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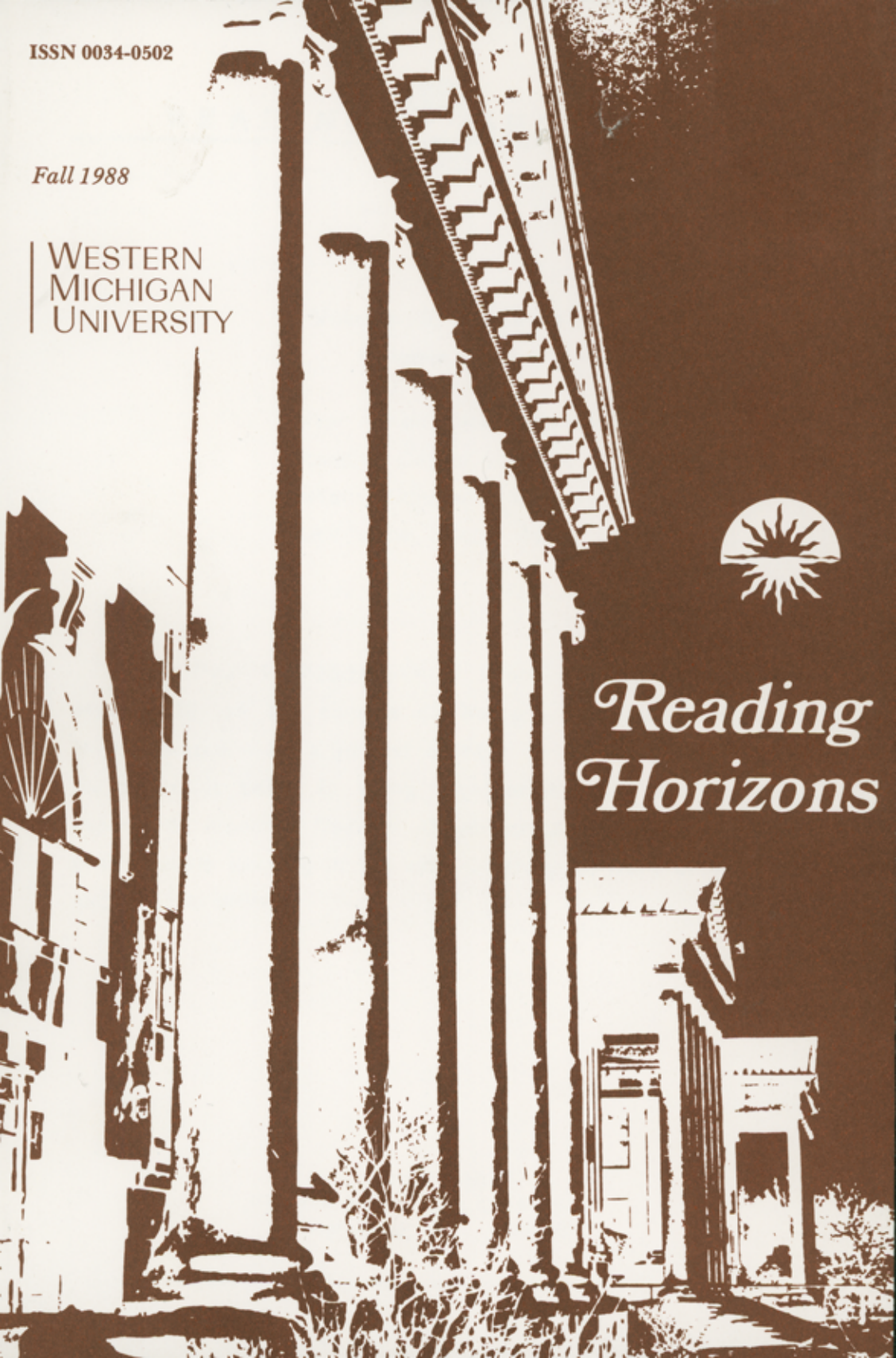
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# *Reading Horizons*





# READING HORIZONS

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Editor - Ken VanderMeulen

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Kalamazoo, Mich. 49008

READING HORIZONS has been published quarterly since 1960, on the campus of Western Michigan University in Kalamazoo. As a journal devoted to teaching reading at all levels, it seeks to bring together through articles and reports of research findings, those concerned and interested professionals working in the ever widening horizons of reading and related skills.

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## READABILITY AND PARENT COMMUNICATIONS: CAN PARENTS UNDERSTAND WHAT SCHOOLS WRITE TO THEM? (Part II)

DR. NANCY A. MAVROGENES

Department of Research and Evaluation  
Chicago Board of Education

In Part I of her article (Summer issue), Dr. Mavrogenes covered "The Rationale and Purpose of the Study," "The Procedure," and "Results: Readability of Materials".

### Parents' Education

There are still other factors involved in readability. Of particular importance are the interests and motivation of readers and their facility with language (Gilliland, 1972). One way to gauge such factors is to look at the parents' levels of education. Accordingly, the head teachers were asked to provide the highest levels of schooling by their students' parents. Three of the six head teachers supplied such lists for eight classes, one of which was bilingual. The number of parents for whom the educational level was supplied was 49 for the bilingual class and 160 for the other seven classes, making a total of 209.

TABLE 2 - EDUCATIONAL LEVELS OF PARENTS

<u>Level of Schooling</u>	<u>Non-Bilingual Percentage</u>	<u>Bilingual Percentage</u>
No schooling	0	10
Some elementary school	1	69
Completed elementary school	3	8
Some high school	38	4
Graduated high school	38	6



Some college	16	0
Graduated college	4	2

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Since these figures are based on information supplied by the parents at the time they first enrolled their children in the CPCs at the age of three, they are not, according to the head teachers, absolutely valid figures. The fact that 58 percent of the non-bilingual parents said they were high school graduates or better was particularly suspicious. Therefore, other figures were sought to support or refute these figures. The vast majority of these parents are on welfare. According to the head teachers, the percentage of parents receiving public aid is from 90 to 98 percent, except for one of the schools which is an academy and thus receives its students from a wider area. The percentage of parents on welfare at this school was estimated at 80. The mean percentage of parents on welfare, according to head teachers' estimates, is 91. Therefore, figures were found for the educational levels of adults receiving assistance from the state Department of Public Aid or Aid to Families with Dependent Children (1986). Table 3 presents these figures for the county in which these schools are situated. It should be noted that these public aid figures are for adults, 21 or over, and that many parents are younger than 21. For them, the figures are most likely too high.

The case of the bilingual parents is somewhat different. There is not so much reason to suspect these figures. According to the head teacher at the bilingual school, the answers these parents gave to the question about their education are valid for two reasons. First, the bilingual class has a full-time bilingual teacher as well as the regular classroom teacher. That teacher knows the parents well and has established a bond of trust with them. In addition, cultural differences might also explain the validity of these figures. In Mexico education is not as widespread nor are educational expectations as high as in the United States. It might be less of a disgrace to admit to very little or no education. According to the answers of these parents, only 20 per cent have completed elementary school, with 79 percent reporting no schooling or only some ele-

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mentary school.

TABLE 3  
EDUCATIONAL LEVELS OF ADULTS ON PUBLIC AID

<u>Level of Schooling</u>	<u>Percentage</u>
No schooling	1
Some elementary school	4
Completed elementary school	6
Some high school	55
Graduated high school	25
Some college	7
Graduated college	0.4

N = 152,219

### Conclusions

An examination of the readability levels of the communications sent out in English by these six schools to kindergarten parents reveals that almost one-half of them (45 percent) are written at a 10th grade or higher level of difficulty (Table 1). In contrast, more than one-half of the English speaking parents (at least 66 percent) have completed only some high school or less (Table 3). A person's reading level, however, does not necessarily correspond to years in school completed. For the past several decades, figures on illiteracy have received wide publicity. These figures range from 20 million American adults being completely illiterate ("Change in America", Terry, 1986) to almost half the population being functionally illiterate (unable to fill out a check, write a letter, or read a want ad) (Chall, 1984). Although there is disagreement about exact numbers, "most surveys and interpretations of the past decade . . . did agree that the status of adult literacy was far from adequate, particularly in terms of the growing technical nature of available jobs and the governing complexity of knowledge (Chall, 1984, p. 17).

As for Americans in their early 20s, the National Assessment of Educational Progress found in 1985 that 6 percent could not read as well as the average 4th grader

and 20 per cent could not read as well as an 8th grader ("20% of Young Americans," 1986). Even those who question inflated figures agree that "a substantial number of people are graduating from high school without adequate literacy skills" (Casse, 1986, p. 30). Furthermore, many adults who read below the 9th grade level (the average adult reading level) fall in the lower end of the economic scale and are members of minority communities (Roit and Pfohl, 1984; "20% of Young Americans," 1986).

Therefore, it seems reasonable to assume that a significant number of parents in these school programs for educationally disadvantaged children are unable to read the communications sent to them by the schools. Their facility with language, judged by estimates of literacy, is probably low. In many cases these parents, often children themselves and a good percentage of them high school drop-outs, probably do not have the interest and motivation to figure out the letters they receive from their children's schools. It would seem imperative that the schools, which have already done so much in their attempts to reach the parents, should work harder to make the letters and newsletters they send home with their pupils easier to read. The bilingual parents, especially, are probably having trouble reading the schools' letters. Although 79 per cent of these parents have no or only some elementary schooling, the four letters written to them were at an 8th grade readability level.

Effort has already been expended to make these communications appealing and understandable. They are attractively decorated with art work and pithy sayings such as "Think togetherness" or "Our children are the only earthly possessions we can take with us to heaven." Much of the style and size of print is of the most legible type. The colors of print and paper are satisfactory. The tone of the writing is enthusiastic and persuasive. Headings are often used to organize the messages and alert the reader to the content. Sometimes unfamiliar terms and concepts are defined. At the same time, there is much room for improvement. Some difficult vocabulary is not defined. Some print is not as legible as it could be. Some pages are unattractive because no concern has been shown for the placement of the print on them. Some

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pages are hard to fathom because the grammar, punctuation, spacing, and spelling are not carefully considered. Some sentences are long and complex, with formidable vocabulary, subordinate clauses, strings of prepositional and adverbial phrases, hardly designed to be friendly to the reader.

### Recommendations

In order to improve and strengthen the appearance and content of the communications that schools send home to parents, the following recommendations are submitted. All of them are based on a consideration of the needs of the readers and aim to match the readability of the materials with the educational/literacy levels of the parents.

--Complex sentences should be simplified. When this is done, extreme care must be taken to preserve the logic of the ideas by utilizing relationship words such as because, therefore, then in order to make connections explicit (Davison and Kantor, 1982; Rush, 1985). In the following examples sentences are shorter and vocabulary is simpler, but the original ideas and relationships have been kept.

Original sentence: This is to inform you that as a consequence of your non-participation your children will be dropped from the program effective January 31, 1986.

Improvement: You have not been coming to the CPC often enough this year. Therefore, your child can no longer be a part of this program. On January 31, 1986, he will have to attend \_\_\_\_\_ School.

Original sentence: It is imperative that children be in school every day if they are to receive optimum benefits from the instructional program.

Improvement: Children must be in school every day so that they can learn as much as possible.

--Difficult and unfamiliar terms such as abstract or technical words need to be defined if they are crucial to the content. In the preceding examples the words consequence, non-participation, effective, imperative, optimum benefits, and instructional have been replaced with simpler

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structures. If a specialized term such as metabolism must be used, it should be appropriately and simply defined: how the body uses food.

- More attention should be paid to the mechanics of spelling, punctuation, grammar and typing. Careful proof reading should catch these errors. Schools are expected to and must set an example in the materials they send to their constituents.
- The placement of material on the page should be attended to. All four margins should be wide enough so that each page looks as attractive as possible.
- Headings or headlines should announce to the readers the main idea of the message or the paragraph.
- Mimeographed letters should be dark enough that they are legible. If notices are handwritten, they should be very carefully and neatly done.
- All print should be standard pica or elite type. Text written all in capital letters or in italic type should be avoided as not providing the greatest ease in reading.

Bilingual schools should be particularly careful to avoid writing which will not be comprehensible to the parents, most of whom have very little schooling.

Many of these suggestions are not hard to put into practice. All they require are a new point of view (a consideration of the reader) and more care taken with the elements of readability. Such care would be one more step in improving the schools' efforts to involve parents in their children's education. The necessity of this kind of concern was pointed out by the study examining the readability of brochures informing parents of their rights in connection with special education for their children. If the comprehensibility of materials is inappropriate, "rather than inform, they may create confusion and even discourage parent participation" (Roit and Pfohl, 1984, pp. 496-497). Such confusion and discouragement are surely not the goals nor the desire of programs for educationally disadvantaged children which seek to involve parents in their children's education.

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## LEADERSHIP PERCEPTIONS OF THE ELEMENTARY SCHOOL READING PROGRAM

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RONALD G. NOLAND - Auburn University

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A myriad of studies has been conducted in recent years to investigate the perceptions of principals, supervisors and other educators concerning various aspects of reading instruction (Bawden & Duffy, 1979; DeNicola, 1983; Fryer, 1984; Jacoby-High, 1980; Worden & Noland, 1984). These findings have provided valuable insight into the educational process in the elementary schools.

Educators continue to be concerned with the professional working relationship among principals, teachers, and supervisors. Several recent studies have investigated and compared the perceptions of key persons in reading education (DeNicola, 1983; Fryer, 1984; Jacoby-High, 1980). Principals and teachers are central to effective reading programs (Jwaideh, 1984; Pinero, 1982; Pinkney, 1980). Both have perceptions of reading instruction and their roles within a program (Bawden & Duffy, 1979; Jacoby-High, 1980). Research suggests that the perceptions of these two groups are not always in concert (DeNicola, 1983; Fryer, 1984). According to recent research, strong leadership from a principal is essential to promoting an effective reading program (Bossert, Dwyer, Rowan & Lee, 1982; Fryer, 1984; Hoffman & Ruth-erford, 1984; Jwaideh, 1984; Pinkney, 1980).

Some research investigations have indicated that principals perceived their work as being closely involved with the administrative, pupil, and policy aspects of reading; however, they were only sometimes involved with the instructional process in that their roles were of secondary support. Though principals viewed themselves to be closely involved with many components of the school program,

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they expressed a desire to substantially increase their involvement and commitment to the reading program (Mottley & McNinch, 1984).

Teachers view their effective principals as instructional leaders and as experts in a wide variety of areas (Austin, 1979). DeNicola (1983) reported that classroom teachers desire their principals to be more involved in the reading program. Fryer's study (1984) revealed that primary and intermediate teachers were satisfied with their principals' involvement in the reading program in terms of "obtaining materials, communicating with parents, setting a favorable school climate, and making district materials available for use" (p. 114). The teachers, however, did not perceive the principals' time spent in the classroom to be as great as the principals did; the teachers did not feel encouraged by their principals to expand their reading teaching skills.

The major purpose of this study was to identify similarities and differences between principals' and teachers' perceptions of the involvement of principals in the elementary school reading program. Such clarification was necessary in order to promote clear communication between the principals and teachers to meet program needs.

### Method

#### Subjects

Subjects for the study consisted of 245 teachers from 15 randomly selected elementary schools and the entire population of 51 elementary principals. The single stage cluster sample of teachers yielded 160 primary teachers and 85 intermediate teachers. All subjects were from a county school system in Alabama.

#### Procedures

A table of random numbers was used to select the 15 elementary schools from which the teacher subjects were obtained. The data for the study were gathered by means of two sets of questionnaires which were administered to the entire population of principals and to the sample of teachers.

The investigators selected and trained a team to assist in administering the questionnaire to the principals and teachers. Team members visited the schools during a weekly

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faculty meeting and distributed and collected the completed questionnaire at that time. The principals' questionnaires were administered during the monthly principals' meeting. Completed questionnaires were collected at that time to ensure return from the entire population of principals.

### Instrumentation

The principal and teacher questionnaires used for this study were obtained from a doctoral dissertation completed by Fryer (1984). He compiled these questionnaires from instruments used in previous studies, modified them, and tested them for validity. The questionnaires were revised again by the writers and were subjected to a pilot study in order to confirm the scale and establish test-retest reliability. The Kaiser-Meyer-Olkin Measured Sampling Adequacy Coefficient was .87 and supported the sampling adequacy procedure.

The principals' and teachers' questionnaires requested demographic data as well as responses to individual items in a scale related to the principals' involvement in the reading program. The points in the scale ranged from (1) To a great extent (GX) to (5) Not at all (NOT).

### Questionnaire Items

#### Principals' Involvement in the Reading Program (Teachers/Principals)

- 1.01 To what extent (is your principal/are you) involved in your reading program (please consider all aspects, i.e., planning, facilitating, staff development, etc.)?
  - 1.02 To what extent (does your principal help you/do you help teachers) obtain and use materials for reading instruction?
  - 1.03 To what extent (does your principal/do you) encourage and/or help develop teaching abilities in reading?
  - 1.04 To what extent (is your principal/are you) familiar with classroom reading instruction efforts?
  - 1.05 To what extent (is your principal/are you) involved in the evaluation of students in reading?
  - 1.06 To what extent (does your principal/do you) work to create a positive reading climate in the school?
  - 1.07 To what extent (is your principal/are you) willing
-

to help make district reading resource personnel available?

1.08 To what extent (is your principal/are you) willing to help make district reading resource materials available?

1.09 To what extent (does your principal/do you) visit in the school's classroom during reading instruction activities?

### Research Design

A single stage cluster sample was utilized to obtain the teacher subjects from 15 randomly selected elementary schools in the county. All 51 elementary principals from the county system were surveyed in order to establish a norm. The bootstrap approach as presented by Efron was used to analyze data (Diaconis & Efron, 1983; Efron & Gong, 1983). In addition to the bootstrap procedure, analysis of data was performed by using the cluster mean as the sampling unit and analyzing the 15 sample means via multivariate analysis of variance with follow-up  $t$ -tests. Both procedures yielded congruent results; therefore, findings are reported from the bootstrap approach using confidence intervals.

### Results

The group mean was calculated for all principals for the scale. The individual teachers' means were subtracted from the principals' group mean to obtain a difference score. The bootstrap method was employed to generate 2,000 new samples of mean differences for the scale. A bootstrap mean was derived for the scale and a 95% confidence bound was constructed using the Boneferoni adjustment. The confidence interval was investigated to determine if it were reasonable to conclude that the principals and teachers differed significantly. Figures 1 and 2 illustrating the findings present principals' and teachers' means for each item within the scale, bootstrap means, and confidence intervals.

The research question asked if teachers' perceptions of the principals' involvement in the reading program were similar to the perceptions of the principals. Principals responded once to each item with respect to primary teachers and once for intermediate teachers. Teachers responded only once to each item. Principals' perceptions

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Figure 1. Principals' Involvement in the Reading Program  
(Grades 1-3)

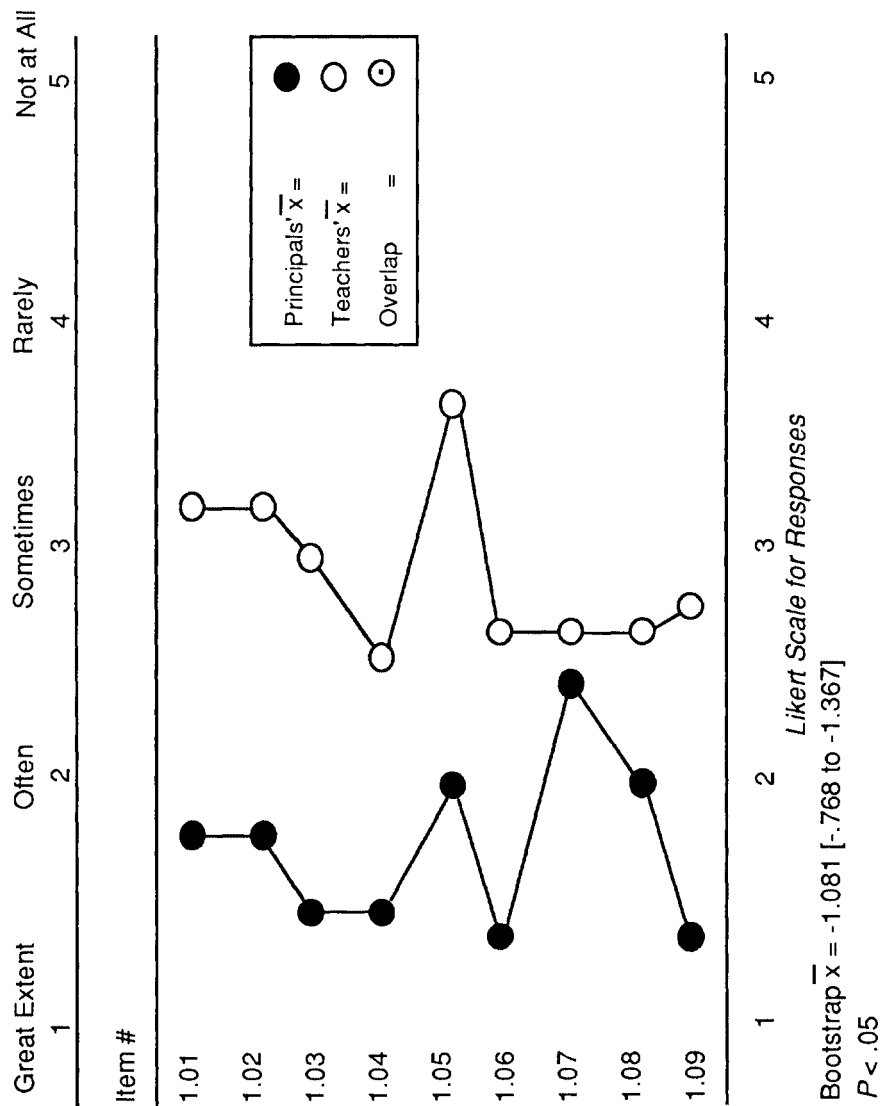


Figure 1: I. Principals' Involvement in the Reading Program (Grades 1-3).

Figure 2. Principals' Involvement in the Reading Program  
(Grades 4-5)

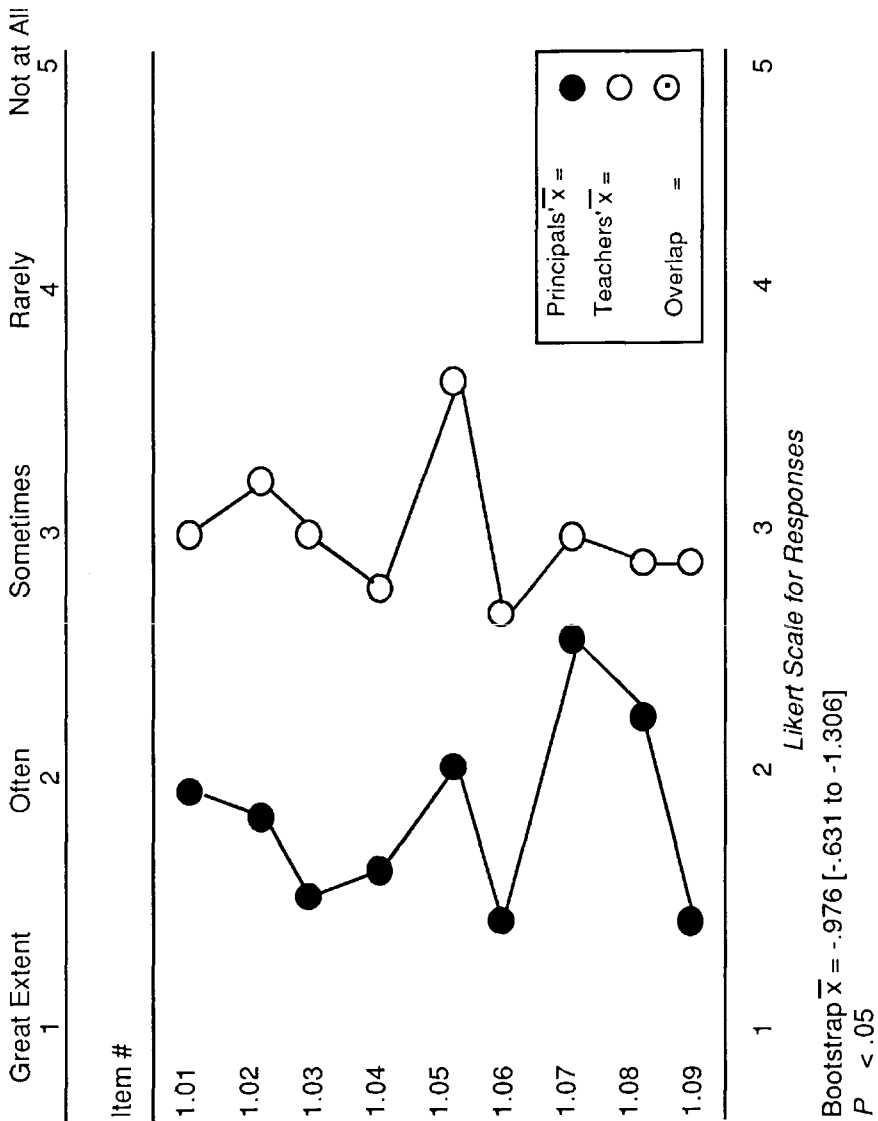


Figure 2: 1. Principals' Involvement in the Reading Program (Grades 4-5).

differed significantly from both primary and intermediate teachers with regard to the principals' involvement in the reading program.

### Discussion

Analysis was conducted on total scale means for principals and teachers; however, references are made to within scale items where findings are consistent with or contradict current literature.

Both primary and intermediate teachers differed significantly from principals with respect to their perceptions of the principals' involvement in the reading program. Teachers perceived principals to be less involved in the reading program than principals perceived themselves to be. Fryer's (1984) research indicated that principals viewed their time spent in the classroom to be greater than teachers perceived it to be and the teachers did not feel encouraged by principals to expand their reading teaching skills. These results from Fryer's study are consistent with the findings from this study. Findings from several studies have indicated that both teachers and principals have expressed a need for more principals' involvement in the reading program (DeNicola, 1983; Jacoby-High, 1980; Motley & McNinch, 1984). Motley and McNinch reported that principals viewed their roles to be of secondary support with respect to the instructional process, leaving supervision of teachers to department chairpersons, reading specialists, and reading consultants.

For principals to make decisions consistent with sound educational theory, and for teachers to implement such mandates, it is essential that a common ground of communication and agreement be established with respect to the principals' involvement in the reading program. It is with these findings in mind that the following recommendations are made:

1. Principals should note the perceived differences teachers hold with respect to the principals' involvement in the reading program and initiate efforts to become more involved in the daily instructional program. Teachers should be receptive to principals' involvement and open to discussion concerning program needs and strengths.

2. Principals should attempt to plan for and schedule

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more time in the classroom to familiarize themselves with the daily classroom efforts and program needs.

3. Further study is needed with various school populations concerning principals, teachers, and reading specialists with respect to their perceptions of the principals' involvement in the reading program.

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## THE READING PROCESS FOR THE BEGINNING READER

MARY JANE GRAY

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---

In spite of the fact that most of us learn to read to some degree or another in our lifetimes, no one has yet provided for us an answer to the question "What is reading?" Unfortunately, there is no single, simple answer to this question now, nor will there be such an answer in the future. Southgate, Arnold, and Johnson (1981) indicated, "One great problem about understanding the nature of reading is that being a mental process it is generally a silent one, which makes it even more difficult to investigate."<sup>1</sup>

Further, learning to read is a process which is unique for each individual. The reading task for a beginning reader is quite different from the task for a reader who has attained some proficiency. There is a common thread, however, in the reading process that is essential for success at any level. That thread is two-ply; one strand is interest on the part of the reader; the other is meaningful material.

Harris and Hodges (1981) provide a framework for us by defining three theoretical views of the reading process. These are as follows:

Top-down processing--a theoretical view of reading as a process of using one's experiences and expectations in order to react to text and to build comprehension. In top-down processing, comprehension is seen as reader-driven rather than text-driven.

Bottom-up processing--a theoretical view that comprehension in reading consists of the accurate, sequential processing of text. In bottom-up processing, comprehension is seen as text-driven; it is built up and governed by the text

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only, and does not involve the reader's inner experience and expectations.

Interactive processing--a theoretical position that reading involves both the processing of text and the use of experiences and expectancies that the reader brings to the text, both sources of information interacting and modifying each other in reading comprehension. In interactive processing, comprehension is generated by the reader under the stimulus control of the print.(2)

A number of children appear to have learned to read prior to school entrance. Anyone who has observed a pre-school child going through a storybook s/he has heard several times and repeating the story as s/he turns the pages at the right time appears to have learned something about reading. To begin with, s/he is moving from left to right and secondly, is pronouncing words correctly. Is this indeed reading?

Let's look at two examples of children who seemed to have learned to read before enrolling in school. Their experiences will help to demonstrate how children become aware of print and learn to recognize print as meaningful. After looking at their progress, an examination of the similarities in their experiences will be undertaken. A review of recent research in the area of preschool reading and its relationship to the procedures followed by these children will be presented. Then, we will make a closer analysis of whether or not they have really learned to read without benefit of formal instruction. Finally, the implications for classroom instruction will be considered.

### Tom

Tom, an only child and only grandchild for both sets of grandparents, came from a home which provided him with a good background for learning to read, a feat which he seemed to have accomplished by the age of three. Both parents had a college education, his father, both a B. A. and and M. A.; and his mother, a B. A. and advanced work beyond this level. Both parents were educators, but his mother did not go back to teaching until Tom entered first grade. His father had taught at junior high and high school levels before Tom was born, but was a school administrator for the major portion of his career.

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Tom demonstrated his first interest in reading by listening to nursery rhymes which he learned and to stories which his parents or other adults read to him.

He was very observant, so he noted with interest the various daily activities his mother performed. In the morning he watched as she picked up the newspaper from the front porch. Right after this, she sat down for five or ten minutes to quickly skim the news of the day. It was not long before Tom went to perform this task for his mother. Then he would sit down in his small rocking chair and look over the news as his mother had done. He would frequently ask questions such as, "What is this?" while pointing to a letter. When he came across the letter again in another setting, he would point to it and say its name. He knew all the letters of the alphabet when he was three.

When anyone read to Tom, he followed along intently and became so competent that it was not unusual for him to pick up a book, and while looking at each page, repeat exactly what was written on that page. Since his parents were educators, he had access to many sample textbooks. One of his favorites was a science book in which he pointed to various pictured animals, insects, and birds. After having his parents repeat the names for him several times, he was able to identify each picture in the book correctly. His final activity following the reading of a book was to draw very small, stick-like illustrations to accompany the text. He was always ready and eager to explain his illustrations to anyone who could be persuaded to listen.

Another activity of his which he observed his mother doing was writing a list of items needed from the store on a memo board beside the telephone in the kitchen. Tom made his own list of items on a small chalkboard in his room.

His powers of observation continued when he was riding in the car. A comment such as, "King on a bun," would advise the occupants of the car that they were passing a Burger King Restaurant. He also came to recognize the frequent symbols and jingles used to advertise products on television. Mr. Clean became one of his favorite TV people, and he would stop whatever he was doing to watch and to listen when he heard the musical jingle

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which introduced the appearance of Mr. Clean.

Finally, he saw his parents reading themselves. Newspapers, books, and magazines were all found in his home, and each evening some time was spent by his parents in reading. He shared a story with his parents at bedtime.

### Margery

Margery was a second child who showed an early interest in reading. She was the only child in her family and the only granddaughter for both sets of parents. Both her parents had college degrees. Her father was a commercial artist. Her mother did not work outside the home while Margery was young. Many reading materials were available in the home, and Margery observed her parents reading each day.

By the time she was two years old, she was able to repeat from memory many of the Mother Goose nursery rhymes. She had several alphabet books and knew the names of each of the letters at this age.

Margery enjoyed listening to stories which her parents or grandparents read to her. After hearing a story a number of times, she would then take the book and give a perfect rendition.

When she went along with her mother to do errands, she was very observant. Each week she noted her mother writing a shopping list for groceries and using it when she went to the supermarket. Margery soon began to make her own shopping list. She took a small piece of paper, and although she was unable to write, she made some marks which apparently were meaningful to her. When they arrived at the store, she looked at her list, and then, as she moved between the aisles, she would pick out the items she had designated on her list. Frequently these items included apples, cookies, cereals, etc.

Her mother often took her to the park where she was once again very observant. She noted the different kinds of flowers and asked their names. Margery noted various signs about which she inquired. These included, "Keep off the grass!" and "No trespassing!" She recognized that certain people came to the park on a regular basis and sat in particular locations. She made friends with some of them and would stop to talk each time she came.

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She had an extremely large vocabulary for a young child. Perhaps this was due to the fact that many of her preschool years were spent in large measure with adults. By the time she arrived at school, she had a very sound foundation for learning.

### Similarities Between the Two Children

A review of the two cases makes evident that there were many similarities between the two children. To summarize, there seem to be five major areas of similarity. They are as follows:

1. Good home environment
2. Learning about alphabet letters
3. Learning to become aware of print in environment
4. Becoming aware of print in books, magazines, newspapers, etc.
5. Learning to write

Let us take a closer look at how these children advanced in each of the areas and what research has to say about the importance of these areas in learning to read. Finally, a summary statement as to what the essentials are for learning to read will be made, along with a comment as to whether the formal school program can continue to build on this base. This is a crucial point; in order to build the best foundation for readers in our formal education system, we must recognize the stage each child has reached and how s/he got there. Only then can we be prepared to help her/him advance in the development of literacy.

### Good Home Environment

Both of these children were from middle class families, and the parents all had college degrees. They were only children. Additionally, Tom was the only grandchild, and Margery was the only granddaughter. Since they had association with many adults, they were exposed to the vocabularies used by these adults, and this helped them to expand their own vocabularies.

Over seventy-five years ago, Huey (1908) told us: "The home is the natural place for learning to read, in connection with the child's introduction to literature through storytelling, picture reading, etc. The child will make

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much use of reading and writing in his plays, using both pictures and words"(3).

We have at least one example of each of the areas listed in Huey's statements. Both children shared literature with their parents. They also did some of their own writing of grocery lists modeled after their mother's lists. The illustrations made by Tom provide another form of representing descriptions graphically.

Teale (1978) much more recently lent support to Huey's statements when he stated, "Reading to children acquaints them with the function of print, also sensitizes them to the structure and nature of written language"(4).

McCormick (1983) agreed as evidenced by her statement "Reading books to children can positively affect their language development, interest in books, academic readiness, success in learning to read, specific reading interests, and social attitudes and values"(5).

One more benefit of listening to stories read by parents is that children have the opportunity to observe the left-to-right movement in reading. When repeating stories they have heard, they can move in the proper direction, from line to line, and from page to page. While they may not actually be reading, this experience is good readiness for the task itself.

Besides having many books provided for them, they were able to observe their parents reading. Parents read to them as well as listened to them when they rendered an account of a story after having heard it several times. They thus found reading both meaningful and interesting. The illustrating of stories and the writing of the lists for supermarket shopping were two other bits of evidence demonstrating that these children were aware of the usefulness of print and that print carried meaning.

One of the most important similarities between the two children was the fact that they both came from home environments that encouraged reading, yet did not apply pressure to learn to read. Perhaps this is too broad a generalization, but it seems that the person most often credited with the child's success or failure in learning to read is the teacher. In reality, the major key to a child's

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success in reading is found in the home, as a great deal of the prerequisite of learning, including mastery of oral language, is acquired before the child reaches school age.

Children use as their models those people with whom they are most closely associated. For preschool children these tend to be parents and brothers or sisters. If children see these individuals reading various types of material on a regular basis, talking about these materials and sharing them with one another, reading is likely to be of value to them. If there were only slight interest in reading in the home, they are likely to show little or no interest in reading. Further, if parents read to children, they are providing opportunities for deriving enjoyment from books. This also gives them exposure to the language of literature.

### Learning About Alphabet Letters

One activity which was very beneficial in helping Tom and Margery learn the letters of the alphabet was the reading of the newspaper by their parents and the modeling of this behavior by the children. Both asked what particular letters were and by repeating them and using them frequently made them an integral part of their knowledge about letters.

A second activity which helped them to learn the letters of the alphabet was the reading of alphabet books with parents or other adults. These books also introduced them to words and the initiation of the development of a sight vocabulary.

Mason (1980) tells us, "It is evident from testing and interviewing kindergarten or entering first grade children that they know a great deal about reading. Many can recite the alphabet, name and print letters, call off words from billboards, road signs, and package labels"(6).

Letter naming does seem to be a good predictor of success in learning to read. Teaching letters, however, doesn't necessarily ensure a child's success in reading. The key may lie with the child in that s/he must be the one to show interest. It cannot be forced.

In 1980, Mason studied the development of four year olds' knowledge of letters and printed words to learn if preschool children begin reading, and if so, how. She con-

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firmed the natural ordering of letter and word knowledge. She found that most children can recite the alphabet. Next, they began printing and recognizing their own name. The third step was one in which signs and labels were read.(7)

Another study, conducted by Hiebert (1981), had as one of its aims establishment of developmental patterns of a number of print-related concepts and skills over the preschool years. She tested preschool children (3, 4, and 5 year olds) on three conventional reading readiness measures. These were letter naming, visual discrimination, and auditory discrimination. The three year olds demonstrated some proficiency on all measures. Data made clear that knowledge of all concepts and skills increased significantly over the preschool period. The greatest growth occurred between the ages of three and four. Thus, it becomes evident that the greatest growth occurred during the initial rather than the final half of the preschool period. The data also demonstrated that letter naming is only one of a number of kinds of concepts and skills about reading which young people acquire.

#### Learning to Become Aware of Print in Environment

Recognition of print in the environment on an independent basis gives testimony to the importance of print to a child. King-on-a-bun, derived from the sign on Burger King Restaurants, undoubtedly brings to mind the delights to be enjoyed at these restaurants. Mason makes clear that being able to read words on signs is not generally recognized as "reading," yet she also states that her study demonstrates how letter knowledge, printing, and sign reading serve as forerunners to more skilled reading.(8)

Reading signs and labels has some similarity to learning sight words. They are recognized as wholes and in meaningful context. Thus, children who are able to read words from traffic signs, package labels, business signs, and television advertisements may have an advantage over other children in learning to recognize words and to read stories.

Teale (1980) shows us through his investigation of early readers and his examination of the background of those readers that four environmental factors are associated with early reading. The first two of these have relation to

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recognition of print in the environment.

He stressed the importance of the availability and scope of printed materials in the environment encompassing everything from books to labeled products in stores and beyond.

Secondly, he states, "Reading is 'done' in the environment. The child must initially learn that print is meaningful"(9). Recognition of signs can reinforce this concept.

What Teale really tells us encompasses both the good home background and recognition of print in the environment. It is largely through the influence of the home background that children learn to be observant in all settings, and to have access to printed material.

Goodman's research (1980) indicated that children develop the ability to read print embedded in the environment in different ways. One of these occurs when a child sees printed symbols embedded in a situational context which assists her/him in decoding these symbols to meaning. Even two year old children may request certain products on a shopping trip. These children may be able to select the appropriate package by its label and point out its name. Goodman says that this type of behavior tends to develop between the ages of two and four in literate societies.

Baghban (1984) who studied the reading and writing development of her daughter from birth through age 3 supports Goodman's statement. She noted that her daughter could recognize 22 signs by the age of 26 months. She could also follow such directions as, "Go and get a Bounty paper towel," or "Find a big box of Cheerios."(10)

#### Becoming Aware of Print in Books, Magazines, Newspapers, etc.

The recognition of letters from the newspapers, hearing of nursery rhymes read by parents, hearing of stories read by parents, reading notes written by parents, and recognition of various illustrations in science books all involved print awareness.

Listening to stories read by parents introduced the children to the language of literature, provided enjoyment, and further strengthened the building of sight vocabulary.

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The repetition of stories on a word-for-word basis by these children is an activity that is frequently observed in preschool children who are exposed to stories and poetry at an early age. Their listening to the same stories over and over again indicates that there is something in these stories which is very appealing and which is enjoyed each time it is heard.

Recognizing printed words in a story; recognizing signs and labels; and recognizing, naming and printing letters are not sufficient for reading, however. Goodman tells us there is no automatic or simple relationship between being print aware in terms of print embedded in environmental context and being aware of function of print in books and magazines (11).

The more experience a child has in hearing stories read to her/him the more likely s/he is to begin to develop the understanding that the print in the book tells the story.

#### Learning to Write

Durkin (1966) stated, "The starting point of curiosity about written language was interest in scribbling and drawing"(12).

One of the behaviors Lass (1982) noted in studying her young son from birth to age two was interest in writing. Once again awareness of writing was first observed in the home. The amount of writing children may see in their homes varies greatly. Taking telephone messages, writing grocery lists, writing letters, or filling out various types of forms are some of the most common types of writing children may see done in the home environment.

Baghban (1984) observed that her daughter Giti began to write at the age of 17 months after having many opportunities to see her parents engage in many of the above listed writing activities in their home.

The noting of her mother writing a grocery list led Margery to her own writing of a personal list. Tom's list was written on his chalkboard. In addition to his writing his list, he recorded written impressions through illustrations.

Writing provides another situation in which a child is moving from left to right as in reading. Additionally, writing

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forces the child to attend carefully to letters and spelling, and to learn that meaningful messages may be recorded in print as well as transmitted through speech.

It is interesting to note Goodman's (1980) contention that children's early scribbling looks like cursive writing. She goes on to explain that this may be because they are using their parents as models and that it is the type of writing they have observed. While youngsters begin this cursive type of writing at age 3, by ages 4 or 5, their writing is more likely to be in print form.

### Summary - Did Tom and Margery Learn to Read Before Entering School?

There still may not be unanimity on the answer to this question. Certainly, as has been demonstrated, they shared experiences in the five areas listed and discussed so far. Are these five areas the crucial areas for success in beginning reading instruction? This, too, is a difficult question to answer and there is little research available.

Two studies are of note. The first was conducted by Lass as she observed her son from birth to age 2. The second was conducted by Baghban as she observed her daughter from birth to age 3.

Lass listed six categories of behaviors that she observed (1982). These are as follows:

1. interest in and skill with print
2. interest in and ability with written words
3. interest in books as playthings
4. enjoyment of content of books
5. oral language play, and
6. interest in writing (13)

The only area she does not mention in her listing of six categories which was on the list derived from study of Tom and Margery was the influence of a good home background. While she did not list it by name, she included it indirectly when she listed certain reading behaviors that seem to be acquired without teaching. She also explained that these may appear quite early in life, given facilitative conditions. The four behaviors are acquisition of letter and number names, a beginning sight vocabulary, an interest in the messages of print, and delighting in the pleasures of literature.

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Her continued observation of her son through age three led her to list the following as distinguishing features between prereading and reading.

1. The reader perceived himself or herself as such.
2. S/he has developed reading tastes.
3. S/h gets meaning from printed sources.
4. S/he decodes some words independently, using phonic or structural cues, perhaps in conjunction with context to identify unknown words.
5. S/he is able to read a book independently, without memorization which often accompanies repeated readings by adults. (14)

Certainly Tom and Margery perceived themselves as readers. Their involvement with print in the newspapers, in books, and in the environment gives testimony to this.

The development of tastes can likewise be attested to as these children showed strong preferences for stories read to them. These were the stories which they were able to repeat on a word-for-word basis.

They did get meaning from printed sources as illustrated by their recognition of signs on business establishments, signs on highways or in parks, signs on products in stores, and enjoyment of stories.

We cannot be certain whether or not they were decoding some words independently using phonic, structural, and/or context clues. Nor can we be certain they were able to read a book independently. The fact that they could sit quietly for extended periods of time interacting with a book independently would lead one to believe that the experience was meaningful and interesting to them.

Baghban (1984) would not distinguish between prereading and reading. Thus, she would consider both Margery and Tom as readers. In discussing the views of parents of natural readers, she stated, ". . . the most commonly shared expression of the parents is that their children just 'took off' reading" (15). That characterization seems to fit both Tom and Margery.

Both Lass and Baghban have demonstrated for us the importance of taking into account what each child already knows. We must stop preparing children to read and expand

on their immersion in all kinds of reading and writing activities.

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# IMPROVING THE READING COMPREHENSION SKILLS OF POOR READERS

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## Introduction

Although much has been written about reading comprehension in the last twenty years, theories defining the comprehension process, and strategies on how to teach it still pique the interest of educators. This article addresses the negative effects of poor decoding on reading comprehension, and reviews various strategies that have been used with poor readers to successfully compensate for the problem. It is proposed that the extensive exposure to printed discourse, and the phrase and sentence reading provided students in these successful remediation strategies are keys to improving the comprehension of poor readers.

Reading comprehension is making sense out of what one reads. The term decoding refers to the recognition or identification of words in print. Word recognition refers to the instantaneous recognition of words, while word identification refers to the use of (a)context clues, (b)phonics, (c)morphemic analysis, or (d)syllabic analysis combined with phonics to identify previously unrecognizable words. Word recognition is a fast, almost semi-conscious decoding process while word identification is a slower, conscious process.

Although the ability to decode words in print will not assure good reading comprehension, good reading comprehension will not occur without that ability. Certainly one cannot create meaning from printed text without a knowledge of the words used by the author of the text. A

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common characteristic of poor readers is that they tend to be word-by-word readers; i.e., they are more involved in word identification than word recognition. This is a serious problem since the readers' decoding abilities determine the amount of printed discourse on which they can focus within relevant time periods, which, in turn, affects the meaning they construct. If readers take too much time to identify the author's words they forget many of the words identified at the beginning of a sentence by the time they get to the end. The theory of automatic information processing proposed by LaBerge and Samuels (1974) supports this line of thinking. According to the theory of automaticity, good readers decode text automatically, so they are able to give more attention to text comprehension. Beginning and word-by-word readers are nonautomatic in their decoding, and because most of their attention is on decoding, comprehension suffers.

#### Resolving the Decoding Problem of Poor Readers

How can teachers help students with poor decoding skills better comprehend written text? A review of the literature related to this question has identified some interesting success stories. Students with decoding problems have been helped to decode and comprehend better: (1) by using Rod Heckelman's Neurological Impress Method; (2) by reading text material along with taped audio support; (3) by using Kenneth Hoskisson's Assisted Reading Strategy; (4) by using the Method of Repeated Readings; and, (5) by using Dyad Reading.

The Neurological Impress Method. Heckelman seems to be the first to remediate reading handicaps by helping poor readers get involved with reading natural text. Heckelman (1969) developed an assisted reading strategy to be used with handicapped readers in the early 50s that he called the Neurological Impress Method. It was a technique of impressing mature reading behaviors upon students with severe reading disabilities.

He described the method as a system of unison reading whereby the student and the teacher read aloud, simultaneously, at a rapid rate. The disabled reader was placed slightly to the front of the teacher with the student and the teacher holding the book jointly. As the student and teacher read the material in unison, the voice of the

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teacher was directed into the ear of the student at close range. The teacher moved her finger along the line following the words that were being spoken. At times the instructor read louder and faster than the student and at other times she read softer than the reading voice of the student and lagged slightly behind. The goal was to cover as many pages of reading material as possible within the time available.

Gardner (1965) found that the Neurological Impress Method (NIM) lowered student anxiety as they read because they were freed from failure experiences they encountered using traditional methods of reading instruction. Heckelman used the technique in 1952 with an adolescent girl in a clinical situation. He reported that she received 12 hours of instruction which resulted in 3 grade level jumps (1969, p. 277). Neurological Impress studies conducted by Heckelman and others over the years have produced positive achievement results (Meyer, 1982).

Audio Tapes. It was probably William Jordan who popularized the combined use of radio tapes and written text to help poor readers get more meaningfully involved in reading. Prime-O-Tec, an adaptation of Rod Heckelman's Neurological Impress Method, was developed by William C. Jordan (1965) in the mid-sixties. Prime-O-Tec was a combination visual-audio-tactile-kinesthetic-motor input to reading instruction. Learners used teacher-made prerecorded tapes and headphones. They were instructed to listen to a tape, follow the print with a finger, and finally to read along with the tape. The listening, seeing, saying, and touching was all done in unison.

Schneeberg & Mattleman (1973) initiated a Listen-Read (L-R) Program at an inner city school in Philadelphia in the Fall of 1971. Teachers read stories or played tapes of stories and students would follow the words in their own books. To insure the matching of print and speech, children would follow the words with their fingers or a ruler. Echo reading, another variation of unison reading, was also used. The teacher would read a phrase or sentence and the children would repeat it in unison, imitating inflections and phrasing. Although the study had obvious design weaknesses, the data showed that the Listen-Read had a positive effect on reading scores of the subjects (Schneeberg,

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1977).

Chomsky (1976) reported a successful experiment using tapes with five slow readers in the third grade. Chomsky used five tape recorders and two dozen story books recorded on tapes. The books ranged from about second to fifth grade reading level. Most of the books were 20 to 30 pages long. The students selected the books they wanted to read. Once the selections were made they listened to the tapes, read along with the tapes, and tried to memorize each book before moving on to another. This gave the students practice in reading connected discourse, and put them in touch with a variety of books. Pretest and posttest scores on several reading tests at week one and week fifteen showed encouraging gains.

Carbo (1978) taped stories with correct phrasing for eight average intelligent learning-disabled students in grades 2 and 6 to listen to and mimic. She recorded entire books and parts of books, varying the reading rate and phrase length depending on the reading ability of each student. The students listened to their individual tapes three or four times and then read the text aloud. The students were able to read the stories with fluency and expression. In her uncontrolled study she reported impressive gains for all eight students in word recognition, comprehension, and attitudes toward reading.

Carbo believed that the method worked because: (1) it was multisensory and helped compensate for the perception deficits of the students; (2) it was interesting and held the students' attention; (3) it removed the decoding burden so students were able to attend to comprehension; (4) it was highly structured so steady growth and feelings of security were obtained; (5) it was fail-safe, so self-concept was not weakened; and (6) it provided the repetition the students needed to overcome their deficiencies in memory.

#### Assisted Reading

Frank Smith (1976) argued that children learn to read by reading, and a teacher's prime task is to do as much reading as was necessary for children until they could go on their own. Influenced by Smith, Kenneth Hoskisson (1974) proposed a technique for parents to use to help their children learn to read. He called this technique

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"assisted reading". Assisted reading was based on the premise that if children saw the graphic shapes of words, heard them pronounced, and followed their patterning in sentences they would learn to read. In short, he claimed that children could learn to read by reading, much as they learned to talk by talking. Using Hoskisson's method, a parent moved her finger slowly under the line of print being read to get the child to begin to focus on the words. After repeated visual exposures to words as they were pronounced by the parent, the child was eventually able to read the book.

### Repeated Readings

Dahl and Samuels (1974) developed the method of repeated readings to increase the automaticity of poor readers' word recognition skills. Unskilled readers, they claimed, could access meaning by rereading a passage several times. They believed the first few readings would bring the printed material to the phonological level as if the students were "listening" to it rather than reading it.

The method involved the use of short selections (50-200 words), taken from interesting stories selected by students, which were marked off for reading practice. Students read a selection to an assistant, or into a tape, and immediately afterward their reading speed and number of recognition errors were calculated and recorded on a graph. The students then practiced reading the selection in preparation for another reading, timing, and word error count. The procedure was repeated until an 85 wpm criterion rate was reached. Then the student went on to the next selection.

Samuels found that as a student's reading rate increased, word recognition errors decreased, and reading comprehension improved (Samuels, 1979). He observed that a student's reading comprehension improved with each additional rereading. He reasoned that improvement resulted because the decoding barrier to comprehension was gradually overcome. Recent research has fairly well substantiated the positive benefits of repeated readings on both decoding and reading comprehension (Amlund et al., 1986).

### Dyad Reading

Eldredge (Eldredge & Butterfield, 1986) modified

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Heckelman's Neurological Impress Method so it could be used in the regular classroom setting rather than the clinical one used by Heckelman. He called the strategy he developed "dyad reading." Among the modifications made to the original technique, a "lead reader", a student in the classroom, replaced the teacher. The "assisted reader", the student who did not decode well, worked with a different "lead reader" each week. Eldredge ignored the difficulty level of the reading material used by the student teams, whereas Heckelman controlled it. If the material could be read by the lead reader and if it was of interest to both students, it was appropriate for use.

Dyad reading was originally researched in classrooms during the 1983-84 school year. Poor readers in the experimental classrooms were paired with students capable of reading the school material. The students paired together sat side-by-side, reading aloud from the same book. The lead reader touched each word as it was read, while the assisted reader read along with the lead reader. The lead reader read the book at a normal speed, avoiding word-by-word reading. The assisted reader looked at the words as they were read by the lead reader and read as many of the words that he could repeat during the process. Over a period of time the assisted readers were able to read the regular school material without any assistance.

During the 1985-86 school year dyad reading was researched extensively. It was used with 61 poor readers in second grade classrooms in various schools located in Utah County. These students' reading achievement scores were compared with 61 poor readers who were not involved in "dyad reading." The assisted readers achieved nearly a year's growth more than the poor readers who were not involved in dyad reading.

#### DISCUSSION

It is possible that poor readers cannot direct enough of their attention on the message of the text because they have to concentrate so heavily on the decoding task. The Neurological Impress Method, taped supported reading, assisted reading, and dyad reading probably frees readers from the decoding burden so that they can give the needed attention to the text message. The Method of Repeated Readings eventually brings the printed material to the

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phonological level as if the students were "listening" to it rather than reading it.

It is also possible that these strategies help poor readers decode better since they are provided with repeated visual exposures to "frequently used words" in print. One of the common characteristics of all the approaches discussed is the repeated exposures to the printed representations of words provided for students. This repeated exposure to words frequently used in print probably improves the students' sight recognition of such words which, in turn, probably improves reading comprehension.

Another characteristic common to all of these techniques is that poor readers are involved in the reading of natural text--they read phrases and sentences of print rather than just individual words. This experience probably helps the word-by-word readers discover that reading is a meaningful process. One of the signs of poor readers is that they perceive reading as a word-by-word decoding process rather than a meaningful communication process.

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## DEVELOPING HIGHER-LEVEL COMPREHENSION WITH SHORT STORIES

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Publishing companies rely heavily on short stories as a source of reading material for basal series, the most widely used resource for teaching reading comprehension in the elementary grades. Anderson, et al, (1984) say, "There are good reasons why reading instruction begins with simple stories. One is the need to control vocabulary. A deeper and more subtle reason is that children readily acquire an understanding of the whole structure of stories and, therefore, stories are especially comprehensible to children" (p. 65). They go on to say, "Research has shown that most children's sense of the structure of stories develops rapidly. By the time children who have heard a lot of stories enter elementary school, they have a surprisingly sophisticated understanding of story structure. They know about characters, plot, action and resolution" (p. 66).

While reliance on short stories for the development of reading comprehension skills is for good reason, authorities in the field of reading curriculum and instruction have been critical of the approach to the teaching of reading comprehension advocated by publishers of basal series. Durkin (1978-79), after a series of observations, reported her finding that relatively little direct teaching of reading comprehension is occurring in grades three through six by teachers following the teachers' manual. In a later study (Durkin, 1981), she found from examining the teachers' manuals published for use through grade six that most teaching of reading comprehension is attempted through questions that are more suitable for testing comprehension.

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The kinds of questions typically used to test comprehension have long been a subject of concern for reading educators. These questions have been faulted for eliciting responses to text at cognitive levels no higher than literal recall and for ignoring affective responses to text.

All in all, there seems to be a need for another look at the "tools" classroom teachers use with short stories when their objective is the development of reading comprehension. In summarizing two reports produced by the National Assessment of Educational Progress released in 1981, Purves and Niles (1984) comment:

These two reports clearly indicate that while many students can read a text in the sense of making some general statement about what it says, they have great difficulty in reading a text in the sense of drawing inferences about the text, in examining the tone or structure, or in thinking in other ways about what they read. Students appear to have acquired a superficial skill but not the skill associated with being a fully functional literate member of society (p. 2).

The instructional guides described in this article are designed to raise students' thinking about short stories beyond factual recall to interpretation, application, synthesis and evaluation of material suitable for those levels of cognitive behavior. They are also designed to foster positive affective responses as concomitant reading behaviors. The objective of the guides is to teach students to apply their best thinking to short stories just as they do to the games they play, the movies they watch, the decisions they make about spending or saving money, and other matters in their lives that stimulate their best thoughts and strongest feelings. Students should learn to read in school as they will read out of school for information and pleasure. One of Durkin's (1981) concluding comments based on her examination of teachers' manuals for published basal reading series is: "One possible consequence is that the children receiving the instruction never do see the relationship between what is done with reading in school and what they should do when they read on their own." The guides I mentioned are an attempt to avoid that consequence and should be used in addition to, or in place of, the questions provided in teachers' manuals when the questions in the

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manuals do not tap students' best thinking potential.

The primary characteristics of the guides are the following:

1. They allow for choices.
2. They ask for responses that cannot be judged as correct or incorrect.
3. They request personal feelings.
4. They promote speculation.
5. They solicit evaluation.

Obviously, the five characteristics above overlap. Perhaps the essence of these characteristics is that students are more in control of their reading behaviors, and they are asked to interact with the author in the assimilation of a story. That is, the items on the guides demand more than a retelling of what the story was about or the answering of literal-level questions about the story content.

The three guides that follow have been field tested in classrooms by teachers. The findings of the field tests are the following:

1. Students who are taught with the guides score as well on tests of literal recall as students who are taught with the more traditional method of asking post-reading, literal-level questions.
2. Students who are taught with the guides score similarly to students taught with more traditional method on inventories that measure attitudes toward the reading selection.
3. Students who are taught with the guides participate in post-reading oral discussions more enthusiastically than students taught with more traditional methods. Their discussion is also more student-to-student and more reflective of higher-level thinking behavior.
4. The reading-related written products of students who are taught with the guides are longer and more thoughtful than those of students taught with the more traditional method.

In summary, the guides appear to have a highly positive effect on students' thinking, discussing and writing behavior with no adverse effect on their literal recall or their attitudes toward the selections themselves.

#### A Guide for Inducing Mental Images

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Mental images can be "imposed" by the presentation of pictures or illustrations to accompany a reading selection, or they can be "induced" by asking students to create their own mental pictures to accompany their reading. To clarify the difference, television imposes images, the radio induces them. There is substantial research evidence that a high and positive correlation exists between image production while reading and reading comprehension.

The first essential for inducing mental imagery with short stories is a story that has good potential for image production. All stories have imaging potential, but some have more than others.

The following passage has considerable potential for the inducement of mental images.

Manuel was daydreaming on the couch in his family's small living room. The television was on, but his mind was far away from the ten p.m. news. He was belting out a homer with the bases loaded in the bottom of the ninth.

Suddenly, Bandito, who was on the other side of the room, growled and moved closer to Manuel. Manuel tensed and listened to whatever it was that had awakened Bandito. He felt cold under the flannel shirt that had been keeping him warm just seconds earlier.

There was a strange sound coming from the bedroom he shared with Joseph, his baby brother. The sound was not coming from Joseph's crib. Manuel had all of those sounds memorized from other times he had babysat while his mother worked the late shift.

Manuel's hand slid off the couch and felt for the baseball bat he always kept nearby, just in case.

His hand clenched the handle of the bat, and he lifted himself from the couch. Bandito growled again. Outside, a bus pulled away from the curb.

Manuel moved to the side of the living room that was opposite Joseph's and his bedroom. He could see the night light behind the mostly-closed bedroom door. Tomorrow's weather was coming from the TV set, but Manuel wasn't hearing it. He felt his feet move toward the bedroom door.

An activity for inducing mental imagery is to place

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passages with good imagery potential like the one above in the context of television production. Television is a medium children are familiar with and toward which they generally have positive attitudes.

The teacher may either read the passage (which should not be longer than three or four paragraphs) to the students or ask them to read it silently, trying to get pictures of the scene in their minds.

Then the teacher asks them to read the passage again with the following conditions and questions in mind:

Pretend this is a scene from a script for television; and you are the director of that script.

1. Describe the actor you would want to play the part of Manuel (age, size, general appearance).
2. Describe how you would dress Manuel (shirt, pants, shoes, colors).
3. Describe the dog you would select for Bandito (breed, size, colors, general appearance).
4. What camera close-ups would you want for this scene? What distance shots?
5. Make a list of sounds the audience should hear during this scene.
6. Would you use background music during this scene? If so, for what parts? Describe the music you would use (fast, slow, scary, peppy, sad).

After the students have completed the written work, the teacher may choose to have them share their answers in a whole-class discussion, or divide them into pairs or groups of three to four, to share responses.

### A Guide for Examining Personal Responses to a Story

The questions below challenge students' thinking about a short story in ways that the typical questions in the teachers' manuals for basal series do not. The pronoun "you" is prominent in each question.

1. Which character(s) in this story did you especially like? What qualities appealed to you?
  2. Which character(s) in this story did you especially dislike? What trait(s) displeased or angered you?
  3. Did you find any humor in this story? Describe the part(s) that make you smile or laugh.
-

4. What feelings did this story arouse in you? What part(s) made you feel sad, worried, frightened, angry, envious, excited, surprised, or other feeling?
5. What was your favorite part of the story? Why do you think it was especially appealing to you?
6. What mental pictures did you get from this story that were especially vivid?
7. Were there any words in this story that you felt were particularly well chosen?
8. Were there any parts of this story that you found boring or difficult to read?
9. What guesses can you make about the author of this story? What do you think he or she is like?

Teachers may choose to use all or only some of the questions that comprise the guide. Students may immediately after reading be arranged in small groups to discuss their responses or the teacher may prefer to have each student think about or write his or her responses before they are shared in groups or whole class discussion.

### Story Award Guide

Many, if not most, students have some familiarity with the Grammy, the Emmy and the Oscar awards; the form below allows students to give awards to authors of short stories. In making the awards, students must think carefully about the story and the author's craft as well as the overall appeal of the story.

If authors of stories received awards for the following categories, for which award(s) would you nominate the author of this story?

- \_\_\_\_\_ creating characters that are true-to-life
- \_\_\_\_\_ developing exciting plots
- \_\_\_\_\_ inducing vivid mental images
- \_\_\_\_\_ promoting thoughtfulness
- \_\_\_\_\_ writing stories that hold readers' interest
- \_\_\_\_\_ writing humor
- \_\_\_\_\_ evoking readers' emotions
- \_\_\_\_\_ other

All things considered, how would you rate this story on the following scale:

5                  4                  3                  2                  1

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After the students have read the story and made their decisions, they may be asked to explain their decisions in a whole-class discussion. Students may also enjoy staging a mock awards ceremony after they have read five or six stories. By casting ballots they can determine a winner for each of the "categories" on the award form

### A Final Comment

The guides described in this article are designed to foster thinking that extends beyond literal comprehension. The student is asked to "interact" with the author at a personal level in keeping with Irwin's (1986) definition of reading comprehension as, "an active process to which each reader brings his or her individual attitudes, interests, expectations, skills and prior knowledge" (p. 7).

Peters, Seminoff and Wixson (1985) add to this perception of the reading process by offering a similar definition of reading. Their definition emphasizes the interactive, constructive, dynamic nature of the reading process. They explain as follows:

1. Interactive--The term interaction is used in the new definition to indicate that reading is an act of communication that is dependent not only on the knowledge and skill of the author, but on the knowledge and skills of the reader as well.
2. Constructive--The term is used to indicate that meaning is something that cannot simply be extracted from a text, but rather that it must be actively created in the mind of the reader from the integration of prior knowledge with the information suggested by the text.
3. Dynamic--is used to indicate that the reading process is variable, not static, adapting to the specific demands of each particular reading experience (e.g., to a particular type of text, or reading assignment) (p. 5).

A distinguishing characteristic of the items in the guides above is that responding to them requires students to make the decisions based on their personal knowledge and evaluations. They must, indeed, think along with the authors of the stories they read. They are more in control of their responses to short stories with these guides than they are with the traditional questions found in teachers' manuals. With the guides described above they must be

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interactive, constructive, and dynamic readers to satisfy their reading assignments.

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## COMPREHENSION MONITORING STRATEGIES OF COLLEGE READING METHODS STUDENTS

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The classroom teacher asks a familiar question: "What is the main idea of our reading assignment?" The students respond in a variety of ways, searching their memory for ideas about the selection, ideas that can somehow be brought together in the form of a generalization about the topic or story. The answer is conveyed either orally or in writing, and the teacher evaluates the quality of the response. "Yes, that is the main point that the author is trying to make," or "No, that's not exactly what the author had in mind." The criteria for correctness of response usually come from either a basal or literature text teacher's manual or from the teacher's own notion of the underlying message. Once determined, discussion of the main idea possibly ceases or evolves into a broader discussion of issues surrounding the main point relative to factors beyond the reading lesson; i.e., "How does the main idea relate to our own daily lives?"

"How did you determine the main idea?" is a question less often asked. The metacognitive nature of the question requires the student to articulate what s/he was thinking while reading and after reading, to describe his/her comprehension monitoring strategies (Flavell, 1976). The task of explaining what one knows or does not know about any subject or process cannot be taken for granted, however. Realistically, we cannot expect elementary or secondary students to have all the vocabulary necessary to tell us about their thinking skills. What they may tell us is, "I

just knew the answer," or "I don't know how I came up with the main idea. I just wrote it down."

And then there's the undergraduate reading methods student, struggling to understand concepts such as metacognition and main idea, all for the purpose of knowing how to teach children to read. What is the best way to introduce them to theoretical issues that have definite practical value?

Recent theoretical and applied research into metacognition has provided important pedagogical implications for improving reading comprehension skills, specifically through comprehension monitoring strategies. A promising breakthrough in reading comprehension methodology involves asking students how they came to know what they know and then directly teaching them comprehension monitoring strategies through teacher modeling techniques (Heller, 1986; Palinscar & Brown, 1984). Thus, an effective way to teach the concept of metacognition to college juniors and seniors is to involve them in a comprehension monitoring activity.

This paper is about the results of a study in which 50 undergraduate reading methods students learned about and demonstrated the strategies that they used to construct the main idea of E. B. White's personal essay, "Education." Basic to the lesson described here is the idea that teacher modeling and concrete example-giving are important to all levels of instruction, kindergarten through university senior.

This study was undertaken with the following research questions in mind: (a) Are university reading methods students able to articulate the strategies they use to help them recognize and express (in writing) the main idea of an expository essay? (b) What are these strategies? (c) What is the relationship between the students' comprehension monitoring strategies and the quality of their expressed main ideas?

#### Method and Procedure

Fifty undergraduate elementary education majors enrolled in two sections of a reading methods course participated in the study. None of the 48 women and two men had previously been introduced to metacognitive theory or the concept of comprehension monitoring.

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As part of their introduction to metacognitive theory, the students participated in an in-class, nongraded activity designed to illustrate the concept of comprehension monitoring. The activity began with 15 minutes of prereading time devoted to activating the students' prior knowledge of the topic--public versus private schooling. The instructor asked the class to discuss everything they already knew or thought about the differences between public and private schooling. Ideas were written on the chalkboard without instructor comment. Following the discussion, the students were instructed to read E. B. White's (1983) essay, "Education," for the following purposes: (a) to recognize and ultimately write the main idea (or thesis) of the essay, and (b) to describe the comprehension monitoring strategies they used while constructing the main idea.

After reading the essay, each student completed response sheet A, and the following research questions:

1. State the main idea or thesis of E. B. White's essay, "Education."

2. As you read the essay, what sorts of things were you thinking about in relation to the stated purpose for reading (Read the essay and write the main idea or thesis)? In other words, what strategies did you use while reading to determine the main idea of the essay?

Upon completion of response sheet A, each student then completed response sheet B which contained a multiple choice main idea question and a checklist of comprehension monitoring strategies. The whole demonstration lesson, including prereading, reading, and writing activities, took place during a single 50-minute class period.

### Results and Discussion

Three groups of students emerged in this study, based upon analysis of main idea multiple-choice responses (Table 1). I will discuss each group separately, in conjunction with their written protocols and the checklist of comprehension monitoring strategies.

Table 1

#### Responses to Multiple-Choice Main Idea Question



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The thesis or main idea of E. B. White's essay, "Education," is the following: N = 50

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- |                                                                              |                       |
|------------------------------------------------------------------------------|-----------------------|
| 1. Public country schools are better for children than private city schools. | 10 (20%) <sup>a</sup> |
| 2. Private city schools are better for children than public country schools. | 5 (10%) <sup>b</sup>  |
| 3. There is not real difference between public and private schools.          | 35 (70%) <sup>c</sup> |
| 4. Time goes by faster in public schools.                                    | -----                 |
| 5. The country is a better place to live than the city.                      | -----                 |
- 

<sup>a</sup>Group A.    <sup>b</sup>Group B.    <sup>c</sup>Group C.

Group A was made up of 10 students who not only answered the main idea question correctly but also wrote correct responses to the short answer main idea question (see Figure 1 for example responses). The criteria for the correct answer were determined by two authorities: (a) the instructor's manual which accompanied the The Little Brown Reader from which White's (1983) essay was taken: and (b) two independent readers, both of whom were university English professors. They agreed upon main idea or thesis, that it was "Public country schools are better for children than private city schools."

Group A students named a wide variety of strategies used while reading the essay, as did all other students in the study (see Figure 2 for example responses). However, Group A students were the only one who mentioned the essay's tone, author bias/attitude, and noticing irony as useful in determining the main idea. Their checklists of comprehension monitoring strategies (Table 2) revealed 9 out of 10 students making inferences about the author's intended meaning and 8 out of 10 attending to details while trying to construct meaning and achieve their purpose for reading.

Figure 1

Selected responses to short answer question: Write the thesis or main idea of E. B. White's essay, "Education."

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Group A: (100% match between written responses and multiple-choice answer)

"Regardless of bias, the country public school is just as good if not slightly better than the private city school."

"There is actually more learning (not just academic) taking place in public country schools."

"I felt the main idea of the essay was that when comparing the public and private schools, the public country school is the best."

Group B: (20% match)

"Schools in the country are a personal place, yet one can easily survive and like the school in the city, the better place to be."

"Education in a country school is more personal and somewhat more casual than in a city school, and this more relaxed attitude contributes to quality education."

"The author is comparing the private city school to the country public school."

Group C: (57% match)

"Education in the country and in the city is fundamentally the same in that the children still learn and play and thrive in either situation."

"The benefits of a country public school are as many (and maybe more) than the benefits of a private school."

"This essay compares the school in the country to the city school."

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## Figure 2

Selected responses to comprehension monitoring question: As you read the essay, what sorts of things were you thinking about in relation to the stated purpose for reading: Read E. B. White's essay, "Education," and then write the main idea or thesis of the essay. In other words, what strategies did you use while reading to determine the main idea of the essay?

Read between the lines

Focused on literal information

Recognized a comparison was being made

Made some inferences

Asked the question: How do the facts relate to the main idea?

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Looked for explicitly stated main idea.  
 Focused on intro and concluding paragraphs and beginning sentences  
 Relied on previous experiences to picture what was happening  
 Tried to pinpoint the issues that were referred to often  
 Tried to analyze which one idea was the main idea  
 Read/reread to determine main points  
 Summarized first paragraph, reflected on each paragraph  
 Tried to understand the meaning of each sentence  
 Paid close attention to the first few paragraphs looking for main idea  
 Asked question: What is the author trying to tell me?  
 Tested hypotheses as I read, trying to come up with a central theme  
 Looked for key sentences or descriptions of the author's feelings and opinions  
 Sorted out background information and descriptive information  
 Found out what seemed to be the predominant theme and decided what the author concluded from the essay  
 Asked the question: Is the author supporting the ideas that he presents as important?  
 Noticed biases\*  
 Noticed sarcasm and tone of the essay\*  
 Focused on language and the feelings experienced by narrator and son\*  
 Tried to make predictions from the first paragraph\*  
 Noticed subtle irony being used\*

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\*Responses found only in Group A written protocols.

Table 2

Responses to Checklist of Comprehension Monitoring Strategies

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While reading the essay, I used the following strategies in preparation for the task of writing the main idea of thesis of "Education":
 N (%)

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Whole Group (N = 50)

- |                                                  |          |
|--------------------------------------------------|----------|
| 1. Looked for an explicit statement of main idea | 25 (50%) |
| 2. Focused on details in the text                | 33 (66%) |
-

3. Focused on generalizations in the text	34 (68%)
4. Made some inferences about the author's intended meaning	43 (86%)
5. Adjusted my reading rate	27 (54%)
6. Reread some parts of the essay I did not initially understand	30 (60%)

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Group A (N = 10)

1. Looked for an explicit statement of main idea	3 (30%)
2. Focused on details in the text	8 (80%)
3. Focused on generalizations in the text	4 (40%)
4. Made some inferences about the author's intended meaning	9 (90%)
5. Adjusted my reading rate	7 (70%)
6. Reread some parts of the essay I did not initially understand	4 (40%)

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Group B (N = 5)

1. Looked for an explicit statement of main idea	3 (60%)
2. Focused on details in the text	5 (100%)
3. Focused on generalizations in the text	2 (40%)
4. Made some inferences about the author's intended meaning	3 (60%)
5. Adjusted my reading rate	2 (40%)
6. Reread some parts of the essay I did not initially understand	1 (20%)

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Group C (N = 35)

1. Looked for an explicit statement of main idea	18 (51%)
2. Focused on details in the text	18 (51%)
3. Focused on generalizations in the text	26 (74%)
4. Made some inferences about the author's intended meaning	28 (80%)
5. Adjusted my reading rate	17 (48%)
6. Reread some parts of the essay I did not initially understand	18 (51%)

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Group B was made up of five students, all of whom missed the multiple-choice item (Table 1). However, only one student's short answer response matched the multiple-

choice response. And one other student correctly wrote the main idea of the essay (Figure 1). Students in this group appeared to use the strategy of focusing on essay details more often than other strategies (Table 2). However, no one comprehension monitoring strategy appeared to stand apart from those mentioned by other groups in the study. In short, Group B scenarios (see Figure 3, examples) mentioned virtually the same strategies articulated by Group A and Group C students, aside from the exceptions already mentioned with regard to Group A.

Figure 3

Example comprehension monitoring scenarios

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Group A Sample: "While reading E. B. White's essay, I thought about my days in a private school, first through eighth grades, and compared his description to them. I looked for attitude in his writing. I watched for negative-/positive comments of the writer. I noticed sarcasm and irony throughout. I looked for a connection and opinion about some point at the beginning and the ending of the story."

Group B Sample: "I asked myself: (a) What is he discussing? (b) Is there more than one thing he is discussing? (c) If so, does he compare them or just give examples and facts about each?"

Group C Sample: "As I was reading E. B. White's essay, I was looking for the main points of each section, so I would be able to compare how Mr. White regarded private education and public education. I looked for the points he made about public education, then the ones he made about private education, then his comparison statements in the final paragraphs helped me to conclude as to his main thesis--education is education."

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Group C comprised the largest number of students (35) who responded incorrectly to the multiple-choice question. About half of the students' responses to the multiple-choice item matched their written responses. Two students correctly wrote the main idea of the essay. Students in this group appeared to use inferencing as well as

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focusing on text generalizations most often. No single strategy, however, appeared to characterize Group C student scenarios (see Figure 3, examples).

All students in this study appear to be fully capable of articulating what they were thinking about while achieving their purpose for reading. Their responses, once tallied and compared, reveal typical strategies that most fluent readers use when constructing meaning. The two significant observations that can be made from the data are: (a) the relatively low number of students responding correctly to the main idea questions, and (b) the comprehension monitoring strategies unique to the students in Group A.

### Conclusions

What does it mean when only 20% of the reading methods students in a study are able to infer the main idea of an essay about education? Several conclusions as well as questions for further research may be drawn.

First, students who achieved their purpose for reading by correctly ascertaining the main idea clearly understood the nature of the language used by White to present his argument--public schools are better for children than private schools. Although 90% of the students in the study made mention of the fact that White was comparing two types of schooling, only Group A students recognized and mentioned his bias toward public over private schooling. One inference that might be drawn is that Group A students simply had more experience reading personal essays of this type, therefore had significant prior knowledge of persuasive discourse and author use of irony.

Second, aside from the unique features of Group A strategies, all students articulated similar types of metacognitive strategies that could be termed "generic." For example, the responses contained in Figure 2 could be divided into categories roughly corresponding to the checklist of comprehension monitoring skills (Table 2). Read/reread, focused on details, made inferences are all very useful thinking skills that help fluent readers construct meaning. Indeed, we encourage direct instruction of such skills in our reading methods classes. However, it is important to note that while all students in the study articulated and used typical comprehension monitoring strategies, 80%

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failed to accurately achieve the purpose for reading.

Other variables to consider are student concept of main idea as well as knowledge of text structure. Fifty percent of the students wrote a main idea that reflected a generalization of some kind, indicating that most students understood that a main idea, whether implicitly or explicitly stated, speaks to the author's overall intended message. The remaining 50% had an incorrect notion of what a main idea entails. For example, of this group 35% focused on the structure of the essay, suggesting that the main idea had something to do with the comparisons being made by White. (White was indeed comparing public and private schooling, but comparison was his method of development, not the main point.) And 15% of the students merely summarized the details of the essay without drawing conclusions or making generalizations.

#### Questions for Further Research

An important question for further research seems to be, which comprehension monitoring strategies are unique to certain forms of discourse and methods of development and thus enable fluent readers to construct or reconstruct the author's intended meaning? Further, can these strategies be directly taught? And does direct instruction (Roehler & Duffy, 1984) help improve students' understanding of the text while reading?

The answers to such questions have important implications for those of us who teach reading methods courses. We not only want to encourage pedagogically sound instructional strategies but also to train our students to model fluent behaviors. The comprehension monitoring activity described in this paper was a powerful tool for teaching the concept of metacognition to college students who were able to see the logic of their own thinking and realize that reading comprehension cannot be taken for granted, no matter how familiar the subject may be.

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## THE READING PREFERENCES OF THIRD, FOURTH, AND FIFTH GRADERS

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Research into the reading interests of children has been undertaken since 1889 (Weintraub, 1977), with changing patterns being noted over the years. Purves and Beach (1972) reviewed close to 400 studies that were available to that date, and showed that among the most consistent findings were that sex and age of the reader influence reading interests. However, there has been less agreement concerning the influence of teachers and of the readers' race. This study examines the influence of all four factors on the reading preferences of third, fourth, and fifth graders.

It has been suggested that boys and girls have approximately the same reading interests until age eight or nine (Howes, 1963; King, 1967), but that beginning in the middle grades and throughout high school the sex of the reader influences the books s/he chooses to read. Purves & Beach (1972) argue that sex differences may now be occurring earlier, and report that in most of the research studies they reviewed, sex was found to be the most important determinant of reading interests. Johnson and Greenbaum (1982) conclude that in general boys prefer adventure, science, sports and information books, while girls choose mystery, romance, home and school life, animals and fairytales. Although some of the categories may vary, the fact that the reading interests of boys and girls differ seems to be true internationally (Tolley, 1977; Whitehead, Capey, Maddren, & Wellings, 1977; Summers & Lukasevich, 1983).

A second repeated finding is that children's reading

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interests differ with their age. Huus (1979) argues that while these age differences are apparent from the large majority of research, children's interest in reading peaks at about grade five and reading tastes are crystallized. However, Summers and Lukasevich (1983) found that there were clear maturational changes in reading interests for grades five, six, and seven.

Other factors affecting the reading interests of children may be the school and/or teacher. Ingham (1981) found that the schools in her investigation, and individual teachers within those schools had an effect on children's reading, not only in terms of their interests but in the amount of reading undertaken during leisure time. Whitehead et al. (1977) also found school and teacher differences.

Although Huus (1979) concluded on the basis of two studies that race did not appear to be a determining factor in reading interests, Palmer and Palmer (1983) found that there were differences in the reading interests of middle school black and white students who were below average readers. Barchas (1971) found that fifth graders belonging to minority groups showed interest in literature that concerned their cultural groups, but that in most general interests the four ethnic groups studied were more alike than different. Bouchard, (1971) reported no significant differences between the reading interests of blacks, whites, and Spanish speakers in the intermediate grades. Race and/or cultural background may therefore be a factor which requires further investigation.

There have been six main methods used to investigate children's reading interests: book titles, fictitious book titles, questionnaires and interviews, forced choice responses, library records, and pictures. Although each method has its advantages and disadvantages, in the past they have all suffered from a common problem. The reliability and validity of instruments used in the investigations have often been questionable (Weintraub, 1977). The latter criticism was addressed by Bundy (1982) in the development of a reading preference survey.

Bundy's survey examines 11 categories of interest through the use of 44 fictitious book titles and accompanying descriptions. In her study reliability was assessed using

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tests for internal consistency (estimates of coefficient alpha ranged from .65 to .90 for the various categories), and test-retest scores (coefficients ranged from .54 to .75). Responses in student interviews were compared with the three highest and three lowest category scores for that subject on the survey, with a match of 72% and 90% respectively. Correlation coefficients for the categories presented on a rating scale and the survey categories ranged from .21 to .58, and were all significantly greater than zero. Reading logs were also used to assess validity, but with the limited number of books read by the subjects, the correlation coefficients ranged from .02 to .28 for the various categories. These results are reported as satisfactory for this type of measure.

The purpose of this study, therefore, was to use this instrument to investigate whether sex, grade, race, and teacher variables influenced the reading interests of children in the intermediate grades. It was hypothesized that each of the four listed variables would have an independent effect on children's preferences.

## METHOD

### Subjects

The sample consisted of 207 third, fourth, and fifth grade pupils attending an urban elementary school. The school divided the children into three "clusters", each of which was taught by a team of four teachers. A grade, sex, and racial balance was maintained in each of the three clusters. That is, the school attempted to place equal numbers of black and white students, and of girls and boys in each cluster, which operated as a multi-level grouping of third, fourth, and fifth graders.

### Procedures

The reading preference survey developed by Bundy (1982) was administered to each cluster. The survey employs a list of 44 fictitious book titles, and an accompanying book description. Eleven categories of interest are represented (see Table 1), and four titles in each category are randomly distributed throughout the survey. The pupils marked their preference for reading each book on a four point Likert scale varying from "dislike very much" to "like very much". The survey was read aloud by the investi-

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gator while the children read along and marked their answer forms.

### Scoring

All answer sheets were accepted as valid, except where the child had failed to indicate a number of preferences in an understandable manner. One point was assigned for the least preference, two points for the next, and so on. A subject's score (maximum 16) was calculated for each of the 11 categories.

### Analysis

A multivariate analysis of variance was used to test for interaction and main effects of the independent variables of sex, grade, race, and cluster on the eleven dependent variables of reading preference categories.

## RESULTS

There were significant main effects for sex [ $F(11,161)=2.27$ ,  $p < .0001$ ], grade level [ $F(22,322)=2.61$ ,  $p < .001$ ], cluster [ $F(22,322)=2.53$ ,  $p < .001$ ], and race [ $F(11,161)=2.46$ ,  $p < .01$ ]. The interaction of sex and race was statistically significant [ $F(11,161)=2.02$ ,  $p < .05$ ], to which the main contributor was a strong dislike by white males for poetry.

An examination of the univariate analyses was made to determine which categories contributed most to each effect. The individual means are shown in Table 1, on the following page. It can be seen that the main contributors to the grade effect were biography, fairytales and animals, with fifth graders liking books in these categories less than the other grades. For the cluster (teacher) effect the categories of crafts, jokes, and fairytales, all of which were preferred less by Cluster 2 than the other clusters, were most influential. Black children showed a stronger preference for sports books and biographies than white children, while white children's stronger preferences for mysteries and adventures also contributed to the effect for race. The sex effect was due to differences in all categories other than mystery and adventure. Boys preferred history, science, and sports books more than girls. Girls showed more preference for books in the categories of biography, crafts, jokes, fairytales, animals and poetry.

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Table 1 Mean preference scores in each category

SEX		GRADE			CLUSTER			RACE	
GIRLS	BOYS	3	4	5	1	2	3	BLACK	WHITE
n = 108	99	60	69	78	70	67	70	96	111
HISTORY	9.3 10.7 **	10.4	10.1	9.5	10.2	9.9	9.9	10.2	9.8
BIOGRY	10.4 9.2 **	10.4	10.2	9.1 **	10.1	9.6	9.9	10.2	9.5 *
SCIENCE	10.2 12.3 **	11.6	11.2	10.8	11.7	10.6	11.2	11.1	11.3
CRAFTS	13.8 11.7 **	13.2	13.1	12.3	13.4	11.7	13.4 **	12.7	13.0
SPORTS	10.3 13.2 **	11.2	11.6	12.2	12.2	11.5	11.4	12.5	11.0 **
MYSTERY	13.4 13.1	12.7	13.6	13.3	13.3	13.0	13.4	12.7	13.6 *
JONES	14.7 13.2 **	14.0	14.0	13.9	14.1	13.1	14.6 **	13.9	14.1
FRITLES	12.6 9.4 **	12.3	11.3	9.9 **	11.9	9.9	11.2 **	11.1	11.0
ADVNIRE	11.9 12.5	12.2	12.0	12.4	12.1	11.7	12.7	11.7	12.7 **
ANITALS	13.1 11.5 **	12.5	13.1	11.6 **	12.6	11.6	12.8 *	12.2	12.4
POETRY	12.3 9.5 **	11.3	11.1	10.6	10.9	10.8	11.2	11.0	11.0

\*\*  $p < .01$   
 \*  $p < .05$

## DISCUSSION

The school arrangements in this study were such that the effects of grade, race, and teacher should have been minimized. The three grades worked and were taught together most of the day. They were taught by four different teachers, and black and white children were equally balanced in the classes. Furthermore, teachers observed that friendship groups did not often follow racial divisions within the school until sixth grade and above. Nevertheless, effects were found for all these variables. However, in discussing the results it may be important to distinguish between absolute and relative preferences for reading certain types of books.

When the children marked their liking for a book on the four point scale they were making a choice which reflected an absolute preference. When the scores for these books are compared, it is possible to rank order their scores to examine their relative preferences for reading certain types of books rather than others. The results will be interpreted, therefore, in terms of both absolute and relative preferences.

Although the absolute preference expressed by the children was affected by all four independent variables, an examination of the relative preferences was made by rank ordering the interest categories for each variable. Rank order correlations were then calculated. Only the sex variable showed significant rank order differences ( $r=.20$ ,  $p .01$ ).

The expected differences were found between the absolute reading preferences of girls and boys. The conclusions reached by previous researchers (Johnson & Greenbaum, 1982) that boys showed preferences for science and sports books was confirmed in this study. However, a preference that they note for adventures was not evidenced here, although a preference for history was indicated. This latter preference was also found by Huus (1964) and Robinson and Weintraub (1973). The girls' preferences for biography, crafts, jokes, fairytales, animals, and poetry have also been found by other researchers (Purves and Beach, 1972). The rank order of the mean scores for each category by sex is shown in Table 2. The differences in absolute preference are reflected in the relative preference of girls and

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boys.

Table 2 Rank order of mean scores by sex

BOYS		GIRLS	
1.	Sports		Jokes
2.	Jokes		Crafts
3.	Mysteries		Mysteries
4.	Adventure		Animals
5.	Science		Fairytales
6.	Crafts		Poetry
7.	Animals		Adventure
8.	History		Biography
9.	Poetry		Sports
10.	Fairytales		Science
11..	Biography		History

Although there were grade level differences in absolute preferences, the only one reflected in relative preference was with fairytales. Relative preference for reading books in this category fell as grade level increased (from fifth, to seventh, to ninth). This conforms to findings from previous research (Favat, 1977). It can be argued, therefore, that the reading preferences across grade levels reflected more similarities than differences.

Similarly, as reported above, there were no significant differences in rank order preferences by cluster. The differences in absolute preference were all due to lower scores for Cluster 2 than the other clusters. When the overall mean scores for each cluster are compared, Cluster 2 (mean score = 11.22) scored lower than both Cluster 1 (12.03) and Cluster 3 (11.98). This overall mean score could be viewed as reflecting an interest in recreational reading generally, in which case it could be argued that pupils in Cluster 2 are less enthused about reading. Ingham (1981) found that the degree of interest children expressed in reading was heavily influenced by their teachers. This result could, therefore, be related to teacher differences. An alternative explanation is that the pupils in this cluster were more familiar with the researcher from previous visits, and their scores may have been influenced by this.

The effect of race on reading preferences seemed to be mainly a reflection of black children's relative prefer-

ence for sports books (fourth v. ninth), and white children's relative preference for adventure books (fourth v. sixth). Palmer and Palmer (1983) also noticed a stronger preference for adventure books by white children. Once again, there were greater similarities than differences between the two groups, as with previous research (Barchas, 1971; Asher, 1978).

The results obtained in the present study for fourth and fifth graders only were compared to results obtained by Bundy (1982) for the same grades. Rank order correlations for sex (males,  $r=.96$ ; females,  $r=.97$ ), and for grade (grade 4,  $r=.81$ ; grade 5,  $r=.98$ ) demonstrated significant similarities in relative preferences between the two samples. These results suggest the survey has considerable reliability.

### CONCLUSION

Knowledge of the reading interests of children is useful to the teacher and librarian in terms of developing collections for recreational reading. This study, using an instrument for which reliability and validity had been tested, confirmed previous research in finding differences in the reading interests of third, fourth, and fifth grade children explainable by the sex, grade, and race of the reader. However, there were more similarities than differences between the interests of black and white children, and between the grades. Teacher influences can be important in developing interest in reading, and could account for the class differences in the study.

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## GET A GRIP ON COMPREHENSION

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"Today children, we are going to learn how to make inferences to help us better comprehend what we read. Get out your reading workbook and turn to page 54. Read the directions carefully and answer each question on page 54," intones the fourth grade teacher to pupils. How often have you made an assignment like this? Durkin's research (1978-79) has indicated that much more time is spent testing reading comprehension than teaching it. Consequently, all reading comprehension skills need to be taught by the teacher to the students in the classroom. Since making inferences is a necessary comprehension skill when reading across the curriculum (Gordon, 1985), it also must be taught. However, many children find it difficult to make inferences because they are required not only to derive a conclusion from the facts or premises found in their reading materials, but in many cases, they must go beyond the text to their own knowledge and experiences for information. Thus, prior knowledge which students bring to the text, as well as their sensitivity to the text information, are essential aspects of inferential comprehension.

### **Background**

To teach students to infer, we use three techniques: 1.) direct or explicit instruction, 2.) a generative process, and 3.) reciprocal questioning. We call this three phase process Generating Reciprocal Inferences Procedure or GRIP.

First, for reading comprehension to be effective, several reading authorities indicate that instruction must be direct and explicit (Pearson, 1984; Baumann, 1986). We explicitly

instruct children to recognize ten slot-filling inferential types as recommended by Johnson and Johnson (1986) to help them better understand their reading materials. These ten slot-filling inferential types are location, agent, time, action, instrument, category, object, cause and effect, problem solution, and feelings-attitudes. Instruction takes place in small groups where we model the procedure and elicit children's responses.

Second, for readers to successfully develop inferential skills, they must become active participants in making inferences. As children use their prior knowledge, they infuse print with meaning. They actively organize and relate new information to what they already know to remember what they read. As such, reading is viewed as a generative process. The generative model of learning states that reading comprehension is enhanced when children generate sentences about what they have read (Wittrock, Marks & Doctorow, 1979).

Third, in order to help children succeed in comprehending what is read Manzo's (1968) reciprocal questioning technique is used. During reciprocal questioning the teacher and children take turns in questioning one another on the material read. A modification of this technique involves children questioning each other after the teacher models reciprocal questioning procedures for the children. In this way generative and reciprocity procedures become a process-product activity which heightens children's success in making inferences.

### **Modeling Inference Awareness**

To develop children's inference awareness, we use the modeling sequence as explained in Pearson's (1985) gradual release of responsibility model. Responsibility for making an inference is gradually shifted from the teacher to the students. To demonstrate this process as we use it, an example follows in which we model the entire process of making an inference: (a) Highlights clue words, (b) Makes Inference, and (c) Justifies inference.

"The elevator ride was great fun. Now Kathy and Becky looked down through the wire fence as the wind whistled in their ears. The people and the cars on the city street looked just like tiny toys. Although they were very

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high up, the girls were not frightened. It was exciting to see the whole city spread out before them." Where are Kathy and Becky?

We begin modeling the inferencing process by highlighting clue words, such as elevator ride, looked down, people and cars like tiny toys, whole city spread out, etc. Next, we make the inference that two girls are on a high building overlooking the city. We justify the inference by going back through the paragraph and pointing out how each key word is giving us a clue to determine the location of Kathy and Becky.

Four more paragraphs will be needed to complete the process of gradually releasing the responsibility for inferencing from teacher to student. In the next paragraph, we highlight clue words, the children make the inference and we justify the inference the students made. In step three, using a third paragraph, the children highlight the key words, we make the inference and justify the inference. In the fourth paragraph, the children highlight clue words, the children make the inference and we justify their inference. Finally, the children take responsibility for the entire inferencing procedure.

### **Generating Reciprocal Inferences Procedure (GRIP)**

After the children are able to assume the responsibility for finding key words, making and justifying the inference, they move into generating and reciprocal inferencing. Each child is paired with another child in the classroom. These pairs of children generate their own inference paragraphs by writing paragraphs with key or clue words to give hints for making an inference. The children in each pair exchange paragraphs, mark the key words, make the inference and justify the inference made to the other child. The child who wrote the paragraph would indicate if the inference were correct or not. Each child in the classroom could have several opportunities to generate the paragraphs and to make inferences. This type of practice could take as long as needed, and interest remains high.

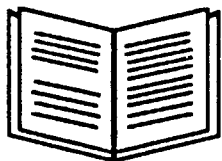
A sample lesson on location inference follows:

Figure 1  
Location Inference

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### Anticipatory Set

"Inferencing is reading and using what is printed on the page and what you already know to make an intelligent decision. To help you understand what an inference is I will use some pictures."



On the Page



In Your Head



Inference

### STUDENT OBJECTIVE

Today we are going to work on inferring where things are happening. This is called a Location Inference.

### INPUT AND MODELING

Using the first sample paragraph the teacher models the whole process:

- (a) Highlights clue words
- (b) Makes Inference
- (c) Justifies Inference

#### Sample paragraph One

The elevator ride was great fun. Now Kathy and Becky looked down through the wire fence as the wind whistled in their ears. The people and the cars on the city street looked just like tiny toys. Although they were very high up, the girls were not frightened. It was exciting to see the whole city spread out before them.

Where are Kathy and Becky?

Using the second sample paragraph:

- (a) Teacher highlights clue words
- (b) Children make inference
- (c) Teacher justifies inference

Sample Paragraph Two: It was a hot sunny day. Aaron looked around him. A group of children were building sand castles. People walking near the water left footprints in the sand. Other people were swimming. Aaron got up and took his surfboard into the water.

Using the third sample paragraph:

- (a) Children highlight clue words
- (b) Teacher makes Inference
- (c) Teacher justifies Inference

Sample Paragraph Three: Pat walked into the room. He tripped over a pair of sneakers. "I know it's here," he said. He pushed aside a stack of paper on his desk. Then he moved a pile of clothes. Finally, Pat found his baseball cap under his bed.

Where is Pat?

Using the fourth sample paragraph:

- (a) Children highlight clue words
- (b) Children make an inference
- (c) Teacher justifies Inference

Sample Paragraph Four: After check-in, the bell hop helped us carry luggage to our room. He left us two keys. When we opened the drapes, we had a view of the city.

Where are we?

Using the fifth paragraph:

- (a) Children highlight clue words
- (b) Children make and inference
- (c) Children justify inference

Sample Paragraph Five: When Michael sat down, he looked at the menu. He ordered a cheese sandwich, a salad and a bowl of soup. He ate everything. Then he had two more bowls of soup.

Where is Michael?

#### PRACTICE AND APPLY

Generating Reciprocal Inference Procedure (GRIP): Divide the class into small groups. Give each group a location word card (e.g., park, movie, restaurant, etc.). Each group generates paragraphs which contain clues for their location.

Each group presents paragraphs to the class. Using individual boards, the students respond with the correct location. Teacher carefully observes student responses noting those responding incorrectly.

#### FEEDBACK

Discussion and more GRIP as needed.

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The lesson plan illustrates in detail the use of Pearson's (1985) gradual release of responsibility model of explicit instruction and the Generating Reciprocal Inferences Procedure which incorporates aspects of generative comprehension and reciprocal questioning.

### **GRIP Variations**

An excellent variation to GRIP procedure as described above involved children generating inference paragraphs using a specific slot-filling inference type. For example, suppose that we taught a lesson on using inference skills in determining an object which was used in the passage. Children were asked to write paragraphs not mentioning the object by name but giving clue words that would help other readers identify the object. Then, each paragraph was reproduced on the chalkboard or chart paper or projected on a screen using an opaque projector. We also had children write their paragraphs onto an acetate sheet which made it possible for use with an overhead projector. After the paragraph is read by all, the children make their inference by writing their response on individual marker boards. When they are finished, we make a quick check to determine which children are understanding the specific inference and which ones need additional help.

Another variation is the GRIP board game. Children play the GRIP board game in pairs. Before the game begins, each child needs to understand the rules for playing the game and follow them carefully. We begin by discussing the game rules with the children:

1. Requires two players to play the game.
  2. Write four sentences that go together to make a story. Underline the clue words in each sentence.
  3. Select a marker.
  4. Place marker on START.
  5. Throw the die, letting the highest start the game.
  6. Each player moves his/her marker the number of spaces shown on the die.
  7. If you land on STATION, have the other player read a sentence.
  8. If you land on MAGNIFYING GLASS, move to the nearest STATION, have the other player read a sentence.
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9. A different sentence is read at each STATION.
10. You must be on STATION to guess and you only get one guess.
11. If you land on STOP SIGN, go back to the space from which you started your turn.
12. You can be on the same space as the other player.
13. If you land on SIDETRACKED, follow the feet.
14. If you land on SQUAD CAR, follow the road.
15. Whoever guesses what the story is about is the winner and the game is over.

When the GRIP Board Game is introduced, play the game with one child while the other children in the classroom watch. This makes the transition from discussing the rules to playing the game easier. (The GRIP Board Game, shown on page following References.)

#### SUMMARY

Children's ability to make inferences is important in all types of reading activities. The strength of our approach to teaching inferential comprehension lessons lie in direct or explicit instruction, the generative process and reciprocal questioning. GRIP is a useful strategy to assist children in making inferences while reading. We have found through classroom practice that GRIP is effective in helping children develop skill in making inferences.

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in all of education than that of reading."

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