell Method*
- *Herringbone Technique*

ReQuest/Reciprocal Teaching

After Reading

Free Recall
- *Retelling*
- *Summarization*
- *SQ3R (recite & review steps)*
- *Story Grammar/Expository Text Patterns*
- *Multimedia Responses*

Probes/Prompts
- *Open-Ended Questions*
- *Story Frames/Outline Frames*
- *Semantic Maps/Webs/Weaves*

STaR (Story Telling and Retelling)

KWL (what we learned & still need to know step)

Question-Answer Relationships (QAR)

Question-Answer-Detail (QAD) Chart

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Reading Interview

It is important to find out what children know about their own processing of print materials. The following two reading interviews ask children to identify good readers, to define what it means to be a good reader, and to describe what strategies they themselves use when they can't read something.

Teachers can use information from these interviews to assess children's awareness of the strategies they apply when reading. This metacognitive awareness of their own reading behaviors can help to identify successful strategies that students already know how to use and apply. It can also identify gaps in their knowledge and reveal situations in which pupils may have little or no knowledge of alternative strategies to use when they encounter difficulties reading. In addition, some interview questions can also supply teachers with information regarding children's areas of interest. This can provide a guide for selecting stories and books that will be especially motivating for particular individuals.

How It Works

The following questions can be used in developing reading interviews:

Reading Experience Questions

1. Do you like to read? Why or why not?
2. Do you think you're a good reader? Why do you think so?
3. Does anyone read to you at home? Who?
4. When does someone read to you at home?
5. Do you ever go to the library to get a book?
6. Do people at your house like to read? What do they read?
7. What kind of books do you like to read?

Reading/Writing Awareness Questions

1. What is reading? What does someone do when s/he reads?
2. What are some good reasons for reading?
3. How is reading different from writing?
4. What are some good reasons for writing?
5. When you read something, what is the main thing you should get out of it?
6. When you are reading, do you ever come to something that you don't know? What do you do? Is there anything else that you do?

Show student the following cloze sentence before ask ing questions 7-8:

CLOZE SENTENCE: The boy was _____ down the hill to the lake.

7. Can you read this sentence and tell me what word you would put in the blank?
8. What did (could) you do to figure it out? Was there anything else that helped you know what it was?

How It Works (cont.)

Reading/Writing Awareness Questions (cont.)

9. Do you know someone who you think is a good reader? What makes him/her a good reader?
10. Is there anything that you think is difficult about reading?
11. When you write, what do you think is the most important thing to do?
12. Do you think you are a good writer? Why or why not?

Background Knowledge Questions

1. Do you have any favorite stories? What are they?
2. What do you like to hear or read stories about?
3. Can you tell me a story that you know?
4. When you are reading something, do you ever feel that you don't know enough about the topic to understand what is going on? What do you do?
5. What are some of your favorite things to do?

Sample Interview

A sample interview form is attached.

Reading Interview

(Adapted from Reading Interview by Carolyn L. Burke)

Name:_____ Age:_____ Date:_____

1. When you are reading and you come to something you don't know, what do you do?

2. Who is a good reader that you know?

3. What makes her/him a good reader?

4. Do you think she/he ever comes to something she/he doesn't know when she's/he's reading?

   YES When she/he does come to something, what does she/he do about it?

   NO Suppose that she/he does come to something that she/he doesn't know.
   Pretend.
   What do you think she/he does about it?

5. If you knew that someone was having difficulty reading, how would you help them?

6. What would a/your teacher do to help that person?

7. How did you learn to read?

   What did (they/you) do to help you learn?

8. What would you like to do better as a reader?

9. Do you think you are a good reader? **YES? NO? Why?**

Additional Notes:

Assessing Prior Knowledge

In the past decade, our models of reading comprehension have expanded greatly. Rather than a limited view of reading as a product or the sum of a discrete set of subskills, our current research supported models look at reading comprehension as a process involving complex interactions between the reader, the context, and the text:

> ... reading comprehension is viewed as the process of using the cues provided by the author and one's prior knowledge to infer the author's intended meaning. This involves a considerable amount of inferencing at all levels as one builds a model of the meaning of the text. (Johnson, 1984, p. 9)

> Comprehension is building bridges between the new and the known . . . . Comprehension is active not passive; that is, the reader cannot help but interpret and alter what he reads in accordance with prior knowledge about the topic under discussion. Comprehension is not simply a matter of recording and reporting verbatim what has been read. Comprehension involves a great deal of inference making. (Pearson & Johnson, 1978, p. 24)

Our views of at-risk and disadvantaged learners are also changing, moving away from a deficit model which focused only on what was missing, inadequate, and unsuccessful (Knapp & Turnbull, 1990) to a model based on the following principles (Means & Knapp, 1991, p. 7):

- Appreciation for the intellectual accomplishments all young learners bring to school.
- Emphasis on building on strengths rather than just remediating deficits.
- Learning about children's cultures to avoid mistaking differences for deficits.

Both the broader understanding of the comprehension process and the new way of looking at the learner emphasize the importance of prior knowledge. In a review of the research literature, Holmes and Roser (1987, p. 646) reported that "prior knowledge is important for understanding, remembering, and interpreting text information . . . . Students with high levels of prior knowledge are better able to recall information presented. . . . [prior knowledge] seems especially helpful in answering inferential questions." Johnson (1984, pp. 29-33) advocated the use of assessment strategies that measure individual student's prior knowledge in order to determine if reading errors are due to *lack* of prior knowledge or *failure to use* available prior knowledge; he also discussed the importance of using assessment strategies to detect qualitative mismatches that might lead the reader to make inappropriate inferences.

Teachers need to assess prior knowledge in order not only to make more valid judgments about student performance, but also to plan instruction that best meets the needs of individual learners. By assessing prior knowledge, teachers have the information they need to help learners build bridges between what they already know and the text. It also helps teachers know which students will need additional background information to help them better understand what they will be reading.

Sample procedures for assessing prior knowledge are listed in the chart on the following page. The benefits and limitations of each procedure are also included in the chart. Although they vary in the amount of information they generate and the ease of analysis of that information, each of the procedures can be used to find out what a student already knows in order to do the following:

- develop lessons to build on the prior knowledge,
- avoid unnecessary reteaching of ideas already familiar to the student, and
- detect misinformation.

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Procedures for Assessing Prior Knowledge

PROCEDURES	DESCRIPTIONS	BENEFITS	LIMITATIONS
Passage-Independent Questions	Student answers test items about a reading passage which are based on background knowledge rather than passage information (Johnson, 1984, p. 44-45)	• Gives insights to what reader already knew compared to information gained through reading • May be used before and after reading	• Requires well-written questions which are highly relevant, but not covered in the passage
Passage-Independent Vocabulary Items	Reader responds to vocabulary words which reflect background knowledge, but are not included in the passage (Johnson, 1984, p. 46)	• Vocabulary knowledge correlates highly with reading comprehension • Can be presented in a variety of formats (e.g., completion, multiple-choice, true-false) • Prior knowledge can be checked with a few items	• Vocabulary items must be well-chosen • Cultural or socioeconomic differences must be respected
Free Recall	Student supplies all he/she knows about a topic prior to reading or studying about the topic (Holmes & Roser, 1987, p. 647)	• Requires little time or prior preparation • Teacher can follow up with a single probe (e.g., "Is that everything you can think of?")	• Does not provide a complete picture of student information and misinformation • Can be difficult to interpret for instructional purposes
Word Association	Responding to a list of categories or subtopics about the topic being studied, the student tells everything he/she can think of related to that topic category (Holmes & Roser, 1987, p. 648)	• Quick and easy to prepare • Easy to administer • Yields more information than free recall method • Can be oral or written	• Does not provide a complete picture of student information and misinformation • Can be difficult to interpret for instructional purposes
Structured Questions	Structured questions are developed to probe the categories or subtopics related to the topic being studied; questions range to indicate the depth of the student's prior knowledge (Holmes & Roser, 1987, p. 648)	• Elicits a quantity of correct and incorrect information • Efficient in terms of information per administration time	• Questions take considerable time to prepare (and orally administer)
Unstructured Discussion	The student is encouraged to discuss his/her knowledge and experiences related to the topic being studied (Holmes & Roser, 1987, p. 648)	• Can be used to motivate students	• Of limited help in finding out student's background knowledge • Can be time-consuming with limited information gained
Yes/No/Maybe Statements	The student predicts whether statements are likely to be included in a selection about a specified topic by a yes/no/maybe choice (Valencia & Pearson, 1987, p. 730)	• Can identify both student information and misinformation • Relatively quick and easy to prepare and administer • Can be group administered	• Relevant and distractor statements must be carefully chosen to maximize instructional interpretation

Integrating Instruction and Assessment with

Memory Retrieval Strategies

Both instruction and assessment require students to use memory skills and strategies. Reading comprehension requires that readers constantly use and reorganize prior knowledge. Skilled readers use a number of strategies to encode information so it can be stored in the memory for later retrieval (Stoodt, 1981, p. 61). Four strategies that facilitate retention are rehearsal, chunking, mediation, and clustering.

In *Strategic Teaching and Learning: Cognitive Instruction in the Content Areas*, Jones, Palincsar, Ogle, and Carr (1987, p. 36) discuss the following four variables teachers should consider in developing instruction: characteristics of the learner, material to be learned, goals and outcomes, and learning strategies. Under goals and outcomes, they include memory work, i.e., learning formulas, facts, etc. In order to reach instructional goals and outcomes, Jones et al. recommend a number of learning strategies that are based on the kind of material to be learned. Those strategies include the use of frameworks such as advanced organizers, concept hierarchies, semantic maps, etc. Those frameworks provide organization and are often in the form of graphic outlines which aid memory storage and retrieval.

Information that is stored in the memory is of little use unless it can be retrieved when needed. Memory and retrieval requirements are key factors that influence student performance on reading assessments (Johnston, 1983, p.34). Different kinds of test items call for different memory search strategies, i.e., multiple-choice items call on short-term memory in order to compare alternatives, and a pairwise comparison strategy may improve success (Johnston, 1983, p. 35).

It is important that instructors (1) teach strategies that are appropriate to their content and goals/outcomes and (2) monitor students' knowledge of what the strategies are, how to use them, and when and why to use them. Too often ". . . school objectives and tests ask for students to demonstrate their knowledge of a skill by actively using it in a school task, without asking them to demonstrate that they know what the skill or strategy is, or that they know when to use it or why it works." (Jones et al.,1987, p. 41). In the following section is a brief overview of a number of memory storage/retrieval strategies. The strategies should be taught and monitored within the framework of the instructional or testing contexts. For example, mnemonic strategies might be appropriate for rote learning or for integration and assimilation of knowledge, but they would probably not be sufficient for restructuring of knowledge or for fostering conceptual change.

How It Works

Rehearsal-- when students rehearse information by speaking aloud or using "internal speech," the review aids retention (Stoodt, 1981, p. 62). Story retelling and think alouds are strategies that employ a form of rehearsal. (Think alouds with tests or individual test items can also indicate if students are using appropriate memory enhancing strategies.) The Cornell Note-Taking and SQ3R study strategies include rehearsal steps.

How It Works (cont.)

Chunking-- The short-term memory holds an average of seven chunks (letters, words, or phrases) of information at a time (Stoodt, 1981, p. 61). The organization of information into "chunks" aids retention.

Mediation-- The more associations that can be related to content, the more meaningful that content becomes, and hence more memorable. This is one reason it is important to assess prior knowledge and build on background information.

Clustering-- Information can be stored and retrieved from memory more readily when it has been organized or categorized. Graphic outlines and advanced organizers such as concept hierarchies and semantic maps use the clustering principle. Many samples are included in both *Responses to Literature: Grades K-8* (Macon, Bewell, & Vogt, 1991) and *Content Area Reading* (Vacca & Vacca, 1986).

Sample Concept Hierarchy

Concept hierarchies can be used to organize information in a paragraph, section, chapter, unit, or course. The basic steps in developing a concept hierarchy are listed below (Vacca & Vacca, 1986, pp. 112-115):

1. *Analyze the vocabulary* and list the important words (be sure to review any words in bold or italics as well as words listed at the end or beginning of the chapter).

2. *Arrange the list of words in a tree diagram* (if the concepts are *not* related in a hierarchical manner, choose a format that better reflects their relationships, i.e., chains are best for sequential information). Place the word that represents the most inclusive concept (superordinate) at the top of the tree. Place the words that would represent the next level and are coordinate with one another on the major limbs of the tree. Place the terms subordinate to each of those terms on the branches of their respective limbs. (See figure on next page.)

3. *Evaluate* to make sure the diagram encompasses all the relevant terms and that all the terms are on the appropriate levels.

4. *Incorporate new information as appropriate.*

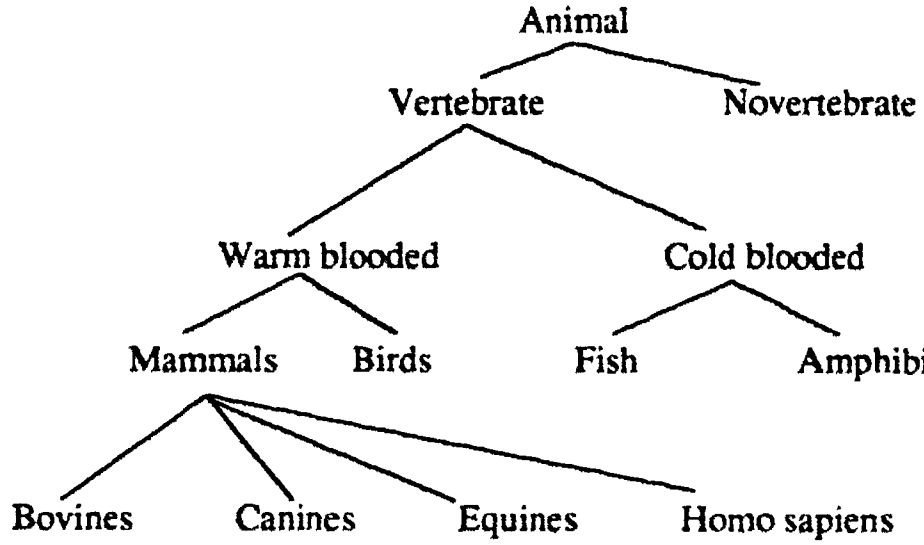
A number of key words from a chapter in a typical science textbook are listed on the following page. Take five minutes to review those words using no memory strategies. Cover the list, and see how many of the words you can reproduce. Now take five minutes and review the concept hierarchy formed with those words. Cover the hierarchy and see if you can reproduce *it*.

Sample Concept Hierarchy (cont.)

Key words from a typical science textbook:

Animal	Fish
Amphibians	Homo sapiens
Birds	Mammals
Bovines	Nonvertebrate
Canines	Vertebrate
Cold blooded	Warm blooded
Equines	

This concept hierarchy was developed from the word list above:



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Johnston, P. H. (1983). *Reading comprehension assessment: A cognitive basis.* Newark, DE: International Reading Association.

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Integrating Instruction and Assessment with
K-W-L

Definition

K-W-L is a strategy that models the active thinking needed when reading expository text. The letters K, W, L stand for three activities students engage in when reading to learn: recalling what they already KNOW, determining what they WANT to know about the topic, and identifying what they LEARN as they read.

This strategy is designed to help students develop a more active approach to reading expository material. Teachers first model and simulate the kinds of thinking needed for learning and then give students individual opportunities to write out what they know, what questions they want answered, and what they have learned from reading the text. In this way, the benefits of group instruction are combined with individual student commitment and responsibility.

The strategy was developed to translate current research findings about the active, constructive nature of reading into an instructional lesson format. In classroom testing, K-W-L has been shown to be an effective tool to help students become more active thinkers and to help them better remember what they read (Ogle, 1986). It has also been useful in helping teachers better communicate the active nature of reading in group settings.

The strategy is designed for group instruction and can be used with either whole classes or smaller groups. It can be used in all curricular areas and at all grade levels where students are reading expository material.

In addition to serving as an instructional activity, K-W-L can also provide teachers with assessment information. As teachers have students do the first two steps, either as a group or individually, they become aware of what background knowledge their pupils have or don't have concerning a topic. Teachers can use this knowledge to enrich the sources of information they provide to students or to supplement the text with additional explanations or demonstrations. They may also want to take more time to present topics about which pupils have little information or even have misinformation as revealed during the execution of K-W-L steps.

How It Works

Preparation. The teacher must prepare by reading the material, determining key content concepts that can elicit the most pertinent knowledge about the topic and by producing student worksheets.

Group Instruction. The initial group portion of this strategy involves three basic components. First, the teacher engages students in a discussion of what they as a group already know about the concept the teacher has selected to introduce the lesson. The teacher lists this information on the chalkboard or overhead projector. When disagreements and questions emerge, the teacher notes them and suggests that students may want to include them on the center column as questions they want to have answered.

How It Works (cont.)

Second, after students have volunteered all that they can think of about the concept, they should be asked to categorize the information they have generated. The teacher may need to identify one general category that incorporates two or more pieces of information on the board to model the building of chunks or categories. (At this point, a teacher may also want to use a semantic map, as described in handout H-22 to categorize information.)

Third, after the students are somewhat familiar with this process, they should be asked to anticipate the categories of information they would expect to have included in an article on the topic. The categories of information identified will be useful in processing the information they read and in future reading of a similar nature.

Individual reflection. After the group introduction to the topic, students should be asked individually to write on their own worksheet what they feel confident they KNOW about the concept. They can also write down the categories they think are most likely to be included. At this time, the teacher should help students raise those questions that have emerged during the discussion or that come from thinking of the major categories of information they expect to find. Students should be able to think of at least three questions or issues that they WANT to learn about as they read and should write those on their individual worksheets.

Reading. Students should be directed to read the text, once they have focused both on what they know and what they want to find out from reading. Depending on the length and difficulty of the text and the class composition, the text can either be read as a unit or can be broken into sections for reading and discussion. As they read, students should use their worksheet, jotting down information they learn as well as new questions that emerge.

Assessment of learning. The final step in the process is to engage the students in a discussion of what they have learned from reading. Their questions should be reviewed to determine how they were resolved. If some have not been answered satisfactorily, students should be encouraged to continue their search for information.

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K-W-L

What I already KNOW	What I WANT to Know	What I LEARNED

Integrating Instruction and Assessment with

SQ3R

There are many study methods which have been developed to help students learn more from content area reading material. Francis P. Robinson (1946, 1961, 1962) developed the SQ3R method of effective study which is the "granddaddy" of most reading study methods which are taught. SQ3R is made up of the following five steps: Survey, Question, Read, Recite, and Review.

Although originated in the 1940s, SQ3R incorporates much of what current research tells us is important in effective reading comprehension. It involves activation of prior knowledge, having a purpose for reading, self-monitoring (metacognitive) skills, and the manipulation of ideas and concepts by the reader using more than one sense. It is also easy to use SQ3R in conjunction with other study strategies. SQ3R is especially effective when coupled with the Cornell Note-Taking System since both strategies use the same basic procedures and structure for notes, although the order in which questions are developed is reversed. Text coding strategies (i.e., underlining or question response cues) and graphic organizers (i.e., semantic maps) can be incorporated in the reading, reciting, or reviewing steps.

SQ3R is a proven method for increasing reading comprehension and retention. Part of the reason for its effectiveness is the time and effort it requires, but that is also the source of the biggest difficulty with the strategy-- getting students to use it. One solution is to start by using the approach with short reading assignments and gradually building comfort, facility, and stamina with the strategy. It is very important that students be taught to use SQ3R with relevant material that requires a thorough understanding and a systematic approach.

The SQ3R strategy provides a great deal of diagnostic information about how a student is processing text. Students quite often have problems with the question step that are indicative of difficulties they are having with advanced skills in general. These problems may indicate a need for more explicit instruction in summarizing, moving from examples to ideas, generalizing, etc. A teacher may need to model both the survey and question steps for several lessons. Teacher prompts and probing questions can also help students generate effective questions. Teacher and student think alouds are another effective means of teaching and monitoring use of this strategy.

SQ3R is a study strategy that works well in an assessment program that stresses:

- teacher constructed/conducted measurements
- reading tasks using actual classroom materials
- evaluation that is fully integrated with instruction
- identification of student strengths as well as instructional needs
- incorporation and development of student self-evaluation
- process measurements
- ongoing and dynamic evaluation
- the use of multiple tools, environments, strategies, and texts

H9

4th grade & up

How It Works

1. SURVEY

   a. The first step is to read the chapter title and determine what is already known about the topic. If a student is knowledgeable in the area, *prior knowledge* is used as a frame of reference and student and/or teacher builds on it. If the material is completely new, the reading will take longer and the length of the assignment may need to be reduced because a frame of reference must be developed.

   b. The student reads the introduction, and mentally notes the major points and the scope of the chapter.

   c. The student reads the major and minor headings throughout the chapter.

   d. After each heading, the student reads the first sentence of each paragraph looking for the main ideas for each heading.

   e. The student also reviews all exisiting study aids: graphs, pictures, diagrams, and study questions.

   f. Finally the chapter summary is read.

   This survey covers the whole chapter, but should not take very long. The goal is to pre-read the material in order to identify the main ideas. By the time the survey step is finished, the student has seen the main ideas (though in different forms) six times: generally in the title, more specifically in the introduction, even more specifically in the headings and topic sentences, graphically in the study aids, and again in the summary. Since one way we learn is through repetition, the ideas are likely to "stick".

2. QUESTION

   a. Next, the student returns to the beginning of the chapter. He or she determines how much time there is remaining in the study period and sets a realistic goal, such as finishing the first major section in the next hour. Goals should not be set so high that they cannot be achieved or the student will end up frustrated.

   b. The notebook page is divided so 1/3 of the space is on the left and 2/3s is on the right.

   c. The chapter title and headings are turned into questions. This helps to arouse interest and establish a purpose for reading and thus increases comprehension and concentration.

   d. The question for the chapter title goes at the top of the page, and the question for the first section goes in the in the left-hand column.

How It Works (cont.)

3. READ

   a. The student reads the material in the first section.

   b. The student underlines key words or phrases(not whole sentences) which answer the question. Other text coding graphics are used as appropriate, i.e., question response cues (Coley & Hoffman, 1990), Herringbones (Tierney, Readence, & Dishner, 1980), etc. If students may not write in their texts, the codes are used with their notes in the recite step below.

   c. Any information which generates a new question or calls for revision of the initial question is noted.

4. RECITE

   a. After reading the section, the student should pause and reflect on the answer to the question(s) written (or revised) in the left-hand column. Then the question should be answered OUT LOUD without looking back at the text. The answer should be checked with the text and written in the right-hand column opposite the question. Answers are not written in complete sentences but rather in brief, blocked formation. Ideas should be written in the student's own words, but include key terms and vocabulary from the text. This step is a self-check that allows the student to find out what is not known or understood before the test when something can still be done about it. The teacher uses this step for diagnosis to identify the need for intervention and supplementary instruction.

   b. Steps 2-4 are repeated for each of the remaining sections in the chapter.

5. REVIEW

   a. After reading all the chapter, the "working notes" should be reviewed to get the "whole picture" and see the inter-relatedness of the ideas. It might help the student to make a semantic map or a matrix to show the key points and their relationships.

   b. The student then covers the notes in the right-hand column, answers the questions in the left-hand column, checks for accuracy, and repeats the process to correct inaccuracies.

   c. Subsequent periodic review is used to aid long-term memory.

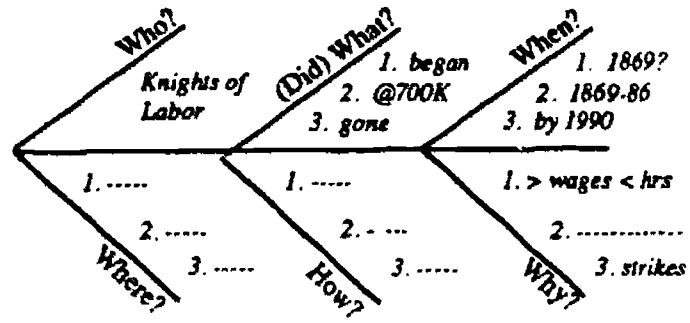
Sample SQ3R Reading Notes
(With Question Response Cues & Herringbone)

What is the early history of labor movements?

Labor Movement
- Began in U.S. R
- 1880's
- slow growth because of movement west
- high demand for labor in east

Who were the Knights of Labor?

Knights of Labor
- organized to help workers, fought for higher wages and shorter hours
- 1869 rapid growth
- 700,000 workers in 1886
- strikes led to decline
- disappeared by 1900



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Coley, D. C., & Hoffman, D. M. (April 1990). Overcoming learned helplessness in at-risk readers. *Journal of Reading*, 33 (7), 497-502.

Robinson, F. P. (1962). *Effective reading*. New York: Harper and Brothers. [Focus on SQ3R and other study skills to enhance reading ability of students in conent areas.]

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Integrating Instruction and Assessment with

Think Alouds

Think alouds involve the teacher or the students talking out loud about their processing strategies -- their thoughts while they are reading. They can be used by teachers to gain an awareness of the metacognitive reading/thinking strategies used or not being used by their pupils.

However, they can also be used to assess how well students understand the author's *text structure.* The process of conducting a think aloud session can vary depending on the purpose desired. The following guidelines are appropriate for a session focusing on the assessment of a student's understanding of text structure.

How It Works

The actual text material you use for a think aloud session should be the normal text students are required to read in your class. Tell students they will be reading a story or text that is mixed-up. Ask students to read each section of the text you have cut up at paragraph boundaries and shuffled. It is helpful to have each section color coded. For example, you might code the beginning dark blue, the middle yellow, and so on. That way, it will be relatively easy to relate students' think aloud commentaries with various sections of the story. To prepare the material for a session, simply shuffle the text sections into random order as you would a deck of cards. It is also a good idea to tape record the session for later analysis.

It is helpful to introduce a student to a think aloud session so the process will go smoothly. The follow introductory script was adapted from Lytle (1982) by Bean (1988).

Think Aloud Script for Assessing Text Structure Understanding

I am going to give you a story (or text) to read and put together the way you, as an author, would write it. The story (or text) is divided into paragraph sections that are mixed up. Call each section by the colored dot on it.

Read each section to yourself silently. Tell me the color before you begin reading. Then read the section and tell me what you are doing and thinking about as you try to see where this section fits in the whole story. I will just listen and not nod or anything; in fact, this is more like talking to yourself -- "thinking aloud." I am interested in what you say to yourself as you read, what you are thinking about as you go along.

After you have read the first color coded section and told everything you are thinking, go on to the next section mentioning its color. In a way, you are then telling what you are thinking about two sections of the story (or text), and then three, and so on -- kind of news bulletins or play-by-play accounts of where you are in your thoughts as you try to figure out how to put the story together so it makes sense.

How It Works (cont.)

If you get stuck or are having trouble understanding, I would like to hear about that too and try to figure out a solution to what's puzzling you.

After you have read and talked about each section, and put the story together the way you as an author think it should go, I'd like to have you reflect for a while and then tell me your own sense of what the story was about. You can look back at the story if you like, but try to recall the basic ideas in your own words.

While you are doing this, I will say nothing. I will have a small notebook open because I may want to write a few notes to myself -- things that occur to me as you talk about the story. I know I will have the tape to listen to, but I have found that I sometimes can't remember ideas unless I write them.

In order to illustrate the use of think aloud protocols to observe and assess a student's sense of text structure, we will examine a scrambled story sequence of:

The Accomplice

- Phyllis hesitated, then raised her hand to tell Mrs. Hampton what she saw. Unfortunately, eight other hands also were raised in response to the question about the U.S. Constitution. "Jim?" Mrs. Hampton ignored Phyllis as usual, and Jim rambled on about various amendments. Meanwhile, the car thief was making his getaway in Mrs. Hampton's new red Supra.

- A highly skilled car thief stalked the faculty parking lot just after school started.

- Phyllis held her arm higher, cradling it in her other hand, but Mrs. Hampton continued to ignore her. Finally, she lowered her hand and stared at the vacant parking spot where Mrs. Hampton's car was only moments ago. She thought to herself that Mrs. Hampton would get a real surprise that afternoon and Phyllis would be there to watch.

- Phyllis saw him through the window just as he jimmied the lock on Mrs. Hampton's new Toyota Supra. The man opened the door and stepped inside. [Bean, 1988, p. 104]

Students are instructed to reorganize the segments into a normal story sequence that will be easier to comprehend. They can number the paragraphs sequentially 1, 2, 3, etc. in the new order they would prescribe. Students who can sequence the scrambled story in the following order have a well developed sense of story structure.

1. A highly skilled car thief . . .
2. Phyllis saw him through the window . . .
3. Phyllis hesitated, then raised her hand . . .
4. Phyllis held her arm higher . . .

How It Works (cont.)

Narrative structures typically contain the following major categories: setting, initiating event, internal response, attempts, consequence, and reaction. Searching for these categories in "The Accomplice," we can see that the *setting* is in Mrs. Hampton's classroom where Phyllis, our protagonist, is seen gazing out the window.

Next we see Phyllis notice the car thief, thus providing an *initiating event.* We become aware of the initial *internal response* of Phyllis's concern and attempt to warn her teacher. This is followed by the *consequence* of the teacher ignoring Phyllis with the *reaction* that Phyllis's initial concern for her teacher changes to frustration and then revenge. Phyllis lowers her hand and, in a sense, becomes an "accomplice" in the car theft.

Some students will give a very brief think aloud merely saying, "I don't know. It looks okay the way it is . . . I want to leave it the way it is." This reluctance to manipulate the passage may indicate little awareness of text structure patterns. Direct instruction using graphic organizers such as story maps (see Handout H22), can be used to help children develop these skills.

Lytle (1982) developed a system for analyzing think aloud protocols by examining six moves a reader is likely to make when attempting to comprehend a passage. These six moves are:

1. *Monitoring*. I don't understand. This doesn't make sense. Manifested in statements or questions indicating the reader doubts his/her understanding (including conflicts).

2. *Signaling*. What do I understand? Manifested in statements in which the reader signals his/her current understanding of the text's meaning (agrees, paraphrases, summarizes).

3. *Analyzing*. How does this text work? Manifested in statements in which the reader, viewing the text as an object, notices, describes, or comments on the features of text (e.g., words, sentences, text structure, style). Thus, for the purpose of observing a reader's sense of text structure, we would expect to see this move occur within the think aloud process.

4. *Elaborating*. What does this make me think of? Manifested in statements describing the ways the reader is responding to or experiencing the text such as imagery, recalling prior knowledge, liking/disliking.

5. *Judging*. How good is this? Manifested in statements indicating the reader is evaluating the text (ideas or text features).

6. *Reasoning*. How can I figure this out? What might X mean? Manifested in statements or questions indicating the reader is trying to resolve doubts and interpret the text (e.g., hypothesis, prediction, question, use of evidence).

It is helpful to ascertain students' use of several of these ways to analyze text structure using various kinds of passages, including expository as well as narrative text.

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Integrating Instruction and Assessment with the

Reading Miscue Inventory

The Reading Miscue Inventory is based on a psycholinguistic view of the reading process. Reading, like the other language processes, is an interaction between sender and receiver with the intent to communicate. Due to the variables in both sender and receiver (experience, language, ethnicity, age, aptitude, interests, etc.) the exchange cannot be exact. In fact, to best understand another's ideas, we need to translate them to our own. Therefore, effective readers make positive miscues (deviations that retain the meaning of the text) routinely. This instrument is designed to help reveal pupil strategies and to serve as an evaluation tool for reading. It can help teachers determine specific patterns of pupil response when reading and can distinquish pupil difficulties from those caused by the organization or content of the text.

This informal procedure can serve a dual purpose:

(1) to aid the teacher or other person serving as "Reading Instructor" by providing insights about the reading process;

(2) to aid in providing productive activities for the student who is learning to read.

The first objective will be emphasized most. It is based on the notion that when teachers more thoroughly understand the elements of the reading process and their interrelationships, they will be capable of creating and allowing reading experiences for students which capitalize upon the natural development of this and the other language skills. Persons who have a general understanding of the instrument and how it can be used to gather important information about the reader, will probably rarely need to use the instrument itself on any regular basis in the classroom. Their activities, interactions with children, and intuitive behaviors will embody the application of the information. The instrument merely opens up this avenue of perception.

How It Works

In the basic steps, the teacher:

1. selects a story and prepares a worksheet or coding sheet,
2. explains the procedure to the reader,
3. tapes the reading and retelling of the story,
4. analyzes the retelling (see guidelines in the *Story Retelling* Handout H18),
5. marks the worksheet or coding sheet,
6. analyzes the oral reading performance,
7. summarizes strengths and concerns, and
8. plans subsequent instruction based on the last two steps.

How It Works (cont.)

Diagnosis of reading miscues can be done on a number of levels as described below:

LEVEL A Assess comprehension from independent reading. Student reads new material, uninterrupted, independently, in the preferred mode (silent, oral, alone, etc.) and then retells the story into a tape recorder.

LEVEL B Assess semantic acceptability or oral performance and comprehension. Student reads new material, uninterrupted, into the tape recorder, then retells the story (also on tape).

LEVEL C Identify specific behaviors or strategies used by the student while reading. Use the recorded reading sample from LEVEL B or obtain a new one including reading and retelling for assessment of comprehension, semantic acceptability, and specific behaviors.

LEVEL D 1) Scoring the retelling (character development, events, plot, theme)

2) Sentence-by-sentence analysis of strategies used during the process, and

3) Deeper analysis of substitutions (graphic similarity, syntactic acceptability, semantic acceptability).

The following questions can be used to guide analysis of the retelling and reading:

Comprehending

1. Does the retelling information indicate understanding of the story?

2. Is the reader concerned with getting meaning from print?

3. Does the reader produce sentences which follow acceptable sentence structure and make sense?

Proficient Reading Strategies

4. When the reader produces substitution miscues which are not similar to the text in terms of grammatical function (i.e., a noun for a noun), do these miscues often occur in structures which are grammatically acceptable?

How It Works (cont.)

Proficient Reading Strategies (cont.)

5. When the reader produces miscues with no graphic similarity, do these miscues often make sense (high quality miscues)?

6. When the reader produces miscues which do not fit the sentence structure or do not make sense, does the reader correct them?

Inefficient Reading Strategies

7. Does the reader correct miscues which do not result in a change of meaning?

8. When producing substitution miscues, does the reader overuse phonic information at the expense of meaning?

The Reading Miscue Inventory procedure is used to analyze each miscue or discrepancy the pupil makes when reading a text orally (Goodman & Burke, 1972). Nine basic questions are asked to determine which language cueing system the pupil is predominantly depending upon when reading: graphic similarity, syntactic acceptability or semantic meaning. The following nine questions are asked of each miscue:

1. DIALECT. Is a dialect variation involved in the miscue, e.g., "I be going" for "I am going"?

2. INTONATION. Is a shift in intonation involved in the miscue, e.g., "Mother called you." for "Mother called. You . . . . "?

3. GRAPHIC SIMILARITY. How much does the miscue look like what was expected, e.g., "horse" for "house"?

4. SOUND SIMILARITY. How much does the miscue sound like what was expected, e.g., "redder" for "reader"?

5. GRAMMATICAL FUNCTION. Is the grammatical function of the miscue the same as the grammatical function of the word in the text, e.g., "maybe he could go" for "maybe he would go"?

6. CORRECTION. Is the miscue corrected, e.g., "I got on the brick, no -- bike" for "I got on the bike."?

7. GRAMMATICAL ACCEPTABILITY. Does the miscue occur in a structure which is grammatically acceptable, e.g., "he saw something" for "he saw nothing"?

How It Works (cont.)

8. SEMANTIC ACCEPTABILTY. Does the miscue occur in a structure which is semantically acceptable, e.g., "down the street" for "down the road"?

9. MEANING CHANGE. Does the miscue result in a change of meaning, e.g., "I don't have tim" for "I don't have time"?

Reference

Goodman, Y. M., & Burke, C. L. (1972). *Reading miscue inventory manual: Procedure for diagnosis and evaluation.* New York: Macmillan Publishing Co., Inc.

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Integrating Instruction and Assessment with the

Cloze Procedure

The Cloze Procedure requires readers to fill in words that have been deleted from a reading passage. It has been used to assess the readability of passages for children. It can also be used to assess student reading strategies in order to plan appropriate instruction.

How It Works

TO CONSTRUCT:

1. Select a passage of at least 275 words. Leave the first and last sentences intact.

2. Delete words in a sequential pattern, substituting blanks of equal length for the deleted words. Usual patterns of deletions are:
   lower grade levels = every tenth word
   upper grade levels = every fifth word.
   Fifty blanks are needed to provide a statistically reliable score.

3. Encourage the students to fill in each blank as they read the passage.

TO SCORE:

1. While there is debate over whether to score only exact replacements as correct or to allow synonyms as correct, it is generally recommended that scoring be based on exact word replacements for ease of implementation. Research has indicated that overall percentages change very little whether synonyms are counted right or wrong, but validity and reliability ratings are only applicable to scores using exact word replacements. Research has indicated that deleted content words (nouns, main verbs, and adjectives) may be more difficult to produce as cloze items than structure words (Hittleman, 1973).

2. Compute the percent of blanks correctly completed. Readability levels are scored as:
   Independent Level = Correctly replaces 61% or more
   Instructional Level = Correctly replaces 41% - 60%
   Frustration Level = Correctly replaces 40% or less

TO INTERPRET:

1. Cloze percentages can be used to match readability of text materials with the student's reading level.

2. Review the words the student used in completing the passage. Did the word choices result in meaningful sentences? Did the word choices maintain the original meaning of each sentence? Was the gist or general meaning of the passage maintained throughout? How did the student's word choices change the meaning of the passage? What clues do the word choices provide about how the student interacted with the text?

TO INTERPRET (cont.):

3. Review the student's word choices in relation to the syntax of the passage. What clues from the sentence structure did the student use in choosing words? Are nouns substituted for nouns, verbs for verbs? Are singular and plural clues used as well as verb tense clues? How well did the student use sentence structure clues to help maintain meaning?

4. Use the cloze technique to examine how the student handles different types of text materials, such as narrative text, content text, and reference or information text.

5. Use cloze to screen groups of students for particular materials, instructional activities, or units of study.

Although the CLOZE PROCEDURE provides useful information, it should not be the only procedure used to assess comprehension.

Jongsma (1971) did extensive research on the cloze procedure and discovered that as a teaching device without any followup, it had little or no value in "teaching" comprehension. However, students' comprehension did improve when students discussed their answers on cloze passages, i.e., explaining why one answer was chosen over another. Teachers have found the cloze procedure useful for assessing students' reading abilities prior to assigning them books or literature materials for which no other tests exit.

Standard Cloze Sample

An example of a cloze passage and answer key are included on the following pages. There are several variations to the standard format as already noted. Two frequently used variations are described below. The variations have the advantage of being less frustrating to students, and, therefore, the scores are less a factor of persistence or stamina. Think alouds are a good way to find out not only what strategies students are using to make word choices but also to monitor frustration and effort levels.

Maze Technique

In this variation, students can choose a response from a set of possible answers containing distractors.

Example: Jeff put the _____ ice cream into a dish.

melting
making
matching

Limited Cloze

In this variation, the words randomly deleted from the passage are put into a scrambled order and listed in the margin. Students can then choose words to fill in the blanks from the list of actual words listed in the margin.

Cloze Example

Remarks by the President at the Presentatation of the National Education Strategy on April 18, 1991, from: *America 2000: An Education Strategy Sourcebook.*

For those of you close to my age, the 21st century has always been a kind of shorthand for the distant future -- the place we put our most far-off hopes and dreams. And today, that 21st __1__ is racing toward us -- __2__ anyone who wonders what __3__ century will look like __4__ find the answer in __5__ classrooms.

Nothing better defines __6__ we are and what __7__ will become than the __8__ of our children. To __9__ the landmark case, *Brown* v. __10__ *of Education*, "It is __11__ that any child may __12__ be expected to succeed __13__ life if he is __14__ the opportunity of an __15__."

Education has always meant __16__. Today, education determines not __17__ which students will succeed, __18__ also which nations will __19__ in a world united __20__ pursuit of freedom in __21__. Think about the changes __22__ our world. The collapse __23__ communism and the Cold __24__. The advent and acceleration __25__ the Information Age. Down __26__ history we've defined resources __27__ soil and stones, land __28__ the riches buried beneath. __29__ more. Our greatest national __30__ lies within ourselves -- our __31__, ingenuity -- the capacity of __32__ human mind.

Nations that __33__ ideas will move forward __34__ years to come. Nations __35__ stick to stale old __36__ and ideologies will falter __37__ fail. So I'm here __38__ to say, America will __39__ forward. The time for __40__ the reports and rankings, __41__ all the studies and __42__ surveys about what's wrong __43__ our schools is passed. __44__ we want to keep __45__ competitive in the coming __46__, we must stop convening __47__ to report on ourselves. __48__ must stop convening panels __49__ report the obvious. And we must accept responsibility for educating everyone among us, regardless of background or disability.

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Cloze Example (cont.)

Remarks by the President at the Presentatation of the National Education Strategy on April 18, 1991, from: *America 2000: An Education Strategy Sourcebook.*

For those of you close to my age, the 21st century has always been a kind of shorthand for the distant future -- the place we put our most far-off hopes and dreams. And today, that 21st century is racing toward us -- and anyone who wonders what the century will look like can find the answer in America's classrooms.

Nothing better defines what we are and what we will become than the education of our children. To quote the landmark case, *Brown* v. *Board of Education*, "It is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education."

Education has always meant opportunity. Today, education determines not just which students will succeed, but also which nations will thrive in a world united in pursuit of freedom in enterprise. Think about the changes transforming our world. The collapse of communism and the Cold War. The advent and acceleration of the Information Age. Down through history we've defined resources as soil and stones, land and the riches buried beneath. No more. Our greatest national resource lies within ourselves -- our intelligence, ingenuity -- the capacity of the human mind.

Nations that nurture ideas will move forward in years to come. Nations that stick to stale old notions and ideologies will falter and fail. So I'm here today to say, America will move forward. The time for all the reports and rankings, for all the studies and the surveys about what's wrong in our schools is passed. If we want to keep America competitive in the coming century, we must stop convening panels to report on ourselves. We must stop convening panels that report the obvious. And we must accept responsibility for educating everyone among us, regardless of background or disability.

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43. in
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45. America
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Integrating Instruction and Assessment with

Text Coding Strategies

Question response cues, underlining, circling key words, and making marginal notes are a few of the coding methods students can use to enhance their ability to get meaning from text. Each of these strategies requires students to spend extra time processing information in the text which aids retention. Since using these methods involves some classification of text information, they involve development of simple schema which facilitate retrieval. The text coding strategies also engage students in problem solving to the degree that they have to make decisions about the relative importance of pieces of information in the text and recognize relationships among those pieces of information. Reasoning (problem solving) is a large component of reading comprehension (Johnston, 1983, p. 11-13, 34-35). Both reasoning and memory/retrieval are also important factors in many reading comprehension assessment tasks.

Teachers can use text that students have coded for diagnostic purposes, i.e., as the basis for determining instructional needs. In fact, most students can profit from some explicit instruction in how to identify important information in the text, supraordinate and subordinate ideas, and other relationships (such as cause/effect). Teacher think alouds are one way of providing that explicit instruction.

Underlining

Although it probably does not facilitate retention to the degree done by strategies such as SQ3R, semantic maps, or story frames that require more complex processing and restructuring of text information, underlining yields to some degree all of the benefits listed in the first two paragraphs of this handout. It can also be used effectively as a preliminary step in creating a semantic map, a structured overview, or one of the other more complex strategies. Where students are not allowed to underline in school texts, the underlining strategy can be used effectively with their class notes and handouts. Basic guidelines for underlining include the following:

- Read a paragraph or section at a time.
- DO NOT start underlining until you have finished reading the paragraph or section.
- Ask yourself what that selection is about and what words or concepts you should understand.
- Decide how you want to underline different kinds of information, i.e., a solid line might indicate a term and a squiggly line a definition. Be consistent in how you use those codes in this and future readings.
- ONLY underline words and short phrases. Do not underline whole sentences or groups of sentences.
- If several examples are given, connect them with arrows or lines.
- Read just the underlined words, and ask yourself if they convey the important ideas and concepts in the paragraph or section. If not, underline any additional material that is necessary.
- Go on to the next paragraph or section, and repeat the process.

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Underlining (cont.)

In addition to using different kinds of lines for specific kinds of information, as suggested in the guidelines, students can develop other customized graphic codes to fit their individual needs, i.e., a student might always circle important dates, put boxes around formulas, etc. Customizing codes makes it easier to scan text later for specific kinds of information and gives students practice in developing and using categories. The question response cue system described in the next section of this handout is basically an extension of this type of strategy.

The coded passages are a record of student thought processes that can be used by the student and/or teacher to analyze performance and identify instructional needs. Using this and other strategies does take extra time, and that effort is only valid for purposes of instruction or evaluation when there is a compelling need for a student to understand and retain the material being coded.

Question Response Cues

In the September, 1990, issue of *The Journal of Reading*, Janice Evans Knight described a set of question response cues developed by Lyman (1987) to remind students and teachers "to ask each other a variety of questions on different types of thinking." The graphic cues were initially developed as a reminder for teachers that they needed to assess reading comprehension beyond the literal recall level. Lyman expanded his model to help students develop questioning skills, to promote higher level thinking, and to encourage the use of metacognitive strategies by using the cues as a framework for asking and answering comprehension questions. Knight added to Lyman's system a set of cues and procedures specifically for coding and assessing students' reading response journals. The cue codes are placed in the margins of the entries. Her *Journal of Reading* article includes detailed explanations of the codes and how she teaches the cues to her middle school students one at a time in minilessons, using teacher modeling and student practice with "real" reading purposes and materials. The article also includes several examples of coded journal entries. A list of the codes used by Knight and samples of coded entries are attached to this handout. (See Coley & Hoffman, April 1990, for information about using question response cues with at-risk sixth grade readers.)

References

Coley, J. D., & Hoffman, D. M. (April 1990). Overcoming learned helplessness in at-risk readers. *Journal of Reading*, 33 (7), 497-502.

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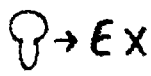
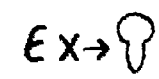
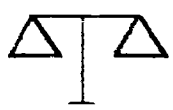
Question Response Cues

Codes Developed by Lyman to Cue Questions or Responses

CODE	DEFINITION	EXAMPLES
R	Recall *facts* *plot design* *sequence* *detail* *summary*	• Tell the sequence of events in *Ransom of Redchief.*
	Compare *analogy* *ratio* *similarity*	• How are the causes of the Revolution and the Civil War similar?
	Contrast *difference* *distinction* *discrimination* *differentiation*	• How is a rhombus different from a parallelogram? • How is a mammal different from a reptile?
	Cause<--->Effect *cause* *effect/result* *consequence* *inference* *prediction* *hypothesis*	• What are the effects of teasing? • What do you think causes a rainbow? • What would happen if the earth rotated only once a year?
	Idea to Example *analogy* *categorization* *deduction*	• From our list of stories, find some examples of friendship. • Is that a case of propaganda? Why?
	Example to Idea *classification* *induction* *conclusion* *generalization* *finding essence*	• What is the main theme of this story? • What are some character traits of Dorothy?
	Evaluation *value* *judgment* *rating*	• Was Ahab right to push on after the whale? Why?

Question Response Cues (cont.)

Procedural Codes for Journals Added by Knight

CODE	DEFINITION
CH	Choosing a book
AB	Abandoning a book
RR	Rereading a book

Process Strategy Codes for Journals Added by Knight

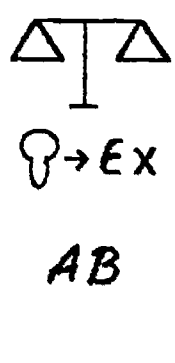
S	Summarizing
PK	Activating Prior Knowledge
P	Predicting
MV	Mentally Visualizing
<-- R	Reread a Passage for Clarification
R-->	Read Ahead for Clarification of Points
PE	Relating Personal Experiences
GO	Graphically Organizing Information
SQ	Self-Questioning
C	Consulting a Knowledgeable Source
Sk	Skimming
MP	Monitor Pace of Reading

Special Assistance Codes for Journals Added by Knight

0	Nothing (not passage specific, didn't really read the passage, didn't understand it, etc.)
?	Student Confusion
X	Wrong Information Recorded

Samples of Coded Journal Entries

A coded excerpt from Doug's reading response journal--



. . .

Agatha Christie is a good descriptive writer. But, she writes about old, "rich" people. I think maybe she hasn't seen the hard life. She probably grew up as a wealthy, goody-goody child. FRom the picture on her book she looks that way, with the big ring on her finger, the pearls around her neck and the fluffed collared neck on her dress. The book I started reading was about a wealthy 4 star navy commander taking a trip to the Caribbean!!! I just didn't like it and so I abandoned it.

A coded excerpt from Amy's reading response journal--

CH

In language class we are reading Romeo and Juliet. I enjoyed what we read in class so much that I decided to read some on my own last night. I got so involved in it that I ended up finishing it.

PK

Ever since I can remember I have known of the play, but I never had any idea what it was about except that it was a love story.

C

Some parts were very confusing, but whenever I came to a part that didn't make sense, I would refer back to the book Mrs. Myers gave us that has Romeo and Juliet translated into modern English. It was pretty helpful.

I really loved the play. Before I read it, I thought it would be just some boring romantic play that a crazy man wrote. Now that I've read it, it is a lot more. Shakespeare uses lots of symbolism and personification.

EX

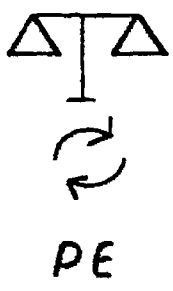
One example of personification is: 'Alas that love, whose view is muffled still, should without eyes see pathways to his will.' All Romeo is saying in this speech is that those who are in love do not see the faults of those they love-- love is blind.

EX

Romeo says to Juliet, 'Hush, I see light coming through that window up above. The light comes from the east and Juliet is the sun.' As an example of symbolism Romeo also says, 'The night is like a cloak and I hide in its darkness.'

Samples of Coded Journal Entries (cont.)

A coded excerpt from Dina's reading response journal--



Run, Shelley, Run is starting to get good. But I don't understand how her mother could be like that, so cold. She doesn't even want her own daughter any more. And then they put her in homes. She runs. They put her back. She runs. Then the cops arrest her for no reason. The shelters don't even treat her like a person. I get in a lot of trouble and sometimes I wonder if that could ever happen to me. It is kind of scary. I feel sorry for kids like that. But sometimes I think they could make things better if they tried.

Coded excerpts from two students' reading response journals--

O *I'm on page 368 of The Tommyknockers. So far it's been interesting. I was going to abandon it but it is becoming better.*

O *I have just finished reading The Black Caldron. I found it just as interesting as The High King. I'm looking forward to reading more books in the series.*

[An examination of the kinds of codes on several pages should give a good indication of typical levels of a student's response. The codes that are few or missing indicate areas which should be explored--possibly the student needs to be guided toward other ways of thinking about what is being read or the student may have difficulties with other levels of comprehension and need teacher intervention (instruction, guided practice, etc.). For example, the last two samples are typical of student entries when they begin writing response journals. The teacher might use the "evaluation" cue to prompt the first student to explain what made the story become more interesting. The "compare" cue might be used to prompt the second student to explain the ways the stories are alike, and the "contrast cue" might be used to prompt an explanation of how they are different.

By examining the codes in a number of response journals, the teacher may discover that he or she is asking students to respond in only a limited way and needs to make a more conscious effort to address the full range of comprehension levels.]

Source of the samples: Knight, J. E. (September 1990). Coding journal entries. *Journal of Reading*, 34 (1), 45-46.

Integrating Instruction and Assessment with the

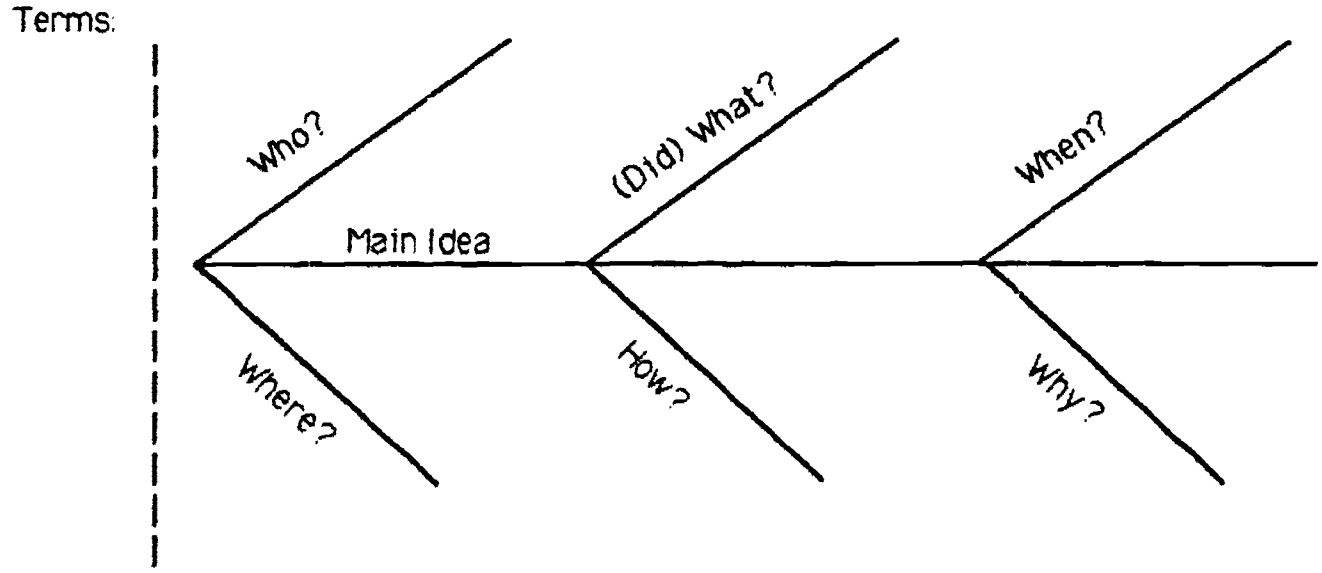
Herringbone Technique for Note-Taking

Successful readers possess the following three types of knowledge: strategic, content, and metacognitive (Johnston, 1983, p 14). *Strategic knowledge* is the repertoire of rules, procedures, and routines that make learning more efficient. *Content knowledge* is the background information or prior knowledge learners have about the subject and the world in general. *Metacognitive knowledge* is the information learners have concerning the state of their own knowledge and learning process. Note-taking strategies are tools students can use to organize content in a text (strategic knowledge) and monitor their learning (metacognitive knowledge). Note-taking strategies also yield a written record of student thought processes that can be used by a teacher in assessing reading comprehension and planning related instruction.

While note-taking strategies provide schemas which aid retention and recall, they require varying degrees of prior knowledge about expository text structures (cause/effect, comparison/contrast, chronological, problem/solution, etc.) and content to be effective. Teachers need to plan for instruction in these areas as well as explicit instruction, modeling, and guided practice in note-taking strategies. Note-taking can also be used very effectively in conjunction with text coding strategies such as underlining.

The Herringbone Technique

The Herringbone technique provides students with a structure for taking notes from a textbook chapter, for observing relationships, and for studying and remembering information (Tierney, Readence, & Dishner, 1980). It is comprised of six basic comprehension questions-- Who? What? When? Where? How? and Why? Students read a selection and record their answers to the questions in the framework shown below. Students record unfamiliar terms in the left-hand column.



H14

4th grade & up

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For many students, the quantity of information contained within a twenty-page content chapter can be overwhelming. By providing this structure, a content teacher can assist students in remembering the important information within the chapter. The written record provides the basis for future study of the recorded information and gives both student and teacher diagnostic information about the student's reading comprehension. That information can then be used in planning subsequent instruction.

The Herringbone technique can also be used very effectively in conjunction with a more inclusive study strategy such as SQ3R or the Cornell note-taking system. When the text material does not contain information organized in the Herringbone categories or it is not important for students to understand and retain information at this level, the technique would be inappropriate.

How It Works

The classroom teacher prepares for instruction by answering the following questions:

(1) What are the major concepts that I want my students to understand at the conclusion of this chapter?
(2) What are the important vocabulary terms that relate directly to these major concepts?
(3) How will my students learn this information?
(4) Which of the identified concepts do I expect my students to master?

Completing this preparation step gives the teacher a perspective as to what information will be important as the students are guided in the use of the Herringbone procedure.

Following appropriate prereading strategies to activate prior knowledge and address gaps in background knowledge, the classroom teacher models the note-taking technique by putting the Herringbone form on a transparency and displaying it on a screen for all students to see. As the whole class "walks through" the strategy, the teacher writes the information on the transparency as the students fill in their own copies of the form. This "walk-through" or modeling procedure may involve only the first couple of chapter subtopics or the teacher and students may complete the whole chapter together.

After the students understand the structure of the Herringbone form, they are ready to begin the reading and recording process themselves. The students are advised to read the information seeking answers to the questions as they are listed below (the questions appear in a shortened version on the Herringbone itself).

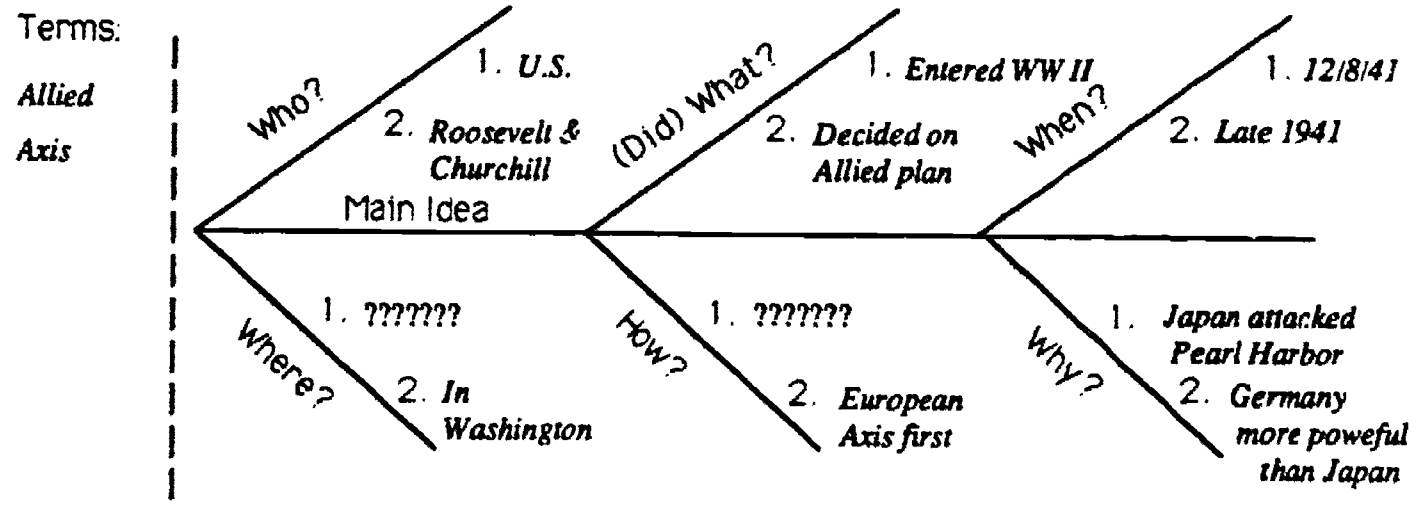
1. Who was involved? (Answer should yield the name of one or more persons or groups.)
2. What did this person or group do?
3. When was it (the event discovered in Question 2) done?
4. Where was it done?
5. How was it accomplished?
6. Why did it happen?

How It Works (cont.)

The questions may need to be slightly modified for different texts, content areas, and reading purposes. By working through the procedure and recording their answers, students should discover the important relationships among the pieces of information.

Examples

For a chapter on "The War against Germany" in a United States history text, students were advised to read the first main topic and record their answers to the six key questions (Tierney et al., 1980). The following Herringbone is an example of those produced for the first main topic, "The United States Enters the War":



Some subtopics will yield more than one important set of facts, as this example illustrates. Others may provide only one important piece of information.

Note also in the above example that two terms ("Allied" and "Axis") which might cause some problems with some students were noted on the left-hand column of the form. By instructing students to record unfamiliar terms, the teacher discovers those terms which, even though they may have been pretaught, are confusing to the students and thus need to be taught, retaught, emphasized, and/or reinforced.

Tierney et al. (1980) also describe ways the Herringbone strategy can be used to develop more advanced skills and to reinforce the use of multiple sources of information. In the chapter on "The War Against Germany," students recorded the following information on their forms:

Who?	Germany
What?	Invaded U.S.S.R.
When?	June, 1941
Where?	Leningrad, Moscow, Stalingrad
How?	----------
Why?	Thought could capture Russia

Examples (cont.)

As with this example, textbook authors often do not provide all the information necessary to answer all the questions. In some instances the particular bit of information may not be important; in other instances it may be very significant. The Herringbone form provides students and teachers alike with a visible display of information "gaps." It allows students and teachers to use analytic and evaluative skills to determine the importance of the missing information. If the missing information is deemed important, then students may be asked to infer the missing information and/or to pursue the answers through the formation of research teams and the examination of other resources.

Other answers provided by the text authors would be pursued in the same way. For example, the text authors' answer to the question, "Why did Germany invade the U.S.S.R.?" might be considered rather superficial. The authors simply state that Germany invaded the U.S.S.R. because Germany thought it could capture Russia. The classroom teacher might want to extend the search for understanding by asking, "But why did Germany think it could capture Russia?" or "What other reasons might Germany have had?" Predictions could be made by the students, followed by attempts to search out information in other sources to confirm or deny those predictions.

Finally, the Herringbone form contains the term "Main Idea" on its midline. After the students have completed the chapter and their outline, they are asked to make a statement that would represent the main idea of the chapter. Using the history book example, the teacher might ask, "What one statement can you make that would tell what the authors are saying about the war against Germany?" A comprehensive response might be, "The war was long and costly in terms of money and lives, but eventually resulted in the defeat of Germany by the Allied Forces." Teacher prompts or probing questions are needed to help students develop such a main idea statement until students have sufficient experience with summarizing, translating examples into main ideas, and generalizing.

References

Johnston, P. H. (1983). *Reading comprehension assessment: A cognitive basis*. Newark, DE: International Reading Association.

Tierney, R. J., Readence, J. E., & Dishner, E. K. (1980). *Reading strategies and practices*. Boston: Allyn and Bacon.

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Integrating Instruction and Assessment with the
Cornell Note-Taking System

Note-taking is an indispensible skill for secondary students. Researchers have established that when students take notes on reading assignments, they can retain and recall more information. However, some note-taking systems are more efficient and effective than others. Rather than copying text verbatim, it is better to use a strategy or combination of strategies that involve the following:

- relating prior knowledge to new content;
- using schema/graphic organizers (i.e., semantic maps) that fit the text structure, facilitate summarization, and depict relationships among ideas and concepts;
- developing questions for self-checking; etc.

Note-taking strategies that include the characteristics listed above are a means of developing better comprehension and metacognitive skills. They also yield a written record of the student's thought processes that can be used by the student and/or teacher to identify comprehension problems and plan appropriate instruction. In assessing student notes, two key questions are (1) "Have the essential concepts and supporting details been noted?" and (2) "Has the material been organized in a way that it can be easily reviewed and recalled?" Reviewing notes periodically with a student is a very important procedure since it does the student no good to be reviewing incomplete or inaccurate information. You may find students need further instruction in finding main ideas, summarizing, identifying text structures (i.e., cause/effect, problem/solution), etc. The review also gives the teacher a chance to ask the student to explain how he or she chose what was important and how both right and wrong answers were derived.

The Cornell Note-Taking System

The Cornell system of note-taking is a study skills strategy that can be taught and applied in all content areas. **Although designed to be used with a lecture, it can also be adapted for use with a textbook.** In the Cornell method students take notes on a portion of each page leaving the remaining space blank. They then read their notes (whether taken from a lecture or reading) looking for main ideas and supporting details which are subsequently recorded in the blank space and used for self-quizzing. The process requires students to become more actively involved with the material and to review key information several times; both practices increase retention rates. The self-checking step also develops metacognitive skills.

It is often effective to use underlining and text coding strategies in conjunction with the Cornell system as a step between note-taking and developing the margin cues. Other graphic organizers (i.e., semantic maps) and coding systems such as question-response cues (Knight, 1990) can also be very useful. Another variation of this note-taking strategy is the double entry/response journal strategy described by Coley and Hoffman in the April, 1990, issue of the *Journal of Reading*.

H15

secondary

Steps in the Cornell Note-Taking System*

1. Use one notebook with loose-leaf paper per class.

2. Be prepared for class. Read the assigned material (preferably using the SQ3R method or other study strategy for high retention) and process the material by taking notes. These notes not only serve as a record of the main concepts in the chapter, but also provide a frame of reference for material presented in the lecture.

3. Review notes taken from reading material immediately before the class begins. This refreshes the memory and helps to eliminate distractions (physical or mental).

4. When class starts, have pen and paper ready. Put other materials away, stop conversations, and focus your attention on the teacher.

5. Use only the front of your pages, leaving the backs for comments, ideas, reworking of notes, etc.

6. Draw a vertical line dividing each page so approximately 1/3 of the space is to the left of the line and the remaining 2/3s are to the right. On the right-hand side of each page, you will take the notes in class. The left-hand side of each page is left blank until all the notes are taken.

7. Take your notes in the large section of the page. Get as much of the lecture as you can. You need not try for a literary pattern or style; all you want to do is take enough notes so you will be able to remember and review what the teacher said days or weeks later. (Use abbreviations sparingly.)

   If you miss something, leave a line or box as a place holder that can be filled in later by consulting the text, the teacher, or a fellow student.

8. As soon after the lecture as possible, read your notes. Fill in any missing or incomplete information. Make "scribbles" more legible.

   Use underlining, graphics, and/or colored pencils to identify key information. Be consistent in your use of these codes, i.e., use a squiggly line only for definitions, so when you see the squiggle you know what kind of information is there. Avoid doodling.

9. Write the main points and cue words in the left-hand column. Whenever possible write them in the form of questions, so they can be used for self-quizzing.

10. Review by covering the large section of your notes and then, using your summary/questions, see if you can recite the notes which are covered up. Do this OUT LOUD for the best results.

    Uncover your notes and check your recall. Reread sections of the notes you cannot recall and repeat the process. Review as often as you need to, but do this first review within 24 hours for best retention.

11. During the week before an exam, go through the same process for each page of notes, tying them all together by your reviews.

12. Right before your exam, review all the material in all your left-hand columns as a final preparation. This is an excellent kind of last-minute cramming -- it gives you a lift right when you need it most, and it takes only a few minutes.

* These steps will need to be slightly modified for note-taking from a textbook rather than a lecture.

Sample Cornell Notes

	Some stories make us want to read them.
What is CONFLICT?	Conflict is a struggle between opposing forces. If conflict is not resolved, we feel frustrated and angry. When conflict is resolved, we feel good.
conflict≠ resolution= 2?	
conflict=resolution=?	
What is EXternal conflict?	External conflict is a struggle between the character and some outside force.
What is INternal conflict?	Internal conflict is within the character.
What is SUSPENSE?	Suspense is the anxious curiosity of wanting to know what happens next.
What is FORESHADOWING?	Hints and clues about what will happen are called foreshadowing.

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Integrating Instruction and Assessment with

Reciprocal Teaching

Reciprocal teaching is an instructional activity that can also be used to assess children's understanding of text. It takes place in the form of a dialogue between teachers and students regarding segments of text. The dialogue is structured by the use of four strategies: summarizing, question generating, clarifying, and predicting. The teacher and students take turns assuming the role of teacher in leading this dialogue.

Strategies

Summarizing provides the opportunity to identify and integrate the most important information in the text. Text can be summarized across sentences, across paragraphs, and across the passage as a whole. When students first begin the reciprocal teaching procedure, their efforts are generally focused at the sentence and paragraph levels. As they become more proficient, they are able to integrate at the paragraph and passage levels.

Question generating reinforces the summarizing strategy and carries the learner one more step along in the comprehension activity. When students generate questions, they first identify the kind of information that is significant enough to provide the substance for a question. They then pose this information in question form and self-test to ascertain that they can indeed answer their own questions. Question generating is a flexible strategy to the extent that students can be taught and encouraged to generate questions at many levels.

Clarifying is an activity that is particularly important when working with students who have a history of comprehension difficulty. These students may believe that the purpose of reading is saying the words correctly; they may not be particularly uncomfortable that the words, and in fact the passage, are not making sense. When the students are asked to clarify, their attention is called to the fact that there may be many reasons why text is difficult to understand (e.g., new vocabulary, unclear referent words, and unfamiliar and perhaps difficult concepts). They are taught to be alert to the effects of such impediments to comprehension and to take the necessary measures to restore meaning (e.g., reread, ask for help).

Predicting occurs when students hypothesize what the author will discuss next in the text. In order to do this successfully, students must activate the relevant background knowledge that they already possess regarding the topic. The students have a purpose for reading: to confirm or disprove their hypotheses. Furthermore, the opportunity has been created for the students to link the new knowledge they will encounter in the text with the knowledge they already possess. The predicting strategy also facilitates use of text structure as students learn that headings, subheadings, and questions embedded in the text are useful means of anticipating what might occur next.

In summary, each of these strategies was selected as a means of aiding students to construct meaning from text as well as a means of monitoring their reading to ensure that they are, in fact, understanding what was read.

How It Works

Reciprocal teaching should be introduced to students with some discussion regarding the many reasons why text may be difficult to understand, why it is important to have a strategic approach to reading and studying, and how the reciprocal teaching procedure will help the students understand and monitor their understanding as they read. Thus, students play an integral part in assessing the effectiveness of their own reading and comprehending strategies.

The students are then given an overall description of the procedure, emphasizing that it takes the form of a dialogue or discussion about the text and that everyone takes a turn assuming the role of teacher in this discussion. To illustrate, the person who is assuming the role of teacher will first ask a question that he or she thinks covers important information that has been read. The other members of the group answer that question and suggest other questions. The "teacher" then summarizes the information read, points out anything that may have been unclear, leads the group in clarifying, and, finally, predicts the upcoming content. Having students take on the role of "teacher" has been found to give them a new appreciation for the work a teacher does.

To ensure a minimal level of competency with the four strategies, the students receive practice with each of them. For example, the students summarize their favorite movie or television show. They then identify main idea information in brief and simple sentences and graduate to more complex paragraphs that initially contain redundant and trivial information. Each strategy receives one day of introduction.

Application

After the students have been introduced to each of the strategies, the dialogue begins. For the initial days of instruction, the adult teacher is principally responsible for initiating and sustaining the dialogue. This provides the opportunity for the teacher to provide further instruction and to model the use of the strategies in reading for meaning. The adult teacher may wish to call upon more capable students who will serve as additional models, but it is important that every student participate at some level. For some students, this participation may be such that they are noting one fact that they acquired in their reading. This is a beginning, and over time the teacher, through modeling and instruction, can guide these students toward a more complete summary.

As students acquire more practice with the dialogue, the teacher consciously tries to impart responsibility for the dialogue to the students while he or she becomes a coach, providing the students with evaluative information regarding the job they are doing and prompting more and higher levels of participation. Thus, in addition to providing the teacher with information regarding student's understanding of what was read, this procedure also passes along information to students regarding ways to assess their own understanding of what they read.

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Integrating Instruction and Assessment with the

ReQuest Procedure

Background Information

The ReQuest Procedure involving reciprocal questioning was developed by Anthony Manzo (1969) to guide students through a text and enable them to comprehend the rest of the passage successfully. The ReQuest Procedure is designed to improve the student's reading comprehension by providing an active learning situation for the development of questioning behaviors. The teacher encourages the student to ask questions about the text material and to set his/her own purposes for reading. The ReQuest Procedure was originally devised as a procedure involving an individual student and the teacher, but it can also be utilized with pairs, teams, and/or small groups.

The procedure can also be used by teachers for diagnostic and assessment purposes; by noting the kinds of questions a student asks for each kind of text structure, a teacher can determine whether the student is comprehending. Through teacher modeling of good questioning behavior, the student gains insight into how good readers ask themselves questions as they are reading. Students should practice the ReQuest procedure on both short and long reading passages to develop self-monitoring skills. Students should be encouraged to ask questions that will stimulate interpretive or applied levels of thinking, such as questions on the main idea of the passage. In addition, the procedure can be used to encourage the exchange of content information and ideas.

How It Works

The ReQuest Procedure consists of the following steps:

1. The teacher chooses a story or passage to be read by the student and the teacher; content area texts and prose materials work equally well. Both the student and the teacher need copies of the reading materials.

2. Both the student and the teacher silently read the selection. The selection can be read one sentence at a time or a paragraph at a time.

3. After they have both read the passage, the student asks as many questions as possible. The teacher answers the questions clearly and completely.

4. Then it is the teacher's turn to ask the questions about the same sentence or paragraph, and the student answers as fully as possible. By forming questions which call upon the student's grasp of text structures, the teacher models good questioning strategies.

5. When the student has finished answering, teacher and student read the next sentence or paragraph and proceed as before.

How It Works (cont.)

6. When the student has processed enough information to make predictions about the rest of the selection, the exchange of questions stops. The teacher then asks directed reading type questions: "What do you think the rest of the assignment is about?" "Why do you think so?" The student reads the rest of the assignment.

7. The teacher facilitates follow-up discussion of the material.

The ReQuest Procedure encourages students to frame their own questions about the reading materials, a strategy that has been shown to increase reading comprehension. By taking on the role of questioner, students tacitly discover information sources in the passage and, as a by-product, develop the useful habit of self-questioning. Teachers can assess growth in their students' ability to take on this more responsible questioning role. Direct observations have indicated that students learn how to do the ReQuest Procedure willingly and easily. (Helfeldt & Henk, 1990).

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Integrating Instruction and Assessment with

Story Retelling

Story retelling is basically having a student recall out loud the story (or text) he or she has just read or heard read. The retelling strategy can be used for both assessment and instruction. As a diagnostic tool, retelling can be used for assessing comprehension of text and stories as well as understanding of story structure. It can also be used for assessing language ability, although that application is not discussed in this handout. [See Morrow (1988, pp. 134-35, 145-47) for an overview of the procedure and a sample assessment.] When story retelling is used for assessment, it is very important that students are told beforehand that they will be retelling the story and to which story elements and/or comprehension processes they should attend, i.e., they should be told to be relating personal experiences and feelings to the reading if use of prior knowledge is being measured.

Retelling can also be used as an instructional strategy to improve comprehension, recall, and sense of story structure. Retelling is a form of verbal rehearsal, and, as such, it improves recall and comprehension and enables students to plan, organize, and apply processing abilities more effectively. A modified version of story retelling is a strategy called STaR, Story Telling and Retelling, (Karweit, 1989; Karweit & Coleman, 1991). STaR has been one of the keystone instructional strategies in Success for All, an effective Chapter 1 early intervention program (Madden, Slavin, Karweit, Dolan, & Wasik, 1991, p. 595).

According to Morrow (1988, p. 137), "Holistic in its approach, concept, and effect, retelling contrasts with the more traditional piecemeal approach of teacher posed questions that require students to respond with splinters of information recalled from text." Since retelling is less structured than teacher questions, students have to use advanced skills to determine what elements to include in their retelling and how to organize those elements. The teacher gains more insight about what a student on his or her own attends to; however, just because a student does not include an element or concept does not mean he or she missed it. For that reason, teachers often need to use prompts to elicit additional information. Several examples of prompts are included in the next section. Prompts are especially important at first because the retelling format has rarely been used in classrooms, and it is not something that comes easily. The retelling strategy requires modeling and guided practice. Props such as felt boards, graphs, and pictures that help cue the story events and elements are especially effective for young children. Post discussion improves a student's subsequent retellings.

The retelling strategy is time consuming. Once mastered, however, it is an excellent activitiy for cooperative learning groups. A more sophisticated version of retelling is used in teach-reteach strategies where a student who has been taught information in turn "teaches" it to another. Like peer tutoring, both the student who is teaching and student recipient of the teaching learn from the experience.

How It Works

Guidelines for eliciting and coaching a child's retelling are listed on the next page. Guidelines and samples of quantitative and qualitative assessments of story retelling follow.

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Prompts to Elicit Story Retelling

1. Tell the child that after reading (or hearing) the story, he or she will be asked to retell it as if to a friend who has never heard it before. If you are looking for particular elements of comprehension, you should tell the child to attend to those, i.e., when looking for sense of sequence, say the following:

   "Pay close attention to the order in which things happen in the story."

2. After the student reads or listens to the story being read, ask him or her to retell the story by saying the following:

   "A little while ago, you read [or heard] *the story* (name the story). *Would you retell the story as if you were telling it to a friend who has never heard it before?"*

3. Use the following prompts only when necessary:

   If the child has difficulty beginning the story retelling, suggest beginning with *"Once upon a time . . ."* or *"Once there was . . . ."*

   If the child stops retelling before the end of the story, encourage continuation by asking, *"What comes next?"* or *"Then what happened?"*

   If the child stops retelling and cannot continue with the prompts offered, ask a question about the story that is relevant at that point in the story at which the child has paused, i.e., *"What was Jenny's problem in the story?"*

4. When a child is unable to retell the story, or if his or her retelling lacks sequence and detail, prompt the retelling step by step. For example:

   "Once upon a time . . . ," or *"Once there was . . . ."*
   "Who was the story about?"
   "When did the story happen?" (day, night, summer, winter)
   "Where did the story happen?"
   "What was the main character's problem in the story?"
   "How did she try to solve her problems?" "What did she do first/next?"
   "How was the problem solved?"
   "How did the story end?"

[Adapted from: Morrow, L. M. (1985). Retelling stories: A strategy for improving young children's comprehension, concept of story structure, and oral language complexity. *Elementary School Journal*, 85 (5), 647-61.]

Using Retelling to Identify Story Structure

Retelling can both reveal and develop the student's sense of story structure. A schematic for story structure facilitates comprehension because it gives the student a basis for predicting story elements.

The four elements most generally included in a story structure schematic are setting, theme, plot events, and resolution. The following steps are used to develop the assessment (adapted from Morrow, 1988, pp. 132-33):

1. Parse the story into the following four units: *setting* (includes characters, time, & place)
   theme
   plot episodes
   resolution

2. Tell the student that he or she will be asked to retell the story, and he or she should attend to the setting, theme, main events and the order in which they occur.

3. Following reading, ask the student to retell the story. Note the number of idea units included (regardless of order).

4. Give credit for partial recall or getting the general gist of the unit.

5. Compare sequence of events recalled to the parsed text.

The assessment information is used to identify areas to develop through instruction and guided practice. In *Responses to Literature: Grades K-8* , there are a number of "engagement activities" designed to help students "think, focus on meaning, and consider the literary elements of a story" (Macon, Bewell, & Vogt, 1991, p. 1). The engagement activities are based on schemata such as: story frames, plot relationship charts, story maps, story summary tables, character maps, and story pyramids.

Sample of Story Structure Assessment

The schemata listed above for engagement activites can be used for diagnostic purposes. Another format to use to assess story structure recall from story retelling is included on the next page. See Morrow (1988, pp. 142-44) for an example of a parsed story, a verbatim transcript of a five-year-old's retelling of the story, and the assessment of that retelling using this form.

Sample Assessment of Story Structure Recall

Student _____ Age _____

Title of story _____ Date _____

Directions: Place a 1 next to each element if the student includes it in his/her retelling. Credit gist as well as obvious recall, counting *boy, girl,* or *dog,* for instance, under characters named, as well as *Nicholas, Mei Su,* or *Shags.* Credit plurals (i.e., *friends*) as two.

Sense of Story Structure	Subscores	Scores
Setting		
a. Begins story with an introduction		_____
b. Names main character		_____
c. Number of other characters named	_____	
Actual number of other characters	_____	
Score for other characters (# named/ actual #)		_____
d. Includes statement about time or place		_____
Theme		
Refers to main character's primary goal or problem to be solved		_____
Plot Episodes		
Number of episodes recalled	_____	
Number of episodes in story	_____	
Score for plot episodes (# recalled/ actual #)		_____
Resolution		
a. Names problem solution/goal		_____
b. Ends story		_____
Sequence		
Retells story in structural order: setting, theme, plot episodes, resolution. (Score 2 for complete match, 1 for partial)		_____

Highest score possible _____ Student's score _____

Quantitative Procedures for Assessing Retelling

In a quantitative assessment of story retelling to measure reading comprehension, the teacher parses the story (or text) into units. The retelling is parsed in the same units, and the two are compared (Morrow, 1988, pp.131-132). The procedure measures how well the student recalled what was read, i.e., facts, sequence, main ideas, and supporting detail. If the parsed units are assigned rating levels, a measure of the student's ability to distinguish between elements based on their importance can be obtained. Guidelines for developing and interpreting a quantitative assessment of story retelling are listed below:

1. Divide the passage to be read into units of your own choosing -- for instance, by phrases or clauses. Mark the end of each unit with a slash. Be consistent in your unit definitions and divisions from passage to passage.

2. On a sheet of paper, list your units in sequence, with empty lines to the left and to the right of each unit, forming three columns down the sheet.

3. Assign each unit a number from 1 to 3 and write the number in the blank to the left of each unit: 1 for an important unit like a main idea, 2 for a moderately important unit, and 3 for an unimportant detail.

4. Tell the student you will be asking him or her to retell the story after reading or listening to it. Make your purpose explicit, i.e., if you want to measure the student's recall of sequence, tell him or her to pay attention to the order of events.

5. Let the student read or listen to the story in its original format, then ask the student to retell it (use prompts ONLY if your purpose is instruction rather than assessment).

6. Record the student's retelling on tape.

7. Analyze the student's recorded retelling by numbering the units on the right hand side of your guidesheet in the sequence in which the student has recalled them. Leave a blank by those units the student did not recall. (If recall was prompted, indicate that with a "p" next to the sequence number, and include the number of prompted responses in your analysis.)

8. Compare the sequence in which the student has recalled the units with their sequence in the original story.

9. Tabulate the number of units the student recalled.

10. Note the assigned level of importance of each unit the student recalled.

11. To quantify the data, divide the number of recalled units at each level of importance by the total number of units at that level in the original story. The resulting three percentages indicate how closely the student's comprehension is biased toward the more important units.

Quantitative Procedures for Assessing Retelling (cont.)

An extension of the assessment would be to have the student explain what he or she thought were important story elements and why. This activity gives the teacher the opportunity to assess metacognitive skills, reasoning, inferencing, use of prior knowledge, etc., and it becomes the basis for subsequent instruction.

Sample of Quantitative Assessment

A sample of a quantitative assessment of story retelling is attached ("Sample of Quantitative Assessment of Recall"). Before examining the sample in detail, cover up the left-hand column with the unit ratings and rate the story units for yourself (using the rating definitions in step 3 of the guidelines). Compare your ratings to those in the sample. It is likely that there will be *some* variation. Despite some degree of subjectivity in rating the units, your responses that did not match the sample would have been counted "wrong" if they had been items in a traditional comprehension test, and you would have likely been judged a less competent reader than is the case. The story retelling procedure decreases the likelihood of drawing such erroneous conclusions because it allows you to examine both the assessment and the reader in context of the task.

Qualitative Procedures for Assessing Retelling

In a qualitative assessment of story retelling to measure reading comprehension, the teacher focuses on comprehension levels beyond literal recall, i.e., ability to generalize, use of prior knowledge, inferencing, use of schemata, etc. (Morrow, 1988, p. 132). The teacher uses a procedure similar to the holistic grading system developed by Cooper (1977) and Meyers (1980) to evaluate written compositions. The holistic system is now being used to evaluate the essay sections in several national and statewide testing programs, e.g., the GED (General Educational Development) Tests. The holistic assessment approach makes sense for programs stressing reading and writing to learn in real contexts rather than learning to read or write in programs stressing isolated subskills.

Sample of Qualitative Assessment

An example of a format for conducting qualitative assessments, "Qualitative Assessment: The Retelling Profile," is attached. The profile was developed by Irwin and Mitchell (1983) and is included in Lesley Mandel Morrow's chapter, "Retelling Stories as a Diagnostic Tool," in *Reexamining Reading Diagnosis: New Trends and Procedures* (Glazer, Searfoss, & Gentile, 1988, pp. 140-41).

Sample of Quantitative Assessment of Recall

Student: Billy, Grade 4

IMPORTANCE RATING FOR UNIT(1=most important)	PAUSAL UNIT	RECALL SEQUENCE
3	**1. The three were growing tired**	**1**
3	**2. from their long journey**	**2**
1	**3. and now they had to cross the river.**	**3**
2	4. It was wide and deep	
1	**5. so they would have to swim across.**	**4**
1	6. The younger dog plunged into the icy water	
3	7. barking for the others to follow him.	
3	8. The older dog jumped into the water.	
2	9. He was weak	
2	10. and suffering from pain,	
2	11. but somehow	
1	12. he managed to struggle to the opposite bank.	
3	**13. The poor cat was left alone.**	**5**
1	**14. He was so afraid**	**6**
2	15. that he ran up and down the bank	
2	16. wailing with fear.	
3	**17. The younger dog swam back and forth**	**7**
3	18. trying to help.	
1	19. Finally,	
1	20. the cat jumped in	
3	21. and began to swim near his friend.	
2	22. At that moment,	
2	23. something bad happened.	
2	**24. An old beaver dam from upstream broke.**	**8**
1	25. The water came rushing downstream	
2	26. hurling a large log toward the animals.	
2	**27. It struck the cat**	**9**
1	28. and swept him helplessly away	

ANALYSIS

Total number of units = 28
Number of units recalled = 9
Percentage recalled = 32%

1. important units (main idea) 3/9 = 33%
2. moderately important units 2/9 = 22%
3. unimportant details 4/9 = 44%

Student includes approximately as many unimportant details as important/moderately important units.

Sequence of recall is excellent (subjective judgment based on good sequence of recall in the retelling)

Qualitative Assessment: The Retelling Profile

Directions: Indicate with a checkmark the extent to which the reader's retelling includes or provides evidence of the following information.

	NONE	LOW DEGREE	MODERATE DEGREE	HIGH DEGREE
1. Retelling includes information directly stated in text.				
2. Retelling includes information inferred directly or indirectly from text.				
3. Retelling includes what is important to remember from the text.				
4. Retelling provides relevant content and concepts.				
5. Retelling indicates the reader's attempt to connect background knowledge to text information.				
6. Retelling indicates reader's attempt to make summary statement or generalizations based on text that can be applied to the real world.				
7. Retelling indicates highly individualistic and creative impressions of or reactions to the text.				
8. Retelling indicates the reader's affective involvement with the text.				
9. Retelling demonstrates appropriate use of language (vocabulary, sentence structure, language conventions).				
10. Retelling indicates the reader's ability to organize or compose the retelling.				
11. Retelling demonstrates the reader's sense of audience or purpose.				
12. Retelling indicates the reader's control of the mechanics of speaking or writing.				

Interpretation: Items 1-4 indicate the reader's comprehension of textual information; items 5-8 indicate metacognitive awareness, strategy use, and involvement with text; items 9-12 indicate facility with language and language development.

[P. A. Irwin & J. N. Mitchell's profile. From: Morrow, L. M. (1988). Retelling stories as a diagnostic tool. In S. M. Glazer, L. W. Searfoss, & L. M. Gentile (Eds.), *Reexamining reading diagnosis: New trends and procedures* (pp. 140-41). Newark, DE: International Reading Association.]

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Integrating Instruction and Assessment with

Expository Text Structures

Assessing students' use of expository text structures can provide valuable information concerning their ability to use text features to aid their comprehension of passages. Unlike familiar narrative passages, where the text has grown out of stories with structures based on an oral tradition, the complex expository passages detailing scientific and social science information can be difficult for students to understand.

The six most common expository patterns that students encounter in their texts include the following (Readence, Bean, & Baldwin, 1985):

1. *Cause/Effect.* This pattern links reasons with results. It is characterized by an interaction between at least two ideas or events, one taking an action and another resulting from that action. Social studies texts often use this pattern.

   Example. The heavy snowfall prevented the climbers from going to the top of the mountain.

2. *Comparison/Contrast.* This pattern discusses and illustrates apparent likenesses and differences between two or more things.

   Example. Surfing and snow skiing share similar maneuvers, but in surfing you have to paddle out to the waves and in skiing a lift takes you up the mountain.

3. *Time Order.* This pattern shows a sequential relationship between ideas or events considered in the presence of the passage of time.

   Example. During the fall semester, John did the research for his dissertation. In the spring he completed writing his dissertation and was interviewed for a position in Australia that will begin this summer.

4. *Simple Listing.* This pattern is characterized by a listing of items or ideas. The order of the items is not significant.

   Example. Margaret got everything she needed to paint the fence -- a dropcloth, brushes, thinner, paint, and her hat.

5. *Problem/Solution.* Similar to the cause/effect pattern, this pattern is exemplified by an interaction between at least two factors, one citing a problem and another providing a potential answer to that problem.

   Example. Failing to remember things is a problem that plagues most of us. Fortunately, a simple solution involves making a list of items that would otherwise slip from our memories.

6. *Argument*. This pattern unveils pro and con arguments concerning a topic, ultimately supporting some favored view.

   Example. Skateboards should be banned on college campuses. While they provide low cost transportation for students between classes, they are responsible for an increasing number of accidents.

Over ten years of research results have indicated that making students familiar with these six expository text structures enhances comprehension (Bean, 1988; McGee & Richgels, 1986; Richgels, McGee, Lomax, & Sheard, 1987). The research has shown that some text patterns make it easier for students to remember text information than others. For example, text presented in the pro and con pattern of an argument is remembered more easily than text that simply presents information in linear lists.

Expository texts often include signal words that students can use to identify which text structure is being used. For example:

- *Cause/effect* patterns often contain signal words like *because, since, therefore, consequently,* and *as a result.*
- *Comparison/contrast* patterns use signal words like *however, but, as well as, on the other hand,* and *similarly.*
- *Time order* patterns may use *not long after, now, after,* and *before.*
- *Simple listing* typically uses words like *to begin with, first, second, next,* and *finally.*

Research by Meyer, Brandt, and Bluth (1980) showed that ninth grade students who were taught to use these signal words to identify text structures were able to increase their recall of important information.

During the normal flow of instruction, teachers can observe students who are or are not using text structural cues to aid their comprehension. Three indicators are listed below that can be used to check if students are using an author's text structure to their advantage (Bean, 1988).

1. When students are retelling a story or discussing an expository selection, do they seem to use the author's organizational structure as their retelling or comments unfold?

2. When students are writing summaries or essays based on text reading, are there indications they are using text structure knowledge as a framework for developing their writing?

3. As you observe students taking notes, outlining, mapping or graphically depicting text ideas, is there a pattern that shows they are using text structure cues to learn the concepts in a text?

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Integrating Instruction and Assessment with

Multimedia Responses to Literature

In order to ensure that students will interact with the content of assigned reading material, many teachers have students give a book report after reading.

The enclosed list presents some alternative assignments that teachers can use instead of book reports. Teachers can use the multimedia creations children produce to analyze and assess the children's degree of understanding of the main ideas and details in the selections read. By allowing children to demonstrate their learning in a variety of ways, teachers can allow children to demonstrate their areas of strength or areas of special talent which may include drawing for some children, drama for others, or construction of materials for still others. By presenting children with some choices regarding how to best represent what they learned, teachers can also help children become more self reliant, independent learners. It also empowers students to take more responsibility for the way in which they demonstrate what they have learned.

Students can also be involved in the assessment of these creative demonstrations. Children can assess their own work as well as do critiques noting the strengths and also any confusing aspects in the work of their peers.

How Do I Report Thee? Let Me Count The Ways

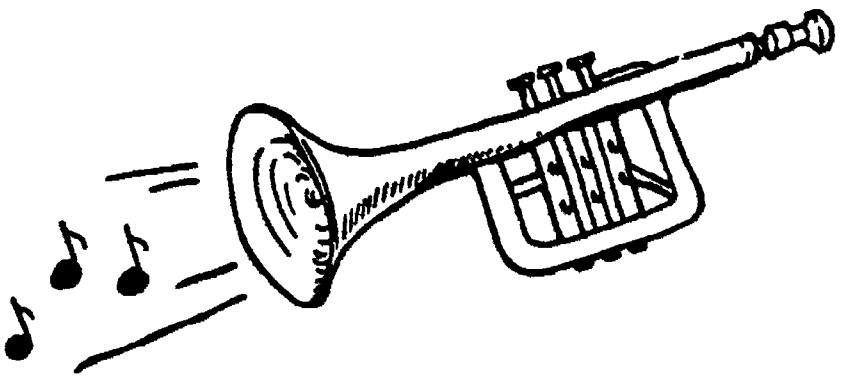
(Suggestions for innovative ways of giving a book report.)

Present an oral summary of the book

Read an exciting part aloud to the class

Hold a roundtable discussion of the book

Give a chalkboard/felt board talk



Listen to recordings related to the story

Interview an author

Write a summary of the book

Create a lost or found ad for a person in the story

Compare this book with another you have read

Write about a character in the story you especially liked

Prepare a glossary of words and their definitions from the book

investigate the life of the illustrator

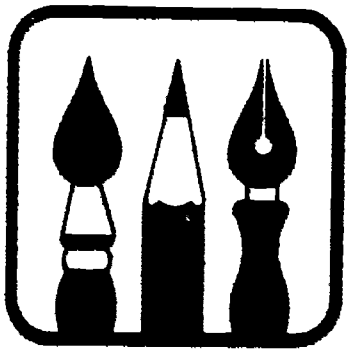
Write a 7-day journal a character in the story might have kept

List five questions you would ask the author in an interview

Write a newspaper article about the plot

List topics the author probably had to research to write the story

Administer a true/false quiz



Research the life of the author

Create a poem based on the story

Create a new ending

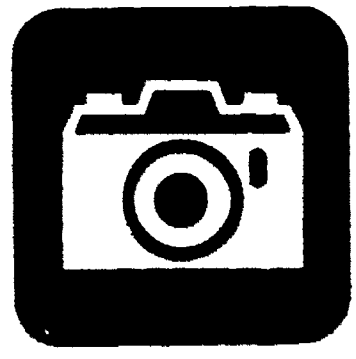
Add an epilogue

How Do I Report Thee? Let Me Count The Ways (Cont.)

(Suggestions for innovative ways of giving a book report.)

Prepare a dramatization of the story

Invent a product based on the story

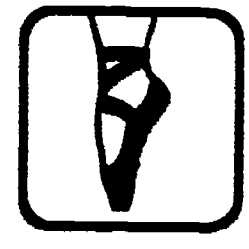


Create a board game based on the plot

Dress as one of the characters in the book

Design a video game based on the story

Pantomime an important scene



Demonstrate a scientific principle from the book

Create a crossword puzzle based on elements in the book

Do a mock TV news broadcast based on an event in the story

Gather a collection or objects described in the story

Design a diorama of the story using an unusual background

Paint a mural of parts of the story

Create puppets based on characters in the book

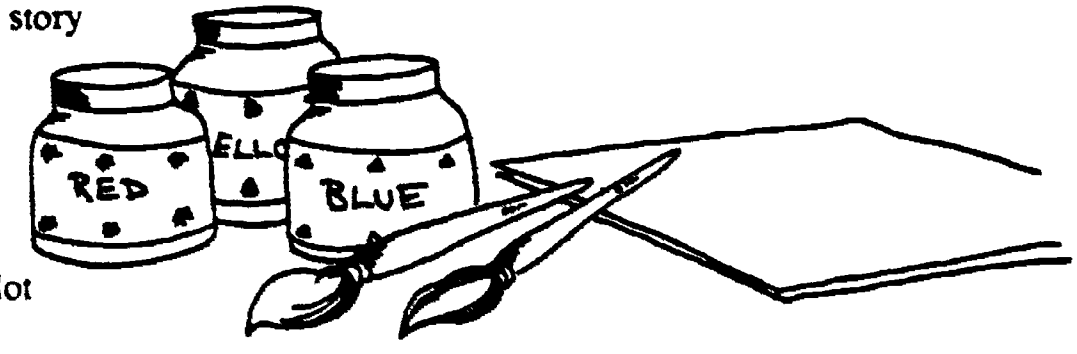
Design a book jacket with an inside review of the story

Build a scale model of an important object in the book

Draw a clock to indicate when an important event took place

Design a 3-D scene

Paint a watercolor scene based on the story



Paint a poster to advertise the book

Fingerpaint an exciting scene

Construct a mobile that reflects the plot

Draw comic strip frames of the story's plot

Create a collage about an important character

How Do I Report Thee? Let Me Count The Ways

(Suggestions for innovative ways of giving a book report.)

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How Do I Report Thee? Let Me Count The Ways (Cont.)
(Suggestions for innovative ways of giving a book report.)

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Create a board game based on the plot

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Integrating Instruction and Assessment with

Teacher (and Student) Questions

Questions can be used by students and teachers for both instructional and diagnostic purposes. Teacher questions are probably one of the most common ways teachers elicit diagnostic information about how much and how well students are understanding text. Following free recall, open-ended questions are often used by teachers to help students retrieve additional information. By modeling how to determine and construct questions based on text, teachers can also use questions instructionally to make the processes expert readers use when reading more explicit to their students. Strategies such as ReQuest, Question-Answer Relationships (QAR), Reciprocal Teaching, Think Alouds, SQ3R, etc. are based on the ability to ask as well as answer meaningful questions. To teach questioning skills to students, teachers usually begin with modeling followed by explicit instruction, guided practice, and coaching. We tell students what it is important to know by what we ask them to recall, so if we want to develop advanced as well as basic skills, it is important that we ask open-ended and higher order questions. Below are examples of the kinds of questions either teachers or students can ask to elicit a range of skill levels.

Sample Questions Which Help to Develop Comprehension

1. Memory-- recognizing or ***recalling*** information as given in the passage

   a. ***facts*** --

      Who did _____? How many_____?

      When did_____ ____? What is/are_____?

   b. ***definitions*** -- terms used, and perhaps explained, in the text

      What is meant by _____?

      What does _____ mean?

      What meaning did you understand for _____?

      Define _____ _____.

      Explain what we mean by _____ ?

1. Memory-- (cont.)

   c. ***generalizations*** -- recognizing common characteristic of a group of ideas or things

      What events led to _____ ?

      In what three ways do _____ resemble _____ ?

      How did _____ and _____ affect _____ ?

   d. ***values*** -- a judgement of quality

      What is said about _____? Do you agree?

      What kind of a person was _____ ?

      What did _____ do that you wouldn't?

2. ***Translations*** -- expressing ideas in different form or language

   Tell me in your own words how _____ ?

   What kind of a drawing could you make to illustrate _____ ?

   How could we restate _____ ?

   Could we make up a play to tell this story? How?

   What does the writer mean by the phrase _____ ?

   Write a story pretending you are _____ .

3. ***Interpretation*** -- trying to see relationships among facts, generalizations, values, etc. (there are several types of interpretation)

   a. ***Comparative*** -- ideas that are the same, different, related, or opposed

      How is _____ like _____ ?

      Is _____ the same as _____ ? Why not?

      Which three _____ are most alike in _____ ?

      Compare _____ with _____ in _____ .

3. ***Interpretation*** -- (cont.)

b. ***Implications*** -- arriving at an idea which depends upon evidence in the reading passage

What will _____ and _____ lead to?

What justification for _____ does the author give?

If _____ continues to _____, what is likely to happen?

What would happen if _____?

c. ***Inductive thinking*** -- applying a generalization to a group of observed facts

What facts in the story tend to support the idea that _____ ?

What is the author trying to tell you by _____ ?

What does the behavior of _____ tell you about him/her?

What events led to _____ ? Why?

d. ***Quantitative*** -- using a number of facts to reach a conclusion

How much has _____ increased?

What conclusions can you draw from the table (graph) on page _____ ?

How many times did _____ do _____ ? Then what happened?

How many causes of _____ can you list?

e. ***Cause and Effect*** -- recognizing the events leading to a happening

Why did (a character) _____ ?

How did (a character) make _____ happen?

What two things led up to _____ ?

When (a character) _____, what had to happen?

Why did _____ happen?

4. ***Application*** -- solving a problem that requires the use of generalizations, facts, values, and other appropriate types of thinking

   Are there street crossings that are dangerous on your way to school? What can we do to make them safer?

   If we want to raise hamsters in our classroom, what sort of plans will we have to make?

   John has been ill for several days. What could we do to help him during his illness? To show him we are thinking of him?

5. ***Analysis*** -- recognizing and applying rules of logic to the solution of a problem; analyzing an example of reasoning

   If someone told you, "All _____ are kind and friendly," what would you say? Can you think of someone who would disagree? What might that person say? Why?

   Yolanda was once bitten by a dog. Now Yolanda dislikes all dogs. Is she right or wrong in her feelings? Why?

6. ***Synthesis*** -- using original, creative thinking to solve a problem

   What other titles could you think of for the story?

   What other ending can you think of for the story?

   If (a character) had not _____(action), what might have happened?

   Pretend you are a manufacturer of _____ who wishes to produce a much better _____. Tell what you might do.

7. ***Evaluation*** -- making judgments based on clearly defined standards

   Did you enjoy the story of _____ ? For what reasons?

   What do you think of _____ in this story? Do you approve of his/her actions?

   In the textbook, the author tells us that _____felt _____ .

   Is this a fact or the author's opinion? How do you know?

   This story has a very happy ending. Should all stories end happily? Why or why not?

[Questions adapted from: Sanders, N. M. (1966). *Classroom questions: What kinds?* New York: Harper and Row.]

Integrating Instruction and Assessment with

Semantic Maps & Story Schema

Semantic maps are diagrams which help students see how words are related to each other. The procedure activates and builds on student's prior knowledge and generally involves brainstorming and discussion of how new information links to this prior knowledge. The maps can be used for vocabulary and comprehension development as a prereading or postreading activity. They can also be used as a means of monitoring or assessing student understanding of story elements, use of prior knowledge, metacognitive skills, etc.

Semantic mapping is not a new instructional strategy; for a number of years it was known as "semantic webbing," "plot mapping," or "semantic networking." Semantic webs are also often referred to as "spider maps" because they are formed with a central circle from which extend branches resembling the legs of a spider. There is an early reference to semantic mapping in a 1971 *Journal of Reading* article by M. B. Hanf entitled "Mapping; A Technique for Translating Reading Into Thinking." Dale Johnson and P. David Pearson described and discussed semantic mapping in their 1978 books *Teaching Reading Vocabulary* (updated in 1984) and *Teaching Reading Comprehension.* A number of research studies have validated the effectiveness of semantic mapping, contributing to the increased support of this as an effective instructional strategy.

In March of 1991, the International Reading Association (IRA) published *Responses to Literature: Grades K-8* (Macon, Bewell, & Vogt). This resource packet includes a number of "engagement activities" for before, during, and after reading that "utilize prior experience, integrate all the language processes, and assist students in learning and using useful strategies for active comprehension of text" (p. 2). The engagement activities are interactive lessons built around schema. A schematic is a diagram or structure (such as a semantic map). Samples of the following schema from *Responses to Literature* are included at the end of this handout: character map, story map, and story pyramid.

How It Works

While there are a number of variations to semantic mapping, the general steps involved are:

1. Write the chosen vocabulary word or story topic on the blackboard. Draw a box or circle around that word/term.

2. Encourage students to think of as many words or ideas as they can that relate to the selected word or topic.

3. Students may:

   - write their ideas on paper and then share those ideas in group discussion;
   - brainstorm ideas in a small group to share in large group discussion; or
   - orally share ideas together to generate a class semantic map.

How It Works (cont.)

4. Students' ideas are listed on the semantic map in categories which organize the words in a reasonable and related manner. These details or related words/ideas are written around the main word/topic.

5. Discussion of the semantic map is perhaps the most important part of the activity. Here students see how words/ideas are related, learn new words and find new meanings for words they already know. During discussion, the teacher will focus on the ideas most appropriate to the lesson being taught, add new related ideas to the map, and help students to identify those ideas which do not appropriately fit the map. It is important that students have the opportunity to discuss their reasons for their selections in order to develop their metacognitive skills, help the teacher identify individual needs, and discover viable rationales for otherwise apparently "wrong" selections.

6. Analyze information from the discussion and the map to help determine subsequent instructional needs for both individuals and the group as part of the ongoing integration of instruction and assessment.

Variations on the basic steps listed above include the following:

- With young children, substitute a picture for the central word. A Chapter 1 reading resource teacher in Maryland uses a picture variation, i.e., she has a picture of a wasp in the center of the map and, as children identify the parts of the wasp (wings, eyes, etc.), she writes the word, and each child draws a line from his or her word to the appropriate body part.

- Use post-its on butcher block paper. Once the central word has been chosen (by the teachers or students), each student can write individual related words on separate post-its. The individual post-its can be grouped and regrouped to show different kinds of relationships and to reinforce the idea that there may be more than one right answer/way of looking at something.

Using Semantic Maps Before Reading

The following activity integrates information from several sources to build students' background knowledge for a topic to be studied. The teacher prepares for this activity by choosing several materials which provide information on the topic. These materials could include posters, pictures, maps, trade books, filmstrips, various high-interest/low-vocabulary reading materials, and textbook or basal materials.

- The teacher writes the topic on the blackboard, draws a circle around the word, and tells students this topic will be studied. The teacher lists key vocabulary words on the blackboard, including a context phrase or sentence for each word.

Using Semantic Maps Before Reading (cont.)

- Each key word is written on the semantic map (by teacher or a student) as a category heading. Each word is discussed, and details students already know about these category headings are listed in *red chalk.*

  Students are asked to skim the basal textbook to find the key words in context. Uses/meanings of those words in the text are discussed, and those ideas are written on the semantic map in *white chalk.* (The different colored chalk indicates information from different sources.)

  Students review the other materials (e.g., posters, filmstrips, library books) to find additional information which fits or relates to the categories on the semantic map. These ideas are written on the map in *blue chalk.*

- Students read the textbook material, stopping at the end of each section to add information to the semantic map. This information is written in *white chalk* to indicate that the information came from the textbook. When the semantic map is completed, the teacher uses the map to help the students summarize or recap the information about the topic.

- The information from different sources is then compared and discussed using the color codes (red came from prior knowledge, white from the textbook, and blue from additional sources). Emphasis should be given to how the use of multiple sources increased knowledge, changed understanding, and/or created more questions.

Using Semantic Maps After Reading

This activity involves students making predictions about a story based on prior knowledge, reading, developing a concept map, and then rereading the story for any missing information.

- Students are told that they are going to read a story about "(topic)". The teacher provides or elicits enough context for the upcoming reading to help students make predictions about what they think will happen in the story. Key vocabulary words are introduced in context, and then students read the story silently.

- The title of the story is written in the center of the blackboard and a circle is drawn around it. On lines drawn from the circle, key concepts or themes from the story are written. For example, these concepts/themes might be how the characters look, important problems and episodes in the story, how the characters feel or react, and outcomes of the story. Students suggest ideas for each of these concepts/themes based on what they remember from reading the story. Their ideas are written on the map.

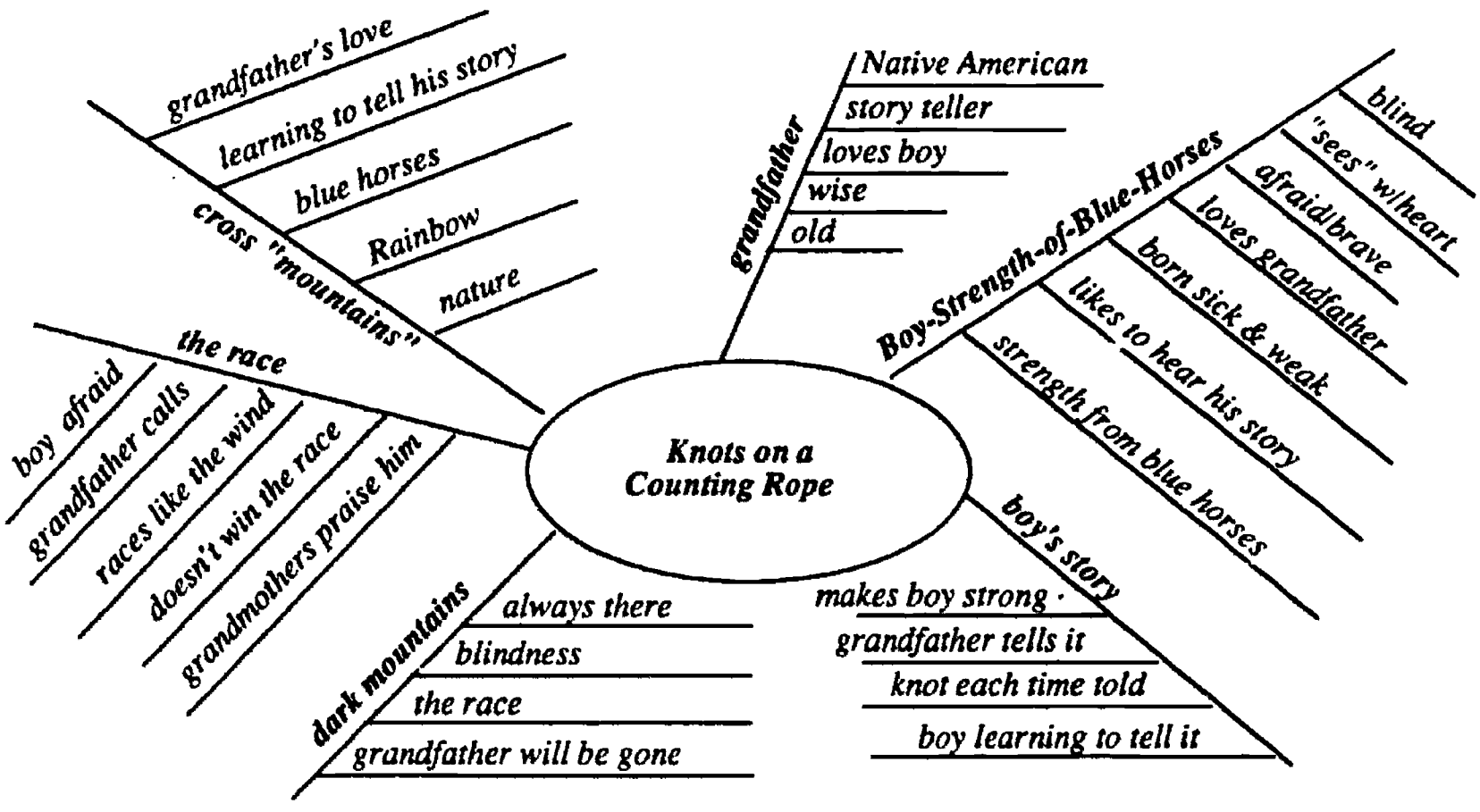
Using Semantic Maps After Reading (cont.)

- The teacher and students recap the story by reviewing the semantic map. Students then reread the story (orally or silently) to look for other important information that was not included on the map. As students find new information through this guided reading, it is added to the map. This step is a form of self-assessment and self-correction that is empowering as long as there is critical information missing from the initial version of the map. It is self-defeating to have students complete this step looking for unimportant details.

- Students use the completed map to guide retelling of the story. If appropriate, students might role-play or act out the story. The map can also be used to structure a writing activity in which students write about the story using the information on the map.

Sample Semantic Map

An example of a semantic map for Bill Martin Jr. and John Archambault's *Knots on a Counting Rope* (1987) is shown below. Although the elements and supporting details in the map can be used to cue retelling of this story, the categories are a blend of characters, events, and themes that do not appear strictly in chronological order. The logic of this kind of semantic map is sometimes apparent only to the student(s) who developed it. A good follow-up activity is to have the student(s) explain how the categories and details were selected and what they mean.



Sample Story Map

A story map is used to identify story elements in simple stories. It is laid out in a linear format and fits the chronological order in which story elements are introduced in most simple stories. This schematic is not suited for complex stories with several plot lines or atypical structures. It answers the question "What was the story about?" in a more straight forward manner than schema such as spider maps. The story map also works best to cue retelling if the purpose is to recount the basic story elements in a logical order. Although all the elements are there, this schematic does the least to capture the flavor of a story. However, for many students it is a helpful preliminary to further discussion and analysis. The sample story map below is based on *Knots on a Counting Rope* (Martin & Archambault, 1987).

The setting/main characters	*At a campfire, the grandfather tells the boy the story of the boy's life. Grandfather and Boy-Strength-of-Blue-Horses*
Problem in the story	*The boy was born blind, and the grandfather won't always be there to tell the story.*
Event 1	*The boy is born sick and weak, and everyone is afraid he will die.*
Event 2	*The blue horses appear and give the boy strength, so he's named Boy-Strength-of-Blue-Horses.*
Event 3	*A foal is born that the boy calls Rainbow. She becomes his eyes, taking him to the sheep and home again.*
Event 4	*The boy rides Rainbow like the wind in a race though he's afraid at first. He doesn't win, but he is successful.*
Event 5	*Grandfather ties a knot on his counting rope when he finishes the story and tells the boy he will be able to tell his own story when the rope is full of knots.*
Resolution of the problem	*Boy learns to "cross dark mountains" and "see" through feeling, remembering, and hearing. When his grandfather is gone, he will be able to tell his own story.*
Story theme (What is the story *really* about?)	*Although dark mountains are always there and make you afraid, you can learn to cross them. It's important to know who you are and have faith in yourself. At first, that faith needs encouragement from others in order to grow.*

Story Map Frame

The setting/main characters

Problem in the story

Event 1

Event 2

Event 3

Event 4

Event 5

Resolution of the problem

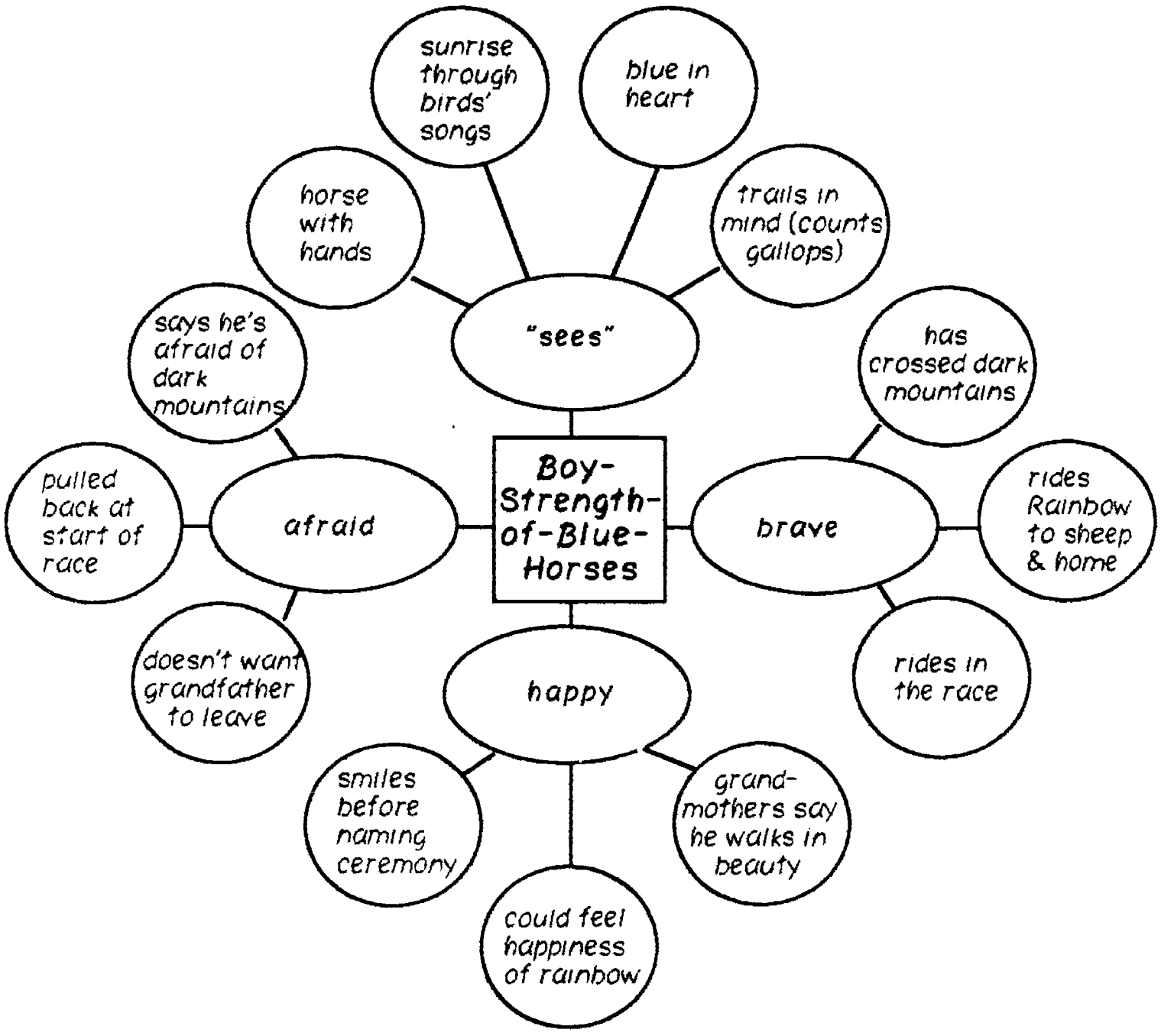
Story theme (What is the story *really* about?)

[Adapted from: Macon, J. M., Bewell, D., & Vogt, M. (1991). *Responses to literature· Grades K-8* (pp. 9-10). Newark, DE: International Reading Asociation.]

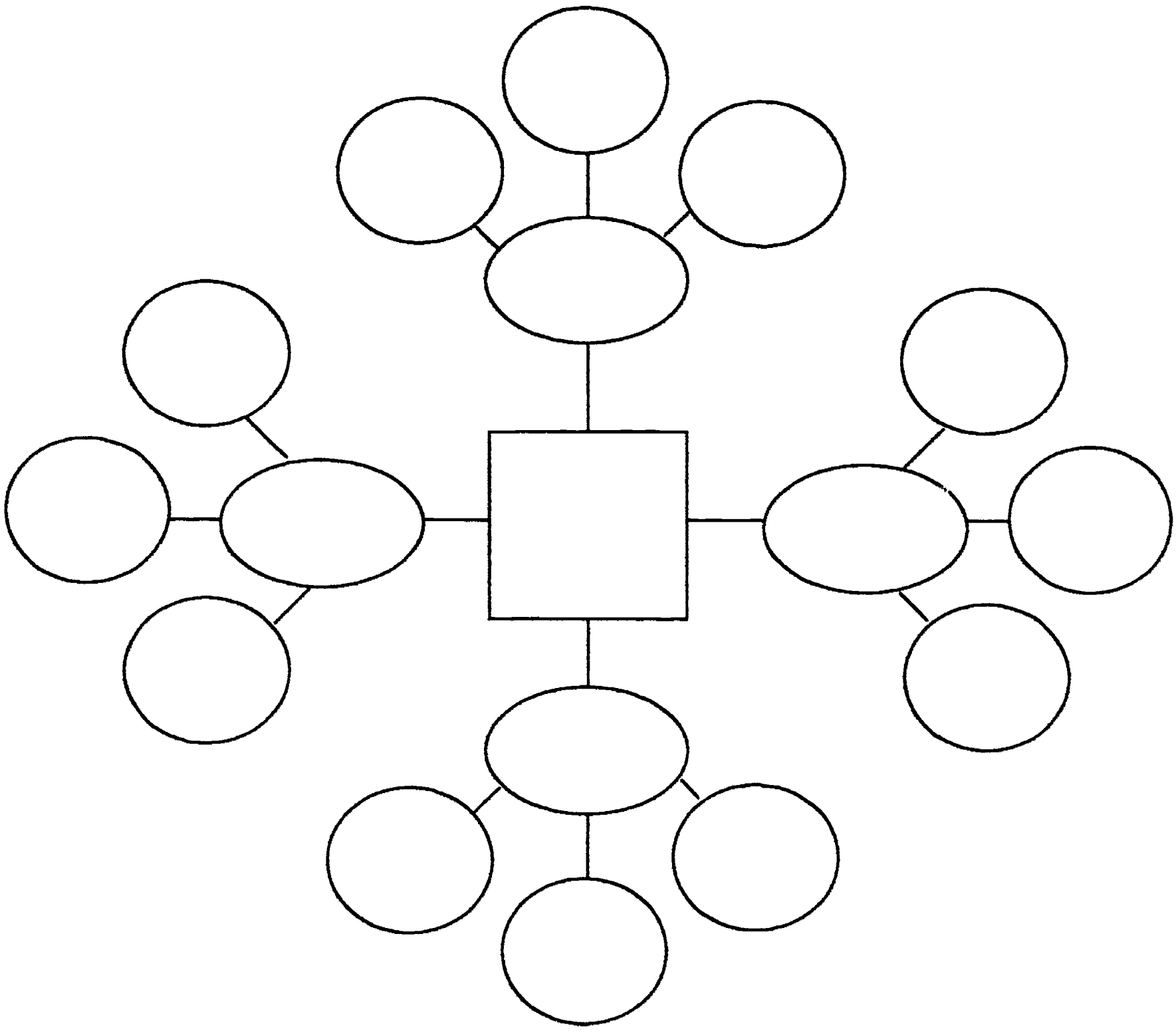
Sample Character Map

Character maps are schema that are best completed after reading a story. Students write the name of a character or paste his or her picture in the box in the center of the page. Around the central box, and connected to it, they draw ovals in which they place character traits. In circles connected to the respective trait ovals, they write action from the story that support those traits. Students can complete character charts independently or in cooperative learning groups.

In order to complete a character map, students have to infer character traits which are often not explicitly stated in the story. Rereading parts of the story is often necessary. Sometimes students need to list actions of the character as a preliminary step and/or list a number of character traits before they can see which traits match which actions. On the map below, two opposite traits are listed on opposing arms of the horizontal axis. This kind of schematic is particularly appropriate for showing that a complex character can have seemingly opposite characteristics. Like a QAD (Question-Answer Detail) chart, the schematic requires students to find supporting detail for their conclusions. Character charts can be completed for more than one character, but when the purpose is to compare and contrast characters, a Venn Diagram (Macon et al., 1991, pp. 21-22) is more appropriate. The character map below is based on *Knots on a Counting Rope* (Martin & Archambault, 1987).



Character Map Frame



[Adapted from: Macon, J. M., Bewell, D., & Vogt, M. (1991). *Responses to literature: Grades K-8* (pp. 9-10). Newark, DE: International Reading Asociation.]

Sample Story Pyramid

Pyramids are particularly popular with upper elementary and middle school students; they can be used as a teacher directed group activity with younger children. The story pyramid schematic below is based on *Knots on a Counting Rope* (Martin & Archambault, 1987). The pyramid structure forces students to really consider their word selections carefully. Obviously, students will come up with different choices. Clarification of individual "shorthand" and discussion of the range of choices and rationales provide enriching extensions to the activity. For example, the words chosen to describe the main character on line two of the pyramid below seem to be contradictory. On line three, "southwest" has been inferred primarily from the illustrations in the book. "Blue" on line three does not appear to be a very good choice until you are reminded that the grandfather helps the boy understand he can feel and hear nature around him in order to define blue.

1. Boy-Strength-of-Blue-Horses
2. blind "sees"
3. campfire southwest blue
4. must cross dark mountains
5. boy born weak / horses strength
6. Rainbow takes boy to sheep / home
7. Boy rides Rainbow like wind in race
8. Boy sees with heart and learns his story

1. Name of main character
2. Two words describing main character
3. Three words describing setting
4. Four words stating problem
5. Five words describing one event
6. Six words describing second event
7. Seven words describing third event
8. Eight words stating solution

DJ

Student

Knots on a Counting Rope

Name of Book

Bill Martin Jr. & John Archambault

Author

Story Pyramid Frame

1. _____

2. _____ _____

3. _____ _____ _____

4. _____ _____ _____ _____

5. _____ _____ _____ _____ _____

6. _____ _____ _____ _____ _____ _____

7. _____ _____ _____ _____ _____ _____ _____

8. _____ _____ _____ _____ _____ _____ _____ _____

1. Name of main character
2. Two words describing main character
3. Three words describing setting
4. Four words stating problem
5. Five words describing one event
6. Six words describing second event
7. Seven words describing third event
8. Eight words stating solution

_____

Student

_____

Name of Book

_____

Author

[Adapted from: Macon, J. M., Bewell, D., & Vogt, M. (1991). *Responses to literature: Grades K-8* (pp. 23-24). Newark, DE: International Reading Asociation.]

Recommendations

Graphic outlines/semantic maps/schemata are tools to organize information in order to better see patterns and relationships among words, concepts, story elements, etc. They come in a variety of forms, some of which have already been noted. Not every form fits every kind of reading or type of information. Unless the form fits the structure of the information, its use hinders rather than enhances understanding. As noted in *Strategic Teaching and Learning: Cognitive Instruction in the Content Areas*, "... a spider map is most appropriate to describe one thing, such as an object with its attributes and features, a theme with supporting information, a concept with critical features and examples, or a problem with various solutions or consequences... this structure is less useful when describing a sequence of events or a concept hierarchy" (Jones, Palincsar, Ogle, & Carr, 1987, p. 38).

Aside from the question of choosing the appropriate form, teachers need to realize that using graphic outlines generally "does not come easy" for students. It is often difficult for them to identify the organizational structure in reading material or develop a structure where one is not apparent. Graphic outlines are most effective when their use is taught within the context of material for which a structural framework aids comprehension and when instruction includes the following (Jones et al., pp. 39-40):

1. key structural elements such as the relevant categories of information, question, or concepts;
2. the appropriate graphic structure(s);
3. where relevant, appropriate rules/procedures for summarization;
4. explicit instruction in how to apply the frames, graphics, and summarizing procedures to a variety of learning situations;
5. opportunities for the class to work as a whole or in small groups with an emphasis on brainstorming and cooperative learning;
6. opportunities for discrimination and transfer; and
7. concerted effort to link the new information to prior knowledge.

Pick a story and work through these semantic maps and story schema yourself. You will see that use of these graphic frames forces you to grapple with the story and come to a deeper understanding of it. You will also gain a better understanding of the hard work involved in applying these frames and recognize the importance of choosing stories that are worth the effort. The completed frames are also "artifacts" that provide a record not only of what books students have read, but of how deeply they understood those books.

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Integrating Instruction and Assessment with

Question-Answer Relationships

Unlike good readers, at-risk readers tend not to anticipate teacher questions and also don't seem to understand how questions are related to the information found in the text (Helfeldt & Henk, 1990).

Question-Answer Relationships (QAR) draw students' attention to the need to consider not only text-based, but also reader-based information when answering certain types of questions.

QAR instruction begins by having pupils classify comprehension questions according to how they can be answered. Through teacher modeling and guided practice, teachers show that the type of question determines what kinds of thought processes and strategies must be used to answer it. Students learn the various types of information available to them both in the text and in their background experience and they learn when and how to use them.

How It Works

The QAR strategy helps students clarify the different sources of information available to answer questions. It can be used as part of the ReQuest Procedure (see Handout H17) and/or in conjunction with the Question-Answer Detail (QAD) Chart (see Handout H24). The teacher helps the students decide if the questions they asked can be answered from information IN-THE-BOOK or IN-MY-HEAD (Raphael, 1982, 1985).

The IN-THE-BOOK category includes:

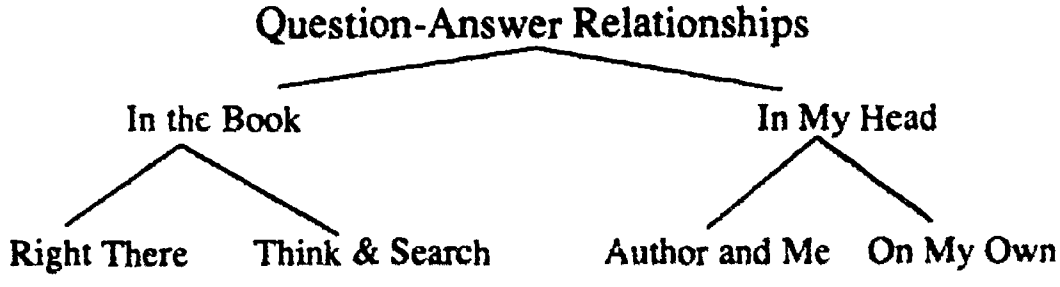
1. answers that are stated in the text (RIGHT THERE) or

2. answers that require the reader to put together material from the text spread across several different sentences and draw a conclusion. (THINK AND SEARCH).

The IN-MY-HEAD category includes answers that require:

1. students to think about what they already know and how that information fits in with the information the author provides in the text (AUTHOR AND ME) or

2. questions that can be answered without reading the text, directly from prior knowledge (ON MY OWN).



How It Works (cont.)

Some variations on the QAR procedure include:

- The student reads a passage and develops a series of questions about the passage. After learning to construct higher-level questions, the student will formulate questions based on specific guidelines.

- The student reads a passage. The teacher constructs questions from the passage based on the four types of question-answer relationships. As the student answers these questions, the teacher assesses how well the student handles different types of questions.

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Integrating Instruction and Assessment with

Question-Answer Detail Charts

Getting meaning from text is a complex process that involves the interaction of reader, context, and text. Too often, students treat the text as if it were a series of isolated facts of equal importance, all of which have to be learned. This viewpoint makes understanding and remembering what has been read an almost impossible task. The Question-Answer Detail (QAD) Chart is a schematic which can be used to help students (1) understand the relationship between main ideas and supporting details in text and (2) organize the information in order to improve retention and recall. The QAD chart has three columns. Questions based on the text are placed in the first column; answers and supporting details are placed in columns two and three. The questions are developed by the students and may be based on prior knowledge, background information, skimming the text, or some other process. However, this schematic is designed to help students understand and organize the information *that is in the text*, so the answers and supporting details *must* come from the text itself.

A Question-Answer Detail Chart can be used for both instructional and assessment purposes. In assessing student responses, the teacher checks that:

- answers and details demonstrate adequate *comprehension* of the reading passage,
- answers and details demonstrate adequate *retention* of the information in the passage,
- answers are based on *passage information* rather than the reader's prior knowledge, and
- details/reasons adequately support the answer given and show an understanding of the *relationships* (1) between main ideas and supporting details and (2) among supporting details.

Based on his or her analysis, the teacher plans subsequent instruction, i. e., students might need help developing appropriate questions, using mnemonic aids or other strategies to help them retain and recall information, etc. QAD charts can also be used by students for self-evaluation. Students can use the QAD charts for self-checks and self-quizzes. The answer-with-supporting- detail pattern is often used in teacher-made and standardized tests. Many students lose points on essay exams for failing to provide sufficient supporting detail. The QAD chart schematic can be used to help students plan and write better essays.

How It Works

The basic steps:

1. Students divide their papers into three columns. They put "Question" at the top of the first column, "Answer" at the top of the second column, and "Detail" at the top of the third column.

How It Works (cont.)

2. Students write questions about important points in the story or text in the first column-- questions are based on prior knowledge, background information, skimming, etc.
3. Students read the selection and write the answers and supporting details for each question *without referring back to the story/text.*
4. If necessary, probing questions, prompts, or rereadings are used to fill in gaps.
5. Subsequent instruction is planned based on student and/or teacher analysis of student responses.

Variations on the basic steps:

- teacher models whole process
- teacher and class work through the whole process together
- teacher develops questions for students
- students develop questions for each other

A key to the effectiveness of this strategy is that the questions are not trivial. For that reason, teachers need to provide initial modeling, guided practice, and coaching. At first, the teacher may need to use probing questions to help students recall more details or teach them a repertoire of prompts they can ask themselves if they get stumped (i.e., "Why did that happen?" "What does that mean?" "What is an example?"). After students have recalled all they can, they may need to recheck passages in the text to fill in any remaining gaps or to verify their responses. Students *should not* fill in the chart as they read, since that would make it harder to comprehend the selection as a whole.

Sample QAD Chart

QUESTION	ANSWER	DETAIL
1. Who fought in the Civil War?	The North against the South	north=Confederacy, Pres. Jefferson Davis south= Union, Pres. Abraham Lincoln
2. Who commanded Southern troops?	General Robert E. Lee	graduated West Point asked to lead the North home across river from Washington, D.C.
3. Who commanded Northern troops?	Several generals, U. S. Grant last & most successful	forced Lee's surrender at Appomattox became President

Adapted from: Cagney, M. A. (1988). Measuring comprehension: Alternative diagnostic approaches. In S. M. Glazer, L. W. Searfoss, & L. M. Gentile (Eds.), *Reexamining reading diagnosis: New trends and procedures* (p. 90). Newark, DE: International Reading Association.

CHAPTER 1 READING PROGRAM ASSESSMENT-- Two Steps

To improve your reading program, it is helpful to review your present program in light of current research. In order to complete such a review, guidelines for a two-step process are provided in this handout. It is important to complete the first step either independently or in small discussion groups before proceeding to the second step.

STEP ONE: What Should We Be Doing?

In the left-hand column of the chart below, statements derived from research are listed. These statements represent specific findings from a variety of research studies which explored the process of reading, reading instruction, and reading habits. As with all research, these findings suggest implications for classroom instruction and student evaluation. Read each statement. Then think about or discuss possible implications of the statement. In other words, think about or discuss what the statement suggests for reading instruction and evaluation.

Reading Process

What does the research say?	What does this suggest . . . for instruction?	for student evaluation?
1. Setting a purpose for reading aids comprehension.		
2. Prior knowledge is a critical determining factor in reading comprehension.		
3. Good readers use a variety of strategies to attain meaning and adjust their strategies to the demands of the text.		

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Reading Process (cont.)

What does the research say?	What does this suggest . . . for instruction?	for student evaluation?
4. Knowledge of text structure aids reading comprehension.		
5. Efficient readers continuously monitor their understanding of text and use "repair" strategies when comprehension breaks down.		
6. Good readers define a good reader as one who reads for understanding; poor readers define a good reader as one who reads well orally.		
7. Using predicting strategies is an integral part of the reading process.		
8. Comprehension is interrupted if a reader continuously stops to sound out unknown words.		

Reading Instruction

9. The 1985 National Assessment of Educational Progress reported that while nearly all students have basic reading skills, many lack higher level reading skills.		

Reading Instruction (cont.)

What does the research say?	What does this suggest . . . for instruction?	for student evaluation?
10. Poor readers receive instruction that is qualitatively different-- lower quality reading materials, more worksheets, few whole texts.		
11. Poor readers are allowed too little time for silent reading. The emphasis on oral reading results in less reading.		
12. Teaching reading as a set of discrete skills isolated from each other and from the reading process impedes comprehension.		
13. Teaching vocabulary contextually is a key component of effective reading instruction.		
14. Modeling is an effective teaching strategy.		
15. There is a direct correlation between reading achievement and self-concept.		

Reading Process (cont.)

What does the research say?	What does this suggest . . . for instruction?	for student evaluation?
16. Interruptions of good readers relate to meaning, while those of poor readers relate to decoding skills.		
17. Good readers are interrupted one out of five errors while poor readers are interrupted four out of five errors.		
18. Interactive comprehension instruction aids learning.		

Reading Habits

19. People in our society read a greater variety of texts than ever before.		
20. There are much greater vocational and cultural demands for people in our society to be able to read critically and evaluatively.		

Go On To Step Two

CHAPTER 1 READING PROGRAM ASSESSMENT -- Two Steps

STEP TWO: What Are We Doing?

In step one, you reflected upon current research findings in reading and their implications for instruction and evaluation. In step two, you will describe the status of your Chapter 1 reading project by scoring each statement on the scale of "1" (not at all like our program) to "5" (very much like our program.) If you have no knowledge of an item, put an X through the item number at the left. After completing the rating, circle the number in front of the five items you feel should receive special attention in improving the program for Chapter 1 students.

PROGRAM GOALS/DESIRED OUTCOMES		
1.	Carefully stated goals/desired outcomes have been developed for the Chapter 1 reading program.	1 2 3 4 5
CURRICULUM		
2.	Chapter 1 uses the district/classroom curriculum as a guide to providing reading instruction.	1 2 3 4 5
3.	Chapter 1 and regular classroom staff have worked together to design a reading curriculum that is based on current research.	1 2 3 4 5
4.	The main goal of the reading curriculum is to teach reading comprehension and to teach word recognition skills within that context.	1 2 3 4 5
5.	A variety of reading materials and real-life purposes for reading are included in the reading curriculum.	1 2 3 4 5
6.	Interpretive and critical reading strategies are a regular part of the curriculum in Chapter 1.	1 2 3 4 5

INSTRUCTION

7.	Teachers teach that the goals of reading are to think and understand.	1	2	3	4	5
8.	Teachers teach students how to adjust their reading strategies when reading different types of materials.	1	2	3	4	5
9.	Teachers guide students to read for meaning rather than for word-by-word accuracy.	1	2	3	4	5
10.	Teachers guide students to establish their own purposes for reading, so they know why they are reading and what information they seek.	1	2	3	4	5
11.	Teachers guide students to access their prior knowledge before, during, and after reading.	1	2	3	4	5
12.	Teachers provide students with additional information before reading when prior knowledge is insufficient for comprehension.	1	2	3	4	5
13.	Teachers teach a variety of strategies to construct meaning from text -- skimming, predicting, drawing inferences, using graphic clues, re-reading, paraphrasing, reading ahead to use the context.	1	2	3	4	5
14.	Teachers teach students to use text structure to make sense of written material.	1	2	3	4	5
15.	Teachers guide students to monitor their own comprehension as they read.	1	2	3	4	5
16.	Teachers provide many opportunities for students to read quality books, poems, stories, plays . . . in their entirety.	1	2	3	4	5
17.	Teachers interact with student often about their reading and encourage students to interact with each other.	1	2	3	4	5
18.	Teachers regularly give students the opportunity to read silently before asking them to read orally.	1	2	3	4	5

INSTRUCTION (cont.)

19.	Oral reading is performed for a purpose that is meaningful to the student.	1	2	3	4	5
20.	Teachers identify skill needs by the text, the purpose of the activity, and the student's abilities.	1	2	3	4	5
21.	Teachers conduct skill instruction in the context of meaning.	1	2	3	4	5
22.	Teachers provide instruction that requires integration of reading/thinking skills.	1	2	3	4	5
23.	Teachers provide instruction in vocabulary development that includes: pre-reading activities relating prior knowledge to material; during-reading strategies such as developing work concepts using context clues; post-reading activities such as discussion and writing.	1	2	3	4	5
24.	Teachers provide instruction in a variety of word recognition strategies including context, phonics, predicting, using graphic clues.	1	2	3	4	5
25.	Teachers model and discuss reading strategies with the goal of helping students become self-sufficient readers.	1	2	3	4	5
26.	Teachers convey the value of reading through their own reading habits, by reading aloud to students, and by providing real-life situations for which reading is the solution.	1	2	3	4	5
27.	Teachers engage students in appropriate reading activities for their interest and skills to make sure they experience success.	1	2	3	4	5
28.	Teachers interrupt students for corrections related to contextual understanding rather than for discrete decoding skills.	1	2	3	4	5
29.	Teachers provide adequate time for students to process the meaning of text, to self-correct, and to answer questions.	1	2	3	4	5

INSTRUCTION (cont.)

30.	Teachers use specific approaches designed to encourage active and more in-depth involvement with reading material. Examples of such approaches are: Re-Quest, Reciprocal Teaching, Think-Along, and KWL.	1	2	3	4	5

INSTRUCTIONAL MANAGEMENT

31.	There is sufficient time allocated for Chapter 1 supplemental instruction to meet the goals of the program.	1	2	3	4	5
32.	A variety of trade books and other reading material is available for instruction. Support materials are also available.	1	2	3	4	5
33.	Adequate time and resources are available for Chapter 1 teachers to coordinate instruction with regular classroom teachers.	1	2	3	4	5
34.	Chapter 1 instruction supports the regular classroom by including reinforcement of classroom lessons and and readiness for classroom instruction.	1	2	3	4	5
35.	Chapter 1 instructional staff knows what is being taught in the regular classroom on a day-to-day basis.	1	2	3	4	5
36.	Classroom teachers know the approach and materials that Chapter 1 is using with their students.	1	2	3	4	5
37.	A variety of management strategies such as Cooperative Learning, Peer Tutoring, and Repeated Reading or other means of promoting active learning is a regular part of instruction.	1	2	3	4	5
38.	Independent seatwork practice on classroom or other worksheet activities makes up a small part of Chapter 1 class time.	1	2	3	4	5

STAFF TRAINING/EXPERTISE

39.	Chapter 1 and regular staff jointly participate in in-service training to improve their reading instructional skills and to maintain current knowledge of applicable research.	1	2	3	4	5
40.	Professional journals such as *The Reading Teacher* or the *Journal of Reading* are available and used to improve instruction.	1	2	3	4	5

PARENTAL INVOLVEMENT

41.	There is a systematic effort to train parents and encourage them to read with their students at home.	1	2	3	4	5
42.	Parents can check out books, materials, games, videotapes, to use with their children at home.	1	2	3	4	5

EVALUATION

43.	Assessment methods are congruent with the current research on reading comprehension which includes the importance of prior knowledge; the interaction of reader, text, and context; and the use of metacognitive strategies.	1	2	3	4	5
44.	Standardized test information is supplemented with teacher constructed and administered measures.	1	2	3	4	5
45.	Student assessments are based on reading tasks conducted with actual classroom materials.	1	2	3	4	5
46.	Assessment is integrated with instruction. Information about student weaknesses are used as the basis for instructional decisions.	1	2	3	4	5
47.	Assessments identify students' strengths and accomplishments.	1	2	3	4	5

EVALUATION (cont.)

48.	Assessment practices incorporate and develop student metacognitive and self-evaluation skills.	1	2	3	4	5
50.	Assessments measure process as well as products.	1	2	3	4	5
51.	Students are measured on an ongoing and dynamic basis.	1	2	3	4	5
52.	The assessment program includes multiple tools, environments, strategies, and texts.	1	2	3	4	5

OTHER

53.		1	2	3	4	5
54.		1	2	3	4	5
55.		1	2	3	4	5
56.		1	2	3	4	5
57.		1	2	3	4	5

WORKSHOP EVALUATION FORM

Workshop Topic: _____

Presenter: _____ Date: _____

Your Job Description/Responsibility (please check all that apply): ___ Administrator/Coordinator
___ Principal ___ Chapter 1 Teacher ___ Chapter 1 Aide ___Non-Chapter 1 Teacher
___ Non-Chapter 1 Aide ___ Parent ___ Other (please specify):

Directions: *Please circle the rating number that indicates the degree to which you agree with the following statements.*

	COMPLETELY DISAGREE				COMPLETELY AGREE
1. The goals of this workshop were achieved.	1	2	3	4	5
2. The presentation was clearly communicated.	1	2	3	4	5
3. The activities were appropriate for the topic(s).	1	2	3	4	5
4. The overhead transparencies and/or other audio-visuals were effective.	1	2	3	4	5
5. The handouts were appropriate and useful.	1	2	3	4	5
6. The presenter was responsive to questions and comments.	1	2	3	4	5
7. The presenter was knowledgeable about the topic.	1	2	3	4	5

A. What were the most noteworthy aspects of the workshop?

B. What changes would you suggest to improve the workshop?

C. How can TAC/R-TAC, the SEA, or LEA assist you further? (check all that apply)

I would like: ___ follow-up workshop session(s) on _____
[topic(s)]
___ an on-site consultation
___ a phone consultation
___ other (please specify):

Name:
Position/Title:
Address:

Phone (please include area code):

D. Please make additional comments or suggestions on the back. **THANK YOU!**

Reading Assessment:

How do we measure understanding?

Section 5: Bibliography

Chapter 11
Curriculum & Instruction Resource Center

Reading Assessment-- A Selected Bibliography

The entries in this bibliography reflect assessment practices congruent with the most current research supported definitions of reading comprehension which emphasize the importance of prior knowledge; the interaction of reader, text, and context; and the use of metacognitive strategies. Together, the selections provide a solid rationale and knowledge base for conducting assessments that:

- are teacher constructed/conducted
- are based on reading tasks with actual classroom materials
- are fully integrated with instruction
- identify student strengths as well as instructional needs
- incorporate and develop student self-evaluation
- measure process
- are ongoing and dynamic
- stress the use of multiple tools, environments, strategies, and texts

The entries cover a range of instructional levels, including early childhood, elementary, secondary, and adult basic education. ***Please note that entries focused on informal reading inventories, portfolio assessment, and assessment in whole language programs/classrooms have been listed separately after the initial section of entries. Each reference is listed in only one section.***

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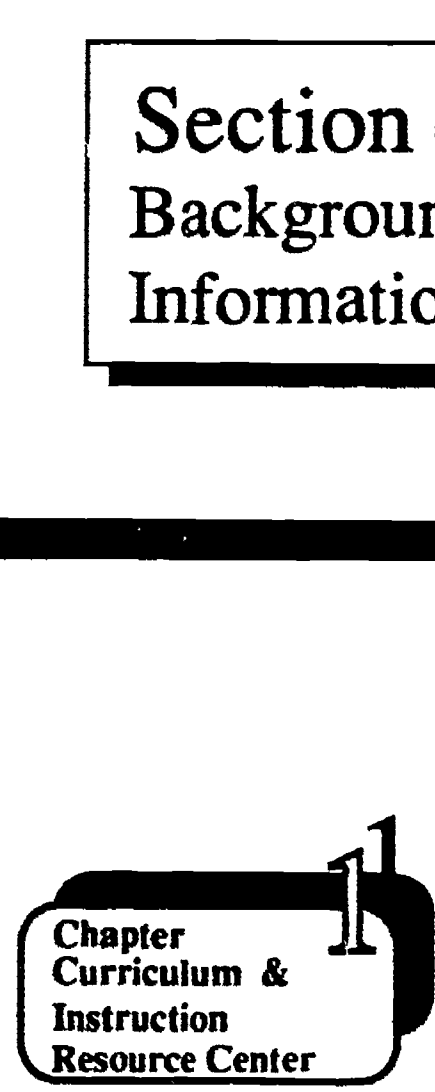
Reading Assessment:

How do we measure understanding?

Section 6: Background Information



Brozo teaches reading education courses at Eastern Michigan University (Ypsilanti MI 48197,USA). His secondary reading methods text will be published this year by Charles Merrill.

Learning how at-risk readers learn best: A case for interactive assessment

William G. Brozo

■ *Attention. You are about to take a reading comprehension test. Read the passage below, then answer the questions that follow it. This is a timed test.*

The Correct Interpretation of the Thirty-Fourth Section

The thirty-fourth section refers to the construction thereof adopted by the local tribunals, and to rights of things having a permanent locality, and other matters immovable and intraterritorial in their nature and character. It never has been supposed that the section did apply, or was intended to apply, to questions of a more general nature, not at all dependent upon a fixed and permanent operation, as, for example, to the construction of written instruments, where the state tribunals are called upon to perform, that is, to ascertain upon general reasoning and legal analogies what is the true exposition of the instrument.

Based upon this interpretation, it seems to us that it would be at least as reasonable to assume an intent that the power should be imperative as to property known to be productive but which later becomes unproductive. We think under the facts of this case the existence of an intent that the power of sale was to become imperative upon failure of productivity with likelihood of continuance of that status, may be imputed to the testator.

1. *In the first paragraph, what is the best meaning for "legal analogies?"*
2. *What is the main idea of this passage?*
3. *Has repartition been attributed to the successors?*
4. *Write in your own words the meaning of the* thirty-fourth section.
5. *In the second paragraph, what is the best meaning for "imputed to the testator?"*

Please put your pencils down, and pass your answer sheets forward. You will be notified within a few days whether you will need further testing and remedial work or be sent to the top reading group. Thank you.

Few intelligent adults would regard this as a fair assessment of their reading ability. Indeed, few of my students who are reading teachers have anything good to say about this test. Their protests usually center on abstruse vocabulary, limited context, and, above all, invalid use of the results. "Precisely," I rejoin, "so why do we insist on testing our high-risk students in much the same way?"

Imagine how frustrated you would feel if you actually were placed into a reading group according to your performance on this single test? Does your failure mean that you are a disabled reader? And if you

answer "no" to this last question because you believe the passage upon which I based my questions is impossible to understand, how many times do our poor readers confront passages on reading tests that are equally unintelligible or removed from their experience? What recourse do they have if we decide to base placement decisions on a test comprised of such passages? Would students' protests about the test be heard or understood?

My reading test can be described as a static measure of reading comprehension. Traditional static assessment involves the student reading and answering questions, and the teacher deriving performance levels with scoring keys and norming tables. It is presumed that the results provide an accurate reflection of one's current status as a reader.

Conspicuously absent from this typical form of assessment are the insights gained from and offered by some of the best researchers and thinkers in our field today. Most would agree that reading is a process of constructing meaning through the interaction among the reader, the text, and the context of the reading situation.

Given the current conception of the interactive nature of reading comprehension, it is becoming less and less meaningful to talk about readers in terms of "problems" or "pathologies." If this were not the case, then I would be perfectly correct in claiming that you have a reading problem based on your performance on "The Correct Interpretation of the Thirty-Fourth Section." I am certain you would not accept this characterization of your ability to read.

It is far more meaningful, I believe, to talk about methods and strategies for improving a reader's progress. This subtle shifting of language away from terms like "disability" and "retardation" toward discussing ways of "improving the learning conditions for a student" helps reshape our perceptions of these readers just as the term "mobility impaired" invokes a more acceptable image of a person than "crippled" or the more vulgar description, "gimp."

Interactive assessment

Two separate but mutually supportive lines of inquiry have merged to inform current reading assessment practices. Feuerstein, Rand, and Hoffman (1979) and Vye, Burns, Delclos, and Brandsford (in press) using a model of dynamic assessment have demonstrated that intelligence of very low performers can be leavened with interactive techniques. The gains they documented for mentally retarded students have put into question notions that intelligence is static and immutable.

Today, reading researchers are mounting a serious effort to move reading assessment into line with our current conceptions of reading (Valencia & Pearson, 1987; Wixson, Peters, Weber, & Roeber, 1987). According to Wixson and Lipson (1936), in order to align assessment with current reading theory and research, it must become more interactive. Indeed, Pearson and Valencia (1987) have urged that testing and teaching should be viewed as integrated and virtually indistinguishable events.

A view of reading as an interaction suggests that a student's performance on various measures of comprehension can be expected to vary as a function of the conditions under which he/she is being evaluated. This means that a student's ability to comprehend is not fixed or constant; rather, comprehension will vary across texts, tasks, and settings (prior knowledge and interest are two powerful factors that contribute to variability on reading tasks). If this idea is difficult to understand, consider how impossible it was for you to comprehend my reading test passage, yet think how easy it is to understand a book, article, or essay on your favorite topic.

If reading ability were fixed or static, there would be no difference in the way you comprehend my test and your favorite texts. The goal of interactive assessment, therefore, is to discover the conditions under which a student will succeed in reading, rather than merely describing a student's current status as a reader. Moreover, an interactive approach to reading assessment will provide the teacher the opportunity to assess the instructional factors that influence reading performance.

A comparison of the purposes and uses of assessment data based on static and interactive assessment modes using an informal reading inventory is shown in Table 1.

Interactive assessment using an IRI

When testing and teaching become integral events, the assessment process looks very much like a well planned reading lesson. Below are the steps in administering an informal reading inventory interactively.

(1) *Diagnostic interview*

Gather general background information as well as information about the student's "real world" interests through conversation, questions, and with attitude and interest inventories. Evaluate the student's awareness of the goals and purposes of reading. Gather the student's descriptions of his/her own reading abilities and strategies.

(2) *Determining passage placement*

As the student works through the word lists, provide

Table 1
A comparison of the purposes and uses of assessment in two modes

Static assessment	Interactive assessment
Describe what the student can do on the test without mediation	Describe strategies tried and their effectiveness
Form generalizations about the student's problems	Form generalizations about potential effectiveness of strategies for improving the student's literacy development
Derive numbers and levels	Derive information about how well the student can progress given good instruction
Infer the kind of instruction that might work best	Acquire clear instructional guidelines based on mediation during assessment

help with difficult words and teach word knowledge by exploring various word recognition strategies. Count as correct the words learned through teaching.

(3) *Preparing to read*

Build motivation for and interest in reading the passage. Activate and expand relevant prior knowledge. Help set purposes for reading. Preteach necessary vocabulary and concepts.

(4) *Reading silently first*

Allow the student to read the passage silently first in order to work through miscues that can occur when students are requested to read a passage orally without rehearsal. This practice also provides students an opportunity to point out unknown words or confusing parts of the text.

(5) *During oral reading*

Mediate word learning and comprehension using a variety of strategies. Model comprehension processes with self-questioning and by thinking out loud. Gather self-reports from the student on his/her comprehension strategies. Use reciprocal teaching strategies.

(6) *After reading*

Gather retellings. Allow the student to look up information to answer detail and factual questions. Extend the student's understanding of the passage with activities that connect prior knowledge and experience with newly learned content.

"Eddie": Success through interaction

To illustrate the differences between static and interactive assessment, I will describe an administration of an informal reading inventory under interactive conditions with a seventh-grade remedial reading student. Prior to administering the IRI interactively, Beth, the reading teacher, had administered one of the forms of the inventory in the static mode for comparison purposes.

Diagnostic interview

"Eddie" came into seventh grade with a long history of remedial reading instruction. Beth checked Eddie's records and found that he began falling behind in reading in the second grade. Recent standardized test results had placed him 3 years below grade level, and his academic progress had generally been characterized as slow.

During the interview, Beth discovered that Eddie seemed to be bright, alert, and of above average intelligence, yet he had always found school difficult.

The informal conditions of the interview allowed Eddie to talk very openly and freely. He indicated that his favorite subject was gym and that he liked math the least. He went on to say that his favorite thing to do outside of school was to play baseball. Eddie was a pitcher on a little league team. When asked why he liked baseball, Eddie replied, "Because if you work hard, you can improve." Eddie reported that his other big interest was watching mystery movies on his VCR. He told Beth that he was proud of the fact that he had seen every Sherlock Holmes movie ever made. He said he liked to figure out how they were going to end.

Beth questioned Eddie about his reading habits and strategies. When asked if he likes to read, he said he did as long as he didn't have to read too much. He explained it this way: "I get stuck.... I read two pages

then get bored. The beginnings of books are not exciting, and textbooks put me to sleep."

When asked about his attitudes toward reading and his reading processes, Eddie's responses were very revealing. He said the most important thing about reading was "understanding," and that reading was for learning and fun. He stated that when he comes to a word he doesn't know, he stops, tries to sound it out, and if that doesn't work or takes too long, he leaves it and keeps reading. When studying his textbooks for a test, Eddie said he goes back and looks at the information he thinks is going to be on the test and rereads the section a few times. He admitted, however, that he sometimes studies the wrong material.

He said he prefers to read at home rather than at school because he can read out loud which enhances his understanding. If he doesn't understand something, he asks his mom or dad to explain it in a way he can understand.

When asked about his experiences in remedial reading, Eddie responded that he didn't enjoy the class because "they didn't read anything interesting."

The interview provided Beth with a rich store of information about Eddie. She knew what his interests were and discovered that he had a relatively sophisticated understanding of the reading process and the purposes of reading. She knew with further exploration she could discover a great deal about Eddie's actual strategies during reading and studying and provide appropriate mediation.

Determining passage placement

Using Johns's *Basic Reading Inventory* (1985), Beth asked Eddie to begin reading the fourth-grade word list. With mediation, Eddie was able to proceed through the eighth-grade list. Eddie appeared to use sound decoding strategies, but seemed to lack understanding of many of the words on the isolated lists. To check his understanding, Beth framed the words Eddie failed to decode in cloze contexts and asked him to use the semantic clues to figure out the word, as in the example below with a word from the fifth-grade list.

word: drowsy
context: They hiked up the mountain path all day, then made camp on the summit. Soon after dinner they were feeling _____ and one by one crawled into their sleeping bags for several hours of well deserved sleep.

At times, Eddie would not attend to the middles of words saying, for instance, "great" for *graduate* and "competition" for *common*. In these cases, Beth once again placed words in semantic contexts and provided the beginning and ending letters, as in the following examples.

In order to g____ate from high school, a student must pass all of the required courses through 12th grade.

It is c____n to have snow for Christmas in Chicago.

This strategy helped Eddie see that a combination of decoding skills can be used to discover word meanings.

Preparing to read

After seeing Eddie's performance with the word lists, Beth had him begin reading the fifth-grade passage. Motivation and interest were developed before reading each passage. Examples of successful readiness strategies follow.

The fifth-grade passage was about a camping trip. Eddie and Beth read the first two sentences together, then Eddie was asked to predict what was going to happen to the boy in the passage.

Eddie began by recounting his camping experiences with the Boy Scouts. He said that the boy and his uncle in the story would probably fish, hike, cook food on the campfire, and sit around the fire and tell stories.

With Beth's help, Eddie created a Venn diagram (see the Figure) in which his camping experiences and predictions were written in one circle, while the other circle was left blank until after reading. When the story was finished, Eddie would then fill in the other circle with the camping experiences of the boy in the story, and compare his experiences and predictions with the actual experiences of the boy. Where the circles intersected, the experiences that were shared by Eddie and the boy would be written.

Beth also introduced a couple of vocabulary words, *trudged* and *bluegill*, which were first discussed, then used in sentences.

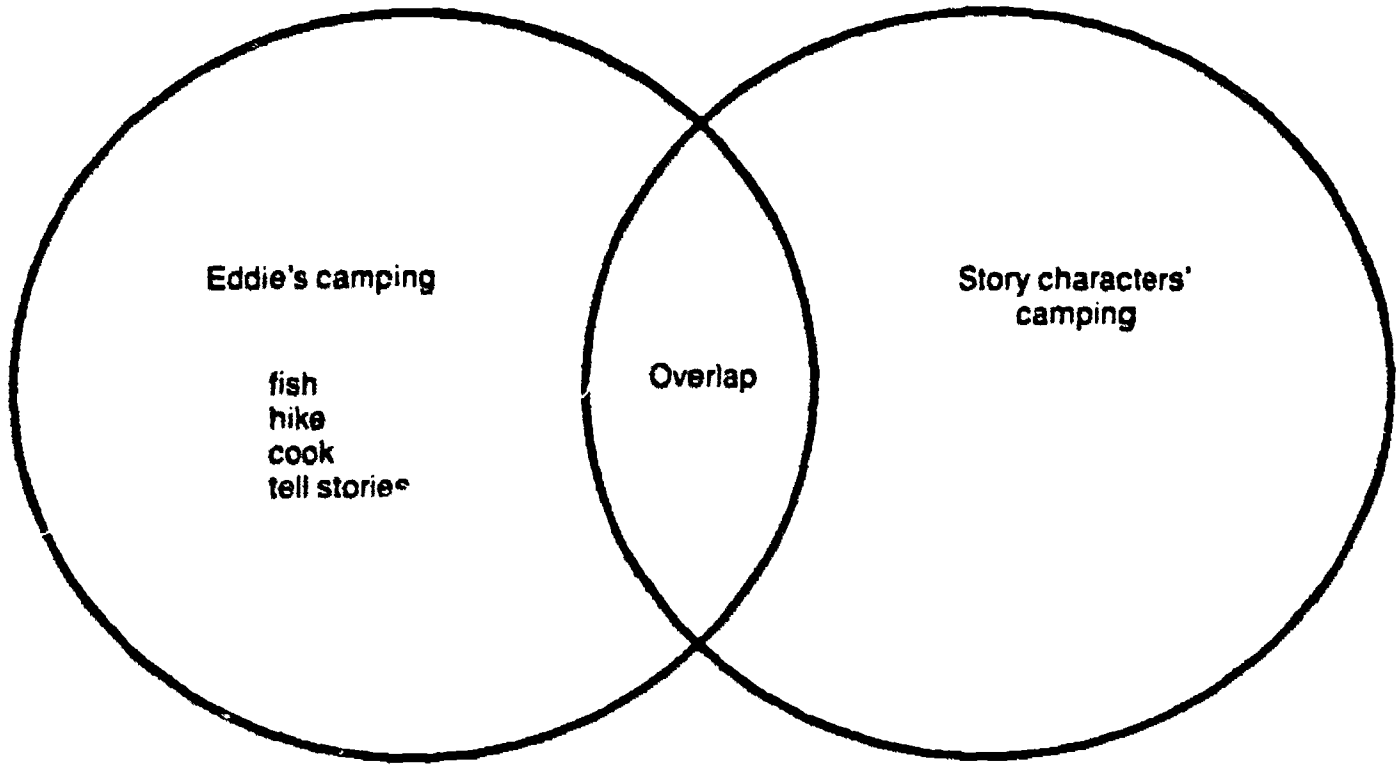
For the sixth-grade passage about a Halloween witch, Eddie and Beth prepared a word web for "witches." During this activity, the words *sorceress* and *ordinary* were introduced. The web was developed to a point that could be used later as an outline for a written activity.

For the seventh-grade passage about Native Americans' worship of nature, Beth helped Eddie construct a KWL chart (Carr & Ogle, 1987). The chart had three headings: what Eddie KNEW about the topic, what he WANTED to find out, and what he LEARNED as a result of reading. The first two categories were filled out prior to reading.

Beth pretaught the words *worshipped* and *ceremonies* by placing them in context and asking Eddie to construct definitions.

These activities provided opportunities to set purposes, engender interest, and activate and build rele-

Venn diagram comparing Eddie's camping experiences with his story reading



vant prior knowledge for the passages. Eddie especially enjoyed the word web strategy.

During oral reading

After Eddie read the passages silently, he was asked to read them out loud. During oral reading, Eddie reread sentences or parts of sentences in order to make use of the context. He had no major difficulties with the vocabulary, due to the prereading strategies Beth used to develop word knowledge and facilitate comprehension.

Eddie's oral reading of the fifth- and sixth-grade passage allowed Beth to listen, observe, and question his comprehension strategies. When he met the word *drifted*, for example, in the sixth-grade passage, he backed up to see if he could pronounce it by using context. When this failed, he slowly sounded it out until he was satisfied, then he continued reading. Beth observed that Eddie had no trouble with the more difficult words, *sorceress* and *ordinary*, which had been pretaught.

With the seventh-grade passage, Beth noticed that Eddie was moving very slowly through the first sentence. While his decoding was accurate, she felt that comprehension may have been breaking down. She interrupted him and suggested they take turns reading sentences and asking each other questions. This procedure is similar to the reciprocal teaching strategies advocated by Manzo (1968) and Palincsar and Brown (1984). This approach provided Beth an excellent opportunity to monitor Eddie's comprehension while modelling effective strategies. At one point Eddie became excited when he realized he had answered one of his questions from the KWL chart.

After reading

After reading each of the passages, Eddie was asked to retell what he could remember. Beth asked him to focus his retellings on ideas as well as important details. When asked to elaborate on interpretations, Eddie was given the opportunity to scan the passage to find specific supporting information. In this way, Beth simulated a "genuine" reading and study task. Each of the retellings indicated good comprehension for both literal and higher level ideas. He provided a very rich retelling for the seventh-grade passage, the one that he and Beth actively processed together using reciprocal techniques.

To extend Eddie's comprehension, they completed activities begun in the preparation phase. For instance, Eddie was able to note the similarities and differences between his camping trip and the boy's camping trip in the fifth-grade passage, as well as check his predictions. Eddie went back to the

"witches" word web he had created before reading the sixth-grade passage and wrote in additional information and ideas that were found in the reading. In this way, he was able to see how his prior knowledge was related to the ideas in the text. For the seventh-grade passage, Eddie returned to the KWL chart, and with Beth's help finished the LEARNED column. Eddie seemed to thoroughly enjoy this activity. A couple of questions were still unanswered after reading, so Eddie decided he would use the school's library to do some research and write out the answers.

Comparing assessments

When comparing Eddie's performance under interactive and static modes of assessment (see Table 2), Beth observed significant improvement in his use of interactive strategies. Furthermore, Eddie demonstrated that with appropriate instruction, he could successfully read materials intended for his grade level. More importantly, Beth discovered during assessment several specific strategies that helped Eddie improve his progress as a reader and learner.

Conclusion

Our assessments of high-risk students who are experiencing reading difficulties need to become more interactive. Our notions about ability and disability in reading need to become more fluid. The clinical model of remedial reading that lingers in most reading education programs as an artifact from the time when neurological and processing deficit explanations for reading disability were in vogue should be replaced. Instead, our diagnostic practices should be consistent with the best thinking we have about the reading process to date.

For instance, while research has informed us that reading comprehension is influenced by motivation, interest, prior knowledge and values, the text, sociocultural factors, and the literacy context, our diagnoses remain largely "deficit driven" (Poplin, 1984). And I agree with Peter Johnston (1985) who views such a model as ultimately ineffective in that treatments that follow from this diagnosis tend to dwell on the minutiae of mental operations. According to Wixson and Lipson (1986), the goal of assessment is not the identification of a disability but rather the specification of the conditions under which a particular student can and will learn.

In my own work (Brozo & Brozo, 1988) and my students' work with middle and upper grade low-level readers and learning disabled students like Eddie, we have found remarkable contrasts in performance on the same measures using static and interactive modes of assessment. Interactively, teachers and students discover strategies that lead to improved performance, positive attitudes toward themselves as readers, and independent learning.

Table 2
Eddie's reading performance assessed in two modes

Reading levels	Static assessment	Interactive assessment
Independent	4th grade	6th grade
Instructional	5th	7th
Frustration	6th	8th

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Patricia R. Kelly

Guiding young students' response to literature

Kelly, currently a faculty member in the School of Education at United States International University, wrote this article based on her experiences as a third-grade teacher at San Marcos Elementary School, San Marcos, California.

Teaching and learning have always been inseparable for me. This was especially true recently, when I took a graduate course in children's literature while teaching third grade. What a perfect opportunity this was to expand my own perspectives about reading, literature, and response to literature, by combining my role as teacher with that of researcher.

As an experienced teacher, I was aware of the importance of introducing children to a wide variety of books and fostering diverse responses to literature. My reading program had always consisted of a more integrated approach than that provided by the basal series used in my district. It included abundant opportunities for sustained silent reading of student-selected materials, various writing activities, as well as opportunities to listen and respond to a variety of literature.

One of the cornerstones of my program was the daily reading of literature to my class, because I knew that reading aloud to children stimulated their interest and imagination, as well as their emotional development and language use (Trelease, 1982). In my program I selected stories from not only the district's and the state's recommended readings in literature, but also from my favorite and my students' favorite books. We read everything from Dr. Seuss (inspired by an exhibit of his books at a local museum) to classic folk and fairy tales, to the light fantasy of *Winnie-the-Pooh*, to realistic and historic fiction including *Dear Mr. Henshaw* and *Sarah, Plain and Tall*. Some books we simply read and enjoyed without further response, while at other times, students engaged in various creative and exciting responses to literature. Frequently, I solicited oral responses, which sometimes took the form of lively discussions about books and their characters. Readers Theatre (Cullinan, 1989; Johnson & Louis, 1987) and role playing were also favorite ways my students responded, particularly when we were reading fairy tales and folk tales. The children loved performing in front of their classmates or audiotaping their scripts so they could listen to themselves. Choral speaking (Monson, 1986a) of favorite poems by large and small groups of children was also popular. After rehearsing a chosen piece, students would delight in performing for other classes.

Response to literature in my class took many other forms. Students enthusiastically engaged in art activities related to books we read, activities that included wall hangings, collages, flannel board retellings (Cullinan, 1989), and dioramas. Illustrations for students' own book productions (Johnson & Louis, 1987) were also a rich source of responses to literature. In addition, children loved to recommend books to each other in book sharing groups, and by writing reviews

of books they had read that we kept in a card file for reference by other students. A format for book reviews described by Monson (1986a) was similar to ours: we included title, author, short plot summary, comments indicating what the student felt was good or not good about the book, and a place to note whether or not the student recommended the book to others. Students also had opportunities to experiment with writing their own stories and poems, inspired by books and poems they had heard or read.

Overall, what I was doing as a teacher was substantiated by what I was learning in my children's literature class. In addition, I learned that the concept of response to literature included a facet previously unknown to me. One requirement for the course was that we read certain books and write about these books from a personal perspective, resulting in reader response to literature. Our response to literature was based on the work of Bleich (1978) and Petrosky (1982). In preparing to respond we addressed three issues: (a) what was noticed in the book, (b) how we felt about the book, and (c) how the book was related to our own experiences. This preparation to respond was interesting and stimulating and promoted individual thinking with no "right answer"; Bleich's prompts also promoted a sense of ownership of each piece of literature I had read and written about.

I was intrigued by the idea that the process I had engaged in might be valuable in encouraging my own students' interactions with literature, while providing opportunities for students to go beyond literal levels of thinking. I decided to conduct some research in my third-grade class by systematically including Bleich's prompts to prepare students to respond to literature with the activities already employed. My purpose was to examine the nature of third graders' responses to the literature I read aloud. I wanted to know how students would react to Bleich's prompts and how their responses to literature would develop over the course of the year. I hoped that my classroom research would help me better understand my students' thinking about literature while at the same time foster their ability to connect literature with their own lives.

Reader response and reading theory

In addition to my personal, positive experience with reader response, the rationale for using this format in my classroom fit well with my view of reading as an interactive process, one in which readers interact with text to construct meaning based on their background knowledge (Adams & Collins, 1985; Anderson, 1985; Mason, 1984; Rumelhart, 1984). One crucial element of this model is that it allows for different interpretations of text depending on what the reader brings to the reading.

Responding to literature by sharing how a book makes you feel is one way students can relate story events to their own lives.
Photo by Mary Loewenstein-Anderson

It appeared to me that encouraging students to respond to literature provided the framework for this interaction between reader and text, and an examination of the literature regarding the use of responding to literature in the classroom revealed that there was support for this approach. As Monson (1986b) indicated, as early as 1966 the Dartmouth Conference papers addressed the importance of encouraging personal response to the literary experience. In addition, Britton (1979) argued for the infusion of broad, open-ended questions about stories rather than piecemeal analysis that interferes with comprehension.

Furthermore, studies focusing on intermediate and secondary students' responses to literature had been reported (Farnan, 1986; Five, 1986; Galda, 1982; Simpson, 1986; Squire, 1964), and investigations examining responses across grade levels had been described (Applebee, 1978; Farnan, 1988; Hickman, 1981; Purves, 1975). Two studies examined responses made by fifth-grade students. Galda (1982) studied oral responses of three fifth-grade girls, while Five (1986) conducted an indepth examination of fifth-grade students' written responses in literature journals. Both investigators gained valuable insight into their students' development as readers. A question resulting from Five's study was how can teachers encourage children to take risks when interpreting what they read. It seemed to me that the prompts used to encourage students' response to literature would encourage risk-taking in my students.

Perspectives on reader response

A foundation for the reader response perspective that guided my classroom activities can be found in the works of Rosenblatt (1978), Petrosky (1982), Bleich (1978), Farnan (1986, 1988) and Simpson (1986). Rosenblatt's (1978) view of readers' transactions with text, i.e., that comprehension of the text involves both the author's text and what the reader brings to it, coincided with my constructivist view of reading.

Petrosky (1982) suggested that students who write about what they read would better understand these texts. He further indicated that Bleich's (1978) three-part response format, described earlier, provided a framework through which students were able to represent their comprehension in writing and make meaning for themselves. One of the two studies reporting successful response to literature at the junior high level used Bleich's prompts (Farnan, 1986). Farnan's reading, thinking, and writing strategy (the TAB Activity) was similar to the response probes I adopted. She reported that the TAB activity encouraged her seventh grade students to go beyond simple retrieval of information. It encouraged "active, reader responses to a work, thereby promoting comprehension, enjoyment, and cognitive development" (p. 20).

Also at the junior high school level, Simpson (1986) employed oral reading and a response journal to integrate reading with writing and to promote literature. Simpson indicated that communal sharing of responses promoted an appreciation of the contribution that each student brought to the event. Furthermore, critical thinking and active listening skills were developed; and by listening to the teacher's oral reading, students were encouraged to read on their own.

Engaging students to respond to literature in my classroom

All 28 students in my multiethnic third-grade class participated in activities that encouraged response to literature. The students' reading levels ranged from first to fourth grade. Due to the variance in reading abilities and because of the success Simpson had encountered, I decided to introduce responding to literature by reading a wide variety of literature aloud to the class rather than having students read silently.

I used Bleich's (1978) prompts to encourage response, which included the following: (a) What did you notice in the story? (b) How did the story make you feel? (c) What does this story remind you of in your own life?

In the next two sections I will explain how I introduced the prompts first as an oral language activity and then as a written activity. Following that, I will discuss students' oral and written responses to literature, including samples of their responses.

Phase 1—recording oral responses. Beginning in the fall of the year, I gradually integrated responding to literature with the other modes of response used in my classroom. In this first phase, which took place during October and November, I read stories to the class; and approximately once a week, Bleich's

prompts were used in whole-group activities. I recorded student responses to each of the prompts on sheets of butcher paper, in much the same way that students' words might be recorded in language experience activities. These response charts were then displayed in the room so they could be reread by students. This structure permitted students to engage in responding to literature without requiring individual written responses. It also allowed students to hear each others' thoughts about the story, demonstrated that all responses were valid and valuable, and showed that there was not just one "right" answer. In other words, it provided a framework and guided practice for future opportunities to respond to literature.

Phase II—written responses. In the second phase, which began in January and continued until the end of the school year, I again read stories to the class; however, instead of students responding orally to the Bleich prompts, they had 5 minutes to respond in writing to what was read using the prompts as a guide. This initial 5-minute limit was based on Farnan's (1988) research, indicating that 5 minutes allowed enough time for students to individually respond succinctly to each prompt, and that timed writing focused students' attention and bolstered fluency. The response time was extended slightly as the year progressed based on input from the students. By the end of the year, students wrote for approximately 7 to 8 minutes. I encouraged students to write for the full time allotment for each prompt and told them not to worry about spelling; however, because students are often slowed in their writing due to their inability to spell words, I wrote several words on the board common to the story, including items such as characters' names. In addition, I circulated among the students during the writing sessions to assist with spelling if a child requested it.

Following the writing, students were given an opportunity to share their responses with the class. This provided a format for both speaking and listening. Written responses were then collected so that I could read them. I did not "grade" responses, but commented informally as one might comment in response to journals. I collected a sampling of these responses to include in student portfolios. Others were returned to students after I duplicated them for my files.

Examination of student responses

Below I describe two different response modes. The first mode was designed to provide practice that facilitated a smooth transition to the next mode.

Oral responses. Initially, responses I recorded during Phase I were brief and usually related only to one incident in the story. For example, in October after listening to *Horton Hatches the Egg* by Dr. Seuss (1940), students' responses, generated from the question "What did you notice in the story?" resulted in simple descriptive statements such as "I noticed animals making fun of Horton" and "Horton sitting on an egg in a tree." A few students gave responses that were more inclusive of the story, such as "The lazy bird didn't want to take care of the egg until it was hatching."

The other two prompts evoked similarly brief responses. The question "How did the story make you feel?" resulted in such answers as "Sad because Horton was on the egg so long." The third question, "What does this story remind you of in your own life?" also prompted simple responses such as "People teasing me."

These one-line responses dominated my students' initial attempts to respond to literature using the prompts. However, as students became more familiar with being given the opportunity to respond to literature, their responses became more detailed. After listening to a version of *Cinderella* in November, students' responses to the first two questions included the following:

Response 1
I noticed when the beggar came to the door and Cinderella gave him a piece of bread and two stepsisters ran after the beggar and he said 'If only you knew who I was.' In the beginning the guy was poor and he made Cinderella do all the work.

Response 2
It made me feel lucky because Cinderella had to do a lot of work and I feel like I have to do all the work.

Response 3
I felt happy she got married and lived happily ever after. The book made me feel sad because he couldn't find her.

During discussions of the questions about what they noticed and how they felt about the books, students often indicated that they agreed with other students' responses by saying, "That was what I was going to say." This was not the case for the question relating story events with their own lives, a question requir-

summarizing of story events in their observations. Despite the fact that in the following examples both students were reading below grade level, they wrote rather sophisticated observations about the style of the literature. One student pointed out the use of fantasy by the author, whereas another noticed differences in the British author's use of language:

> **Response 1**
> I noticed that donkeys can't have birthdays, they can't even talk, but it is a book. They can do anything they want. They were imagining things.

> **Response 2**
> I noticed that they spelled some words different in the book and I noticed that they wrote different in the book than we do and pronounced some words different and some words wrong.

One of the interesting things about my students' responses to the prompts about how the book made them feel was that they seemed progressively more able to put their feelings into words as the year passed. This may have been due to a gradual improvement in writing skills over time, or it may have been due to the content of these latter selections that often contained events with which students could identify. Students frequently noted a range of feelings elicited by incidents in the stories.

> **Response 1** (responding to *Winnie the Pooh*. Milne, 1926, 1954)
> It made me feel sad when Eeyore felt sad because everyone forgot about his birthday. It made me feel happy when Winnie the Pooh gave Eeyore a pot that Eeyore could use. It made me feel happy when he liked the pot.

> **Response 2** (responding to *Stone Fox*, Gardiner, 1980)
> It made me feel sad because the dog died of a heart attack. And happy because he won the sled race and mad because he had to pay taxes.

> **Response 3** (responding to *Blind Colt*, Rounds, 1941, 1960)
> When the blind colt was stuck in the snow, I was sad because he was so little and because I like horses. And the part where Whitey got to keep the horse I was happy because he really loved the blind colt.

One student made an interesting observation about the feelings she experienced while listening to *Winnie the Pooh*. She did not refer to specific events but to a general feeling about the reality of the book:

> It made me feel like it was really in front of my face in real, like speaking to me and my classroom because it sounded so real to me and I liked it.

Responses to the question asking students to relate the story events to their own lives often resulted in what Monson (1986b) referred to as "the emotional reaction," an indication that students are making personal responses to the story. Students wrote accounts of specific events in their lives that were triggered by story events. Some students wrote long, detailed responses, whereas others wrote brief replies.

> **Response 1** (responding to *Winnie the Pooh*)
> When I was five years old and it was my birthday I thought everyone forgot my birthday. I was mad but they had planned to go to Disneyland and I did not know. I was mad and they tricked me. It was great.

> **Response 2** (responding to *Winnie the Pooh*)
> It reminds me about when my mom only bought me a cake and we just got to eat a cake and had no presents.

> **Response 3** (responding to *Stone Fox*)
> It reminded me of when the first dog I got was run over on Halloween night. I cried for two weeks and I felt like I was going to die but my mom and dad got me a new dog. Then I felt happy again.

There were noticeable differences between the written responses obtained at the end of the year and those obtained earlier. Students' responses displayed increased fluency and greater detail, as well as fewer errors in sentence structure and spelling. There was evidence of more summarizing by almost all students in response to the objective question about what was noticed in the story. In addition, some students made observations about the author's style and the use of fantasy, which had not been noted earlier in the year. Students' responses also increasingly reflected emotional involvement (Monson, 1986b) when relaying feelings or relating story events to their own lives. These changes may have been fostered by the reader response activity itself, as well as from exposure to a wide variety of literature.

Closing thoughts

Giving students the opportunity to respond to literature added a substantive element to my literature program. Regardless of reading ability all students were successful in responding to literature, guided by the prompts. Allowing students to respond in both oral and written formats fostered written and oral expression. Responding to literature promoted students' ability to connect their prior knowledge and experiences with the text, and encouraged personal response to literature. By engaging personal responses, I was able to encourage students to go beyond literal retell-

ing more personal responses. One student said, "It reminds me of when I have to do work—housework plus the dishes," whereas another expanded even further about his own domestic duties, "It reminds me of when I have to scrub the floor and clean the bathrooms and do the dusting and I have to take out the trash."

In examining responses by students of varying reading levels, it was interesting to note that all students, regardless of reading ability, responded in a meaningful, albeit sometimes brief manner, and all were able to relate story events to events in their own lives. The progressive increase in length and depth of responses during the oral response sessions may indicate that, as students were learning to trust themselves and the teacher, they were more willing to contribute their own ideas.

Written responses. After responding orally to literature, we made a transition to responding in writing. This transition was an easy one, perhaps because students were accustomed to thinking about the prompts. Furthermore, my third graders were easily able to respond in writing to the questions within the allotted time.

During the initial transition sessions, students listened to *Charlotte's Web* by E.B. White (1952, 1980). Although an analysis of responses showed that the better readers were also more fluent writers, all students responded to each of the prompts. The following examples of student responses were edited for errors in spelling and grammar to facilitate understanding. Therefore, analyses of these errors will not be addressed in this discussion. However, a general statement about improvements noticed over time will be included at the end of this paper.

When I asked students what they noticed in *Charlotte's Web*, those reading below grade level were more inclined to focus on one or two story events, such as "I noticed the rat named Templeton that took the rotten egg that Avery smashed" and "Wilbur had 3 friends. Wilbur won first place. Fern had a brother."

In contrast, students reading at or above grade level wrote more summarylike descriptions of the story.

> **Response 1**
> The pig won grand prize at the fair and the best thing about the story was when Charlotte had some babies and when they were flying off in the balloons.

> **Response 2**
> I noticed a lot of things in the whole story. But at the end it was nice because there was 583 little babies. It was sad when Charlotte died.

All students were successful in connecting incidents in the story to experiences in their own lives. There were fewer differences between good and poor readers' responses to the question "What does this book remind you of in your own life?" One student reading below grade level responded with the following:

> It reminded me of when I saw a pig in the mud and I thought that pigs were always clean. And it reminded me of when I played in the mud yesterday and a girl put a little piece of mud on my hair.

A grade-level reader was reminded of his own day at the fair after listening to a chapter in *Charlotte's Web:*

> The book reminded me of when I went to the fair and won a monkey doll and when I went on the ferris wheel I stayed on the top and I could see the whole fair.

When students were asked to write about their feelings regarding the book, responses were usually longer than those given in the oral response sessions, and most students elaborated on more than one feeling or single event. A typical example of this is seen in the following response: "It made me feel sad because Wilbur was going to get killed. It made me feel happy because Charlotte had 514 eggs."

Written responses increased in length as students had more practice with the activity. This may have reflected an increase in fluency encouraged by the timed aspect of the work; it may have also reflected growth over time due to practice with several writing activities. Other changes in response patterns were also apparent near the end of the year. Students of all reading abilities were inclined to write more elaborate summaries to the question "What did you notice in the story?" For example, after listening to Milne's (1926, 1954) *Winnie the Pooh*, a student whose reading performance was below grade level noted several events:

> Eeyore has a birthday and Piglet was going to give Eeyore a balloon and he was running along to get to the lake first and then Bang. He popped the balloon. Pooh was giving Eeyore a pot and he went to owl to ask him to write happy birthday on it.

Another change that occurred in written responses to this question was that some students went beyond the literal retelling and

ings to more indepth analyses and emotional interpretations of literature. In short, allowing students to respond to what they read or heard from a read-aloud provided the framework for what Piaget (in Gallagher & Reid, 1983) referred to as the active involvement in learning through the construction of meaning.

Students' responses to literature provided me with a systematic way to observe and evaluate student interactions with literature. By collecting student responses, I was able to document both individual and class development in response patterns over time. Moreover, on another level, not only were students actively involved in both written and oral response modes, they were enthusiastic about literature, and their enthusiasm was sustained throughout the year. Overall, responding to literature fostered comprehension, discussion, and writing skills, and promoted emotional involvement with and appreciation of literature.

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Coley is director of the Graduate Reading program at Western Maryland College (Westminster MD 21157, USA). Hoffman is a reading specialist at Sykesville Middle School, Carroll County, Maryland.

Overcoming learned helplessness in at-risk readers

Joan Develin Coley
Dianne M. Hoffman

■ The current national emphasis on developing strategic readers who have a command of higher order thinking skills has American teachers rapidly retooling their traditional instructional techniques. Buzzwords such as scaffolding, zone of proximal development, and metacognition resound in faculty rooms and in teacher education programs.

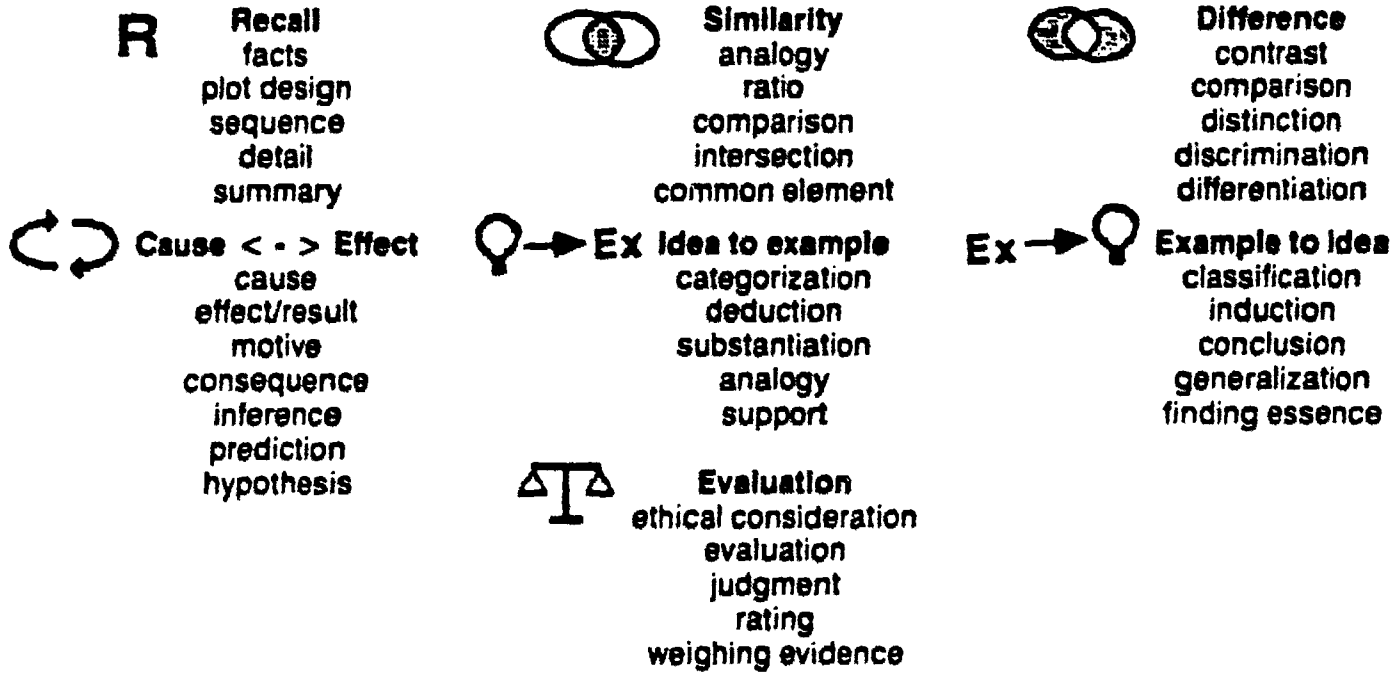
Students are changing, too. They are learning to question their own thought processes as they comprehend text and to refine their higher level thinking skills as they more adequately arm themselves to face the uncertain demands of the 21st century. Classrooms seem almost to reverberate with excitement as students engage in active dialogues about meaningful text.

In contrast, down the hall in the remedial reading classroom or in the reading groups of many at-risk students, the silence can be deafening. Sometimes the teachers of at-risk students assume that techniques work only with average readers who have already experienced success in reading; they may unintentionally send students negative or "disinviting" messages about their chances for success in reading. Just as often, perhaps, students themselves learn quickly to view themselves as incapable of learning. Caught in the failure cycle, these at-risk readers develop their own behaviors to cope with their lack of reading success; these behaviors amount to learned helplessness in the face of repeated failure (Licht, 1983).

Research has suggested that once into the learned helplessness mode, students develop a passive orientation to learning (Torgeson, 1982). Direct access to metacognitive strategies may help some students deal with the cognitive aspect of learned helplessness (Cullen & Boersma, 1982). Certainly, students who are at risk of reading failure need appropriate instruction in reading strategies that will enhance their ability to get meaning from text, but just as surely, they need techniques that focus on their affective needs to help them see themselves as capable learners and good thinkers.

The interactive effect of self-concept and school achievement has long been established both em-

Figure 1
Thinking through question/response cues



R	Tell the sequence of events in "Ransom of Redchief."
	How are the causes of the American Revolution and the Civil War similar? What feelings does Pinocchio have that Wilbur also has? How is Johnny Dorset like Tom Sawyer?
	How is a rhombus different from a parallelogram? How is a mammal different from a reptile?
	What are the effects of teasing? What do you think causes a rainbow? What would happen if the earth rotated only once a year? Why was Ahab wrong to push after Moby Dick?
Ex	What are some examples of irony in "Ransom of Redchief"? From our list of stories, find some examples of friendship. Show some examples of the distributive property.
Ex	What are some character traits of Dorothy in *The Wizard of Oz?* What are the themes of *The Karate Kid?* From the evidence, what conclusion do you draw? From these examples, make up a rule for use of quotation marks.
	Was Ahab right or wrong to push on after the whale? What is, for you, the main theme of *The Wizard of Oz?*

pirically and intuitively. The landmark studies of Brookover and his associates (1962) have contributed evidence of the persistence of the relationship between self-concept and school achievement. Moreover, Brookover and others (Brookover, Thomas, & Paterson, 1964; Bruck & Bodwin, 1962; Campbell, 1967) have concluded that even with IQ factored out, self-concept and school achievement correlate signifi-

cantly. Studies of the relationship between self-concept and later reading achievement (Wattenburg & Clifford, 1964) tend to indicate that poor self-concept associated with poor reading achievement frequently develops prior to, rather than as a result of, reading disability.

Whatever the causal links may be between self-concept and failure in reading, the clear relationship between the two was sufficient cause to develop a model program for readers that had a dual focus of improved performance in reading comprehension and enhanced self-concept of the student as a learner.

Classroom model

A program was developed for sixth-grade students who were classified "at risk" in reading. Six sixth-grade students who had received remedial reading help in a resource room or special education resource instruction for a minimum of 2 years were selected for our case study.

We reasoned that these students, having experienced academic difficulties and failure, would have relatively poor concepts of themselves as learners. They would be typical of the many at-risk middle school students who have experienced a gradual erosion of enthusiasm for learning, are consistently discouraged by school because of their academic difficulties, and tend to view teachers as being uninterested and uncaring (Wehlage, Rutter, & Turnbaugh, 1987).

The program objective for these at-risk students was not only to implement a program to improve comprehension performance, but to have a centerpiece of the program elements that would address students' learned helplessness and enable them to view themselves as competent, capable learners. To that end, three elements were selected for the program that would give students some overt structure and control over their own learning. These elements are question response cues, double entry/response journals, and self-evaluation.

Question response cues

One facet of the program was the use of question response cues, which were selected because they have proven to be beneficial in helping students develop facility in asking and answering comprehension questions. (McTighe & Lyman, 1988).

Question response cues are graphic stimuli that represent different question types (Lyman, 1987). They can be characterized as a thinking frame of the type described by Perkins (1986), who states "A thinking frame is a representation intended to guide the process of thought, supporting, organizing, and catalyzing that process. This representation may be verbal, imagistic, even kinesthetic" (p. 6).

In fact, question response cues are strongly imagistic and were selected for their potential to give students a concrete framework to act as a compensatory tool to help them deal with asking and answering comprehension questions. Through direct instruction, students are taught the graphic symbol, the type of thinking that may be represented by that symbol, and sample questions that exemplify the cue. Cues and sample questions are given in Figure 1.

Like other techniques that attempt to let students in on some of the secrets of comprehension, question response cues are best used when taught directly. Then each cue is posted in the room so that students have a visual thinking frame to help them ask or answer various question types and also aid them in analyzing both expository and narrative text. Most important, the goal is to give students a thinking frame that enables them to have some control over their own learning.

Double entry/response journals

A second component of the program involved the use of a modified double entry/response journal. Double entry/response journal pages are divided into two sections (see Figure 2). The left two thirds of the page provides ample room for an initial entry where students can create graphic organizer illustrations, copy key words or phrases from a reading selection, or replicate a cooperative learning group's most important comments. The second portion, occupying the right third of the page, allows the students to reflect upon and respond to the work illustrated on the left. This response portion of the journal also provides a place for the teacher to offer his or her comments and responses to the journal entry.

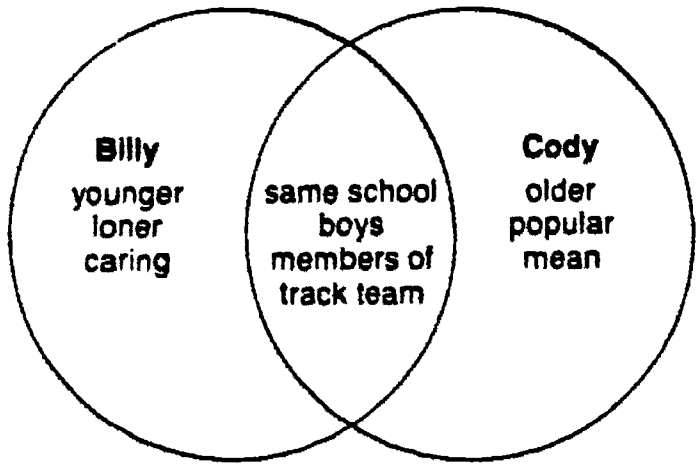
The journal provided opportunities for students' writing process to grow as they reflected on their own comprehension and metacognitive awareness. Students became conscious of the thinking strategies that are appropriate in a particular cognitive task. They learned to express the stages of their cognitive processing, to plan, monitor, and alter when necessary. After several months, students' writing began to be persuasive rather than simply recapitulating what they had done in a reading assignment.

Teacher comments in the response journals provided a critical link to help students monitor their progress and to encourage them to view themselves and their learning potential in a more positive light. Teacher responses, then, were devised to begin to

Figure 2
Double entry/response journal sample

Key words or phrases	Student responses
Cooperative learning team comments	Teacher comments/ responses

Figure 3
Student journal entry about similarities and differences



This entry appeared in the left column of a double entry/response journal.

Figure 4
Student double entry in journal

Analogies *Hot* is to *cold* as *near* is to *far* Types: (1) Same (2) Almost the same (3) Opposites (4) Part of a whole (5) Time sequence (6) Category	Billy is to Cody as duck is to hunter

eliminate negative self-perceptions by offering affirmations of students' value, by demonstrating the teacher's concept that each student possessed positive attributes often not evident to students themselves, and by indicating the teacher was inviting students to become more responsible for monitoring their own learning. The response journals, more than classroom conversations, created an atmosphere of mutual respect, increasing the likelihood of student cooperation and consequently success for the student on classroom tasks.

Figure 3 shows a typical entry from the left side of the double entry/response journal. Through direct instruction students had just been taught the question response cues for similarities and differences and had discussed the processes for analyzing similarities and differences. They were then instructed to find examples of similarities and differences in books they were reading. One student, after reading the opening chapter of a book, decided to compare the main character with his antagonist using a Venn diagram, as shown.

On the following day, as an extension of recognizing similarities and differences, this student learned how to understand and create analogies. His journal entry that day (Figure 4) included an analogy that he had learned in class as well as six types of analogies he wanted to remember. The entry on the right hand side of the page was his reflection on analogies and the application of that learning to the material he had read and summarized in the Venn diagram.

Several weeks later, the same student was reading *The Great Gilly Hopkins* (Paterson, 1978). Students had just learned the question response cue that symbolized example to idea. The student began to collect examples of sarcasm and one day took the entire page of his journal to detail in graphic form the examples of sarcasm he had found that related to four of the characters. He then reflected on those examples and formulated his own idea about sarcasm, which he placed in a circle in the center of the graphic organizer (Figure 5).

Self-evaluation

A third component of the program was selected to encourage students to evaluate their own thinking and to enable them to begin to view themselves more positively as learners. Through self-evaluation of their tasks, students were empowered to take more control of their own learning (Costa, 1984).

Each week students responded to three questions about themselves. The first question was "What kind of thinker were you this week?" Students responded on a 1 to 5 scale, with 1 being poor and 5 being excel-

lent. The next two questions were to be answered in a narrative format: "What was the best thing you did this week?" "What do you hope to do next week?"

The following example appeared in a student double entry/response journal after the student had made his entries following classroom instruction on analogies. The portion reproduced below indicates the teacher's response from the right hand side of the journal page followed by the student's response to the teacher entry.

> Teacher: Jeff, now that you have begun to understand and complete analogies, what kind of job do you think you did in Tuesday's class? What kind of thinker were you?
> Jeff: I was good on Tuesday. I think I was excellent. I was a 5!

In Jeff's journal entry following his graphic organizer on *The Great Gilly Hopkins* (Figure 5), this dialogue could be read.

> Teacher: Jeff, you selected many excellent examples of Gilly's sarcasm, including a few I didn't write down in my own journal! The idea you created was very thoughtful. Can you extend that and think *why* Gilly would be so sarcastic? Perhaps as you read further, you will have another idea. What kind of thinker were you in your opinion? What do you hope to do next week?
> Jeff: I wasn't as good as I should have been. I think I was a 3. But next week, maybe I'll be a 5, if I find another reason why Gilly is sarcastic. I know there is another reason, but I did not want to take the time to find out.

Clearly, Jeff had received positive feedback about his ideas and was learning to take responsibility for his own learning.

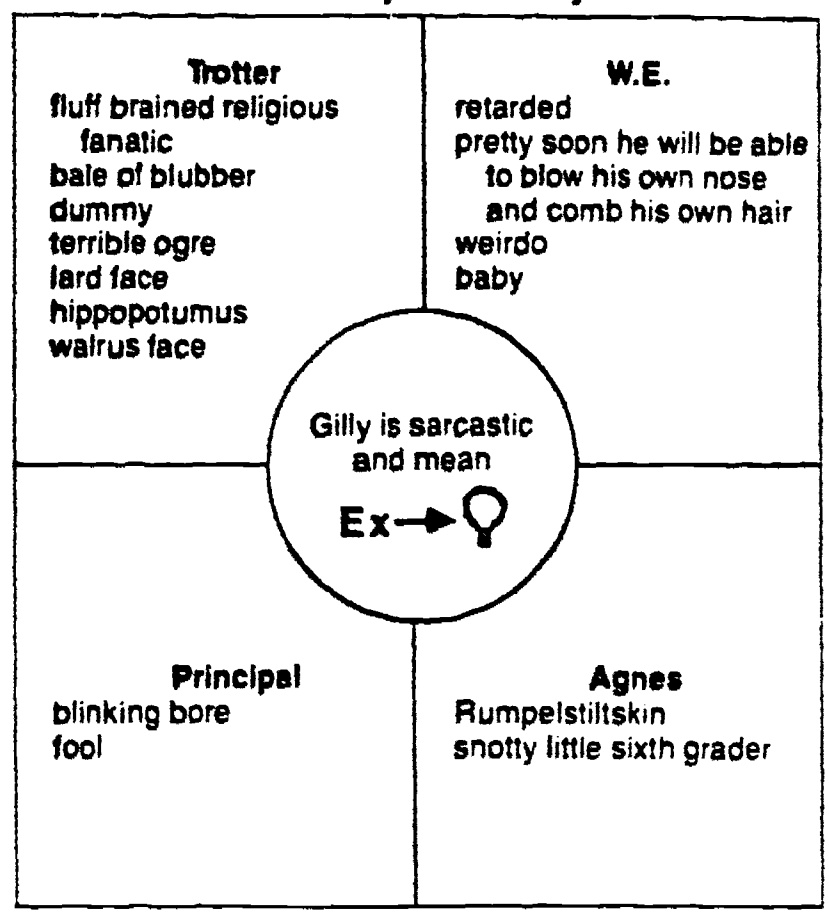
Conclusions

Can at-risk learners be instructed in such a way that they view themselves more positively as learners? Can a program that is designed to enhance comprehension also enhance self-concept as a learner? Preliminary indications are that it can. The Waetjen Self-Concept as a Learner Scale was administered in September 1988 and again in March 1989 to the six students. All students viewed themselves more positively as learners in March than they had in September.

Figure 6 shows the average growth in positive self-concept. There were 24 positive "yes" responses on the Self-Concept as a Learner Scale ("I usually like to go to school"). There were also 24 positive "no" responses ("When school is hard, I usually give up").

Which of the three program components was most important in helping these at-risk students make progress in understanding text and in feeling more positive about themselves as learners? At this point, it is impossible to separate any of the three elements, for each contributed.

Figure 5
Student journal entry

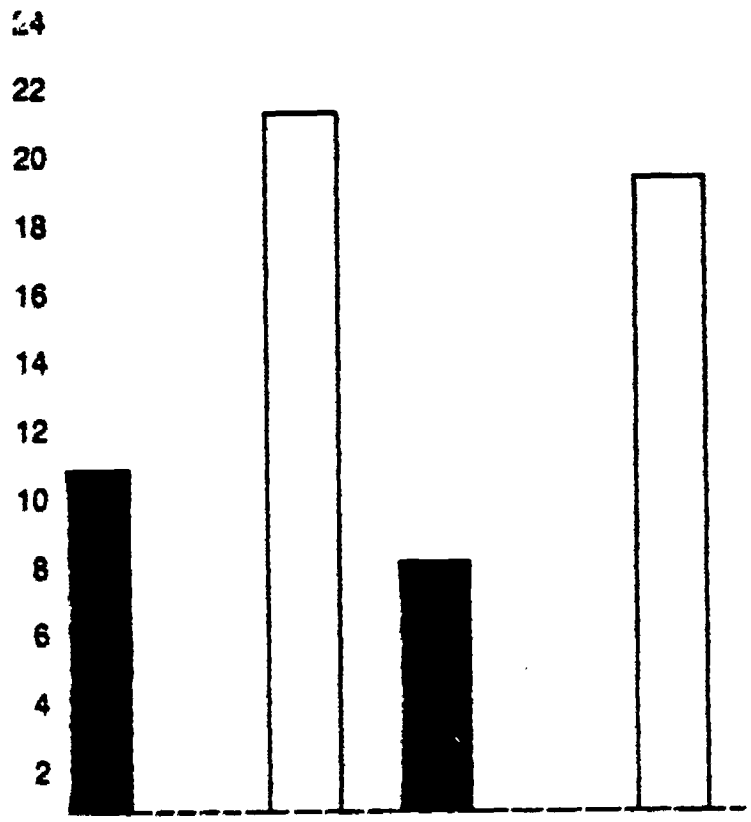


The cues were important because they provided a structure to aid in comprehension. The journals were important not only because they encouraged thinking through writing but because their very format encouraged reflection on one's own thinking. Moreover, the element of teacher response in the journals served as a means of scaffolded instruction leading students to examine ideas in more depth while giving positive feedback about completed assignments. Finally, student self-evaluation placed students squarely at the center of their own learning. They learned to monitor not only the task itself but their success in achieving learning goals.

If students at risk of reading failure are to overcome their learned helplessness, they must indeed learn to see themselves as capable of learning and succeeding. In this program, they did just that.

If we as educators are to tackle the problem of learned helplessness by many of our students who are at risk of failure in reading, it will continue to be important for us to address this crucial element of improving student self-perceptions, for unless they can see themselves as capable of tackling a task, their chances for success are seriously diminished. Conversely, a program that recognizes the centrality of self-concept for all at-risk students and makes provi-

Figure 6
Change in self-concept of sixth-grade at-risk students in a program promoting personal control of learning



Self-concept evaluated by the Waetjen Self-Concept as a Learner Scale (24 possible "yes" and 24 possible "no" responses). Sample positive "yes" response: "I usually like to go to school." Sample positive "no" response: "When school is hard, I usually give up."

sion to deal with that central element has taken a giant step in the right direction.

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[See also: Knight, J. E. (September 1990). Coding journal entries. *Journal of Reading,* 34 (1), 42-47.]

Michael C. McKenna
Dennis J. Kear

Measuring attitude toward reading: A new tool for teachers

McKenna is a professor of education at Georgia Southern University, Statesboro, and Kear chairs the Department of Curriculum and Instruction at Wichita State University, Wichita, Kansas. Both are interested in researching the role of attitude in children's literacy development.

In 1762, the philosopher Rousseau speculated that any method of teaching reading would suffice given adequate motivation on the part of the learner. While present-day educators might resist such a sweeping pronouncement, the importance of attitude is nevertheless widely recognized. The Commission on Reading in its summary of research (Anderson, Hiebert, Scott, & Wilkinson, 1985) concluded that "becoming a skilled reader requires...learning that written material can be interesting" (p. 18). Smith (1988) observed that "the emotional response to reading...is the primary reason most readers read, and probably the primary reason most nonreaders do not read" (p. 177). Wixson and Lipson (in press) acknowledge that "the student's attitude toward reading is a central factor affecting reading performance." These conclusions are based on a long history of research in which attitude and achievement have been consistently linked (e.g., Purves & Beach, 1972; Walberg & Tsai, 1985).

The recent emphasis on enhanced reading proficiency has often ignored the important role played by children's attitudes in the process of becoming literate. Athey (1985) suggested that one reason for this tendency is that the affective aspects of reading tend to be ill-defined and to involve "shadowy variables" (p. 527) difficult to conceptualize, measure, and address instructionally.

The focus of recent research and development in assessment has been comprehension rather than attitude. Some progress has been made in the development of individually administered, qualitative instruments, but quantitative group surveys, which form a natural complement to qualitative approaches, are often poorly documented in terms of desirable psychometric attributes, such as normative frames of reference and evidence of reliability and validity. Our purpose was to produce a public-domain instrument that would remedy these shortcomings and enable teachers to estimate attitude levels efficiently and reliably. This article presents that instrument along with a discussion of its development and suggestions for its use.

Development of the scale

Several important criteria were established to guide the development of the instrument. The authors agreed that the survey must (a) have a large-scale normative frame of reference; (b) comprise a set of items selected on the basis of desirable psychometric properties; (c) have empirically documented reliability and validity; (d) be applicable to all elementary students, Grades 1 through 6; (e) possess a meaningful, attention-getting, student-friendly response format; (f) be suitable for brief group administration; and (g) comprise separate subscales for recreational and academic reading. We knew of no instrument that possessed all of these characteristics.

A pictorial format was elected because of its natural appeal for children and because of its comprehensibility by the very young. An informal survey of more than 30 elementary teachers indicated that the comic strip character Garfield was more apt to be recognized by children in Grades 1 through 6 than any other. Jim Davis, who is the creator of Garfield, and United Features, his publisher, agreed to supply four black-line, camera-ready poses of Garfield, ranging from very happy to very upset, and to permit the resulting instrument to be copied and used by educators.

An even number of scale points avoids a neutral, central category which respondents often select in order to avoid committing themselves even when clear opinions exist (Nunnally, 1967). The use of four points was based on a substantial body of research suggesting that young children typically can discriminate among no more than five discrete bits of information simultaneously (e.g., Case & Khanna, 1981; Chi, 1978; Chi & Klahr, 1975; Nitko, 1983).

Several earlier surveys were used as models in the creation of an item pool from which the final set of items would be constructed (e.g., Estes, 1971; Heathington, 1979; Right to Read, 1976; Robinson & Good, 1987). A total of 39 items were developed, each related to one of two aspects of attitude: (a) attitude toward recreational reading (24 items) or (b) attitude toward academic reading (15 items). To establish a consistent, appropriate expectation on the part of the students, each item was worded with a uniform beginning: "How do you feel...."

This prototype instrument was then administered to 499 elementary students in a middle-sized Midwestern U.S. school district. For each of the two item sets (recreational and academic), final sets of 10 items each were selected on the basis of inter-item correlation coefficients. The revised instrument was then administered at midyear to a national sample of over 18,000 children in Grades 1-6. Estimates of reliability, as well as evidence of validity, were based on this national sample. A complete description of the technical aspects of the survey appears in the Appendix.

Administering and scoring the survey

The Elementary Reading Attitude Survey (ERAS) can be given to an entire class in a matter of minutes, but, as with any normed instrument, it is important that the administration reflect as closely as possible the procedure used with the norming group. The administration procedures are presented in the "Directions for Use" information that accompanies the instrument itself. This process involves first familiarizing students with the instrument and with the purposes for giving it. The teacher next reads the items aloud twice as the students mark their responses.

Each item is then assigned 1, 2, 3, or 4 points, a "4" indicating the happiest (leftmost) Garfield. The scoring sheet that follows the instrument can be used to organize this process and record recreational, academic, and total scores, along with the percentile rank of each. The results are then ready for use.

Our purpose was to produce a public-domain instrument that would...enable teachers to estimate attitude level efficiently and reliably.

Using the survey

Collecting data about students is an empty exercise unless the information is used to plan instruction. Scores on the ERAS can be helpful in this process, but it is important to understand what they can and cannot do as

well as how they relate to other sources of information.

Strengths and limitations. This survey provides quantitative estimates of two important aspects of children's attitudes toward reading. Like global measures of achievement, however, they can do little in themselves to identify the causes of poor attitude or to suggest instructional techniques likely to improve it. On the other hand, the instrument can be used to (a) make possible initial conjecture about the attitudes of specific students, (b) provide a convenient group profile of a class (or a larger unit), or (c) serve as a means of monitoring the attitudinal impact of instructional programs.

A classroom plan. A teacher might begin by administering the ERAS during the first few weeks of the school year. Class averages for recreational and academic reading attitude will enable the teacher to characterize the class generally on these two dimensions. Scores for individual students may suggest the need to further explore the nature, strength, and origins of their values and beliefs. This goal could be pursued through the use of individually conducted strategies such as structured interviews, open-ended sentence instruments, or interest inventories. Reed (1979) suggested using nonreactive measures as well, such as recorded teacher observations following reading instruction and reading-related activities. The combination of these techniques provides a variety of useful information that can be collected in portfolio fashion for individual students.

Survey results can be very useful in deciding what sorts of additional information to pursue. Four general response patterns are especially notable, and we will depict each of them with hypothetical students who are, in fact, composites of many with whom we have worked.

Two profiles involve sizable differences (5 points or more) between recreational and academic scores. Jimmy, a third grader, has a recreational score of 29 and an academic score of 21. The difference suggests a stronger attitude toward reading for fun than for academic purposes. To an extent, this pattern is typical of third graders (compare the means in Table 2), but not to the degree exhibited in Jimmy's case. Had both scores been higher, Jimmy's teacher might have been justified in disregarding the difference, but a score of 21 is low both in the criterial sense (it is close to the slightly frowning Garfield) and in a normative one (18th percentile rank). Examining the last 10 items of the survey one-by-one might prove helpful in forming hypotheses about which aspects are troublesome. These can then be tested by carefully observing Jimmy during reading instruction.

For Katy, a fifth grader, assume that the two scores are reversed. By virtue of her stronger attitude toward academic reading, Katy is somewhat atypical. Her academic score of 29 is quite strong in both a criterial sense (it is near the slightly smiling Garfield) and a normative sense (71st percentile rank). Her score of 21 in recreational reading attitude is cause for concern (13th percentile rank), but the strong academic score suggests that her disdain is not total and may be traceable to causes subject to intervention. Because items 1-10 are somewhat global in nature, it is unlikely that scrutinizing her responses will be very helpful. A nonthreatening chat about reading habits may be much more productive in helping her teacher identify Katy's areas of interest and even suggest a book or two. Katy may not have been exposed to a variety of interesting trade books.

Two other profiles involve differences between attitude and ability. These are very real possibilities that require careful attention (Roettger, 1980). Consider Patrick, a second grader whose academic attitude score is 28 and who has been placed in a low-ability group by his teacher. Patrick's relatively positive score (near the smiling Garfield) may encourage his teacher, for it is apt to be higher than others in his reading group. However, more than half of his second-grade peers across the country have stronger attitudes toward reading in school. Data from this study document a widening attitudinal gap between low- and high-ability children as they move through school. Patrick's teacher should be concerned about the likely effects of another frustrating year on his attitude toward instruction. Teaching methods and instructional materials should be scrutinized.

Ironically, the same conclusion might be reached for Deborah, a sixth-grade student of extraordinary ability. Her academic attitude score, however, is only 17, which is quite negative, whether one looks to its position among

the pictures or notes that it represents a percentile rank of 11. If Deborah's recreational score were substantially higher, her teacher would be correct in wondering whether the instruction she is receiving is adequately engaging. As with Jimmy, an inspection of her responses to items 11-20 could be helpful, followed by a nonintrusive reading interview and tactful observation. On the other hand, suppose that Deborah's recreational score were also 17. This would place her total score (34) at the 5th percentile rank and suggest a strong disinclination to read despite the ability to do so. This would warrant action on the part of an insightful teacher who is willing to make instructional and leisure reading attractive.

Examples of this nature illustrate how the Elementary Reading Attitude Survey can enter into the process of instructional planning, especially near the beginning of a school year. As the year draws to a close, the survey can again be given, this time to monitor any attitudinal changes of the class as a whole. By comparing class averages from the beginning and end of the year, a teacher can gauge the movement of a class relative both to its own earlier position and to a national midyear average. Estimating year-long changes for individual students is a less reliable process and should only be attempted with regard to the standard error of measurement for a given subscale and grade level (see Table 2). We recommend using twice the standard error to construct an adequate confidence interval. In other words, the pre/post difference would, in general, need to be 5 points or more on either the academic or recreational subscale before *any* real change could be assumed. On the total score, the pre/post change would need to be 7 or 8 points.

Conclusion

The instrument presented here builds on the strengths of its predecessors and, it is hoped, remedies some of their psychometric shortcomings. Its placement into the public domain by means of this article provides teachers with a tool that can be used with relative confidence to estimate the attitude levels of their students and initiate informal assessment efforts into the role attitude plays in students' development as readers.

Note: *The authors wish to express their sincere thanks to Jim Davis for his Garfield illustrations and for his concern for children's literacy abilities.*

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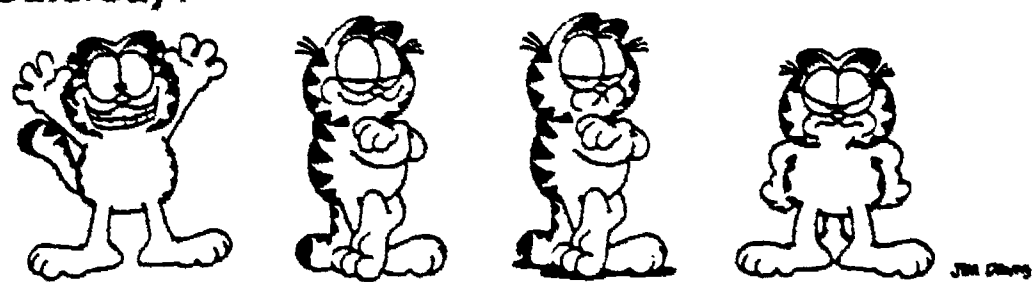
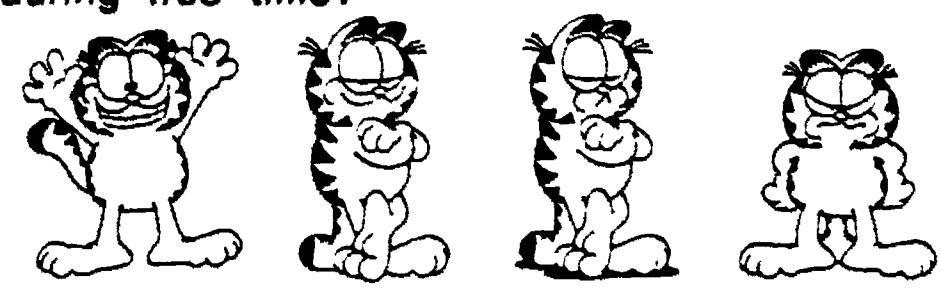
ELEMENTARY READING ATTITUDE SURVEY

School_____ Grade___ Name_____

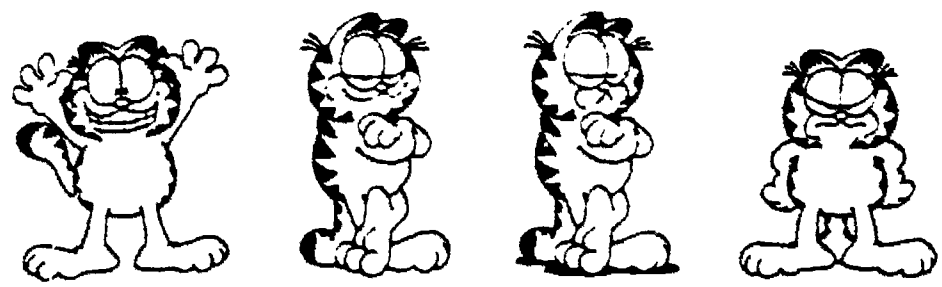
1. How do you feel when you read a book on a rainy Saturday?



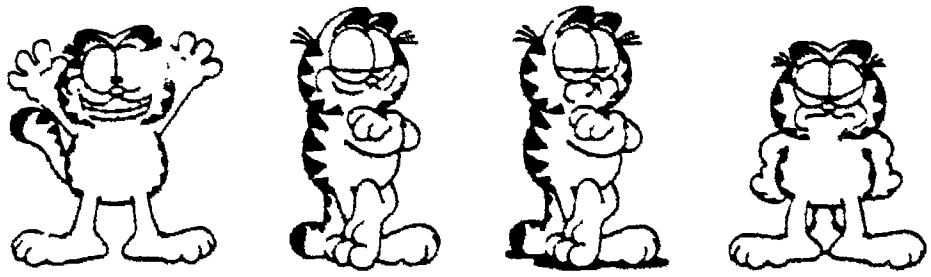
2. How do you feel when you read a book in school during free time?



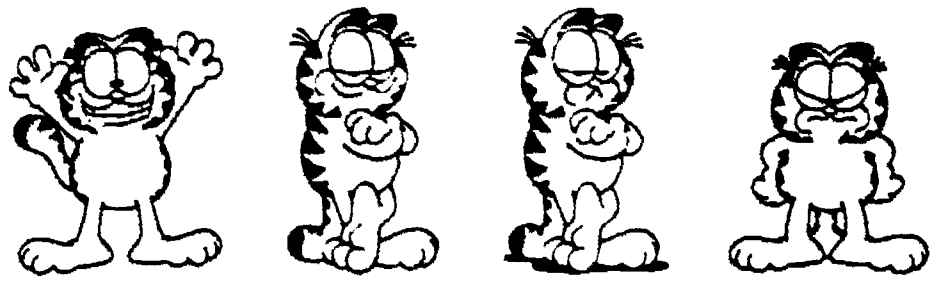
3. How do you feel about reading for fun at home?



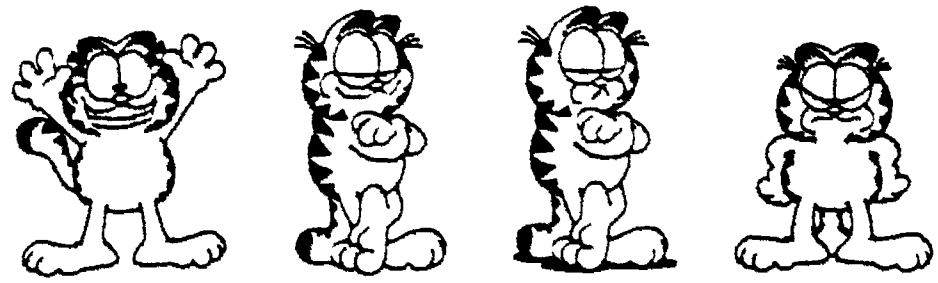
4. How do you feel about getting a book for a present?



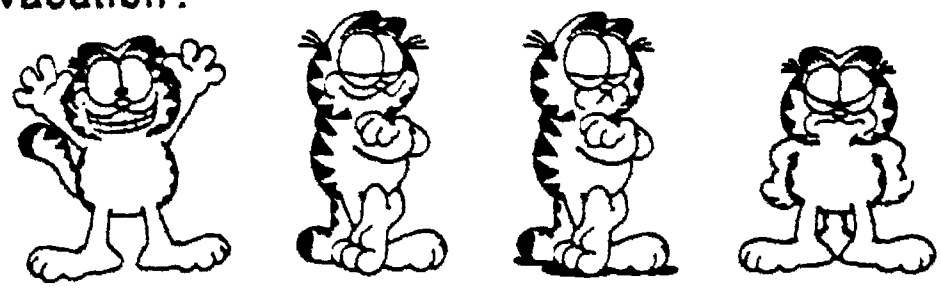
5. How do you feel about spending free time reading?



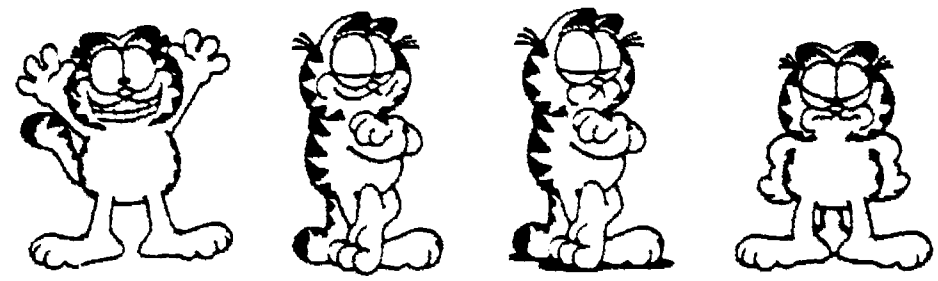
6. How do you feel about starting a new book?



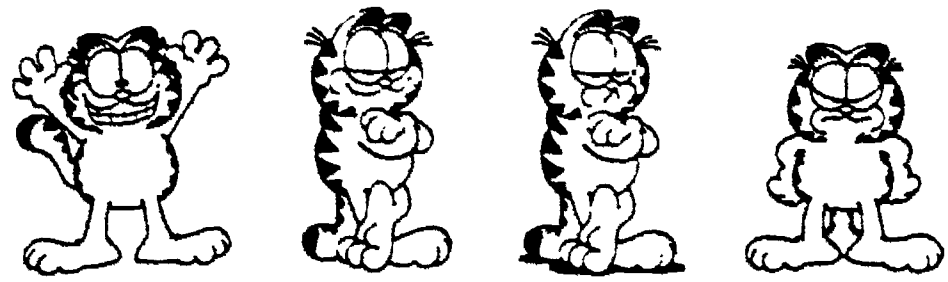
7. How do you feel about reading during summer vacation?



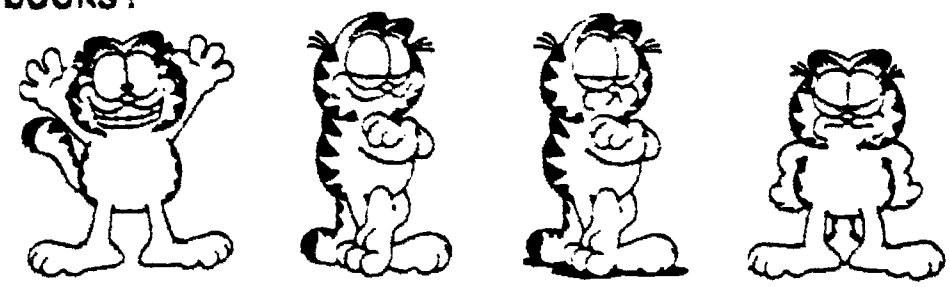
8. How do you feel about reading instead of playing?



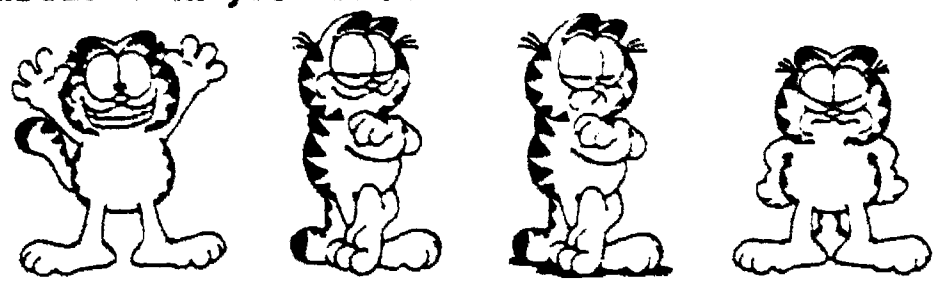
9. How do you feel about going to a bookstore?



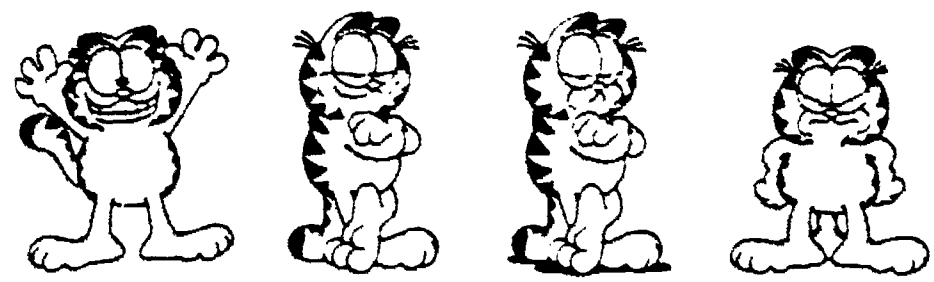
10. How do you feel about reading different kinds of books?



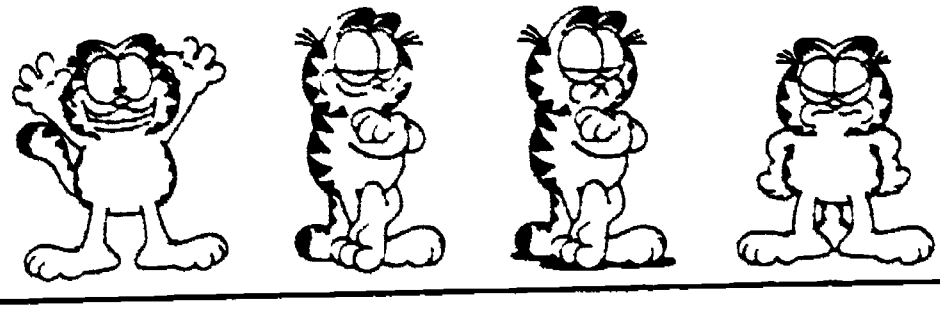
11. How do you feel when the teacher asks you questions about what you read?



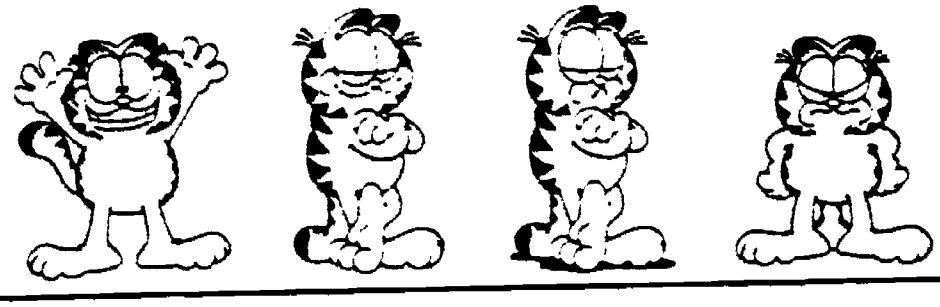
12. How do you feel about doing reading workbook pages and worksheets?



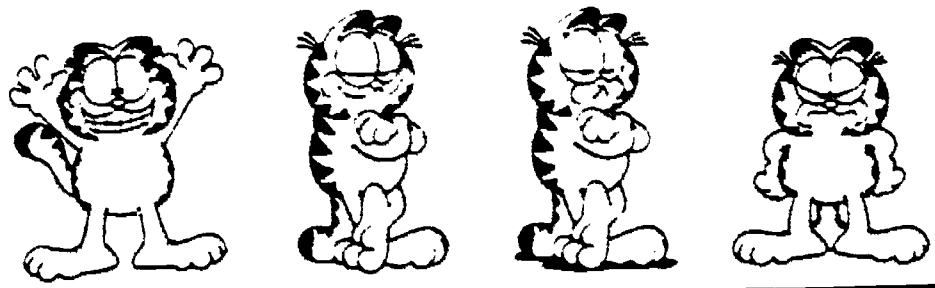
13. How do you feel about reading in school?



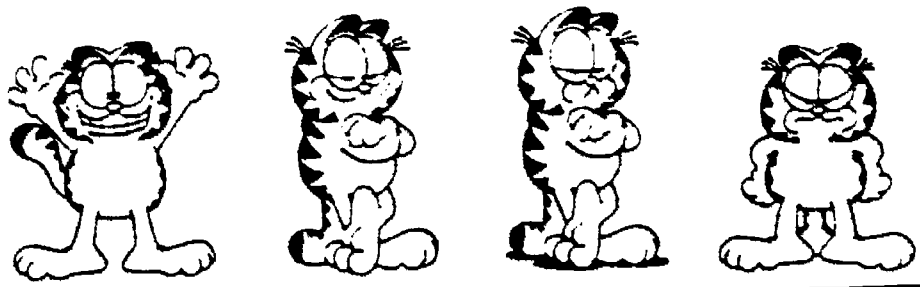
14. How do you feel about reading your school books?



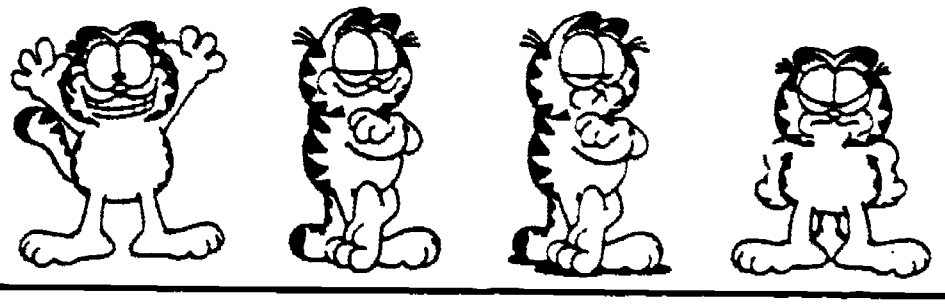
15. How do you feel about learning from a book?



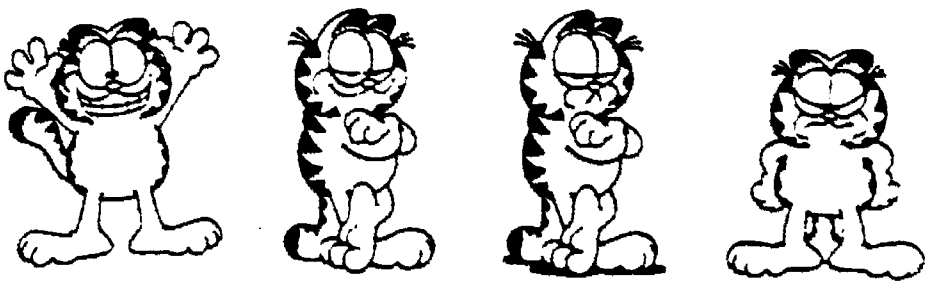
16. How do you feel when it's time for reading class?



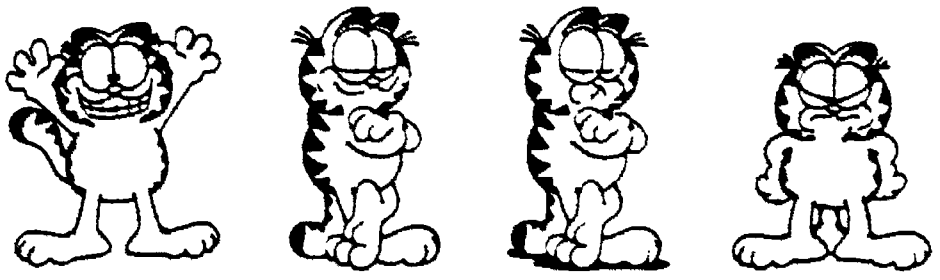
17. How do you feel about the stories you read in reading class?



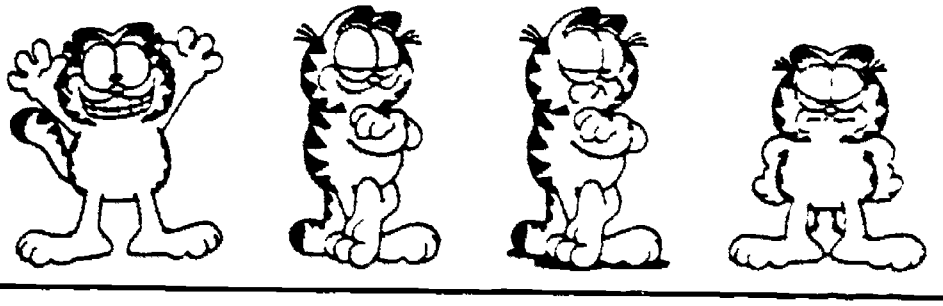
18. How do you feel when you read out loud in class?



19. How do you feel about using a dictionary?



20. How do you feel about taking a reading test?



Elementary Reading Attitude Survey
Scoring sheet

Student name _____

Teacher _____

Grade _____ Administration date _____

Scoring guide	
4 points	Happiest Garfield
3 points	Slightly smiling Garfield
2 points	Mildly upset Garfield
1 point	Very upset Garfield

Recreational reading	Academic reading
1. ____	11. ____
2. ____	12. ____
3. ____	13. ____
4. ____	14. ____
5. ____	15. ____
6. ____	16. ____
7. ____	17. ____
8. ____	18. ____
9. ____	19. ____
10. ____	20. ____
Raw score: ____	Raw score: ____

Full scale raw score (Recreational + Academic): _____

Percentile ranks

Recreational	
Academic	
Full scale	

Elementary Reading Attitude Survey
Directions for use

The Elementary Reading Attitude Survey provides a quick indication of student attitudes toward reading. It consists of 20 items and can be administered to an entire classroom in about 10 minutes. Each item presents a brief, simply-worded statement about reading, followed by four pictures of Garfield. Each pose is designed to depict a different emotional state, ranging from very positive to very negative.

Administration
Begin by telling students that you wish to find out how they feel about reading. Emphasize that this is *not* a test and that there are no "right" answers. Encourage sincerity.

Distribute the survey forms and, if you wish to monitor the attitudes of specific students, ask them to write their names in the space at the top. Hold up a copy of the survey so that the students can see the first page. Point to the picture of Garfield at the far left of the first item. Ask the students to look at this same picture on their own survey form. Discuss with them the mood Garfield seems to be in (very happy). Then move to the next picture and again discuss Garfield's mood (this time, a *little* happy). In the same way, move to the third and fourth pictures and talk about Garfield's moods—a little upset and very upset. It is helpful to point out the position of Garfield's *mouth*, especially in the middle two figures.

Explain that together you will read some statements about reading and that the students should think about how they feel about each statement. They should then circle the picture of Garfield that is closest to their own feelings. (Emphasize that the students should respond according to their own feelings, not as Garfield might respond!) Read each item aloud slowly and distinctly; then read it a second time while students are thinking. Be sure to read the item *number* and to remind students of page numbers when new pages are reached.

Scoring
To score the survey, count four points for each leftmost (happiest) Garfield circled, three for each slightly smiling Garfield, two for each mildly upset Garfield, and one point for each very upset (rightmost) Garfield. Three scores for each student can be obtained: the total for the first 10 items, the total for the second 10, and a composite total. The first half of the survey relates to attitude toward recreational reading; the second half relates to attitude toward academic aspects of reading.

Interpretation
You can interpret scores in two ways. One is to note informally where the score falls in regard to the four nodes of the scale. A total score of 50, for example, would fall about mid-way on the scale, between the slightly happy and slightly upset figures, therefore indicating a relatively indifferent overall attitude toward reading. The other approach is more formal. It involves converting the raw scores into percentile ranks by means of Table 1. Be sure to use the norms for the right grade level and to note the column headings (Rec = recreational reading, Aca = academic reading, Tot = total score). If you wish to determine the average percentile rank for your class, average the raw scores first; then use the table to locate the percentile rank corresponding to the raw score mean. Percentile ranks cannot be averaged directly.

APPENDIX

Technical aspects of the Elementary Reading Attitude Survey

The norming project

To create norms for the interpretation of scores, a large-scale study was conducted in late January, 1989, at which time the survey was administered to 18,138 students in Grades 1-6. A number of steps were taken to achieve a sample that was sufficiently stratified (i.e., reflective of the American population) to allow confident generalizations. Children were drawn from 95 school districts in 38 U.S. states. The number of girls exceeded by only 5 the number of boys. Ethnic distribution of the sample was also close to that of the U.S. population (*Statistical abstract of the United States*, 1989). The proportion of Blacks (9.5%) was within 3% of the national proportion, while the proportion of Hispanics (6.2%) was within 2%.

Percentile ranks at each grade for both subscales and the full scale are presented in Table 1. These data can be used to compare individual students' scores with the national sample and they can be interpreted like achievement-test percentile ranks.

Table 1
Mid-year percentile ranks by grade and scale

Raw	Grade 1			Grade 2			Grade 3			Grade 4			Grade 5			Grade 6		
Scr	Rec	Acs	Tot	Rec	Acs	Tot	Rec	Acs	Tot	Rec	Acs	Tot	Rec	Acs	Tot	Rec	Acs	Tot
80			99			99			99			99			99			99
79			95			96			98			99			99			99
78			93			95			97			98			99			99
77			92			94			97			98			99			99
76			90			93			96			97			98			99
75			88			92			95			96			98			99
74			86			90			94			95			97			99
73			84			88			92			94			97			98
72			82			86			91			93			96			98
71			80			84			89			91			95			97
70			78			82			86			89			94			96
69			75			79			84			88			92			95
68			72			77			81			86			91			93
67			69			74			79			83			89			92
66			66			71			76			80			87			90
65			62			69			73			78			84			88
64			59			66			70			75			82			86
63			55			63			67			72			79			84
62			52			60			64			69			76			82
61			49			57			61			66			73			79
60			46			54			58			62			70			76
59			43			51			55			59			67			73
58			40			47			51			56			64			69
57			37			45			48			53			61			66
56			34			41			44			48			57			62
55			31			38			41			45			53			58
54			28			35			38			41			50			55
53			25			32			34			38			46			52
52			22			29			31			35			42			48
51			20			26			28			32			39			44
50			18			23			25			28			36			40
49			15			20			23			26			33			37
48			13			18			20			23			29			33
47			12			15			17			20			26			30
46			10			13			15			18			23			27
45			8			11			13			16			20			25
44			7			9			11			13			17			22
43			6			8			9			12			15			20
42			5			7			8			10			13			17
41			5			6			7			9			12			15
40	99	99	4	99	99	5	98	98	6	99	99	7	99	99	10	99	99	13
39	92	91	3	94	94	4	96	97	5	97	98	6	98	98	9	98	99	12
38	89	88	3	92	92	3	94	95	4	95	97	5	96	96	8	97	98	10

37	86	85	2	88	89	2	90	93	3	92	95	4	94	98	7	95	99	8
36	81	79	2	84	85	2	87	91	2	88	93	3	91	96	6	92	98	7
35	77	75	1	79	81	1	81	88	2	84	90	3	87	95	4	88	97	6
34	72	69	1	74	78	1	75	83	2	78	87	2	82	93	4	83	95	5
33	65	63	1	68	73	1	69	79	1	72	83	2	77	90	3	79	93	4
32	58	58	1	62	67	1	63	74	1	66	79	1	71	86	3	74	91	3
31	52	53	1	56	62	1	57	69	0	60	75	1	65	82	2	69	87	2
30	44	49	1	50	57	0	51	63	0	54	70	1	59	77	1	63	82	2
29	38	44	0	44	51	0	45	58	0	47	64	1	53	71	1	58	78	1
28	32	39	0	37	46	0	38	52	0	41	58	1	48	66	1	51	73	1
27	26	34	0	31	41	0	33	47	0	35	52	1	42	60	1	46	67	1
26	21	30	0	25	37	0	28	41	0	29	46	0	36	54	0	39	60	1
25	17	25	0	20	32	0	21	36	0	23	40	0	30	49	0	34	54	0
24	12	21	0	15	27	0	17	31	0	19	35	0	25	42	0	29	49	0
23	9	18	0	11	23	0	13	26	0	14	29	0	20	37	0	24	42	0
22	7	14	0	8	18	0	9	22	0	11	25	0	16	31	0	19	36	0
21	5	11	0	6	15	0	6	18	0	9	20	0	13	26	0	15	30	0
20	4	9	0	4	11	0	5	14	0	6	16	0	10	21	0	12	24	0
19	2	7		2	8		3	11		5	13		7	17		10	20	
18	2	5		2	6		2	8		3	9		6	13		8	15	
17	1	4		1	5		1	5		2	7		4	9		6	11	
16	1	3		1	3		1	4		2	5		3	6		4	8	
15	0	2		0	2		0	3		1	3		2	4		3	6	
14	0	2		0	1		0	1		1	2		1	2		1	3	
13	0	1		0	1		0	1		0	1		1	2		1	2	
12	0	1		0	0		0	0		0	1		0	1		0	1	
11	0	0		0	0		0	0		0	0		0	0		0	0	
10	0	0		0	0		0	0		0	0		0	0		0	0	

Reliability

Cronbach's alpha, a statistic developed primarily to measure the internal consistency of attitude scales (Cronbach, 1951), was calculated at each grade level for both subscales and for the composite score. These coefficients ranged from .74 to .89 and are presented in Table 2.

It is interesting that with only two exceptions, coefficients were .80 or higher. These were for the recreational subscale at Grades 1 and 2. It is possible that the stability of young children's attitudes toward leisure reading grows with their decoding ability and familiarity with reading as a pastime.

Table 2
Descriptive statistics and internal consistency measures

		Recreational Subscale				Academic Subscale				Full Scale (Total)			
Grade	N	M	SD	SeM	Alpha[a]	M	SD	SeM	Alpha	M	SD	SeM	Alpha
1	2,518	31.0	5.7	2.9	.74	30.1	6.8	3.0	.81	61.0	11.4	4.1	.87
2	2,974	30.3	5.7	2.7	.78	28.8	6.7	2.9	.81	59.1	11.4	3.9	.88
3	3,151	30.0	5.6	2.5	.80	27.8	6.4	2.8	.81	57.8	10.9	3.8	.88
4	3,679	29.5	5.8	2.4	.83	26.9	6.3	2.6	.83	56.5	11.0	3.8	.89
5	3,374	28.5	6.1	2.3	.86	25.6	6.0	2.5	.82	54.1	10.8	3.8	.89
6	2,442	27.9	6.2	2.2	.87	24.7	5.8	2.5	.81	52.5	10.6	3.5	.89
All	18,138	29.5	5.9	2.5	.82	27.3	6.6	2.7	.83	56.8	11.3	3.7	.89

[a]Cronbach's alpha (Cronbach, 1951).

Validity

Evidence of construct validity was gathered by several means. For the recreational subscale, students in the national norming group were asked (a) whether a public library was available to them and (b) whether they currently had a library card. Those to whom libraries were available were separated into two groups (those with and without cards) and their recreational scores were compared. Cardholders had significantly higher ($p < .001$) recreational scores ($M = 30.0$) then noncardholders ($M = 28.9$), evidence of the subscale's validity in that scores varied predictably with an outside criterion.

A second test compared students who presently had books checked out from their school library versus students who did not. The comparison was limited to children whose teachers reported not requiring them to check out books. The means of the two groups varied significantly ($p < .001$), and children with books checked out scored higher ($M = 29.2$) than those who had no books checked out ($M = 27.3$).

A further test of the recreational subscale compared students who reported watching an average of less than 1 hour of television per night with students who reported watching more than 2 hours per night. The recreational mean for the low televiewing group (31.5) significantly exceeded ($p < .001$) the mean of the heavy televiewing group (28.6). Thus, the amount of television watched varied inversely with children's attitudes toward recreational reading.

The validity of the academic subscale was tested by examining the relationship of scores to reading ability. Teachers categorized norm-group children as having low, average, or high overall reading ability. Mean subscale scores of the high-ability readers ($M = 27.7$) significantly exceeded the mean of low-ability readers ($M = 27.0$, $p < .001$), evidence that scores were reflective of how the students truly felt about reading for academic purposes.

The relationship between the subscales was also investigated. It was hypothesized that children's attitudes toward recreational and academic reading would be moderately but not highly correlated. Facility with reading is likely to affect these two areas similarly, resulting in similar attitude scores. Nevertheless, it is easy to imagine children prone to read for pleasure but disenchanted with assigned reading and children academically engaged but without interest in reading outside of school. The intersubscale correlation coefficient was .64, which meant that just 41% of the variance in one set of scores could be accounted for by the other. It is reasonable to suggest that the two subscales, while related, also reflect dissimilar factors—a desired outcome.

To tell more precisely whether the traits measured by the survey corresponded to the two subscales, factor analyses were conducted. Both used the unweighted least squares method of extraction and a varimax rotation. The first analysis permitted factors to be identified liberally (using a limit equal to the smallest eigenvalue greater than 1). Three factors were identified. Of the 10 items comprising the academic subscale, 9 loaded predominantly on a single factor while the 10th (item 13) loaded nearly equally on all three factors. A second factor was dominated by 7 items of the recreational subscale, while 3 of the recreational items (6, 9, and 10) loaded principally on a third factor. These items did, however, load more heavily on the second (recreational) factor than on the first (academic). A second analysis constrained the identification of factors to two. This time, with one exception, all items loaded cleanly on factors associated with the two subscales. The exception was item 13, which could have been interpreted as a recreational item and thus apparently involved a slight ambiguity. Taken together, the factor analyses produced evidence extremely supportive of the claim that the survey's two subscales reflect discrete aspects of reading attitude.

An informal inventory for adolescents that assesses the reader, the text, and the task

Kinney teaches in the department of teacher education and directs the reading clinic at Eastern Michigan University (Ypsilanti MI 48197, USA). Harry is a reading specialist in the La Crosse Public School System, La Crosse, Wisconsin.

Martha A. Kinney
Ann L. Harry

■ Reading diagnosis today is at a crossroads. There has been a general outcry for changes in the way we assess a student's reading ability (Caldwell, 1985; Henk, 1987; Leslie, 1987; Paratore & Indrisano, 1987; Valencia & Pearson, 1987). Former diagnostic tools such as the Woodcock Reading Mastery Tests (Woodcock, 1973) and the host of informal reading inventories—such as the Analytic Reading Inventory (Burns & Roe, 1985), the Classroom Reading Inventory (Silvaroli, 1986), and so on—that were once the mainstay of reading diagnosis in the Chapter 1 and learning disabilities classrooms no longer yield the type of information necessary to plan an appropriate instructional program. As Henk (1987) succinctly puts it: "They no longer embody state of the art knowledge of the reading process" (p. 861).

Perhaps nowhere is a change in reading diagnosis needed more than in secondary (junior and senior high) reading. In our work with secondary problem readers, we have been consistently frustrated in our attempts to use traditional reading inventories to diagnose our students' strengths and weaknesses.

Because many of our students read at only a fourth-grade level, we need information that goes beyond their sight vocabulary level, oral reading miscues, ability to decode nonsense words, and literal comprehension—all that the traditional diagnostic tests yield. In addition, there is little resemblance between these texts and the reading required of secondary students in either passage characteristics or task demands.

While using content reading inventories (Carvell, 1980; Readence, Baldwin, & Bean, 1981) was a movement in the direction of ecological validity, we felt that this did not sufficiently address some of the fundamental processes of reading—use of prior knowledge, ability to establish cohesion through use of text structure, and inferencing, for example. We therefore decided to construct an inventory that would be appropriate for secondary problem readers and more accurately reflect the reading process.

Recent research has led to a definition of reading as a constructive process whereby meaning is ob-

Figure 1
Passage and hierarchical outline

Textbook excerpt

Long before the pyramid age in Egypt, a king who died was buried in a shallow grave on the edge of the desert. Over the grave was piled a mound of sand. Years later, the Egyptians built grave mounds in the shape of a low box, using wood, reeds, and sun-baked brick. After some time, stone was used for the boxlike tombs. Then tombs over the graves began looking like pyramids. The first pyramids are known as step pyramids because each side looked like a flight of steps. The true pyramid of the pyramid age had a square base; the sides were triangles that joined at the top.

The Egyptians believed that if a dead person's soul or spirit was to live forever, it must be able to return to its body. It was, therefore, important that the body be preserved. The Egyptians soaked the body in certain chemicals which kept it from decaying. Then they carefully wrapped it from head to toe in yards of linen cloth. A body preserved in this way is called a mummy.

Hierarchical outline of the excerpt

1. Stages in the development of Egyptian pyramids (inferred):
   a. A mound of sand over the grave on edge of desert
   b. Mound replaced by low box of wood, reeds, and bricks
   c. Stone used for box
   d. Finally, pyramid shape developed:
      (1) first, step pyramids
      (2) in pyramid age, pyramid had square base, triangular sides joined at top
2. Egyptian belief that a soul must be able to return to its body (reincarnation) led to preserved body called a *mummy.*
   a. Two steps in making a mummy:
      (1) soak body in chemicals
      (2) wrap it in linen

tained through the interaction of several factors such as text characteristics, reader characteristics, and task demands (Anderson, Hiebert, Scott, & Wilkinson, 1985; Wixson & Lipson, 1984). If the above factors are central to the process of reading, they are also central to the process of diagnosis and need to be accounted for in any inventory that attempts to evaluate reading ability.

In this article we will discuss guidelines for the construction of an informal inventory that focuses on text and reader characteristics and task demands and will give examples from a sample inventory. Then we will demonstrate how the inventory could be used to plan an instructional program by examining the responses of two junior high school problem readers.

Guidelines for developing an informal inventory

(1) *Text characteristics.* The first task in the construction of an inventory is to consider the type of text to be used. We follow Johnston (1983), who has identified three text characteristics: content, structure, and language.

(a) To control for these three characteristics, we suggest taking intact passages of 500-700 words from school textbooks, as opposed to writing special passages for the inventory. In this way, the content and language typically encountered by the students will be accurately reflected.

(b) We also recommend selecting passages that use obvious structures and are lengthy enough to develop these structures adequately. For example, in our sample inventory we selected a 700-word passage on the Egyptian pyramids from a junior high world history book. This passage was organized in two parts, with the first giving a general description of pyramids and mummies and the second describing the building of the Great Pyramid. Both passage parts used a cause-effect/chronological structure.

(c) Finally, we recommend that the teacher make a hierarchical outline in order to determine the passage's organization, main ideas, and supporting details. This outline will be used for several tasks in the inventory. (See Figure 1 for an example.)

(2) *Reader characteristics.* The second step is to look at the characteristics of the students who will be reading the selected passages. To identify the charac-

Figure 2
Samples of tasks that assess students' ability to perceive causal chains

Identification of anaphoric referents
1. The Egyptians believed that if a dead person's soul or spirit was to live forever, *it* must be able to return to its body.
2. The Egyptians soaked the body in certain chemicals which kept *it* from decaying.
3. A body preserved in *this way* is called a mummy.

Questions requiring inference from text
1. Name three ways graves were made before the pyramids.
2. Name the two steps in making a mummy.

teristics of secondary problem readers, we suggest using the description of the Stage 3 reader as given in Chall's (1983) stages of reading development.

Chall labels Stage 3 as the "Reading to Learn the New" stage. According to Chall, Stage 3 is characterized by a reader who brings prior knowledge and the beginnings of a conceptual vocabulary and experiential background to the reading task. While to some degree this could be said for all readers, it is particularly applicable to secondary readers, who spend a high percentage of their time with content area textbooks in which the importance of background knowledge and conceptual vocabulary increases.

With this description as a backdrop, the secondary teacher needs to determine the adequacy of the students' background for the reading tasks. What prior knowledge do they bring? How accurate is it? Is their conceptual vocabulary sufficiently developed to handle the passage?

We suggest using two tasks.

(a) Revealing prior knowledge through brainstorming: In a brainstorming activity, the students are asked to tell as much as they can about the central concepts of the passage (as identified in topic statements and main ideas in the hierarchical outline). For example, in our sample inventory the brainstorming questions focused on the development of the pyramids, reincarnation, and the process of making a mummy.

(b) Defining related vocabulary: For a vocabulary task, the students are asked to give oral or written definitions of words specific to the passage. In our sample inventory we asked students to give definitions for 19 content words such as *linen*, *mummy*, and *decay*.

(3) *Task demands.* We now need to take into account the task demands. What are the tasks required of these students in their content area classes? What are the processes necessary to accomplish these tasks?

Chall (1983) describes the tasks of the Stage 3 reader as "learning how to learn from reading...they need to learn a process, how to find information in a paragraph, a chapter, or a book" (pp. 23-24).

(a) Identifying main ideas: One strategy that is essential in this learning process is the use of text structure to identify the main ideas of a text (Armbruster & Anderson, 1982; Kintsch & van Dijk, 1978; Meyer, 1975). We suggest assessing students' use of this strategy through either oral or written recalls. The teacher compares the student's recall to the hierarchical outline, noting the number of main ideas given and the use of organization.

(b) Establishing cohesion: A second strategy necessary in the learning process is the establishment of the cohesive relationship or causal chain among the various text statements (Warren, Nicholas, & Trabasso, 1979). This usually requires the use of inferences on the reader's part.

Two tasks are useful in assessing student ability to establish this causal chain. (i) The first is an anaphoric referent identification task (detecting words that refer back to other words in the text, e.g., pronouns). Can the students identify the antecedent, thus linking two pieces of text? (ii) The second task is a series of inference questions that would require the student to integrate two or more pieces of text.

In the sample inventory we used six anaphora that referred back to major ideas. Students were asked to identify the referent in each case. We also wrote six inference questions based on Pearson and Johnson's (1978) question/answer relationship taxonomy.

See Figure 2 for examples of anaphora tasks and inference questions.

To summarize, we suggest that in constructing a reading inventory for secondary problem readers, the secondary teacher should (1) use text that is representative of the texts encountered by junior and senior

high students, (2) consider the reader's stage of reading development, and (3) tap the various strategies a student must use to understand the text.

Examples in junior high

Perhaps the best way to demonstrate the effectiveness of this type of inventory in instructional planning is to examine the results obtained by administering it to two junior high students. Both had been identified by their teachers as having reading problems and had been placed in a special language arts class. "Bob" is a seventh grader, and "Barb" is an eighth grader. Their responses will be discussed according to each section of the inventory.

Prior knowledge assessment—brainstorming task. Bob's responses to the brainstorming task revealed some general prior knowledge about the Egyptian pyramids. He knew that they were built a long time ago and that kings were buried in them. He made no mention of the stages in pyramid development nor did he describe anything about mummies.

Barb could give only one statement for this part of the inventory. She said that the Egyptians believed in cats and dogs. In analyzing her response, we decided that this statement was a misinterpretation of the fact that Egyptians worshipped cats. Apparently, she was using belief as a synonym for worship and overextended the concept of animal worship to include dogs.

Prior knowledge assessment—vocabulary task. Bob was able to define 10 of the 19 content vocabulary words correctly. For 4 of the words he was not able to give an exact definition but instead associated the word with its semantic network. For example, he defined chemicals as "pollution" and 2600 B.C. as "before time." He was not able to give any definition at all for 5 of the words.

Barb defined 8 of the words correctly. Like Bob, many of her definitions were related to the words' semantic networks but were inaccurate or vague. A nobleman was defined as "a fighter," 2600 B.C. was defined as a "year." One of her definitions appeared to be based on some inappropriate prior knowledge: She defined mummy as a "monster." This definition appears to be derived from late night horror shows and, while accurate in that context, could interfere with understanding the word's use in the context of the passage. She gave no definitions for 5 of the words.

Text structure assessment. Bob did not include any main ideas in his summary. He was able to list the two steps for making a mummy, but he never identified the process as such. The rest of his summary consisted of various facts from each part of the passage. However, the facts were not related to any of the main ideas. He did appear to notice that the passage was organized into two parts. The first part of his summary related to the pyramids and mummies, while the second part focused on the building of the Great Pyramid.

Barb did not include any main ideas in her summary, either. Her summary focused on objects found in the pyramid. Unlike Bob, she did not appear to notice the two parts of the passage: she did not include any information from the second part.

Cohesion assessment—anaphora task. Both students answered only one item on the anaphora task correctly. This was the sentence that used a personal pronoun in the targeted anaphora. The other anaphoric substitutions were expressions such as "this way" or the pronoun "one." It would appear that neither student was familiar with any type of anaphoric reference other than a personal pronoun.

Bob's strategy in identifying the anaphoric referent was to use the main verb of the sentence. This occurred in three of his four errors. Barb appeared to misunderstand that an anaphoric substitute refers back to something previously stated. In three of her four errors, she identified as the referent a noun that came later in the sentence.

Cohesion assessment—inferencing task. Bob answered three of the seven inference questions correctly. His incorrect answers appeared to stem from an overreliance on unrelated prior knowledge or common sense. When asked to name three ways graves were built before the pyramids, he responded "by hand and by shovel." Similarly, when asked who built the Great Pyramid, he responded "lots of men." Both answers were literally correct but were not derived from the text.

Barb also answered three inference questions correctly. However, she also gave partially correct answers to two additional ones. She named only one way graves were made before the pyramids and identified only one step in making a mummy. She was evidently either failing to realize that the questions required two-part answers or failing to link the necessary pieces of text.

Instructional implications

After examining what these students did, the next question is what should the teacher do? Is the inventory helpful in planning an instructional program? The answer would appear to be yes.

To judge from their responses on the inventory, it would appear that the students have inadequate prior knowledge and vocabulary to handle the text. Before they can read their text, their teacher will have to

spend considerable instructional time developing their background knowledge, perhaps through activities such as brainstorming and semantic mapping (Johnson, Pittelman, & Heimlich, 1986). Both students will need help in developing the specificity of their vocabulary. A definition framework that identifies the category, descriptors, and examples of a word such as the one developed by Schwartz and Raphael (1985) would be helpful in this area.

Both students have difficulty in identifying text structure and using it to identify main ideas, although Bob has at least shown signs of a rudimentary knowledge. Reading-writing procedures such as hierarchical summarizing, cooperative summarizing, and content mapping (Taylor, 1986) would be helpful in developing student use of text structure.

Both students showed little knowledge of anaphora other than personal pronouns. Instruction in other types of back reference using techniques developed by Irwin (1986) and Baumann (1986) is crucial to help these students establish cohesion. These techniques use a direct instruction model to provide the student with explanations about the types and purposes of anaphora as well as guided practice in identifying anaphoric substitutes and their referents in the context of the students' actual text.

Finally, both students need to acquire additional strategies to answer inference questions. Teaching them the QAR (question-answer relationship) strategies developed by Raphael (1986) would be of benefit. As students are guided to analyze and create questions through QAR strategies, they become aware that some questions are answered directly in the text; other questions require thinking, searching, and connecting ideas; and still others can be answered by relating their own knowledge to information provided by the author.

In conclusion, we feel that we were successful in developing an informal inventory that was more sensitive to the reading abilities of our secondary problem readers, both in the type of text used and the task demands. By following our outline, a secondary reading teacher could construct a similar inventory on the texts used in his or her particular school.

The results that we obtained from administering this inventory to junior high students have demonstrated that it was useful in diagnosing the students' strengths and weaknesses and, consequently, in planning an appropriate instructional program for them.

We began by stating that reading diagnosis is at a crossroads. We hope we have been successful in describing one appropriate path to take.

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