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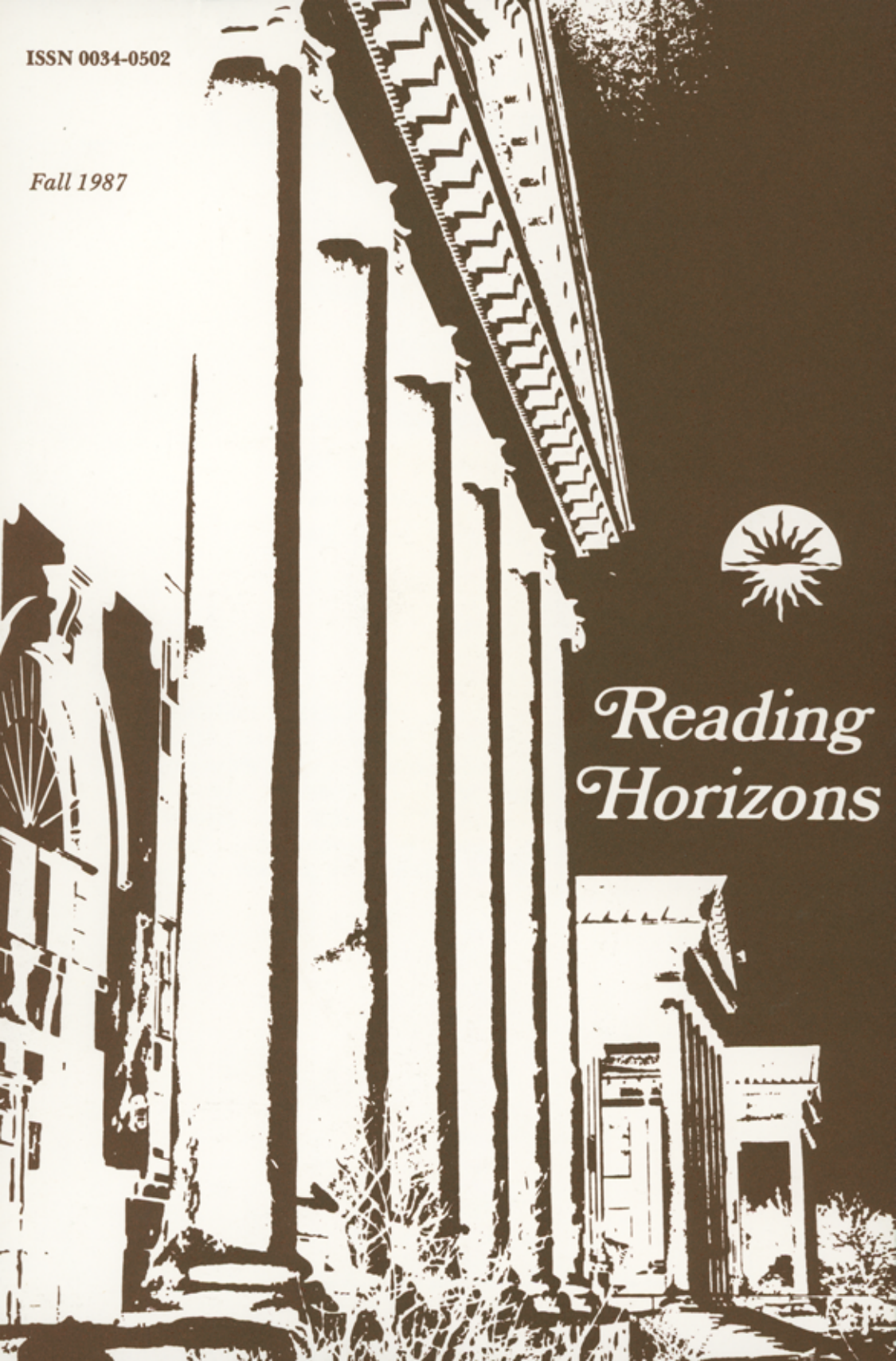


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A FRILL THAT WORKS: CREATIVE DRAMATICS IN THE BASAL READING LESSON

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The value of creative dramatics as a viable classroom tool has long been debated by researchers and practitioners alike. A myriad of worthwhile outcomes, including critical thinking, concentration, reading comprehension improvement, and basic skills, have been cited by its proponents. However, Massey & Koziol (1978) have noted that the skeptics cite a "paucity of empirical evidence to support such claims." (p. 92)

Creative drama is here defined as "structured and cooperatively-planned playmaking. . . usually developed from a simple story, folk tale, poem, or scenes from a long book. It goes beyond dramatic play or simple improvisation in that it has a form with a beginning, middle, and end. The dialogue is always created by the players, whether the content is taken from a story, poem, or chapter of a book." (Huck, 1979, p. 661)

In a 1968 study, Smilansky examined how sociodramatic play can be used as a means for furthering the intellectual development of underprivileged children. She noted marked improvement in the verbalization of the experimental group, that is, in their quality of speech, their utilization of a broader range of vocabulary, and longer sentences.

In a variation on this study, Saltz, Dixon, & Johnson (1977) found that training preschoolers in thematic-fantasy play led to increases in their intellectual performance, as measured by standard IQ tests.

With regard to creative drama as it relates more specifically to reading, Carlton & Moore (1966), using a technique they termed self-directive dramatization, concluded that significantly greater gains in reading were achieved through the use of this method in combination

with stories which students selected and read than through the use of methods involving the traditional techniques of the basal readers in small groups or in the whole class.

A 1978 study conducted by Henderson & Shanker compared the use of interpretive dramatics activities to basal reader workbooks for developing the comprehension skills of recognition and recall of details, sequencing of events, and generalizing the main idea. Text results yielded significantly greater gains in all three areas of comprehension during the interpretive dramatics sessions.

Yawkey (1980) worked with 5-year-olds in examining the effects of play in increasing reading achievement. Scores on the Gates-McGinitie Reading Test were significantly higher for children who used play to rehearse story passages than for those in the control group.

As a result of a review of experimental studies in creative dramatics, Massey & Koziol (1978) concluded that "work in creative dramatics can be a positive influence on cognitive development generally and on the comprehension and retention of literature." (p. 94)

The present study is primarily concerned with the relationship that exists between creative dramatics and reading comprehension. The goal of the study is to answer the questions, "Does creative drama positively affect reading comprehension? Will students who dramatically reenact stories achieve significantly higher scores on a post reading comprehension test than those students who do not engage in dramatic reenactment?"

METHODS

Subjects

The subjects for this study were 21 sixth-grade children comprising an intact classroom. These children were from a lower middle SES background and 80% black. There were 12 boys and 9 girls.

On the basis of the Ginn and Company end-of-the-book mastery test (720 series) and the basal's informal reading inventories, all children in the sample had been placed into and were reading from the series' sixth-grade level book.

Sixth-grade students had been chosen for this study

since, by this level, most teachers have completely abandoned any use of creative dramatics in their lessons, concentrating more on discussion, worksheets, and drill.

Procedure

The class was randomly divided into two groups, the control group containing 11 students and the experimental group having 10 students.

On Day 1 of the study, the African folktale, "Anansi's Fishing Expedition," was read silently by the class. This particular story was used because it was the next one the students were to read. As was usual, vocabulary was discussed before reading the story.

On Day 2, the drama group remained in the classroom as the control group--under the direction of the student teacher--went to the library so that they would not be influenced by the talking, planning, and performing of the experimental group. For the latter group, the remainder of the period was spent discussing the folktale. Suggestions and questions from the teacher's guide were used as a basis for this discussion. An attempt was made to have the discussion be an accurate representation of the type of discussion that usually followed a basal reading story. Vocabulary was reviewed as well. The discussion lasted for the entire 50-minute period.

Meanwhile, the experimental group prepared a dramatic presentation based on the story. The researcher--and leader of this group--followed the recommended steps set forth by Chambers (1970). They are as follows:

1. With the students, decide on the story's main events. List them on the board.
 2. Sequence the events if necessary.
 3. Decide which events to dramatize. Restructure these (what happened first, then what. . .?).
 4. Briefly discuss characterization, setting, and motive.
 5. Designate parts.
 6. Kids go off to plan--approx. five minutes.
 7. Presentation.
 8. Short critique by the audience.
 9. Replay with a new group of children. (Repeat Steps 5-8)
-

The entire process lasted 50 minutes.

On Day 3 of the experiment, both groups--now back together in the classroom--received a written posttest consisting of five inferential-type questions based on the short story. Inferential questions are questions that relate parts of the text to each other and the text to the student's experience in order to arrive at expectations. They may be analytic and/or predictive and are generally open-ended. (Farr & Roser, 1979) Inferential-type questions were chosen to test reading comprehension because they are in the highest levels of cognitive questioning (Gall, et al., 1971), are often the most difficult for children to answer, and the least directly taught. (Stoodt, 1984) In choosing a difficult type of question to answer, the researcher hoped that significant differences between the two groups would become more readily apparent.

The five questions asked were the following:

1. What kind of a person was Anansi?
2. What do you think would have happened if Anansi hadn't been fooled by Anene?
3. What other ending can you think of for this story?
4. What would be another good title for this story?
5. Why did the author write this story? (What was the lesson he or she was trying to teach?)

Students wrote out their answers beneath each question.

RESULTS

Table 1 Questions	Control Group	Experimental Group
#1 *	7/11 **	8/10
2	7/11	9/10
3	8/11	8/10
4	7/11	8/10
5	8/11	9/10

* Question text--above. ** Correct/Possible correct

DISCUSSION

A number of possible limitations accompanied this experimental inquiry into the value of using creative dramatics as a means toward better comprehension. The first is that the researcher directed the experimental group. The students had not previously worked with her and therefore may have been affected by her "newness," thereby being more attentive, more anxious to please, and/or more willing to take risks.

Conversely, the control group was headed by the classroom's student teacher. While he appeared to be doing an exceptionally competent job--as rated by his cooperating teacher and university supervisor--, he may not have been adequately experienced in leading a group discussion in reading.

The sample was very small--a total of 21 students--and comprised an intact classroom.

Likewise, the method was used with only one basal reading story. It becomes difficult to draw conclusions based upon one try. In addition, there exists the possibility that the story used may have been better suited for dramatization than other stories from the basal. Results may have been very different if more than one story had been dramatized.

Finally, no pilot study was done of the posttest inferential questions. They may not have yielded totally reliable results.

Despite the above limitations, the data seems to support the hypothesis that students who dramatically reenact stories achieve significantly higher scores on a post reading comprehension test than those students who do not engage in the reenactment. Results indicated that the sixth-grade students in this study more competently answered inferential-type questions if they had previously participated in the creative dramatization of the basal story.

A few tentative educational implications can be drawn from this study. The first is that creative dramatics, far from being a "frill," is a viable instructional tool when used in conjunction with reading. Students are required

to practice story comprehension through recalling details, sequencing events, generalizing main ideas, defining characters, and utilizing story vocabulary. The student "experiences" the story first-hand as one of its characters. An intimate understanding of its meaning evolves. In addition, creative dramatics can be easily incorporated into the reading lesson. In the amount of time that it takes for a formal discussion of the story, reenactment of it can just as easily occur.

The second implication stems from the observation that students seemed to take a greater interest in reading during the creative drama session. They appeared eager to recall events and sequence them, and to discuss characters and their motives. Most of all, students actively took part in the reenactment, vying for characters they wished to portray and enthusiastically planning their respective parts. Nearly all of the pupils asked to replay the drama for a third time even though class time was running out. Far from the often passive, "ho-hum" discussions that can follow the reading of a basal story, creative dramatics opened up a well of enthusiasm and activity in the students.

In conclusion, this study has provided information which should be useful when planning a basal reading lesson. The results here should help to emphasize the notion that creative dramatics can be used in place of and/or in addition to the more traditional story discussion. Dramatics is play that works!

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EVALUATING COMPUTER BOOKS WITH THE YAWN INDEX

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When I asked a reading specialist about her image of the connection between reading and computers in the classroom, she responded, "Children reading a green computer monitor." Grimacing, she added, "Personally, I prefer that they curl up with a good book than with a computer."

Other reading teachers think of teaching skills with computer drills or of heightening interest and comprehension with language games.

But another connection exists between computers and reading in the growing body of trade books on computers written for children. These books offer children a range of informational reading, discussing how computers work in society, relating computer history, or teaching children how to use computers.

I looked at 47 computer trade books published between 1984 and 1986 for elementary and middle school children. To evaluate these books, I used seven criteria which make up what I call the Yawn Index.

Some of the best books, described later, will keep children reading, and the results of the analysis suggest guidelines for trade books on computers. Here are the criteria.

The Yawn Index Criteria

1) BEGINNING--Does the beginning entice the reader? In the first few lines, readers often decide whether or not to read further. I wondered whether computer books begin with grabbers or favor dry beginnings such as, "There are five components to a computer" (yawn).

2) TONE--Does the tone invite the reader? The tone criterion examines how authors speak to the reader. For example, nonfiction authors can use "you" as a warm and

direct address to the reader or as a vague general reference (the type of "you" we discourage students from using in their writing).

3) LANGUAGE--Does the language enliven the topic? Language can delight or mystify. I looked to see whether the computer books offer good models of writing and avoid common stylistic weaknesses such as unnecessary passives, cliches, and overuse of "to be."

4) SELECTION--Is content well chosen? This criterion asks whether relevance to the book's purpose guides selection of material or whether facts seem arbitrary and unrelated.

5) ORGANIZATION--Is the organization logical? This criterion looks for a logical order which heightens interest and helps readers understand, as with a simple to complex sequence.

6) GRAPHICS--Do the visuals attract and clarify? Children's trade books generally use photographs, drawings, illustrations, or other visual aids such as boldface headings. This criterion is based on how well these visuals work to attract and inform.

7) STEREOTYPES--Does the book avoid stereotypes? In the prestige-ridden field of computers, sex or ethnic stereotypes are unforgivable--and boring. Illustrations of people and examples of people using computers, as well as personal pronouns, provide data for this criterion.

How Did They Do?

Each criterion is worth a point or a yawn. Yawns are worth nothing, and all-yawn books award readers with an instant nap. Best books garner seven points.

In the analysis, six (13%) of the books fall at the low end of the criteria scale, with zero to three points. Half (53%) fall mid scale with four to five points and some yawns. Many books (34%), however, say no to yawns, winning at least six of the points.

High and low point books show a clear difference on four criteria: Beginning, Tone, Language, and Organization. High ranked books' beginnings entice; lows do not. Highs

have warm conversational tones: lows are often didactic or commanding. Highs read pleasantly: lows ache with "it" and "was" and "there". One book typifies low ranked books by using "very" four times in 90 words. High books organize effectively; lows tend to scatter or repeat ideas, with little cohesion.

The selection criterion also distinguishes highs from lows, but with exceptions. Some dull books have excellent selection of information, just poor presentation. However, high point books offer an abundance of interesting material, while low point books more often list superficial facts without adequate detail.

More books score a point on graphics than on any other criterion. Few books mislead or confuse readers with obscure labels or with drawings that make little sense. Because the books generally do attract and clarify with visuals, the graphics criterion is least useful in evaluating the books.

Many books are big losers in stereotypes. Minorities rarely appear. In fifteen books (34%), males come out ahead on head counts of pictures, as much as 16 males to one female. What happened to the high percentage of real life programmers and computer users who are women?

Saying No to Yawns

Based on the Yawn Index, here are some good books for young readers.

Excelling on all seven criteria, Catherine O'Neill's Computers, Those Amazing Machines outdoes all the other books in graphics. Go through the spashy, varied pages of this National Geographic book once, just looking. Then read. What do these pictures have to do with computers? The child playing racquetball was born without a hand; now she has a computerized artificial one. Michael Jackson entertains on stage in two pages of red lights, in a computerized concert. A cosmetics artist applies makeup to a model's face on a computer monitor, while the model sits by. If the makeup is not right, the artist changes it ON THE SCREEN. This book varies its style, and not only with the pictures. The writing is anecdotal about how computers are used and more expository when describing how they work.

Melvin Berger's Computers: A Question and Answer Book succeeds with a different tack. Instead of stunning pictures, the pages show only print. But the attractive format pleases--boldface questions followed by answers in regular type. This compendium rewards the browser with computer tidbits. A chess Grand Master loses to a computer, a moth dies in a Harvard mainframe and gives birth to the term "debugging," and a computer helps a deaf person hear. For the young researcher who needs to find striking details quickly, Berger has provided an eight page index.

George Sullivan in Computer Kids introduces us to eight otherwise ordinary children who have excelled with computers--such as teaching younger children how to use computers or becoming rich and famous programmers. Sullivan writes readable accounts of each child and then quotes the children from interviews. Many of the children note the importance of books for learning at ages eight and nine. One of them says, "I'm mostly self-taught...most of what I know, I learned from books. As I read, I keep trying out things on the computer" (p. 82).

For middle school readers, David Taft's Computer Programming enlists fiction to teach BASIC. Sally and Sam have a problem. One of them has to go on a spacewalk, but neither wants to leave their ship. They have no coin to toss. Sally decides to write a random number program to replace the missing coin. Their adventures prompt a "Now try this" section on each page, with a short BASIC program to type into a computer and explanations of what the program means. Readers learn how to write simple programs in context of reasons for needing them.

Seymour Simon, with illustrators Barbara and Ed Emberley, has produced Turtle Talk for primary readers. This book on LOGO pulls off the daunting task of introducing a computer language in 32 pages. Angles and degrees mystify most primary children. Knowing this, Simon shows examples of not one but eight right angles on a page. To demonstrate what "wrapping around" means, a turtle walks up, around, behind, and below a computer to simulate what the cursor does when we cannot see it on the screen. Simon and the Emberleys have other top scorers with earlier books, How to Talk to Your Computer and The BASIC Book. Simon's

books begin with action and blend narration, dialogue, and exposition.

Don't miss Penny Holland's six books for young computer readers. The latest, Looking at Word Processing, begins with a limerick about a caveman. Illustrator Patti Boyd portrays this caveman writing his monumental work, "How I Made a Wheel," on a stone age computer. Children quickly learn that making changes with a word processor is easier than fixing mistakes carved in rock.

In all of her computer books, Holland presents activities to do, try, or make. These activities are carefully thought out to involve readers and encourage sharing. In Looking at Computers, children learn how to multiply by nine with their fingers as calculators. In Looking at Sounds and Music, they learn how to draw sound waves describing voice sounds. Best of all, children can have fun with Holland's books even without a computer around, because so many of the activities are child-centered rather than computer-dependent. For the teacher who wishes to teach reading, science, and computers but who has one computer for 30 children to share, Holland's books stretch a computer learning station.

Like Simon, Holland merges narrative with exposition. Tables of contents, glossaries, boldface technical words, and black and white photographs mix with warm language, colorful illustrations, and stories. The color reminds children of familiar storybooks, while the photographs resemble expository texts. The young reader who is more used to stories than exposition will feel comfortable with Holland's blend of nonfiction and fun.

Suggestions for Future Computer Books

The findings of the analysis suggest some directions for future books, based on the Yawn Index. Reading teachers can look for trade books which follow these guidelines

- 1) BEGINNING. Begin with a grabber. Set a purpose or interest for reading by involving children with action, narrative, dialogue, or a scenario.

- 2) TONE. Put young readers at ease. Speak warmly and directly to them. Make computers seem fun, and look for opportunities for amusing prose.

- 3) LANGUAGE. Make sure computer books are well

written, efficient, and lively. Explain vocabulary and help children pronounce difficult words. Most important, provide good models for children's own writing.

4) SELECTION. Choose child-oriented examples and analogies for clarity and interest, and take the time to explore and illustrate new concepts. Give readers what they need to know. Highly ranked books expect children to be DOING something to try out the concepts.

5) ORGANIZATION. If you have a detailed topic, provide an extensive index. When appropriate, order from simple to complex, with related activities. When the topic does not require a simple to complex organization, organize material in terms of interest: hook the reader by putting the more involving material first. Glue the whole together with references among the parts.

6) GRAPHICS. Refresh readers with drawings, photos, and illustrations. Break up pages to emphasize key ideas. Signaling can help, such as captions in boldface or in different colors. My favorite example of signals comes from Simon's How to Talk to Your Computer: to teach sequencing, a drawing of a peanut precedes each of the four steps for making a peanut butter sandwich.

7) STEREOTYPES. Encourage ALL students' interest in computers. Watch the photographs and pronouns and avoid pictures showing endless series of pale male facezzzzz.

Implications

This analysis of computer trade books suggests that--not surprisingly--such books offer a range of quality to children. Some books will bore children, not only about computers but also about reading. Others will encourage children to curl up with a book, just as the reading specialist wants. The Yawn Index can help teachers locate the interesting books.

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ELEMENTARY SCHOOL MATH INSTRUCTION: CAN READING SPECIALISTS ASSIST?

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While experts in the field of reading increasingly agree on the importance of direct instruction in vocabulary building, professionals in the field of elementary school mathematics tend to emphasize the use of concrete, manipulative materials and informal math language development over direct, specific instruction in technical terms or verbalizations of concepts. Today's elementary classroom teachers find contradictory recommendations when they seek to make decisions about teaching the meanings of technical words in their mathematics classes. This article presents a discussion of the contradictions and some suggestions for practical resolution of disagreements, which will enable school reading specialists to provide both background and practical help to classroom teachers.

Vocabulary Research in Reading and Math

One of the strongest expressions of the necessity for vocabulary building is stated by Readance, Bean, & Baldwin: "As students progress through texts, reading comprehension can diminish to the point of extinction if students have failed to master the words which symbolize important concepts, even when the concepts themselves have been mastered" (1985, p. 86). In addition, the entire April (1986) issue of Journal of Reading focuses on the importance of and methods for developing children's vocabularies. General considerations which can be applied to developing an effective mathematics vocabulary include: ensuring student engagement in the process of learning the new terms; teaching the methods of learning new terms to students so that they will continue the practice on their own; and drawing out their background knowledge of the terms as a first step in instruction, tying that knowledge into their expanding definitions.

In the field of elementary school mathematics, however,

a survey of two levels of seven elementary school mathematics series indicates that clear statements about the need and strategies for direct vocabulary instruction are lacking, although the vocabulary load for each unit in the textbook is presented in the teacher's manual and a glossary is provided in the back of the student text. A search through college textbooks on teaching elementary school mathematics and related professional journals shows variation in the amount of emphasis they give to teaching vocabulary, many barely mentioning it and a few devoting serious attention to it.

While Problem Solving is the first of the Ten Basic Skills in Mathematics delineated by the National Council of Teachers of Mathematics, the National Assessment of Educational Progress reports that test scores in problem solving have gone down in the past decade. Eizen and Dowshen (1985) state that, in school, problem solving exercises are most likely to be presented in written form, and reading comprehension of mathematical terms is a high priority task. Garbe (1985) reports that some students have very imprecise knowledge of mathematical terms (e.g., confusing angle with ankle). He recommends that such confusion be eliminated by precise instruction. He presents evidence that, for the two groups under study, reading ability was a larger factor in understanding math concepts than was ability in mathematics.

In general, then, expert advice seems to be that knowledge of word meanings is highly important to mastery of a topic, further learning in that subject area, and even general cognitive ability. At the same time, there are warnings about leaving the world of concrete materials too soon to seal solely with symbols and learning words without adequate conceptual background. Reading specialists, knowledgeable about the advisability of vocabulary building and effective methods for doing so, can offer informed help on decisions concerning math instruction.

Which Words to Teach?

There are published lists of mathematical terms available (e.g., Earle, 1976) for teacher guidance. In addition, the results of a study of the vocabulary in student glossaries of seven mathematics textbook series at levels three and five are presented in Table 1 at the end of this article.

Terms which are used in three or more of the student glossaries are displayed. Technical terms which appear at both levels 3 and 5 are starred on the Third Level list and do not reappear on the list for "Fifth Level Only". These words are excellent candidates for vocabulary instruction. Reading specialists can advise classroom teachers who use textbook series from other publishers on making adaptations.

When to Teach Them?

Allocating specific times during the math period for vocabulary instruction is appropriate. Twenty minutes a weeks, for example, would be useful by fourth grade. Setting aside special time for vocabulary study enables teachers to separate the teaching of highly developed knowledge of word meanings from the earlier stages of mathematical learning--concrete exploration or gradual increase in the use of symbols for mathematical concepts. If scheduling demands are tight, the time allotted to development of mathematics vocabulary may be considered part of Language Arts or Reading, because content area vocabulary development is clearly part of a good language arts or reading curriculum.

How Can They Be Taught?

Strategies for developing verbal concepts in children begin in the concrete world and develop slowly to the abstract, and many of the terms appearing in Table 1 have concrete representations. Both Baratta-Lorton books (Baratta-Lorton, M., 1976; Baratta-Lorton, R., 1977) offer ways for students to make concrete the meanings behind mathematical terms, ways such as the manipulation of groups of objects or groups of students.

Other terms have multiple meanings, only one of which relates to math; the non-math meanings are often already in the children's vocabularies. Frequent lessons in the multiple meanings of words are useful in expanding mathematics vocabulary. Some of the words in Table 1 which lend themselves to this kind of development are: acute, angle, area, average, chord, circle, common, cone, cube, cup, degree, difference, even, face, family line, obtuse, odd, ordered, place, point, prime, ray, remainder, right, round, scale, square, and whole.

Semantic feature analysis focuses not only on the simi-

larities between concepts but also their differences. Several concepts are selected, for example, geometric forms. Characteristics are elicited from the children, who are handling models of the forms. An example of comparison of the figures is shown in Figure 1. In such activities children practice analyzing and specifying, thinking and communicating about mathematical models while they consolidate their knowledge of technical words.

	CURVED	FLAT SURFACE	HEIGHT	LENGTH	WIDTH	ONLY TWO DIMENSIONS	THREE DIMENSIONS	ANGLES	PERPENDICULAR LINES
CONE	+	+	+	-	+	-	+	-	-
CUBE	-	+	+	+	+	-	+	+	+
CYLINDER	+	+	+	+	+	-	+	-	+
PENTAGON	-	+	+	-	+	+	-	+	+
POINT	-	-	-	-	-	-	-	-	-
PYRAMID	-	+	+	+	+	-	+	+	-
SPHERE	+	-	-	-	-	-	+	-	-
SQUARE	-	+	-	+	+	+	-	+	+
TRIANGLE	-	+	+	-	+	+	-	+	?

Figure 1. Semantic feature analysis:
Example of geometric terms.

Other recommendations include student discussion groups: students join in giving positive and negative examples, offer synonyms, critique those offered, and investigate definitions provided by the teacher. Attention is given to developing schemata for the new words, and relating the words to as many known words as possible. These relationships can be made visual by drawing diagrams which categorize the new terms with known ones. In addition to the semantic map of "fraction" represented in Figure 2, other terms from the glossaries may be used to

create schemata; terms of measurement or geometric terms could each be the unifying concept for a schema to be developed in class.

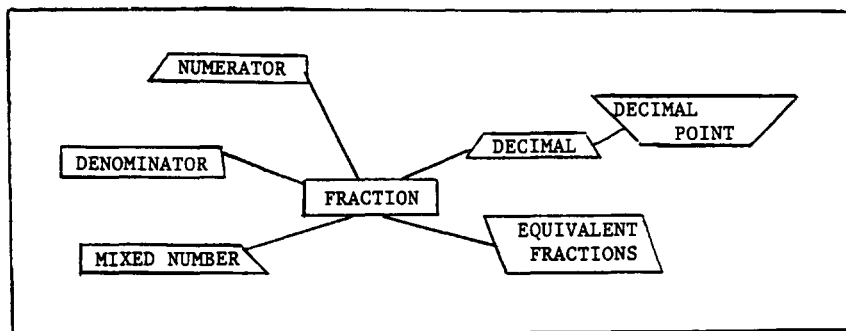


Figure 2. Semantic mapping: Example of "fraction" and related terms.

There are many levels of concreteness and abstraction for the reading specialist to offer to the teacher who decides to emphasize vocabulary development in connection with the study of mathematics. Games such as card games that match a picture of an object or process with an example, a label, and a definition are more abstract than manipulation of people or objects. In the very abstract realm, analogies seem to help students of fifth grade and above to learn definitions (Wolff, Desberg, and Marsh, 1985).

Reading specialists can become an important adjunct to the elementary math program by acquainting teachers with recent research in vocabulary development, modeling varied methods of vocabulary instruction, and pointing out that children who lack an adequate mathematics vocabulary are seriously handicapped in their study of that subject.

The publishers and dates of publication of the seven textbook series examined in this article are:

1. D. C. Heath and Co. (1985).
2. Holt, Rinehart and Winston, Publ. (1981).
3. Houghton Mifflin Co. (1985).
4. Macmillan Publishing Co. (1985).
5. The Riverside Publishing Co. (1985).
6. Scott, Foresman and Co. (1985).
7. Silver Burdett Co. (1981).

Table 1 - VOCABULARY COMMON TO THREE OR MORE
ELEMENTARY MATH TEXTS

Third level		
*addend(s)	*factor(s)	output
A.M.	family of facts	*pentagon
*area	*fraction	*perimeter
bar graph	*gram	*pictograph
centimeter	*graph	*place value
*circle	*greater than	*polygon
*cone	*hexagon	*product
*congruent (figures)	input	*pyramid
*cube	Kilogram	*quadrilateral
cup(s)	Kilometer	*quotient
*cylinder	*less than	*radius
*decimal	*line	*rectangle
decimal point	*line of symmetry	*rectangular prism
*degree(s)	*line segment	*remainder
degree Celsius	*liter	*right angle
degree Fahrenheit	*meter	*round(ing)
*denominator	metric system	segment
*diameter	*mixed number	*sphere
*difference	*multiple	*square
*digit	number sentence	*sum
equation	*numerator	*triangle
*equivalent fraction	*odd number	*volume
*estimate	order property	*whole number
*even number	ordinal (number)	

* indicates words appearing on both the 3rd and 5th levels

FIFTH LEVEL ONLY

acute angle	flow chart	percent
angle	greatest common	perpendicular lines
average	factor	point(s)
chord	grouping property	prime factor
circumference	intersecting lines	prime number
common denominator	isosceles triangle	probability
common factor	least common denominator	
common multiple	least common multiple	product
diagonal	lowest terms (fraction)	protractor
distributive property	negative integer (number)	ratio
dividend	number line	ray
divisor	number sentence	rhombus
edge	numeral	right triangle

equal fractions	obtuse angle	Roman numeral(s)
equal (equivalent) ratios	octagon	scale drawing
equilateral triangle	opposite(s; operations)	scalene triangle
expanded form (numeral)	ordered pair	similar figures (polygon)
exponent	parallel lines	standard numeral
face	parallelogram	trapezoid
		vertex

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THE INTRODUCTION OF SOCIAL STUDIES VOCABULARY BY SEMANTIC FEATURE ANALYSIS: USING A MICRO- COMPUTER DATABASE PROGRAM--A DESCRIPTION

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The introduction of essential vocabulary is a matter of concern to all teachers in all content areas, including social studies. One method for introducing and developing content specific vocabulary is semantic feature analysis (Johnson & Pearson, 1978). In this regard, we present a summary of a teaching experiment in which two data management software packages, PFS:File and PFS:Report, were adapted for classroom instructional use in order to introduce vocabulary concepts using the semantic feature method. We call it a "teaching experiment" because we were uncertain as to the adaptability of these programs for the purpose of teaching semantic feature analysis. However, we found that both PFS:File and PFS:Report were easily adapted to semantic feature analysis and met with a high degree of success.

The curriculum project reported here was conducted in a sixth grade, self-contained classroom. There were 27 students in the room. At the time of the year that this study was conducted, the content of the social studies curriculum being taught was "the Countries of Europe." Therefore, vocabulary and concepts related to this topic were incorporated into the study.

SEMANTIC FEATURE ANALYSIS

Semantic feature analysis is a strategy for introducing essential vocabulary and the relationships of various vocabulary items. The theory of semantic features was introduced by Johnson and Pearson in their text Teaching Reading Vocabulary (1978). Since then, the effectiveness of this strategy has been proven in various studies conducted in classrooms (Toms-Bronowski, 1982; Johnson, Toms-Bronowski, and Pittelman, 1982; and Johnson, Toms-Bronowski, Pittelman, and Levin (unpublished research).

As currently defined in Johnson & Pearson (1984, p. 42), semantic feature analysis is a strategy that draws upon a student's prior knowledge about words and places the emphasis on the relationship of concepts within categories. In this method, the student explores the ways in which the meanings of words differ. These relationships (sameness or difference) is shown by placing (+) and (-) signs in a table referred to as a semantic feature grid. The steps involved in this method are as follows:

1. Select a category (dog breeds)
2. List, in a column, some words within that category (Doberman, Samoyed, Cocker Spaniel, Toy Poodle)
3. List, in a row, some features shared by some of the words (Large, friendly, cute, white)
4. Put (+) or (-) beside each word and beneath features
5. Add additional words
6. Add additional features
7. Complete the expanded semantic feature grid with pluses and minuses
8. Discover and discuss the uniqueness of each word
9. Repeat the process with other categories

DOG BREED	Large (20 lbs)	Friendly	Cute	White
Doberman	+	-	-	-
Samoyed	+	+	+	+
Cocker Spaniel	-	+	+	-
Black Lab	+	+	+	-

The effectiveness of semantic feature analysis has been demonstrated in various research designs. Two studies, Toms-Bronowski (1982) and Johnson, et al. (1982), compared semantic feature analysis with two other vocabulary methods --semantic mapping and the traditional contextual approach to introducing vocabulary. Toms-Bronowski found that semantic feature analysis was more effective than both the contextual approach and semantic mapping. The Johnson,

Toms-Bronowski, and Pittelman (1982) study expanded on Toms-Bronowski's work in that a control group was included in the comparisons. As in the original research, semantic feature analysis was shown to be the most effective method.

Most reading educators would agree that the most common mode of reading instruction in elementary classrooms is the use of basal reading series. These programs usually include vocabulary instruction along with other reading skill development lessons. In this regard, the third study (Johnson, et. al., unpublished) investigated the effectiveness of semantic feature analysis and semantic mapping vs. a basal reader approach to introducing vocabulary. With regard to vocabulary acquisition before reading, Johnson, et.al. found that all three methods were effective when compared to a control (no treatment) condition. However, there were no significant differences between instructional treatments when these methods were used as prereading strategies.

Although this last study did not find significant effects in regard to comprehension, semantic feature analysis and semantic mapping were found to be significantly more effective than the basal approach in the area of general vocabulary acquisition.

PFS:FILE and PFS:REPORT

PFS:File and PFS:REPORT are two programs in the PFS family of software. PFS:File is an information management program with comprehensive filing, sorting, and searching capabilities. PFS:Report is a report-generating program that summarizes information from PFS:File and presents it in report form. PFS:Report can also perform calculations on numeric information as well as count individual items in categories.

The actual operating procedures are detailed in the PFS manuals and will not be detailed in this report.

In regard to this classroom exercise, PFS:File was used to develop the semantic categories and features. Information about the relationships of these features and categories was also collected using PFS:File. After the information was entered into the files, the PFS:Report was used to present the information in a modified grid form.

CLASSROOM PROCEDURES

This exploratory project was conducted over 4 one-hour sessions with some of the work completed outside of class. The equipment used in this exercise included an Apple microcomputer with two disk drives, a large screen monitor, and a printer. (Note: Any of the Apple family of computers may be used.) The content of each session is summarized:

Session 1: Introduction to semantic feature analysis using a sample exercise on pets.

During this session, the students were introduced to semantic feature analysis as a method of studying about words and relationships. The students were told that they would be using the computer as a tool for studying this method.

In the first step of the introduction, the semantic feature analysis was defined as follows:

Semantic	defined as "meaning"
Feature	defined as "an attribute or part of something, like hair or eye color"
Analysis	defined as "a way of describing something"

Next, the students were told that describing features of a word is one way of defining it and that the computer would help in the analysis of these features.

At this point, after a brief discussion of "dog breeds" two types of semantic feature grids were shown to the students, that which was typed (figure 1) and the computer format shown below:

Figure 2
Semantic Feature Grid for "Dog Breeds"
as generated by PFS:File and PFS:Report

<u>DOG BREED</u>	<u>LARGE</u>	<u>FRIENDLY</u>	<u>CUTE</u>	<u>WHITE</u>	<u>NAME</u>
BLACK LAB COCKER	+	+	+	-	BRANDY
SPANIEL	-	+	+	-	DARBY
DOBERMAN	+	-	-	-	REX
SAMOYED	+	+	+	+	TISHA

Then, using the large monitor, the students learned how

the PFS:File format was set up for the "Dog Breeds" semantic grid. In this case, the category "Dog Breed" is the first entry and the features are listed beneath it. The students were then given hands-on experience entering the (+) and (-) indicators into the file.

Next, students were introduced to PFS:Report. This program "reads" the information in the PFS:File data files and arranges the information in a "report" or "grid" format. Using the "Report Specification" screen, students saw the category assigned column 1 of the grid, and then how other features are placed in other columns.

After this introduction, two activities used PFS:File to study semantic features. The first activity dealt with pets, the second, with countries in Europe. In these, the grid included entries which were words as well as the traditional plus and minus indicators.

In the pet activity, the students were presented with the following PFS:File format:

Pet:	No. of Legs:
Class-Mammal:	Covering:
Class-Reptile:	Adjective:
Class-Fish:	Typical Name:

For this feature analysis exercise, the students were instructed to complete (on paper) the features for a pet they owned or one they knew of. They indicated the type of animal (Pet:) and (+) or (-) for the classification of the animal. They gave the number legs, described the covering of the animal (fur, etc.), and entered an adjective describing their pet. After entering the pet's name, each child came to the computer to enter their information. When the information was entered, the PFS:Report was used to develop a semantic feature grid.

Session 2: Using Semantic Feature Analysis in a Content Area - Introduction of Exercise

At this point the second semantic feature exercise took place--dealing with the countries of Europe. Students understood that the same process of defining features could be used to study about a country. After some discussion, the students decided to list language, government, and religion for each of the countries they would

study. These features were then entered into a PFS:File format.

After dividing the class into small groups, the teacher assigned a country to each, and provided reference material for study. When the group defined the features, the teacher entered the information into the computer file.

Session 3: Entry of Information

Students completed their research and all features were defined. Then, since each grid could have a maximum of 9 columns, the class discussed what types of feature grids should be generated by PFS:Report. This session proved to be highly productive in that the students were able to see the commonalities of the features they had defined. The grids the students wanted were printed outside of class and reviewed in the next session.

Session 4: Discussion of the Semantic Feature Grids

Several semantic grids were generated prior to the class period. These were reviewed by the students and displayed on the bulletin boards of the classroom. The students agreed that they enjoyed the process. They especially enjoyed seeing the computer search for information already entered and watching the printer make grids.

DISCUSSION

In this exercise, a computer data base system (PFS:-File and PFS:Report) was used to develop semantic feature grids. The experiment proved to be highly successful in terms of introducing the process to students and adapting the microcomputer to this type of instruction. The following strengths and limitations were identified:

Strengths

1. Students were highly motivated to use the microcomputer. This could add to the initial effect of semantic feature instruction.
 2. The teacher can focus instruction by developing grids with various combinations of columns. Also, grids can be developed to isolate certain groups within a category, for example, a grid could be made up for only "dogs" instead of all pets.
 3. Once the information is entered into the PFS:File format, the disk can be used again in other instruction.
-

The disk can also be used as a database in other lessons.

4. As demonstrated in this project, semantic feature analysis can be adapted to other types of instruction, for example, reading for specific information.

5. Since PFS:File does not have to remain in the disk drive, several different categories can be developed if computers are available.

Limitations

1. Once PFS:File files are formed it is difficult to add new features to the category list. This procedure also requires a second disk drive and an extra disk.

2. Because only one file can be on any one PFS:File disk, if many grids are developed, there is need for several data disks.

3. Since PFS:File and PFS:Report are two separate systems, there is some disk swapping involved.

4. As mentioned, the PFS:Report will use up to 9 columns in a given grid; therefore, a wide printer may be required.

SUMMARY

Semantic feature analysis has been shown as an effective method for developing vocabulary related concepts. This report summarizes the results of a classroom experiment in which data base programs were used to develop semantic feature grids. This project used programs in the PFS family. There may be similar possibilities both with other more sophisticated systems such as AppleWorks or less sophisticated file development programs such as the Bank Street Filer. With some limitations as noted, PFS:File and PFS:Report were successfully applied to the development of semantic feature grids.

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Software Reference

PFS:File and PFS:Report are published by Software Publishing Corporation, 1901 Landings Drive, Mt. View, CA.

PARENTS: AN UNTAPPED RESOURCE

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This is the third in a series of four articles devoted to parents and reading. The first article described typical school reading programs. The second article described different types, purposes, and scores of reading tests. This article will focus upon parental involvement in reading and will examine research and activities that can be beneficial at home and at school.

Parents As Partners

An increasing amount of research regarding the positive effects of achievement and parental involvement has been generated over the last decade. Studies have demonstrated that:

- the successful mastery of school subjects requires a high level of parental involvement (Dupree and Shields, 1983) and
- the involvement of parents in the reading process begins before the child comes to school and should continue throughout the school years (Vukelich, 1984).

The value of involving parents in the learning process has also been acknowledged by legislation that supports and in some cases requires that parents be involved in advisory councils, special education curriculum and programming for children.

We will examine research that focuses upon special programs, means by which the school can communicate with parents and practical applications and ideas that parents can use with their children to increase development in reading and school performance.

Special Programs

There are many types of special programs that can

integrate parents into the reading process. Programs that focus upon educating parents about the value and importance of the reading process are very prevalent in the current research. Flippo and Branch (1985) report that parents of young children are often very concerned with their children's pre-reading and beginning reading development. Parents want to know what they can do to help their child have a good start in this critically important skill. All too frequently, parents do not have the information available to them to help their child. MacLaren (1966) suggest that providing parents with information about the reading process significantly influences the reading achievement of parents' first grade students. Parent education has been strongly advocated by many school personnel as a key ingredient to student success in reading.

An example of such a program was developed by the Atlanta chapter of the Phi Delta Kappa. This program was designed to inform parents about the value of parental involvement and ways in which they could get involved. The program included a session informing parents about the importance and value of reading, a discussion of the book How to Grow a Reader, a question and answer session and an evaluation session. Participants in the program responded favorably to the sessions and felt the program was helpful in terms of providing ideas about reading.

Swibold (1982) developed and presented sessions dealing with some of the controversial literature available to children. She discussed changes in children's literature and requested that parents try to read some of the literature prior to attending the session. Swibold presented the author's philosophy and raised stimulating questions for discussion. The program prompted parents to read children's books and gave them an opportunity to think about the books and discuss them with their children. The children were amazed to see the parents reading "their" books.

School Communication With Parents

The school must find meaningful ways to communicate with parents. Vukelich (1982) and others suggest that the school should provide written and verbal communication activities to parents to help them choose the most appropriate instructional techniques, to provide parents with ideas they can use to help their child, to help parents

stimulate children's interest in reading, to answer specific questions that parents have about reading and to provide suggestions for supporting the child's development in school. Frequently suggested as a way to communicate with parents is the distribution of activity sheets or a calendar of events that parents can use with their child that presents reading, writing, and language development activities for the summer months.

Schools frequently send home progress notes and letters and have conferences with parents. Unfortunately, these activities usually occur when a child is not making progress or when problems have already been identified. Progress notes from school to home should include information about the child's reading level and should praise some aspect of his or her performance. We suggest also that parents send progress notes to the teacher about special activities and books they have read.

Mini-courses or workshops can also be requested by parents. These sessions could acquaint parents with the reading progress, the reading curriculum and what parents can do to reinforce their child.

The activities mentioned are but a few suggestions for parental communication with the school. Talk with the school principal or your child's teacher to request such a program. Many school districts have reading teachers or reading specialists who can present such programs. If there is a university in or near your community, call and ask to speak with a professor in reading, children's literature or elementary education. They frequently will help present such programs for a group of parents.

Practical Applications

One of the most important things a parent can do with their child is READ TO THEM. Reading aloud to children can positively affect their language development, their interest in books, their readiness for academics, their success in learning to read and their attitudes and values toward reading.

Another important activity is to model reading for your child. Let them see you reading. Whether the newspaper, the Bible, the TV Guide, the Yellow Pages, the sales circulars, the cereal boxes or signs as you are

driving down the street. This reinforces the many reasons and purposes for reading. Also, don't forget to model reading a book on a rainy day, just for the fun of it! What better way to instill the pleasure of reading than to be seen regularly, reading a good book?

Have plenty of books in the house. Provide a library that has meaningful literature and a variety of literature. It has been reported (Morrow, 1983) that children who had more literature available to them at home had greater interest in reading and higher achievement in reading. Wiseman (1984) also states that children who have a variety of literature available will develop reading and writing skills more easily and will have a greater understanding about the elements of a story.

Take your child to the library. Check for the times of the story hours for preschoolers and check books out when you go. This is another good rainy day activity for the family and doesn't cost anything. Check with the local library for puppet shows, readings, special exhibits and other activities. Librarians welcome seeing you and the children and will also welcome any suggestions that you have for future programs.

Criscuolo (1981) suggests using the newspaper with children to help them in reading. He suggests developing picture stories about events they have read in the paper. He further suggests that children could develop a home vocabulary notebook in which children cut out interesting words they have read and write definitions for those words. Another suggestion includes an activity called party fun. Parents can ask their children to plan a pretend party. The children can cut out the grocery list or sort it into paper goods, beverages, foods, etc. Another activity is called fact or opinion. Children can be asked to read an editorial or an articles and underline all the facts with a green crayon and all the opinions with a red crayon. Also, most newspapers included a special section for children.

Another area that cannot be overemphasized is the parent-child interaction. Just talking with your child about things they have seen, things they have read, their feelings and experiences are valuable to children. We encourage parents to praise their child's successes and

reinforce their academic achievement. Put their papers with stars and happy faces on the door, so as they leave for school, they can be reminded of the good work they have done in school. Your interest and your caring tells they they are important and useful people.

Summary

Parents have frequently been overlooked in the education process. Educators are currently more aware of your interest, caring and willingness to help your child and the school develop your child's ability and interest in reading. The school is there to answer any questions that you might have about how you can support your child's progress in reading. As a parent, you can reinforce and support and monitor your child's progress in reading. At last, teachers, administrators, and parents are pulling together in a team effort to encourage the development and achievement of our nation's youth.

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WORKS COVERED IN GRADUATE READING RESEARCH COURSES: TWO SURVEYS

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What studies should be covered in a graduate reading research course? How should the course be structured? These are questions I considered before teaching a reading research course for the first time. An investigation of the literature found little on reading research courses. While some works identified important studies, articles, and books (Froese, 1981; Manzo, 1983; Pearce and Bader, 1980; and Singer, 1985), none specifically addressed reading research courses. Gentile, Kamil, and Blanchard's Reading Research Revisited (1983) identified studies and furnished a structure. The studies covered, however, appeared to be the editors' choices.

In an attempt to answer questions about course content and structure, a two part study was conducted. The first part was a survey to identify reading selections for a research course. A follow-up survey attempted to clarify why certain selections had been named.

FIRST SURVEY

Method and Questionnaire

A survey of recent reading journals and conference proceedings identified 300 reading professors at United States institutions offering graduate reading courses. While this procedure biased the survey toward professionally active professors, it was assumed they would be more likely to respond.

The 300 professors were sent a cover letter, a coded response form (which identified respondents), and a postage paid return envelope. The cover letter outlined the purpose of the survey and asked for a list of selections for a graduate reading research course.

The response form asked for the highest level of degree offered at that institution (doctorate or master's

degree) and whether or not the respondent taught a reading research course. The response form also contained the headings Author, Title of Study, and Bibliographic Data with space under each for listing studies and articles. Five weeks after the initial mailing, a second mailing was made to those who had not responded.

Analysis of Returns

Survey responses included letters outlining what would be covered and why, course syllabi, multi-paged bibliographies of research studies and articles, and response forms with varying numbers of selections listed.

Responses were compiled into a list of citations. Tabulations performed on this data included:

- 1) frequency counts of citation by title for the whole survey
- 2) frequency counts of citation by author
- 3) frequency counts of different works by an author
- 4) frequency counts by level of institution
- 5) frequency counts for those teaching a reading research course

Results

The 102 professors responding to this survey (34% response) provided 878 citations for 642 works. The distribution of returns for the two information categories were: Teach reading research course (yes, 53; no, 38; unclassified, 11); level of institution (masters, 36; doctoral, 49, unclassified, 17). Selections cited five or more times are listed below.

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Frequency of Citation by Author

The most cited authors of the 118 given are listed
by rank, times cited, and number of different citations.

<u>Author (by rank)</u>	<u>Times Cited</u>	<u># of Different Citations</u>
Durkin, D.	56	5
Goodman, K. S.	24	9
Dykstra, R.	18	5
Anderson, R. C.	15	8
Samuels, S. J.	15	10
Chall, J. S.	14	5
Thorndike, E. L.	13	2
Davis, F. B.	13	5
Pearson, P. D.	13	8
Meyer, B. J. F.	12	9

Teaching Reading Research Courses

The 53 professors who teach a graduate reading re-
search course listed 528 selections. Selections cited five or
more times are given below.

	Times Cited
Durkin, D. (1978-79). What classroom observations reveal about reading com- prehension instruction.	21
Thorndike, E.L. (1917). Reading as reasoning: A study of mistakes in paragraph reading.	10

Bond,G. & R. Dykstra. (1967). The coopera- tive research program in first grade reading.	9
Gentile, L.M., M.L.Kamil, & J.S.Blanchard. (1983). <u>Reading research revisited.</u>	8
Durkin, D. (1981). Reading comprehension instruc- tion in five basal reader series.	7
Morphett,M.V. & C. Washburne (1931). When should children begin to read?	6
Chall, J.S. (1967). <u>Learning to read: The great debate.</u>	6
Goodman, K.S. (1965). A linguistic study of cues and miscues in reading.	6
Davis, F. B. (1944). Fundamental factors of com- prehension in reading.	5
Mandler, J.M. and N. S. Johnson. (1977). Remem- brance of things parsed; Story structure and recall.	5

Discussion

Readings

The results of this survey indicate that reading professors differ as to which studies they would cover in a reading research course. Durkin's (1978-79) study was the only selection for which a clear consensus existed.

A comparison of this data with Froese's (1981) and Manzo's (1983) results identified some common selections. Of the 20 works named five or more times in this survey, seven were also among the 10 most cited works in Froese's study and on the list of works given by Manzo. These works were: Bond and Dykstra (1967), Chall (1967), Durkin (1966), Huey (1908), Robinson (1946), Smith (1965), and Thorndike (1917). However, five of these are books and whether or not they are appropriate for a reading research course is an open question.

As might be expected, the most cited works were the same for both doctoral and master's level institutions. However, a difference between the two groups emerged in the number of selections named. The 49 professors teaching

at doctoral institutions named 438 studies, while the 36 professors teaching at master's institutions named 226. Given the differences in student populations, it is possible that professors at master's level institutions did not feel the need to cover as wide a variety of studies.

Course Structure

The responses on this survey also furnished information on approaches used in teaching reading research courses. Four general approaches were evident in the return data: textbook, topical readings, specific studies, and student interest.

1. While different variations of the text approach existed, the studies covered were largely determined by a specific text. Among the texts used as either the sole or primary source of studies were Reading Research Revisited (Gentile, Kamil, & Blanchard, 1983), Theoretical Models and Processes in Reading (Singer and Ruddell, 1970), and "recent issues" of Reading Research Quarterly.

2. Some professors identified topical areas being covered (i.e., ethnographic, process, metalinguistic awareness, etc.). Within each topical area, designated studies were discussed.

3. With a specific studies approach, professors named individual selections which were covered in some depth. Unlike the topical approach, the specific studies approach used the readings themselves to reveal trends in thinking and research in the field.

4. Some respondents stated that no specific studies could be named since student interest determined works examined. In one variation studies covered varied according to the professor's current interests.

SECOND SURVEY

A follow-up investigation attempted to determine why the most cited selections in the initial study had been named.

Method

All professors (30) who cited at least two works, which were named four or more times in the first survey, were recontacted. These individuals were asked why they had named certain works.

Each received a cover letter, a response form, and a postage paid envelope. The cover letter requested assistance in a follow-up investigation and listed those studies and articles named by that professor which were among the 27 works cited four or more times. Each was asked to explain why s/he had named those works for study. Five categories of reasons were provided and professors were asked to indicate which category best described their rationale for choosing each work. The five categories were: 1) exemplary nature of the research; 2) historical importance; 3) topical importance; 4) specific aspects--if so, what; and 5) other reasons--if so, what.

Twenty-four professors answered this second survey, furnishing 54 responses for 23 different selections. The tabulation for responses by categories follows: "Exemplary work" 3; "historical importance" 12; "topic" 8; "specific aspect" 10; and "other reasons" 21. The results for selections for which three or more responses were received are given below.

Table 1

Responses for selections named 3 or more times.

	Categories					
	Total	Exemp- plary work	Histor- ical impor- tance	Topic	Specific aspect	Other reasons
Durkin (1978-79)	11	1		3	2	5
Thorndike (1917)	5		3	1		1
Bond & Dykstra (1967)	4	1	1		1	1
Morphett & Washburne (1931)	3		1		1	1
Clymer (1963)	3		1	1		1
Durkin (1981)	3			1	1	1
Goodman (1965)	3		1		1	1
Marshall & Glock (1978-79)	3			1	1	1

Discussion

The varied and individual reasons professors gave for citing certain works are illustrated by the large number of responses in the "other reasons" category, more than in any of the four other categories. For instance, of the 11 respondents who cited Durkin (1978-79), five marked "other reasons." The "other reasons" given for naming Durkin's work included: 1) school based study; 2) controversial findings; 3) example of how investigator's choices determined findings; 4) uniqueness of study; and 5) instructional implications. These responses suggested that while Durkin's investigation is widely regarded as being important, professors' views of it differ. This reasoning is supported by various reactions (Cloer, 1980; Heap, 1982; Hodges, 1980; Shannon, 1980; Viti, 1980).

While professors' perceptions of studies varied, apparently one common reason for choosing a work was that it was "historically important." This category was the second more cited after "other reasons." However, with the exception of Thorndike's study (1917), no consensus existed on which studies were historically important.

Almost none of the professors claimed that the studies they named were exemplary. Besides the two studies named in Table 1, only Loban's longitudinal study (1976) was cited as being exemplary.

Conclusion

The results of this study showed that reading professors would include a wide range of selections in a graduate reading research course. It also showed that even among the most named studies and articles, the reasons individual professors had for citing works varied.

While it is hoped that the results of these surveys will help professors determine how reading research courses might be approached for purposes of study, additional investigations to more specifically identify a common core of studies and discover why these selections are special would be useful. Such information (if it could be identified) would serve as the basis for future students' exploration of the field of reading.

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MATCHING TEACHING STRATEGIES TO THE LEARNING STYLES OF GIFTED READERS

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How does a teacher provide appropriate instruction for gifted readers within the regular classroom setting? The first step is to become aware of cognitive characteristics and learning style patterns that are frequently associated with gifted readers. The next step is to use this knowledge in selecting instructional materials and methods that best match the gifted students' learning styles and preferences. The intent of this article is to assist the teacher in accomplishing both of these steps.

Many definitions of giftedness exist. According to Renzulli (1978), giftedness involves the interaction of three basic clusters of human traits--above-average general abilities, high levels of task commitment, and high levels of creativity. The Council for Exceptional Children explains that gifted children do things a little earlier, a little more quickly, a little better, and a little differently from their peers. Tuttle (1978) outlines the following six areas of giftedness generally recognized by educators: general intellectual ability, academic aptitude in a specific area, creative and productive thinking skills, leadership, visual and performing arts, and psychomotor skills. Finally, Okabayashi and Torrance (1984) recently added the idea that gifted individuals are often capable of using both cerebral hemispheres interchangeably. Regardless of which definition is used, two points are clear: (1) Although gifted students exhibit above-average intelligence, giftedness means more than possession of an IQ of 130 or above; (2) An individual who is gifted in one area (e.g., reading) may or may not be gifted in other areas.

Characteristics and Learning Styles

In addition to above-average intelligence (or, perhaps, because of it), gifted students frequently exhibit cognitive characteristics and learning style preferences that are

different from other students. Knowledge of such differences aids teachers in planning reading lessons and programs that are better suited to the special needs and interests of gifted students. One must not be fooled into thinking that gifted students don't need teacher guidance--that they will do just fine "on their own." Research, such as that summarized by Tuttle and Becker (1980), has shown that when gifted students go unrecognized they frequently perform below their intellectual potential or drop out of school.

What cognitive characteristics and learning style preferences have been identified for gifted students? Teachers who work with gifted readers soon learn that such students master materials more quickly, prefer interesting and challenging material, and possess an insatiable appetite for new ideas. In fact, gifted students may go from one unfinished task to another because they are afraid that they might miss something. As a result, the teacher may consider them to be careless and irresponsible. Gifted students need incubation time to work through the full implications of their projects. It is important to provide this incubation time--time to think as well as time to express and discuss their ideas and their progress.

Gifted readers often reach formal operations (abstract thinking) earlier than their peers. They are able to make inferences, evaluations, generalizations, and conclusions. Gifted students are tolerant of ambiguity; they don't need to fit everything into categories and realize that problems may have more than one solution. Fluency, the ability to generate many ideas, and rearrangement, the ability to reorganize elements of a problem, are more highly developed than in other students. With these above-average reasoning and critical thinking abilities, gifted readers learn best by associative methods and poorest by rote.

Insight into situations and the ability to understand the nuances of human relationships are generally greater in gifted children. However, it is important to remember that the students' emotional maturity is not usually at the same level as their intellectual understanding. They may be intellectually able to understand the concepts behind difficult issues, but emotional immaturity and lack of experience may hinder their decision-making ability. Gifted

students are not miniature adults.

Self-motivation, persistence, and independence are other learning style characteristics associated with gifted individuals. In addition, they generally possess an internal locus of control; i.e., they tend to view achievements and failures as being results of their own behavior and attributes rather than being due to outside factors. For these reasons, they prefer unstructured or flexible activities. They appreciate having a framework for direction but nothing too confining. Gifted students prefer independent work to group projects. By working alone, they can pursue their own interests at their own pace. However, group work is sometimes needed to provide opportunities for social development and leadership. Gifted students may experience feelings of isolation, differentness and inadequacy. Well-designed group activities help to alleviate these feelings and fulfill their need for peer acceptance. Furthermore, gifted readers express a preference for discussion over lectures, and discussions require more than one participant.

Dunn and Price (1980) found that gifted students prefer tactile and kinesthetic modes of learning to auditory. Research by Ricca (1984) reinforced this preference for tactile methods of learning. Since tactile and kinesthetic activities are often neglected above the primary level, teachers should give special consideration to including more of them in the curriculum. Further support for this notion comes from a study by Barbe (1985). Barbe found that students who had the same learning style as their teacher made more academic progress than those whose learning style did not match those of their teacher. Teachers tend to teach according to the way they learn best. That is, a teacher's teaching style often reflects his/her own learning style preference. Awareness of other learning styles combined with an effort to incorporate a variety of learning styles into the curriculum is necessary if one's goal is to provide the opportunity for all students to maximize their learning potential.

Although gifted students may be successful with many different modes of perceiving and processing information, they express definite preferences as to how they like to learn and how they feel they learn best. How can teachers incorporate these characteristics and preferences into their

teaching when they are working with the gifted? What reading activities and strategies are best for gifted readers? Actually, there are several reading programs or approaches, a wide variety of enrichment activities, and many reading-related assignments in the content areas that correspond with the learning styles and personality traits of gifted readers.

Several features of the individualized approach are appropriate for the learning styles of gifted readers. Self selection and self-pacing enable these students to select more difficult materials and to read them more rapidly than their peers. Pupil-teacher conferences allow teachers to challenge students at critical and creative levels of thinking instead of drilling them on the decoding or literal comprehension skills which many gifted students have already learned. Student record keeping also can be on a high level, involving such tasks as analyzing the author's style, critiquing character development, and creating variations on the author's theme.

Stauffer's (1975) directed reading-thinking activity (DRTA) also offers gifted students opportunities to read critically. As they move through the story, they make predictions and form hypotheses about the story, suspend judgment until more clues are given, and modify or revise their predictions as the story unfolds. Teacher-led discussion encourages them to think about what they are reading and find reasons for supporting and adjusting their predictions. Although gifted readers usually prefer to work alone, the DRTA offers the interactions with other group members that is important for their normal social development.

Cassidy (1981) developed a program called Inquiry Reading, which meets several of the criteria for the learning styles of gifted readers. The program generally covers a 20-day cycle with about 45 minutes each day being devoted to Inquiry Reading. During the first week, students select their topics, make lists of questions about these topics, identify resources, develop contracts, and set tentative completion dates. The next two weeks they work independently, using the library, interviewing resource people, and conferring with the teacher. During the fourth week they complete their projects and give presentations to an outside audience. The final step is an evaluation of the

activity by the teacher and each student. This procedure allows pupils to study topics that interest and challenge them, pursue new ideas, work independently, use tactile and kinesthetic modes for developing their projects if they wish, and complete their Inquiry Reading activities before moving on to something else.

Some schools develop their own programs for gifted readers, such as the Talented and Gifted (TAG) Program in River Falls, Wisconsin (Weber & Freund, 1984). Reading groups in this program are self-directed, with students taking turns leading group discussions, developing vocabulary lists, and assigning readings. Another aspect of this program allows students to display their independent research projects at learning centers.

Since reading takes place in all areas of the curriculum and often crosses content area boundaries, gifted readers can apply their special abilities to many subjects. The connection between reading and writing is a logical one, and students should be encouraged to write frequently in response to what they read. Writing gives them opportunities to expand on ideas, critique or evaluate what they read, and create new forms of written material. For instance, a simple thought could be rewritten as a poem, or a story could be turned into a play. Students can rewrite stories from different points of view or from different times in history; they can write picture books for younger children to read; and they can write letters to the editor after they have read both sides of controversial issues. Mechanical aspects of writing are of less importance than thinking and language skills, because knowledge of the mechanics of writing may lag behind the gifted reader's ability to think and use language.

Vocabulary development takes place throughout the curriculum. The vocabularies of gifted students are often superior to those of other students, and gifted readers are often very interested in words. Studies of etymology, multiple meaning words, figurative expressions, persuasive words used in advertising, euphemisms, and connotations are interesting topics for gifted readers to explore. The teacher should give some instruction for developing vocabularies, ask stimulating and thought-provoking questions, provide resource materials, and then let the students discover the answers for themselves.

Each content area can provide activities for challenging gifted readers. Students may write to government agencies for free literature about specific topics, and they can use this material as a basis for special research projects. Pupils can use the newspaper for tracing stock market developments (mathematics), finding cause-and-effect relationships in current events (social studies), and analyzing the effects of pollution on the environment (science). Students must read critically in order to compare different biographies about the same person, different versions of the War Between the States, and discussions of nuclear energy from books with varying **copyright** dates. Although they need to learn the same content as other students, gifted readers can investigate topics in more analytical and penetrating ways.

The school library is a rich source of reading activities for gifted students, and they should have free access to it whenever possible. Teachers can encourage gifted readers **to use the library for research reports related to content** area study. Although gifted students want to pursue their special interests, they should investigate unfamiliar topics also. If all of their reading is self-selected, their interests will be too narrow and they will fail to develop new interests. Teachers should encourage the gifted to read fine literature and review some of what they read, using a variety of media and methods. Simple summaries of books are perhaps least effective for stimulating thought. The librarian might also work with gifted readers by helping them form book clubs for such purposes as discussing novels, presenting skits, preparing displays, and communicating with authors.

General Guidelines

Certain instructional practices are in keeping with the learning styles of gifted readers, while others are considered to be generally inappropriate. The guidelines listed below point out some things that teachers should and should not do for gifted readers.

1. Do provide formal instruction in basic reading skills and don't assume that gifted readers already know them, even though they appear to be reading well. They need a solid foundation. This instruction may be "compacted"

(Renzulli and Smith, 1980), however, so that children learn low-level skills quickly and move on to higher levels of reading.

2. Do spend time teaching creative and critical comprehension skills, but don't spend much time teaching decoding skills.

3. Do find materials that are interesting and challenging, and don't insist that gifted readers read only books on grade level when they are capable of reading more difficult material.

4. Do design activities that give students direction and framework, but don't make the framework too rigid or confining.

5. Do allow gifted readers to work independently much of the time, but not all of the time. Provide some opportunities for them to read in group situations so they will have opportunities to interact socially with their peers.

6. Do ask questions that are not answered directly by the material, that require readers to infer, conclude, and evaluate. Don't ask many literal recall questions.

7. Do encourage students to engage in stimulating, long-term, thought-provoking activities. Don't expect them to do many workbook pages, ditto sheets, programmed exercises, or reading kit activities.

8. Do provide a wide variety of enrichment activities, but don't allow them to "skip a grade."

9. When gifted readers finish their work early, do offer a variety of creative and problem solving activities. Don't require them to do more of the same kind of work.

10. Do provide opportunities for gifted readers to share the results of their work, but don't stress how these students differ from their peers.

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INTEGRATING READING AND WRITING LESSONS

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In American schools reading and writing are usually taught as separate subjects in the curriculum. This has been a convenient way to organize instruction even though for more than a century educators have advocated their integration. Research and pedagogy on integrating reading and writing (Chomsky, 1970; Loban, 1976; Smith, 1982) suggest "the facilitating effects of reading practice upon writing practice, and of writing practice upon reading skills" (Applebee, 1977; p. 536). Such proclamations have led to renewed interest and quests on the part of curriculum developers to design instructional programs that highlight relationships between expressive and receptive language skills.

BACKGROUND

As reading/language arts professors, we were invited to a rural middle school to work with 5th grade teachers on integrating reading and writing lessons in the classroom. This middle school, located in northern Florida with a predominantly black student population, was the site of a year-long collaborative inservice project which included advanced instruction in reading and writing, and development and implementation of reading/writing lessons.

This collaborative effort was designed to function in tandem with the regular school program and schedule; that is, activities occurred at the school site and took advantage of teacher planning periods, regularly scheduled instructional sessions, and local resources.

Our initial collaborative work consisted of introductory sessions for discussing reading/writing relationships and processes, and planning sessions to discuss lessons for combining and presenting reading and writing in the classroom. To carry out the first task, i.e., conceptualizing reading and writing relationships, we relied on two major sources. The first was Bracewell, Frederickson & Frederickson's

work (1983) "Cognitive Processes in Composing and Comprehending Discourse" in which the authors examine the cognitive and linguistic strategies involved in reading and writing. The second source, Birnbaum & Emig's article (1983) "Creating Minds, Created Texts: Writing and Reading" highlights the complex relationships between reading and writing by providing a taxonomy of similarities and differences between the two processes. Together these articles served to remind us that the linguistic and cognitive processes inherent in reading and writing were not the inverse of one another; nor were they identical and wholly discrete (Birnbaum & Emig, 1983). Rather, these two modes of written language, in actual practice, led to different strategies, modalities, conceptual frames, and task conditions. Acknowledging this, we spent a good deal of time practicing writing and discussing selections from Elbow's work (1973) Writing Without Teachers, Graves' book (1983) Writing: Teachers and Children at Work, and Zintz & Maggart's text (1984) The Reading Process. A review of these works prepared us for the second important task, which was to develop the integrated reading and writing lessons. To carry out this task, we identified skills and concepts across both reading and writing that could be included in the integrated lesson plans. Then we designed a model lesson plan, based on these concepts, that could guide the development and implementation of future lesson plans.

In designing the model plan, the teachers suggested we use an instructional framework that was familiar to them and consistent with their previous training and experience. This framework was the Developmental Reading Lesson, a popular format used in most basal reading series. A writing plan was created to parallel the reading lesson and the result was a combined reading and writing plan; we called it the Developmental Reading and Writing Lesson (DRWL). The DRWL included five steps: (1) prereading and prewriting; (2) guided silent reading and drafting; (3) rereading and revising; (4) skill development and editing; and, (5) follow-up/publishing activities.

Once the reading and writing skills had been identified and the model lesson plan designed, the next step was to practice strategies for implementing integrated reading and writing lessons.

PRACTICING THE DRWL

In preparation for implementing integrated reading and writing lesson plans in the classroom, teachers followed a two-phase cycle of practice. First they worked together during the inservice sessions to practice strategies involved in teaching the DRWL. Then they jointly planned and developed practice assignments for implementation in the classroom. Although a description of the actual classroom implementation goes beyond the limits of this paper, it should be noted that an integral part of the project involved university consultants observing classrooms, teachers verifying and validating observations, and both groups working together to change or refine the major aspects of the DRWL following implementation. And even though teachers were aware that reading and writing processes are holistic and recursive in nature, and taught them as such, they nevertheless chose to emphasize each step in the DRWL separately while practicing.

Prereading/Prewriting

The first step of the DRWL plan, prereading and prewriting, was defined as strengthening background experiences, generating ideas, developing vocabulary and concepts, establishing purposes and motivating children. During the inservice sessions, teachers shared several lesson plans in which a single activity was used to integrate both reading and writing readiness. For example, one teacher showed how a map could be used to assist students in visualizing and understanding the relationships between a known geographical location and settings introduced in the basal readers. Taking this one step further, she demonstrated how to write descriptions of settings in a journal using sensory detail and concrete images.

Another teacher demonstrated brainstorming sessions and group discussions to help clarify purposes and generate information for both reading and writing. Still others showed how games, audio-visual aids, print materials, and discussions could stimulate ideas in reading and writing.

At the conclusion of these sessions, teachers selected a story from the basal reader that could be used to practice implementing a prereading and prewriting lesson in their classroom. Below are the assignments they created

for practicing the first step in the DRWL.

Reading Assignment:

Select a story and choose 2-3 visual aids that could be used to strengthen student's background experiences; identify questions and/or key points that could be used during oral discussion to motivate students; introduce new vocabulary in a written context.

Writing assignment:

Have students begin a journal in which they respond to major events in the story. Have them record interesting or unusual words in a notebook for later writing assignments.

Guided Silent Reading and Drafting/Rereading and Revising

Steps two and three of the DRWL were combined since these steps focused upon questioning and responding techniques. These steps of the DRWL plan emphasized guided silent reading and drafting; rereading and revising. Guided silent reading was defined as setting a purpose, recognizing details, and understanding the story line. Drafting included generating ideas, specifying detail, and creating a story line. Rereading and revising was defined as clarifying purposes, interpreting details, making inferences, reconceptualizing the story and gaining new perspectives.

During this inservice session the participants engaged in reading and writing and practiced ways to promote critical thinking and comprehension skills through small groups discussions of reading texts and writing samples. One of the teachers demonstrated how to help students "map the text," i.e., to understand the specific details and significant events that occurred in the story and to creatively interpret or predict events in the text or beyond the text. Two teachers role played a writing conference (following Graves, 1983) to demonstrate how to add specificity, clarity, and relevant details to a composition.

At the conclusion of these sessions, teachers planned how they would implement the second and third steps of the DRWL. The following teacher assignments were used:

Reading Assignment:

Using the basal reading story from

the first assignment, consider questions that will help students to understand major issues in the story. Assign each student the task of developing three questions related to the story. These questions can be shared orally or in writing.

Writing Assignment:

Conduct a teacher/student writing conference. Model questions that help the writer to generate, extend or clarify information to be used in written composition.

Skill Development and Editing

The next aspect of the DRWL addressed skill development and editing. Reading skills were defined as phonics, structural analysis, comprehension, and vocabulary; editing skills included spelling, grammar and usage, capitalization and punctuation, syntax, and proofreading skills. Teachers practiced teaching the mechanics of written language in the context of basal textbooks and samples of students' writing. Generalizations discovered in reading could be applied and used for writing and those learned for writing could be applied and used for reading.

Teachers also practiced problem solving strategies for teaching skills in reading and writing. They became aware of how students generate their own rule systems and suggested ways to provide appropriate feedback. The following assignments were developed to practice this step of the DRWL.

Reading Assignment: Help students discover a phonics or spelling generalization using words from the basal texts.

Writing Assignment: Organize editing groups for identifying, diagnosing, and correcting spelling and other mechanics of writing.

Independent Follow-up Activities

The remaining inservice sessions dealt with the final step of the DRWL, independent follow-up and publishing activities. The teachers and university consultants discussed the importance of teachers extending the texts and using new knowledge in real, authentic experiences. Teachers practiced performing texts through role-playing and other creative dramatizations. They also prepared drama enactments based on their own original written work. The

corresponding practice assignments to be implemented in the classroom were:

Reading Assignment: Have children use written texts for choral reading or dramatic enactments. Encourage students to take part in reader's theater.

Writing Assignment: Have students write material that can be published and encourage submission of students' writing for publication. Place students' writing on display in the classroom or make copies of student work for others to read.

As the teachers practiced each step of the DRWL in the classroom, a checklist was used as a guide for observing the implementation of the integrated reading and writing lessons; this checklist should incorporate all of the steps of the DRWL and include features which address planning and organizing for instruction.

Figure 1
Observation Checklist

Lesson development	YES	NO
Assignments are integrated. Writing tasks build on reading tasks and vice versa.	_____	_____
Lesson allows for active involvement of students in authentic reading and writing activities.	_____	_____
Extensive background information and actual experiences are shared during instructional sessions to expand children's knowledge.	_____	_____
Questioning and response strategies aid inferential and interpretive thinking, logical reasoning, and problem-solving.	_____	_____
Specific reading and writing skills (e.g., phonics skills, punctuation, etc.) are taught in the context of the reading text or student writing sample.	_____	_____
Planning and organization		
Scheduling reflects and integrated reading and writing block	_____	_____

Seating arrangements facilitate discussion _____

Lesson objectives take into account
reading and writing as a process _____

Materials of instruction include student
writing samples as well as commercial
texts and visual aids. _____

SUMMARY

In this article, we have described a cooperative endeavor between university and public school professionals interested in integrating reading and writing lessons. Teachers shared and practiced activities that would integrate reading and writing lessons through the DRWL, a format designed specifically for the program. This joint effort was successful for at least three reasons: (1) it emphasized collaboration between teachers and university professors, (2) it offered advanced instruction in reading and writing at the school site, and (3) it provided opportunities for immediate practice and feedback in implementing integrated reading and writing lessons in the classroom. The observation checklist helped to focus attention on the special features of integration and served as a basis for future planning and implementation.

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WHY THE PHUSS ABOUT PHONICS?

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Of the many strategies employed to instruct beginning readers, phonics probably is the most controversial. Not only is it controversial but very misunderstood, particularly by the layman lacking perspective in the basic prerequisites of the beginning reading student (Rubin, 1982).

Phonics, quite literally, is the science or systematized knowledge of acoustics or sound. Phonics is a method used to help beginning readers enunciate unfamiliar words by learning the sounds which are associated with the letters in the words. Phonics has been the subject of rabid criticism and/or enthusiastic approval through hundreds of years of reading instruction.

The history of opposition to early intensive teaching of phonics is nearly as old as the origin of phonics itself. In (circa) 1527, a German named Valentin Ickelsamer wrote a phonics primer based on the notion that it was best to teach beginning readers to isolate speech sounds, or phonemes, and then say in serial order the phonemes represented by the letters of the word (Davies, 1974).

The opposition to this technique began within the next century when Lubinius proposed the "whole word" or "see and say" method of teaching reading. This was about 50 years before Comenius was credited with the whole-word-see-say idea of reading when he wrote his Orbit Pictus (Matthews, 1966).

Soon after the Revolution, Noah Webster prepared the first reading texts authored by American citizens because the teachers here no longer wanted to use the ABC Method materials which were prepared in England. Webster's texts introduced phonics not only as an aid to learning to read but also as a medium for unifying the American language.

About the middle of the next century many American

educators began European travel. They went to visit Pestalozzi, who designed experimental schools in Switzerland. They returned extolling the virtues of "The New Word Method" for beginning reading instruction. This method presented an object or a picture together with the word it represented in a manner reminiscent of see-say. Though widely used until the turn of the century, educators then decided this technique left students with little or no mastery in reading but rather an aptitude for word calling or thing identification.

Reading instruction thus went back to phonics, somewhat blindly, with much emphasis on memorization of sounds of letters and/or letter groups and little emphasis on comprehension. It was a sort of "Kate-ate-a-date" type of thing. Maybe it was the precursor of the Dr. Seuss nonsense syllables which don't help anyone learn to read, or comprehend.

By now, 1910-1920, newly devised tools of scientific investigation and measurement called Standardized Tests appeared on the educational horizon for the first time. These tests divulged dismal data indicating that the American child was reading poorly. This appalling "lack of literacy" was blamed entirely on the use of phonics instruction. The rationale of the educators was that the teachers had been spending too much time emphasizing phonetic elements at the expense of teaching reading for meaning. Once more phonics fell into educational disrepute. The new emphasis was placed on silent reading accompanied by questions to check the student's comprehension of what had been read (Auckerman, 1984).

As 1940 approached, testing once more disclosed that large numbers of children in America still could not read up to the educational expectancies of the educators. So once more phonics was dragged out and re-examined. It seemed to pass the scrutiny, for since that time phonics has been accepted by most educators as having validity (Matthews, 1966).

The foregoing historical summary of the use of phonics illustrates that the strategy has survived the yo-yo syndrome for hundreds of years. But then, who knows? Valentin Ickelsamer may have written his primer simply to facilitate the pronunciation of his own name. It surely

must have helped. And it has continued to help every beginning reader whose teacher is well trained in the application of functional phonetic principles.

There are many approaches to teaching phonics, but recent surveys indicate that teachers in preparation are not as familiar with these approaches as perhaps they should be to teach reading effectively to the beginning student (Smith, 1965). Many little learners are able to parrot the Alphabet Song when they begin formal schooling, but few are able to attach the correct name to the letter. Every teacher of early learners has seen children searching vainly for the letter elemno. How can a child learn to read if he cannot identify the symbols used on the printed page? All the spies in all the wars in history would have failed dismally without letter recognition ability when intercepting and breaking enemy codes. The child's ability to associate letters with appropriate sounds is second in importance to no other skill in helping establish reading independence.

Phonics taught sequentially with attachment of correct sounds to letters, small words, and short sentences is a basic consideration when teaching readiness for reading fluency and rate. Children who receive early intensive instruction in phonics develop superior word recognition skills in the early stages of reading and tend to maintain their superiority at least through the third grade (Dykstra, 1974).

Today there is impressive empirical evidence that children do use letter cues to recognize words from the time they first learn to read (Chall, 1983). It is known from research that if pupils are to recognize and transfer word recognition skills to unknown words, they must perceive and analyze the parts or features of the words both visually and auditorily. Some kindergartens have programs which lay the groundwork for the development of perception skills. But many kindergartners lack the developmental maturity for much perception training (McAlliater, 1982). The beginning reading student preparing for phonics instruction needs exercises in left-to-right directionality, eye sweep progression, and eye fix. The latter training perhaps is more important today than ever because of the deleterious effect of hours watching the

fragmented format of animated TV.

We know that a child needs a good oral communication base for any start in reading. But to say tht reading is an extension of oral language must give a first grade teacher pause. Few early learners enter school with much oral language development. While it is true the child has been verbalizing and vocalizing his feelings, wants, and needs for four or five years, it is the rare child who can respond in more than a monosyllabic word or two restricted to his experiential background. It is doubtful that children raised at Lake Woebegone would share the same background experiences with those brought up on the shores of Lake Okeechobee. How can a child be taught to read as an extension of oral language when the oral language development is too limited to fit into the curriculum plans which in no way relate to background? Few reading programs, if any, begin with the vernacular of The A-Team or Masters of the Universe. This type influence can be responsible for the esoteric language development demonstrated by many early learners.

A few years ago a reading consultant from a renown publisher of reading instruction was asked to demonstrate a pre-primer lesson in a local first grade classroom. This company, for years a leader in the basal reader approach, had published a reading system based on reading as an extension of oral language. The particular lesson involve a story with photos about house cats and had been an especially difficult lesson to relate to the students.

The Principal, the Reading Specialist, the CRT, plus all the primary grade teachers, hoping for some help in implementing a seemingly senseless reading lesson, all gathered for this memorable event. Never before had a consultant taught here!

All were rapt as the visiting guru led the students through the pages. All listened as the little learners read so many words so incorrectly. All waited eagerly for the expert to make suggestions or give the students clues for the correct reading of the printed matter. But, instead, all that was heard by the assemblage was the expositor pontificating platitudes such as "How nice!" "That's lovely." and "Yes, dear, read on."

After the demonstration, one teacher made bold to ask why the children were permitted to read incorrectly. To this the consultant replied, "Does it really matter if the child doesn't read the words exactly, as long as he makes a credible interpretation of the story and enjoys it?"

This is teaching reading?

The next story was about zoo animals. One child read the word hippopotamus as rhinopoterus. Had the child some groundword in phonics, this might not have happened.

Could this extension-of-oral-language reading instruction be a reason that so many upper grade kids have trouble reading in science and social studies? Without knowledge of word attack skills, how can they read words which are not included in their speaking vocabularies?

Apparently reading deficits are not new to education. They have been documented for hundreds of years. Perhaps failure is relative to societal demands. Boys and girls are not restricted to instinctive programming for periods of learning as are animals. Children's learning is dependent on so many factors and variables, not the least of which include background of reference and every kind of maturity. If given the necessary time and proper training, a child in primary grades could gain the sound foundation of a functional, practical, meaningful phonics program for the development of a successful and positive set of attitudes toward reading and the cultivation of habits and skills upon which reading competence depends.

In a report from the Commission on Reading (1985), phonics was identified as a strategy to help early learners relate spelling to sound and meaning. The report states that children who are taught phonics do better in sentence and story comprehension than those who are taught exclusively by the look-say plan.

Phonics has withstood the ravages of time--would it not be well to instruct the prospective teachers of reading in the fundamentals of phonetic principles, how to implement them, and thus effect more efficiency in reading instruction for beginning readers?

TEXT TYPE AND TEXT STRUCTURE: AN ANALYSIS OF THREE SECONDARY INFORMAL READING INVENTORIES

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Reading educators (Cheek & Cheek, 1983; Roe, Stoodt, & Burns, 1978) urge secondary teachers to use informal reading inventories (IRIs) in order to diagnose students' reading problems and to place students in textbooks at appropriate levels to optimize instruction. Advice of this nature is surely well-intended; nevertheless, educators have reservations about the merits of available IRIs. For example, readability levels of IRI passages (Gerke, 1980), passage dependency of questions (Marr & Lyon, 1980; Tuinman, 1971), classification of questions (Shell & Hanna, 1981), scoring criteria (Bormuth, 1969), validity (Cooper, 1952; Powell, 1971), and allowable errors or miscues (Ekwall, 1971; Harris & Sipay, 1980) have been the focus of serious questions by reading researchers.

A further source of concern is the IRI graded paragraphs. These passages should reflect current research findings on text type, text structure, and comprehension. For example, researchers have investigated readers' difficulties with narrative and expository text types (Berkowitz & Taylor, 1981; Olson, 1985). These studies consistently document narrative texts as easier for readers to understand than expository texts.

Expositions represent the predominant text type at the secondary level; therefore, we would expect to find expository passages rather than narrative passages in secondary IRIs. If this is the case, the expository IRI passages would more appropriately assess students' reading ability for placement in secondary textbooks. If this is not the case and the secondary IRIs contained many narrative passages, students would find these passages less difficult. Consequently, teachers might place students at an inappropriately high level for the more difficult expository

reading required in the secondary schools.

Researchers have also identified the organizational structure inherent in well-formed texts (Mandler & Johnson, 1977; Meyer, 1975; Stein, 1979) and the comprehension difficulties these structures pose for readers (Englert & Heibert, 1984; Fitzgerald & Spiegel, 1985; Hansche & Gordon, 1983; Meyer, Brandt, & Bluth, 1980). It is the organizational structure that provides a framework to convey the content of the text to the reader. Narrative text structure is described in terms of story grammar categories (Stein, 1979). Narratives that are well-formed include a setting and one or more episodes. Moreover, well-formed narratives are understood better than narratives that are fragmented or require readers to infer missing categories (Baker & Stein, 1981).

On the other hand, expository text structure is described in terms of organizational, or rhetorical, structures that writers use to convey the relationships among ideas in the passage to the readers (Meyer, 1981; Niles, 1965). For example, Meyer (1981) describes five rhetorical structures in expository texts: causation, response, comparison, collection, and description. More organized structures, such as causation and comparison, appear to facilitate the understanding of content while content presented as a collection or description is more difficult to remember (Meyer & Freedle, 1984).

We would suggest, therefore, that the organizational structure among the ideas presented in both narrative and expository passages is crucial to fair and accurate appraisal of students' reading abilities. For instance, if secondary IRIs contain narratives, then the narratives should be well-formed so that poor performance by students is not a function of passage structure. Conversely, if the text type is expository, it too should be clearly structured. Expository passages with a discernable rhetorical structure would be more likely to yield accurate information about the student. Furthermore, the particular rhetorical structures of the IRI passages would be of interest to teachers because some structures seem easier to comprehend than others.

Despite the current interest in text type and text structure, secondary IRIs have not been analyzed for the text type of the passages. Neither has it been determined

if narrative passages are well-formed or if expository passages have identifiable rhetorical structures. The purpose of this study, therefore, was to evaluate three secondary IRIs: the Advanced Reading Inventory (Johns, 1981), Content Inventories (McWilliams & Rakes, 1979), and the Informal Reading Assessment (Burns & Roe, 1985) in terms of text type and text structure.

Specifically, we wanted to know (1) if the passages in each secondary inventory were expository or narrative; (2) if the passage was a narrative, was it a well-formed narrative? (3) If the passage was an exposition, would the rhetorical structure be classified as description, causation/contrast, problem/solution, sequence, or definition/example? (4) Were there any passages with no discernable structure?

Method

Raters

Eleven teachers training to be reading specialists and enrolled in a graduate secondary reading course served as raters of the inventories. These teachers had already completed a reading methods course in which they learned to map stories (Beck & McKeown, 1981); therefore, they were familiar with narrative structures.

Training

One of the researchers conducted a three-hour training session to teach the raters to differentiate between text types and to identify text structures. Raters first learned to differentiate between narrative and expository texts. A narrative by definition is a story of events or experiences that may be long or short, that may happen in the past, present, or future, and that may be factual or fictitious. An exposition is a detailed statement or explanation, an explanatory treatise. A finer distinction of discourse was not deemed necessary. "Narrative" referred to a story of events; "exposition" referred to factual explanations.

The researcher provided model passages and discussed how each passage met the criterion for a specific text type.

Raters then practiced with five passages and identified the text type of each passage. Finally, an alternate form

of an IRI that was not being used for this study was analyzed for text type. Any disagreement was discussed until consensus was reached for the practice passages.

Raters then learned to identify a well-formed narrative according to Stein's categories (1979). Specifically, a narrative was judged a well-formed narrative if it contains information about a setting, an initiating event, a goal, attempts to attain the goal, consequences of the attempts, and a reaction. Finally, raters learned to identify the rhetorical structures of expository passages based on Meyer's system (1975). The structures taught: description, definition/example, cause/effect, sequence, contrast/compare, and problem solution. Teaching methods followed previous practices.

Procedure

The inventories were assessed using the criteria established during the training session. Raters first analyzed grades seven through twelve/college, Form A or 1, of the inventories for text type. Five inventories were actually analyzed because the Content Inventories contains independent inventories in English, social studies, and science. Eleven raters analyzed Content Inventories and Advanced Reading Inventory. Nine raters analyzed Informal Reading Assessment.

To reflect organizational structure, the ratings branched under passages judged narratives to well-formed or not well-formed and under passages judged expositions to one of six rhetorical structures. A narrative passage was judged to be well-formed if it contained information according to Stein's categories. If the passage was judged exposition, the raters then classified its rhetorical structure.

Analysis and Results

Interrater reliability was calculated using Hoyt's procedure to estimate the reliability of measurements as described by Winer (1971) for each group of raters per inventory. Reliability coefficients for Advanced Reading Inventory and Content Inventories, English, were .94 and .93, respectively. On Content Inventories, Social Studies and Science, agreement levels were so high that the variance was estimated in excess of .99. The interrater

reliability, however, for the Informal Reading Assessment was .42.

Overall, the raters judged the secondary IRI passages to be narratives 18% of the time and expositions 82% of the time. If the analysis of the Informal Reading Assessment is omitted, the remaining IRIs were judged narratives 9.8% and expositions 90.2% of the time.

The reliability coefficients for narrative and expository text structure per inventory could not be computed because of the branching methodology, which resulted in an excessive number of empty cells for the reliability ANOVA. For example, after the raters determined text type on the Advanced Reading Inventory ($r = .94$), the branching that occurred as they evaluated passages for structure created the empty cells that prevented reliability measurements. On the Informal Reading Assessment raters were not consistent in determining text type ($r = .42$). Since there was no passage on which all raters agreed as to text type, empty cells again occurred as raters' responses branched in their attempt to identify the text structure for both narratives and expositions. When the eleven raters of the three inventories in the Content Inventories judged a passage narrative (which they did for a total twelve times of a possible 198 decisions), they then had to determine if the narrative was well-formed or not well-formed. In this case there were too few passages judged narrative to compute reliability.

When the raters considered the expository passages to determine their rhetorical structure, the branching methodology provided seven choices. The raters were unable to discriminate among the choices consistently. They were in many cases unable to identify any structure for the passage. In fact, raters were unable to identify any kind of rhetorical structure for 37% of the passages in the Informal Reading Assessment. Even across the five inventories, 22.3% of the passages had no discernable structure.

Discussion

Analyses of the inventories indicate that some current secondary IRIs have been constructed with some consistency of text type. A clear picture, however, of text

structure for secondary IRIs failed to emerge.

We argued that expository passages are more appropriate for secondary reading assessment since this text type is more representative of the secondary textbooks. The Content Inventories and the Advanced Reading Inventory contained predominantly expository passages; however, the raters were unable to identify text types for the Informal Reading Assessment. The high interrater reliabilities for the former inventories contrasted with the low interrater reliability for the Informal Reading Assessment suggest that the passage in the latter inventory are of indeterminate type.

Students evaluated with the Content Inventories or the Advanced Reading Inventory would thus use an IRI with appropriate text type for placement in expository texts. On the other hand, if a shift between text types across levels occurred or passages with indeterminate type used, erratic student assessment scores might result. Students might score high on a narrative at level eight, low on an exposition at level nine and high again on a narrative at level ten. In this case, scores might be a function of text type rather than reading ability. If students were evaluated with passages with indeterminate text types, scores might be a function of an inconsiderate the text rather than reading skill.

As mentioned earlier, if narratives are used to assess reading skill, then we should expect them to be well-formed so that good readers could use their schema for story structure and poor readers could make use of emerging story schema to comprehend the passage. We do not, however, have a clear picture whether the few narratives found in secondary IRIs are well-formed. Since students' scores could be a function of the organization of the text or reading ability, further study of narrative text structures in IRIs is needed.

When we consider the passages judged to be expository, we note that teachers may be assessing students' reading abilities with many passages with no identifiable rhetorical structure. Certainly, raters were unable to assess rhetorical structure consistently. Whether this resulted from poor training procedures or from passages which lacked a clear rhetorical structure is not known. If the latter is the

case, good readers would not be able to use their knowledge of text structure effectively. Poor readers' chances for a good performance would be even less. Further study of expository text structures is therefore necessary.

These findings suggest several recommendations for teachers who assess secondary students' reading abilities. First, if an IRI is to be used for assessment, check the passages for text type. At the secondary level, expository passages represent the real world of secondary school reading. If few expository passages are used in the IRI, consider constructing them from the textbooks the students are to read or use a different IRI.

Second, if the IRI does have expository passages for students to read, decide if the passages have a discernable rhetorical structure. If not, rewrite the passages or find other passages. If the passages have an identifiable rhetorical structure, look for a representative sample of the structures identified by Meyer and others. An overabundance of descriptive passages would not be desirable.

Third, if it is appropriate to assess with narrative passages, check to be sure that they are well-formed narratives. If the narratives are fragmented or have parts missing, rewrite them. Make complete, coherent stories.

Fourth, if students' scores fluctuate widely, consider the text as the cause of variability. An assessment instrument should reflect the text type most often used at the students' level in school. At the very least, it should contain coherent passages with identifiable organizational structures.

These recommendations do not consider prior topic knowledge, interest, or the questions asked after the students read the passages. These issues have not been addressed in terms of secondary informal inventories. Since assessment instruments exert such an influence on students' instruction, educators and researchers should continue to examine IRIs.

Table 1
PERCENTAGE OF SECONDARY PASSAGES CLASSIFIED
AS NARRATIVE AND EXPOSITORY
BY INVENTORY AND LEVEL

Inventory**		ARI r=.94		IRA r=.42		CS r=.99*		CSS r=.99*		CE r=.93	
***		N	E	N	E	N	E	N	E	N	E

7		9	91	56	44	0	100	9	91	0	100
8		27	73	56	44	9	91	27	73	0	100
9		9	91	33	67	9	91	9	91	18	82
10		91	9	56	44	0	100	0	100	18	82
11		0	100	44	56	9	91	0	100	0	100
12		9	91	56	44	0	100	0	100	0	100
Col.		0	100								

EXPLANATION

All figures given in percentages

* Estimated Reliability Coefficient

** ARI - Advanced Reading Inventory

IRA - Informal Reading Assessment

CS - Content Inventory - Science

CSS - Content Inventory - Social Studies

CE - Content Inventory - English

***N - Narrative

E - Expository

**** Ist col. - Levels from 7 through College

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