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Critical Thinking in Reading: A Whole Language Approach

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CRITICAL THINKING IN READING:

A WHOLE LANGUAGE APPROACH

A Thesis Presented

by

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ABSTRACT

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The importance of good instruction in reading education has long been recognized. What constitutes good instruction and what materials should be used have been the focus of much debate, however, over the years. Two relatively new movements in education have recently added fuel to that debate, namely the movements in critical thinking and whole language.

The fundamental purpose of the thinking skills movement is the development of higher level thinking in students. In the area of reading this means that students should be challenged by questions and problems in literature which cause them to go beyond a literal understanding. They should be taught to interpret and evaluate all types of literature.

To facilitate critical thinking, advocates for the movement suggest that educators provide opportunities for students to problem solve in pairs or small groups. They encourage a non-judgmental classroom atmosphere which allows students freedom of thought. Some educators utilize a list of relevant thinking skills

and teach thinking strategies and methods directly using these skills as a backdrop.

The whole language movement focuses on the reading of whole, non-abridged literature and an integration of all the language arts: reading, writing, spelling, speaking and listening. It emphasizes reading for meaning and provides strategies which can enhance understanding. It also focuses on getting the individual student to see the importance and pleasure of reading.

This thesis provides a description of the critical thinking and whole language movements, with emphasis on how each has contributed to reading instruction. The writer discusses the overlap between the two movements, noting many similarities in purpose and methodology. The conclusion is that the movements are fundamentally compatible, and therefore educators should use concepts and practices from both movements to form their own foundation for reading instruction. A sample lesson is provided in the appendix.

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THESIS OVERVIEW

Why Focus on Reading Instruction?

Why focus on Reading Instruction? William Bennett's (1988) final report to the American people as Secretary of Education was concerned with this country's elementary schools. In it he stated that,

> (t)he reading skills of American 9-13 year olds have markedly improved since the early 1970's to an overall level that the National Assessment of Educational Progress calls a 'considerable national achievement' (p. 13).

However, he admits our students still lag well behind their foreign counterparts in reading ability and notes that,

> (i)n reading comprehension more than 6% of our 9 year olds still lack even rudimentary skills and almost 40% of our 13 year olds haven't acquired intermediate skills (p. 13).

These are alarming statistics for a country which prides itself on being a world superpower. These are dismaying facts about children who will be competing more and more with children educated in Japan and other countries whose educational systems many deem to be more rigorous than our own.

I am particularly concerned about the statistics regarding reading comprehension because it seems so basic to all that we do

in our lives. If students cannot comprehend what they are reading, how can they understand a computer manual? How can they deal with complex tax forms from the government? How can they even enjoy a novel rich with intricate characters and complicated plot?

We must be careful however that we not draw incorrect conclusions from these data. Because children do not score well on tests of reading "skills", it does not necessarily follow that they are poor readers or even that they do not comprehend what they are reading. Perhaps more time and energy should be focused on exactly what is being tested on some of these tests and not solely on how America's children are performing. For now, however, these are the tests we have and the results have not been favorable. Because of this we should be about the business of examining the ways children are being taught reading so that educators may always be improving their methodologies. And, although this paper does not address this issue further, educators should also be working to ensure that they are testing what they want to, and should be, testing.

The other reason I have focused on methods of teaching reading is a more personal one. I returned to teaching elementary school four years ago after a ten year "retirement" to raise children. Since my return to education I have been teaching in Massachusetts in a suburban middle class town, first as a resource teacher, and then as a grade three classroom teacher. During these four years I have been barraged by a cavalcade of new ideas and theories pertaining to different aspects of teaching, especially in the area of

reading. This has been very stimulating, but at the same time somewhat confusing.

I felt the impact of the thinking skills movement first. (cf. Ruggiero,1988 a,b; Swartz, 1987; Costa, 1985; Sternberg, 1985). My colleagues and I attended inservice workshops devoted to explaining the teaching of thinking skills. Three of us enrolled in the Master's degree program in Critical and Creative Thinking at the University of Massachusetts at Boston. Our school staff had day-long planning sessions to discuss how we would go about the teaching of thinking in all subject areas in our classrooms. With our principal spearheading our efforts, the staff developed lists of skills, skill hierarchies and steps for each skill. We made charts explaining these steps. We discussed the importance of good questioning techniques by teachers and the merits of cooperative learning, which involves having children work in groups towards a mutual goal (Costa et al., 1985, p. 175). We piloted the Scribner Reading Series (Cassidy et al., 1989) published by the Laidlaw Company which we felt was amenable to a thinking skills approach.

Last year the administration's emphasis switched from a focus on thinking skills to a focus on whole language. (cf. Goodman, 1986; Holdaway, 1979; Weaver, 1988). This is not to say that we had abandoned "thinking about thinking" but rather just that whole language theories and practices were taking center stage.

To foster our immersion in whole language we were given articles to read. Some of our inservice sessions were devoted to training in whole language techniques. We again examined our basals and some teachers piloted yet another reading series,

Houghton Mifflin Literary Readers (Durr et al., 1989). Instead of skills lists we were given three pages of behaviors and practices which make for a good whole language environment. We rated ourselves against these criteria and aimed for self improvement.

It is wonderful to be part of a school which keeps abreast of what is current, welcomes new ideas and encourages innovative techniques. I am sure I would not last long in an opposite kind of setting. My only problem was that I wondered at first, "Just how do these two movements fit together?" Was what we had been doing in thinking skills compatible with a whole language approach? Could my colleagues and I hold on to what we had done with teaching thinking and still embrace all that whole language had to offer?

In order to grapple with all these changes effectively, I felt I first had to examine the philosophies and practices of the thinking skills movement and those of the whole language movement and then take what was good from each and see if they could be combined into a cohesive whole. Thankfully, I found that they indeed could. This paper is the synthesis of these ideas.

Writing this thesis has helped clarify how I feel instruction in reading should be managed, what materials should be used and how thinking before, during, and after reading can be encouraged and developed. In this paper, I present the ways in which the thinking skills movement and the whole language movement have contributed to my current understanding of how educators can enable children to make sense of the printed word. I hope it will help all educators who struggle with this noble goal.

The Thesis

In chapter two I will discuss the contributions which the thinking skills movement has made to education in general and to the teaching of language arts in particular. I will discuss packaged programs such as Lipman's (1980) "Philosophy for Children" and Will's (1985) "Great Books Program." I will then discuss how thinking skills have been taught at the school where I teach and the advantages and disadvantages to this kind of approach.

In chapter three I will discuss the philosophies and practices of a whole language approach to literacy, drawing heavily on the writings of Ken Goodman, E. Brooks Smith, Robert Meredith, and Yetta Goodman, (1987) and Constance Weaver (1988). This will include discussion of what a whole classroom looks like, the types of activities children can engage in a whole language classroom and finally discussion of the basic features, goals and objectives of a whole language classroom as enumerated by Ken Goodman.

Chapter four lists ten ways that I believe thinking can be encouraged in reading through a whole language environment and approach. These are recommendations to educators based upon the reading I have done, my understanding of the whole language and thinking skills movements and my knowledge about how reading has traditionally been taught. The recommendations are practical in nature and most are broad enough to be applicable to educators working at all grade levels.

In the final chapter, I will review some of the major contributions of both whole language and critical thinking and reflect briefly on what teaching means in light of these philosophies.

CHAPTER II

THE THINKING SKILLS MOVEMENT

Programs

The thinking skills movement is a movement which, as its name suggests, encourages the development of higher level thinking in students. This movement has evolved gradually but its momentum has built recently as more and more reports call attention to the lack of critical thinking and problem solving skills in today's students. In the past decade there have been numerous books written and an outpouring of articles on teaching critical thinking in journals such as Educational Researcher, Educational Leadership and Phi Delta Kappan (Sternberg, 1985).

A main difficulty with the thinking skills movement, however, has been the enormity of the task of teaching thinking and the difference of opinion among experts on how best to tackle the whole dilemma of apparent "cognitive absence," a term I have coined to mean a lack of ability for thinking beyond a basic, common level. D. N. Perkins (1986) notes:

> We are encouraged to boost student IQs, teach learning skills, foster moral development, enhance critical thinking, nourish problem solving abilities, cultivate formal reasoning, inspire creativity, impart strategies for more mindful reading and writing, and so on (p. 4).

Perkins goes on to lament the variety of methodologies advocated to achieve these goals. He discusses the fact that some

would have educators present students with sequences of exercises, while others would focus upon training students for self-reflection. Some would administer diagnostic tests, while others would focus on one to one or small group tutoring sessions. Several advocate teaching thinking as a separate part of the curriculum, while others advocate a thorough integration of thinking into existing curriculum (p. 4). There are many advantages and disadvantages of these approaches, some of which will be discussed in more detail later in this paper. My point here is that there are many choices educators must make along the way. These choices must be well thought out and deliberate.

Since the focus of this paper pertains to fostering thinking in reading, we will examine in the next section some thinking skills programs which are options for educators and have either direct or indirect implications for reading instruction.

Packaged Programs

Perkins (1986), Sternberg (1984), and Nickerson (1984) all discuss various programs which have been developed to foster critical and creative thinking. An extensive listing of such programs including Edward DeBono's (1985) "Cort Thinking Program," Glade and Citron's (1985) "Strategic Reasoning" and Lee Winocur's (1985b) "Project Impact" is provided in Arthur Costa's (1985) anthology, Developing Minds. The HOTS (Higher Order Thinking Skills) Computer Based Approach (Pogrow, 1990) is mentioned in Costa's anthology and is also used with Chapter One

students in the town in which I teach. All of these programs are designed to be self-contained "add-ons" to a basic school curriculum, and although they are generic in nature (not directly tied to one subject area), they do have implications for reading instruction.

Let us examine, for instance the six thinking skills listed in Glade and Citron's "Strategic Reasoning." They are:

1. thing making
2. qualification
3. classification
4. structure analysis
5. operation analysis
6. seeing analogies (pp.197-198)

Glade and Citron state that the skill of "thing making" involves being able to identify, for example, that a structure in which you store money is called a bank, but that there is also something called a river bank which has a totally different meaning. This has relevance for reading because children must understand that words can have multiple meanings if they are to comprehend what they have read. Glade and Citron believe that the skill of "thing making" is the basis for "vocabulary development, context referencing and all communication" (p. 197).

The other skills Glade and Citron list have relevance to reading as well. Operation analysis, for instance, involves the "sequencing of things, events, or thoughts into logical order" (p. 197). Children do this with story events all the time. Glade and Citron go on to state:

> These six thinking skills are fundamental elements of all learning, reasoning and problem solving regardless of content. Poor thinkers perform these skills weakly; 'good' thinkers perform them well (p. 198).

As I have suggested, however, not all thinking skills experts would agree that these are the six basic thinking skills fundamental to all learning. Indeed many experts in the field have come up with their own lists of skills. Robert Ennis (1981) and Bloom (1956) were pioneers in this area - Ennis with his list of myriad dispositions and attitudes, and Bloom with his taxonomy of educational objectives. Others have tried to simplify these lists or have developed lists of their own. The educator's task is to find a list from which he/she can work or find a program which incorporates the skills he/she feels are essential.

Let us examine for a moment, "Philosophy for Children" (Matthew Lipman et al.,1980), a thinking skills program which has been developed to encourage thinking specifically in the language arts/reading areas. This program is recommended by experts in the field such as Richard Paul (1984) and Robert Sternberg (1984). Sternberg, in fact says that there is no program he is aware of which he feels is more likely to teach "durable and transferable thinking skills" than "Philosophy for Children." Sternberg also likes the fact that thinking skills are infused into the content areas in the program and that the stories are highly exciting and motivating for young people (pp. 43- 44).

Lipman et al. (1980) have a list of thirty thinking skills they feel are important. Some of these include concept development, generalizing, formulating cause/effect relationships, drawing inferences, identifying assumptions, working with analogies, grasping part-whole and whole- part connections and problem formation. In "Philosophy for Children" students read special novels with inquisitive children as characters. There is much teacher-led discussion using structured lesson plans.

For example, in Kio and Gus, (Lipman, 1982) one of the six books available, children must first infer that Gus is blind; then, after reading a part of the story, make judgements about how much of what Gus tells in the story could be perceived directly through the senses, what was inferred, what is learned from the testimony of others, etc. Exercises and games are also part of the program.

The goals of the program include producing children who are disposed to wonder, inquire, deliberate and speculate. In "Philosophy for Children," Lipman illustrates he is aware of the skills being focused upon and children become aware of them as well through guided questioning and discussion.

Other packaged programs which use literature as a base are available, such as The Great Books Program (Will, 1985). In The Great Books Program, teachers are trained in the "shared inquiry" method, utilizing questions which are factual, interpretive and evaluative in nature. The reading selections used in the program are outstanding works of literature of the past and the present. Will reports that thousands of well- written stories are excluded from the program simply because they do not lead to thoughtful

discussion. Children create their own higher level (non-literal) questions as they read the stories. The goal of the program is to get children to read interpretively and to be open to the ideas of others. One drawback I have found in the use of The Great Books Program, however, is that in many schools its use has been restricted to the academically talented. Nevertheless, "Philosophy for Children" (Lipman et al., 1980) and "Great Books" (Will, 1985) are examples of good solid thinking skills programs grounded in literature.

Finding A Pathway

The school at which I teach has been teaching thinking skills for several years now. When we first began looking into the teaching of thinking, our principal and other staff members debated the merit of using some of the packaged programs which I have been discussing. The Great Books Program was already being used with some high achieving students, but it was felt that a program was needed which could be used with all of the school population. It was decided that a program which could incorporate thinking across the curriculum would be most beneficial. It was felt that, if teachers made an effort, they could find ways to incorporate thinking into what they taught every day, in all subjects, without resorting to packaged programs. This concept of infusing thinking skills into existing curriculum is supported by many in the field of critical and creative thinking such as Costa (1985); Ruggiero (1988ab); Swartz (1987); and Perkins (1986).

To aid in this endeavor, inservice workshops were held where teachers worked collaboratively discussing thinking skills and the steps involved in these skills. The skills lists had evolved from various sources including Bloom's taxonomy. It basically included:

categorizing/classifying
sequencing
comparing and contrasting
recognizing cause and effect
identifying reliable and unreliable sources of information
identifying generalizations
identifying assumptions

Discussion of the inclusiveness of this list in relation to reading and literature in particular will be discussed later in this thesis, but for the school in which I teach, it was a good starting point and one that was applicable to all subjects.

Workshops were eventually also held on various other aspects of teaching for thinking such as collaborative learning, (working in groups for a common goal), metacognition, (understanding what we know and how we know it), and questioning techniques designed to evoke higher level thinking. These ideas also will be discussed in further detail later in this paper. I feel these sessions were extremely important to us as a staff and would recommend collaborative efforts for any staff thinking of becoming more involved with teaching thinking.

I believe that all of what we have done at my school has been useful. It has been useful for children to know they can classify rocks (science). It has been useful for them to know they can

compare cultures (social studies) and that they can find what events caused a certain story character to act in a particular way (reading). There have been times, however, when I feel we have been too caught up in "steps and procedures" when what children needed more was just practice doing the skill. This may sound like a contradiction in terms, so let me explain.

Our usual procedure for teaching a thinking skill was to present the children with an activity which used that skill. We might, for instance, give them a variety of pictures of different foods and ask them to group them in some way. They would then work collaboratively and when they were finished they would share with each other how they had grouped the items. The teacher would then point out to the students the steps they had gone through in order to group the items. These steps would be listed on a chart which the teacher would display for the class. The chart for classification looks like this:

CLASSIFICATION

1. Examine the items.
2. Put items in group according to some likenesses.
3. Re-examine to make any changes.
4. Present your findings.

All teachers had a copy of each chart for each skill and we were, and still are, encouraged to use these charts each time we teach the skill. Beyer (1985) and others in the thinking skills movement (Feuerstein, 1980; De Bono, 1985) advocate the direct teaching of skills. Our procedures drew heavily upon information

from their writings, particularly Beyer who believes that there should be a hierarchy going from less to more complex skills so that, as students advance through the grades, the thinking skills they learn become more sophisticated. Beyer also believes that thinking must be taught as a "step-by-step" process, (as done at my school) with the teacher playing a crucial instructional role (Beyer, 1983).

I began to see, however, that after doing one or two compare/contrast lessons, children knew they needed to examine the items to be compared as a first step to comparing. They knew they needed to look for likenesses and differences between items. What they didn't always know was how to *find* the likenesses and differences. Only guided practice seemed to be able to help them with that. When working on cause and effect as a thinking skill, the students knew they must examine the evidence to look for causes. What they had trouble with was knowing where to begin looking. Again, only experience and success in finding causes made the search easier the next time. I am not saying that our charts have not been useful because they have been when a skill was first introduced. After the children have used the charts a few times, however, the steps have been internalized and it is just the material which remains challenging. I would suggest using the charts two or three times with the children when the skill is first introduced and then just displaying them on the wall to be used as an occasional reference by students.

Aside from children not needing the formal presentation of charts indefinitely, there is one other problem with always breaking

thinking down into discrete steps. Sometimes it is not easy to discern exactly what skill is called for to solve a problem.

In an article entitled, "Teaching Critical Thinking, Part 1: Are We Making Critical Mistakes?" Robert Sternberg (1985) differentiates between two types of problems: well-structured and ill-structured. He defines well structured problems as those in which a set of steps leading to a solution can be clearly laid out and ill-structured problems as those that resist such specification of steps. He goes on to say that when children grow up they will have to face many more ill-defined problems than well-defined ones and he questions the type of exercises prevalent in many thinking skills programs. He complains that children are given all the information and procedures.

> Consider such problems as how to choose the right investments, how to choose the a mate, how to choose a career, or how to enjoy one's life. Any number of books exist that detail the 'ten easy steps' to the solution of these vexing problems. Such books continue to be written, and the new ones continue to sell. Indeed there will always be a market for such books precisely because none of the authors ever quite succeeds in turning these ill-structured problems into the well-structured ones that their books assure us the ten easy steps will solve (p. 196).

To take this a step further, let us examine the issue raised by Sternberg of how to choose a career. Certainly it is possible to compare and contrast one career with another, but how does one decide which two careers should be compared and contrasted? Perhaps the issue should be examined from the standpoint of cause and effect. What causes one to want a particular job over another?

Is it money, prestige, security, good hours, self-satisfaction? Perhaps one should classify all that is good about one job or another. Or perhaps one should think about "identifying assumptions." What assumptions are being made about the job? Indeed if a problem is examined using only a single "thinking skill" the person doing the examining may never discover the best answer to the question of which job to take. And even if an individual decides to combine these approaches he/she may still not have enough information to make an intelligent decision.

To me this "ill-definedness" and meshing of skills is most evident in the school setting in the teaching of literature. Literature is an interweaving of inferences and meanings and in trying to dissect it into discrete skills, we may lose essential understandings or distract our readers. There will be times when children can find causes for certain events or compare two stories or characters, but there will be other times when they will need to draw upon all they know in a combination of modes of thinking to come up with an answer. I have come to the conclusion that we must "teach skills" but not *always* as separate identifiable entities. Skills should be a means to understanding the whole and not destroy the whole. Educators should not choose literature in order to teach a skill, but rather choose good literature from which abundant thinking will spring forth.

Discussion of literature can help us with a few of the other problems Sternberg addresses. He says that students also need help in recognizing problems, not just in solving them. I have asked many times as I have read stories with students, "Do you see

a problem coming here?" or "What was the problem in this story?" In fact, as we will see in our discussion of whole language techniques, children in classes where whole language is used are often asked to map out a story, identifying significant events and problems.

Sternberg complains that problems in school books are usually decontextualized. Real world problems, he says, are deeply embedded in multiple contexts that can affect their solutions. Solving real world problems requires a sensitivity to context. "Indeed," Sternberg goes on, "the context is often part of the problem" (p. 197). This criticism can be alleviated in the teaching of literature, however, when children are allowed to read whole books. When reading whole books children see characters with real problems in context. They then have a rich context from which to derive meaning.

In summary then, I would say that there are times when educators need to teach thinking skills directly. Children need to know how to compare and contrast, how to find cause and effect, how to classify, etc. if they are to solve difficult problems. Many problems in literature are inferential , however, in nature. Teachers cannot always give a "set of steps" for students to follow to arrive at an answer, nor should they always. Literature is an excellent vehicle for presenting many "real- life" type problems to children and a good teacher can help students begin to solve them. This clarifying of concepts can be done through whole class discussion, writing, sharing of ideas with others, etc. This "give and take" with literature is what is advocated in Lipman's approach

and the Great Books approach and what I feel is needed if one is to attempt to develop one's own thinking skills approach to literature.

CHAPTER III

THE WHOLE LANGUAGE MOVEMENT

Sources of Information

The whole language movement, like the movement in critical and creative thinking, has been evolving for some time. Whole language practices have been prevalent in New Zealand for many years now, with Britain, Canada and Australia following close behind. Teachers in the United States have been getting more and more interested in whole language and, in the last few years, pockets of whole language classrooms have been emerging across the country. In both the United States and the other countries mentioned previously such as New Zealand, the whole language movement has been mostly a grass roots movement, with individual educators becoming interested and then getting their colleagues involved (Goodman,1986, p.59).

Don Holdaway, a prominent whole language advocate, wrote his book, The Foundations of Literacy in 1979. He was influenced by another expert in the field, Ken Goodman, who began his writings about whole language in the 1960's in prominent journals such as, "The Reading Teacher" (Holdaway, 1979). Goodman has since written several books on whole language including, What's Whole in Whole Language (1986), and Language and Thinking in School: A Whole Language Curriculum (1987), the latter which he co-authored with three others, including his wife, Yetta. Many more educators have written books on the subject as well (cf.

Hornsby, Sukarna, Parry, 1988; Hancock and Hill, 1988; and Heald-Taylor,1989). Prominent publishing companies such as Heinemann/Boynton and Cook and Richard C. Owen Publishers, Inc. have chosen to publish many books on whole language. Entire catalogues of whole language related titles are available, in fact, from these publishers. Along with the numerous books available for teachers interested in whole language, there are also newsletters such as "Teacher's Networking" which is published by Richard C. Owen on a quarterly basis.

What Do We See in a Whole Language Classroom?

Before I explain in detail the principles behind whole language, I would like to describe what one is likely to see in a "typical" whole language classroom. I put "typical" in quotation marks because every whole language classroom is different, but there are common threads. I feel this will make it easier to understand how the goals and objectives I discuss later in this chapter are played out. Many of these practices I will be discussing will be described in more detail later in this paper, but the following will serve as an introduction.

In whole language classrooms the act of reading is considered more important than drill on skills. Students, then, spend much more time actually reading and much less time (if any) doing things such as skills sheets and dittos, than do children in more traditional classrooms. In whole language classrooms children listen to quality literature several times a day when the teacher

reads to the whole class, a student reads to a small group, reading pals read to each other, and children listen to stories on video, tape recorder or record player. Children do not use basal readers since basal vocabulary is often controlled, stories are frequently abridged and skills are overemphasized, all of which go against whole language principles (Heald-Taylor, 1989).

Heald-Taylor goes on to say that young children in whole language classrooms may use "big books," which are large books whose pages are usually about the size of poster board. These big books are usually read together by teacher and students and then students read them on their own. Children can also write or illustrate their own big books.

Students in whole language classrooms engage in role playing, pantomime and dramatic play in response to what they have read. Puppet shows are sometimes held. Children also give book talks on stories they have read. These are similar to book reports although students may end up just telling one episode in the story or why they would recommend the story, rather than a sequential description of story events as has sometimes been traditionally associated with book reports (pp. 22-23, & p. 27).

Students engage in author or novel studies either in small groups with the teacher or in a whole class setting (p. 28). This tactic in particular gives the teacher a chance to work on some of the strategies we will be discussing in the next section entitled, "Basic Features, Goals and Objectives."

Teachers hold individual conferences with students about books they have read, discussing what parts they liked and whether or not there were parts they did not understand (p. 30).

Children use webbing (mapping out ideas in a web) to brainstorm what they know about a given topic and what areas they may like to investigate further. They also use word webbing to think up synonyms for words (pp. 34-35). Webbing and other graphic organizers will be discussed in more detail in chapter four.

In whole language programs there is an integration of listening, speaking, reading and writing (p. 22). Often this revolves around a common theme such as frogs (elementary) or the revolutionary war (intermediate). In many classrooms this integration also extends into the content areas of social studies, science and math. Students might read a book or several books about frogs, for example, then examine live frogs in science, see a video about real frogs, and then perhaps write a story which has a frog for a main character. Likewise children could read a book about the revolutionary war, go on a field trip to Lexington and Concord, draw maps of battlefields, calculate ratios of how many union soldiers there were compared with confederate, then write and act out a play about the war, etc.

As I have mentioned, writing is closely associated with reading in a whole language approach. The feeling is that as a student makes gains in reading he will also make gains in writing and visa-versa, one strongly influencing the other.

One of the writing activities which takes place in whole language classrooms is pattern writing, where children use a story

pattern to create a new story of their own. When my daughter Sarah was in fifth grade she wrote a story which was a take off on Alexander and the Horrible, No Good, Very Bad Day by Judith Viorst (1972). Every page in the original book and in her book tells something which happens which makes the day a "terrible, no good, very bad day."

Other writing activities include one child dictating a story to another, children rewriting favorite stories as plays, literature journals where children write down responses to books they have read, and process writing, which involves children writing their own original stories usually on a topic of their choice. They then revise and edit their story until a final draft is produced. Many whole language classroom teachers also have children do daily journal writing about whatever they are thinking or feeling on that particular day.

In summary then, there are many visible attributes of whole language classrooms. How these practices benefit reading instruction will be discussed further in the next chapter. To better understand the purposes behind these and other practices, however, let us now go on to examine what Goodman, Smith, Meredith and Goodman (1987) call whole language's basic features, goals and objectives.

Basic Features, Goals and Objectives

In their book, Language and Thinking in School: A Whole Language Curriculum, Goodman, Smith, Meridith and Goodman

(1987) list the following as the major features of a whole language reading program:

> 1. It is positive, respecting the strength and health of the learner.
>
> 2. It seeks to be relevant and personalized to particular learners, expanding on their experiences and schemas.
>
> 3. It treats written language as transactional, with the learners actively in control of their own texts and their own development as readers and writers.
>
> 4. It is dynamic and process oriented. Reading and learning to read cannot be stopped, frozen or dissected. They must be examined as they happen (p. 246).

In a discussion of some of the key principles of whole language Goodman et al. go on to say that comprehension should be the sole objective of any whole language program. They note, in addition, that expression and comprehension strategies are built as language is being used so that there should not be any sequence or hierarchy of skills, but that skills should develop as the reading evolves (p. 247).

Holdaway (1979) echoes this same opinion in his book, The Foundations of Literacy. He points out that when people try to get at the whole by dissecting it they can undervalue, overlook or overvalue parts and lose sight of how the parts fit together into a whole.

> The idea of reading as a set of separate skills for instance has been open to all these fallacies. A whole is

> more than the sum of its parts and often that 'more than' includes the really important things (p. 19).

What is referred to here is basically that phonics instruction and skills such as locating the main idea should not be taught through skills sheets or drill but only as needed when children encounter real literature and that getting at the whole meaning should always take precedence over instruction in skills.

Before actually defining what whole language is, in fact, Goodman et al. discuss what whole language is *not.* It is not an isolation of skill sequences. It does not involve controlling sentence structure or vocabulary of texts or choosing text because it fits in with whatever phonetic elements children have been taught. It is not equating reading and writing with scores on skills tests (p. 34).

It *does* involve using whole pieces of literature with children. As I mentioned previously, stories such as those present in many basal reading series which have controlled vocabulary and which have been abridged for whatever reason are excluded (Goodman, 1986).

Fostering intrinsic motivation and encouraging children to read for enjoyment are important aspects of whole language programs. In fact a long range goal of many whole language teachers is to make children "life-long" readers.

During at least part of the day in most whole language classrooms children are allowed to choose literature they are interested in to read. Because of this, researchers have found that

children in whole language classrooms often read more (Eldredge and Butterfield, 1986). Eldredge and Butterfield also found that when students were challenged by difficult vocabulary and longer sentence structures they were able to meet that challenge. Children in this study exhibited positive gains in reading test scores and improved attitudes toward reading following the use of a literature based, rather than a basal, program. The reading period consisted of silent reading, activities to stimulate interest in reading, and teachers reading books aloud. Comprehension activities to develop vocabulary and thinking skills were developed through materials read to children, shared book sessions and content area reading (pp. 32-36).

Goodman et al. (1987) state that understanding what is read is the "one central goal of the reading curriculum" and they interpret that as being that the reader constructs meaning that "substantially agrees" with the author. Goodman et al. say that all other goals are secondary to this one (p. 249). They do go on, however, to list seven subsidiary objectives of whole language programs. I would like to have us examine these one by one.

The first is to develop strategies for "sampling and selecting grapho-phonic, syntactic and semantic clues" (p. 249). This means that when a child encounters a difficult word in a text he thinks about its important phonetic elements, and also whether or not it will make sense in the sentence he/she is reading. He/she is consciously or unconsciously aware that the unknown word must be a particular type of word because of its location in the sentence. The context of the sentence gives clues to meaning. The reader

also uses what is known about sentence order to help in the reading of sentences.

The semantic structure of whole written texts is important as well. Though stories vary a great deal in detail, there are only a certain number of structures they can have. One common story structure cited by Goodman et al. is a series of events that builds to a problem and then to a climactic event followed by a resolution of the problem. As children are exposed to more and more literature, these story structures become part of how they define "story" (p. 205). This is one reason why whole language proponents advocate that teachers read aloud to children and allow children to read to themselves a great deal. In my opinion, this process of internalization can be expedited if teachers occasionally have children consciously examine a particular story to discern its underlying structure. One way this can be done is by a process called "story mapping." Simply put, this involves having children plot out such things as the main events and problems, and then the climax and resolution of a given story.

The second goal Goodman et al. list is to have children develop good "prediction strategies and schemas for anticipating meaning, syntactic patterns, and orthographic patterns" (p. 249). Pages could be written about this one goal alone. For our purposes, however, I would like to focus on the first part of this statement, "prediction strategies and schemas for anticipating meaning," as it has more to do with meaning and thus thinking and comprehension, than the later part which deals with syntax and orthography (spelling and spelling related principles.)

Developing prediction strategies means enabling children to be adept at using clues to discern what a story will be about or what action a given character will take in a story once the story has begun. It seems clear that this is a skill with important transfer potential, one that we will need all our lives. We need to be able to predict how much food we will eat in a given week so that we will know what to buy at the grocery store. We need to be able to predict what a person's reaction will be when we say something, or we may end up hurting the person's feelings. We need to be able to predict how much money we will need for our children's education so that we can begin to make plans for how we will finance it.

One way in which prediction strategies are developed is through pre-reading activities. In her book, Reading Process and Practice, Constance Weaver (1988) says that pre-reading strategies are designed to accomplish the following goals:

1. to motivate students to want to do the reading

2. to help them set purposes and find a focus for their reading

3. to bridge the gap between student's conceptual backgrounds and the concepts presented in the reading

4. to activate and build on reader's existing schemas for making the material more comprehensible (p. 285).

Before we discuss prediction strategies further, however, let me define what is meant by schema, as that is the other vital part of this second goal. Weaver defines schema as "an organized 'chunk' of knowledge or experience" (p. 17). Schema has to do with the

knowledge an individual brings to the reading he/she is doing. If I am reading about fishing, for example, I have a schema already present about fishing before I begin. I know that people who fish are called fishermen. I know that they use bait. I know that fishing can be done in fresh or salt water, from a pier or from a boat, etc. This is my schema for fishing. An expert fisherman's schema for fishing would naturally be very different from my own.

What is important is that teachers give students the opportunity to activate their existing schemas prior to reading. This motivates them as well as making them aware of what they do or do not know about the topic to be read.

This activating of schema can take place in different ways, one of the simplest being by asking the students questions. For example, Weaver cites that the teacher, in introducing a fairy tale to a group of children, asked several pointed questions about fairy tales, e.g. where and when they took place, what the typical plot and character development was like and if fairy tales are realistic stories. The title, author and first line of the story were then examined for clues regarding what the story would be about. Examination of the first paragraph followed with children again looking for clues that would help them make predictions about the story (p. 147-149).

The importance of schemas in reading cannot be underestimated. The richer the schema, the better the chances for comprehension. Weaver lists the following sentences as an example:

Can you run the store for an hour?
Can you run the word processor?
Can you run the 500 yard dash?
Can you run the next election? (p.16)

"Run" is used differently in each of the above sentences. As a person reads these sentences they do not try out each of the 40 to 80 definitions Weaver claims they have stored in their brain. It is more a quick scan determining meaning by the grammatical, semantical, situational, and pragmatic contexts which fit in with their schema of how "run" may be used.

Weaver also cites a poem called "To Pat" as an example of how different schemas determine meaning. The poem was seen as having religious overtones by readers knowledgeable about Jesus' life. This was due to the fact that there were references to "communion" and the last line of the poem was, 'It is finished,' words spoken by Christ at his crucifixion. Many who had less religious training felt that "communion" was a sexual referent (a physical communion) and regarded 'It is finished' as meaning that a relationship had ended. Weaver does not tell us which interpretation, if either, is "correct," but only gives us the example to point up the importance of schema (p. 24-25).

Another goal Goodman et al. list for reading instruction is to develop "inferential strategies" (p. 249). The importance of inference is evident in this quotation contained in a discussion of strategies earlier in the book:

> Inference is a powerful means by which people supplement the information available to them using the conceptual and linguistic schemas they already have.

> Readers use inference strategies to infer what is not explicit in the text, but they also infer things that will become explicit later. Inference is used to decide on the antecedent of a pronoun, the relationships between characters, the author's biases, among many other things....Inference strategies are used so much that readers are quite unlikely to recall accurately whether some aspect of a text was explicit or implicit (p. 206).

To insure that she is asking children questions which require them to make inferences, Weaver suggests guidelines for questioning such as not asking literal questions unless they are a springboard to higher level questions, asking questions that focus on the motivation and feelings of the characters such as, "Why do you think Joe called his brother so late at night?" or "How do you think his brother felt when he heard Joe's voice?" Asking questions that cause students to evaluate the actions of characters are also good e.g. "Should Joe have called his brother? Why or why not?" Lastly, Weaver suggests questions can allow students to project themselves into the story. An example of this type of question would be, "How would you have felt had you been Joe?"

The fourth objective Goodman et al. list is for students to develop "confirmation strategies to check predictions and inferences against subsequent clues" (p. 249). Children need to know that they may have to change what they are inferring or the predictions they have made as new information comes in. Teachers can facilitate this by stopping the children at critical points in a story and asking them questions such as, "Do you still think that is why Joe called his brother?" "What new clues did we get that might make us think differently?" etc.

"To develop self-correction strategies to detect and correct miscues that disrupt comprehension is objective number five." (p. 250) This means that all readers need self-awareness when reading. It means that when a student reads a word and it doesn't seem to make sense in the sentence, that he/she knows to stop and go back and use the strategies discussed in objective number one, such as semantics and syntax, to help re-evaluate to find out what that word really is. It may even be that the child can hypothesize the word's meaning even if he/she cannot pronounce the word.

Objective number six reads, "To develop flexible strategies for dealing with a wide variety of materials: environmental print, expository materials, literature (both fiction and non-fiction), instructions, forms and directions, content area materials, including school texts and materials particular to content areas such as charts, tables and recipes" (p. 250). Teachers in whole language classrooms tend to have written materials everywhere. Along with books and magazines, one is likely to see brochures and maps, cereal boxes and newspapers, etc. Children need practice in reading everything they will encounter, not just books. They need practice with different types of writings as well.

Weaver devotes a whole chapter of her book (pp. 280-320) to strategies for teaching reading in the content areas. She discusses special techniques such as SQ3R developed by Robinson (1962) which enable children to better deal with reading information. The acronym SQ3R stands for survey, question, read, recite and review. Students are first asked to survey the assignment, noting the major

headings, words highlighted, questions or summaries which are part of it. They then are asked to make up their own questions based on the headings in the piece. Next they read the text, and then "recite" or write the answers to the questions they themselves posed. Finally they review the entire selection, articulating the major points and supporting evidence (Weaver, p. 290). This strategy, along with others we will discuss in the next chapter, provide students with a way to look at material which can otherwise be quite difficult.

The seventh objective Goodman et al. discuss is that students develop "critical strategies for judging the validity of information gained from reading" (p. 250). In the arena of thinking skills this ability is often termed recognizing "reliable and unreliable sources of information." Young children are often not really aware that there *are* unreliable sources of information. Without making them cynics, educators need to let them see that all that they hear or read is not of equal validity. This can be done easily through the examination of television commercials or simple expository writing. It can also be done through literature, such as the well-known fairy tale, "Snow White." (e.g. "Was the mirror on the wall a reliable source of information for the queen? Tell why or why not.") Of course children need to know what the criteria are for a reliable source and that these criteria can change depending on the type of information one is dealing with.

The final objective Goodman et al. list is that students develop a "flexibility in the use of the reading process for different purposes: a. coping with a literate environment, b. information

seeking, c. occupational uses, d. recreational and aesthetic uses" (p. 250). Some of the children whom educators are teaching today will not reach the work force until the 21st century. They must be prepared for a "high-tech" changing and challenging world. They need to know that reading is basic to survival and that reading all types of materials can give them the knowledge they will need to succeed in life and keep abreast of all that is new. They also should know that stories, plays, poems and novels are for enjoyment, that they can cause them to laugh and to cry, and that this laughing and crying with literature is part of what it means, and has always meant, to be human.

We can already begin to see the overlap between whole language philosophies and those relating to critical thinking. Critical thinking and whole language advocates both respect the strength of the learner, attempt to expand upon his/her experiences and schemas, and are concerned with *process* as much, if not more than, *product* . Critical thinking advocates would support Goodman's eight subsidiary objectives as well. Learning strategies for prediction and ways to anticipate meaning, developing inferential, confirmation, and self-correction strategies, and developing critical strategies for judging the validity of information, all involve thinking and the development of thinking skills and strategies. In the next chapter we will examine other ways the critical thinking and whole language movements have contributed to the teaching of reading and other ways in which the two movements complement each other. We will also discuss the implications for educators. It should be remembered that our

ultimate goal is to identify the positive aspects of whole language and critical thinking methodologies and weave them into a framework workable for the teaching of reading in the elementary school classroom.

CHAPTER IV

A WHOLE LANGUAGE APPROACH TO TEACHING FOR THINKING IN READING

Some Guidelines

What should educators be doing to foster thinking in children while at the same time incorporating the principles discussed in Chapter Three regarding whole language and reading? The following statements should serve as a guideline.

Educators should:

Make the Reader of Central Importance. Teachers have traditionally taken on a great deal of responsibility for what is learned by students. And this is as it should be. Educators are responsible for ensuring that all students learn certain basic things during the course of a year. They are responsible for maintaining an atmosphere which is conducive to learning. They are responsible for helping each child gain self-confidence. Teachers undoubtedly have different responses to how these goals should be achieved; the point I am making is that teachers do take responsibility for these things.

In taking responsibility for these things, however, I believe sometimes educators have not put enough responsibility on the students themselves. At an early age children can grasp the concept that what they get out of school can be, and should be, a result of their own efforts. If a teacher constantly does all the

decision making for children, how do they ever really learn that their education is actually a result of their own initiative? No one is going to "bottle or breast feed" them when they get out into the "real world," so perhaps educators need to start weaning them from the beginning. Whole language advocates acknowledge different students' likes and dislikes and their competency to, at times, make decisions for themselves. This focus on, and confidence in, individuals thinking for themselves is of course the foundation for, and a primary goal of, the movement in critical thinking as well. As Nickerson (1984) puts it:

> One reasonable goal of education would be to make students more aware of the importance of stopping to think before acting...and of motivating them to adopt a reflective attitude and a deliberate approach to daily problems and decision situations as a matter of habit. I believe this is indeed a legitimate goal, which, if energetically pursued, could have substantial positive effects (p. 26).

Allow Time for Free Reading. This principle follows naturally from number one. Children need time to engage with books which interest them. Although teachers may want to give children some guidance regarding difficulty of text, and occasionally the quality of literature, the ultimate decision for what is read during free reading time should be up to the student most of the time. (The exception being when something obviously inappropriate is brought forth, but educators must be careful what they deem inappropriate, as this is very subjective.)

Children know what they are interested in, and as Moffett (1988) notes in his book, Coming on Center, when reading has to be totally planned and monitored by the teacher, students cannot read nearly enough (p. 22). Children's investment in the reading will be greater because they have chosen the book, yet they will still gain new knowledge, (knowledge of people and places, knowledge of what "makes a story"), new vocabulary (meaning), new ability at figuring out unfamiliar words (decoding skills) and new self confidence ("I read a book by myself!"), not to mention enjoyment and the knowledge that reading can be a pleasurable experience!

Although those in the field of critical thinking seem to focus on teachers using literature with children to teach thinking skills and strategies, I believe most would support time for free reading also. Of course, each classroom should have a rich library containing at least one set of encyclopedias, magazines, and multitudinous works of fiction and non-fiction, so that children are exposed to many types of literature. I believe that most thinking skills experts would agree with the following statement: Giving students a rich selection of reading materials and allowing them the chance to choose the materials to read which interest them may help the students develop in many ways. Time for independent reading can help them cultivate special interests, enable them to grow mentally by exposing them to new ideas, help them develop their own decision-making potential by allowing them to choose what they will read, and prompt them to realize that reading is a catalyst for growth and thinking which they can use on their own throughout their lives.

Allow Time for Group or Whole Class Reading and Discussion. The advocates for teaching thinking such as Costa (1985) have long supported asking children questions which require them to think beyond the literal level. When this is done continuously, I believe, children begin to become more analytical readers themselves. They learn that their opinion is important but that it must be supported by evidence. They learn that others have opinions different from their own and that these opinions can sometimes be substantiated as well. Along with showing them the importance of thinking, opportunities for discussion teach the important life skills of listening to others and of tolerance for differing viewpoints.

Along with free reading time, then, I do advocate having teachers daily assign segments of teacher-chosen books to students, to read either in small groups or as a whole class activity. I feel this is the best way to facilitate discussion and also to teach some of the strategies which will be mentioned later in this chapter.

In an attempt to get away from the basals and encourage interest in reading, some within the whole language movement allow children to choose their own books all the time. This, I feel, could be a dangerous practice as whole class discussion of a single book would be impossible and small group discussion would be more difficult to organize.

To seemingly alleviate this danger, some whole language teachers have instituted "reading journals," whereby students record their feelings about a given piece of literature and then the

teacher responds to the students' comments. This has merit as a writing and reflecting activity, but it has some real drawbacks if it totally replaces group discussion, especially with elementary school students. In the first place, elementary students are just learning what to look for in literature. They need guidance. Secondly, with this method students may or may not get feedback from their peers, depending upon whether or not the teacher has children respond to each other's journals. Thirdly, it is difficult, if not impossible, for a teacher to dialogue comprehensively with students about endless numbers of books. Some he/she will not have read and others he/she will have read but partially forgotten. Even with those few he/she remembers thoroughly, there are time limitations and I question how well a "real discussion" can take place.

Moffett (1988) says that he believes one can characterize the growth of thought and speech "partly as a movement toward elaboration" (p. 52). Moffett goes on to say that this elaboration is stimulated by good questions and by people listening to each other, picking up on what the other has said and taking it a bit further. It involves listening to others' comparisons, metaphors and wit. He terms it "social, collaborative development" and notes that,

> (i)f this occurs in small groups, all the time, consistently, this will become internalized and become a part of the inner mental operations of the individuals in the groups (p. 54).

Weaver (1988) states the same thing this way:

> It is abundantly clear that asking thought provoking questions about literature from a very early age is one way that teachers can 'naturally' stimulate the development of sophisticated forms of thought (p. 156).

This questioning about the literature should occur both *before* and *after* a selection is read. The importance of pre-reading discussion was examined in detail in chapter three, so I will not discuss it again here, except to say that I feel it is critical to any program which has the development of thinking and comprehension as major goals.

The authors of Becoming A Nation of Readers (Anderson, Hiebert, Scott and Wilkinson,1985) state that, as a general rule, questions teachers ask in discussion should not be about details of a story unless those details are important for the evolution of the plot or unless they lead to questions requiring the student to use inference and higher order thinking skills, (thinking beyond a literal level) (p. 56). These authors, along with many whole language advocates, testify that basal readers often ask far too many literal or "lower level" questions and that questions requiring higher level thinking are much too infrequent. This puts the burden of compensating for this lack on the teacher who is using the particular basal. Unfortunately, teachers have traditionally "bought into" the sacredness of the basal and done very little to alter the way it is used in the classroom (Goodman, Shannon, Freeman, and Murphy, 1988, p.103).

Many critical thinking advocates (Beyer,1985; Feuerstein, 1980; DeBono,1980) recommend that teachers have a list of

thinking skills which can guide them as they prepare questions for students, as was discussed in chapter two and will be discussed further in number nine of this chapter. And, as we saw also in chapter two, many programs designed to foster critical thinking such as "Philosophy for Children" (Lipman et al.,1980) and "Great Books" (Will,1985) use a heavy emphasis on discussion and questions requiring higher order thinking, thus again illustrating the comfortable marriage of whole language and thinking skills ideologies.

Use Whole Literature. Children in the United States have been taught how to read through the use of a "basal reader" since their advent in the 1920's (Goodman et al., 1988). The basal reader has traditionally been a program organized around a hierarchy of skills, including phonics and comprehension. A tightly controlled vocabulary has also been a component of most basal programs.

Basal reading programs have come under fire recently, however, by whole language advocates and thinking skills experts alike for many reasons. The fact that they contain few higher level questions has already been mentioned. Another complaint that whole language experts have regarding the use of basal readers is that, even when good literature is used in basals, it loses a lot of its vitality by the "watering down" of vocabulary. In Report Card on Basal Readers Goodman et al. (1988) cite the following as an example of how this kind of censorship works to destroy the vivaciousness of the original text. The first excerpt cited is the original version of the paragraph from Judy Blume's (1981) book

The One in the Middle Is the Green Kangaroo. The second is the same paragraph as it appears in a Holt Grade 1, Level 8 basal reader (Weiss, Everetts, Stever, and Cruickshark, 1986.)

> Freddie Dissel had two problems. One was his older brother, Mike. The other was his younger sister, Ellen. Freddy thought a lot about being the one in the middle. But there was nothing he could do about it. He felt like the peanut butter part of the sandwich, squeezed between Mike and Ellen.
>
> Maggie had a big sister, Ellen.
> She had a little brother, Mike.
> Maggie was the one in the middle.
> And she didn't like it.
> But what could she do?

Characters in the story have also been altered. The character Freddie has become a girl, Maggie. The characters of Ellen and Mike have undergone age changes, and names of some of the characters have been changed. More importantly, much of the "meat" of the story has been left out, as many of the hostile feelings and actions of the siblings have been censored.

Perhaps Judy Blume's book is not appropriate for first graders. It would be far better then, in my opinion, not to use it at all with this age group rather than destroy the good literature which it is by watering it down.

Aside from being bland, basal stories have traditionally been short. Authors of newer basals, or anthologies, as they like to be termed, are attempting to improve them by taking selections from whole books without altering the vocabulary, such as Houghton Mifflin (Durr et al, 1989) and Holt (Booth et al., 1989), but these

are still often only segments of books rather than whole books. Occasionally whole books are used, but this tends to be in the lower grade levels where the books are brief to begin with.

Some basal publishers, such as Houghton Mifflin, are marketing trade books (children's novels) as a basic part of their new "packages." This is a positive departure from tradition since, in years past, if offered at all, trade books were considered a definite "add-on." In fairness to basals overall it should also be noted that several of the newest editions of basals and reading anthologies such as "Houghton Mifflin Literary Readers Series" (Durr et al., 1989) and Silver Burdett and Ginn's "World of Reading Series" (Pearson et al., 1989) are making sincere attempts to remedy many other criticisms leveled at them, in particular the lack of higher level questions. I believe, however, that teachers who can recognize good literature, know their students and equip themselves with a basic knowledge of the skills involved in thinking in reading, will succeed better than the teacher who slavishly adheres to even the best of reading anthologies.

I recall a conversation I once had with Robert Swartz, who co-founded the Critical and Creative Thinking Program at the University of Massachusetts, Boston. As an expert in the field of thinking, he expressed to me some of his reservations about basals and told me that if I could prove that thinking could be taught really well through the use of basals he would be interested to see my work. One concern I believe he had was just what whole language people have been talking about, namely the abridged nature of many texts. Swartz wrote the introduction to the

Massachusetts Department of Education booklet entitled, Reading and Thinking: A New Framework for Comprehension (1987). I believe Swartz would agree with the authors of the booklet as they offer the following as one suggestion for the improvement of teaching and testing in reading,

> Use reading matter that students would be likely to encounter in real contexts... much longer, intact pieces would be preferable to contrived, paragraph-length passages... (p. 2)

I have given up on the idea of trying to justify the use of basals to teach thinking, although I do not believe it altogether impossible. I *do* believe that teachers can ask thought-provoking questions and teach thinking strategies even with short pieces of good literature, if they are willing to depart from the questions in the basal. It seems only logical, however, that more in-depth analysis and thinking can take place using a whole novel rather than just an excerpt, and I believe, although I do not have proof other than the article just cited, that thinking skills experts would be in agreement with me on this point.

A student may be able to see the evolution of a character through an excerpt, but how much richer the character will seem when the entire story is read! A student may be able to identify a cause for an event in a story by reading an excerpt, but overall causes and causal themes should become much clearer with the reading of the whole text. If educators truly want to develop

thoughtful readers, then time must be taken to read and respond to whole literature frequently.

Take Professionalism Seriously. On May 24th of this year I had an unusual opportunity. I attended a "retreat on teaching" with several members of the staff from the school at which I teach. We drove to an inn out in the country and we spent the day breathing the clean country air and reflecting on our teaching. Although we did not discuss our curriculum as such, just thinking, writing and talking about what learning involves, and what good teaching is, helped us reflect upon what we do on a daily basis in the classroom.

Teachers get few opportunities, especially on the elementary level, to discuss with their co-workers what their goals and aspirations are. They also get few opportunities to examine how those goals and aspirations are being played out through the curriculum. They have few opportunities to take time as a group to examine the curriculum as a whole, decide what is good and what is bad, just how it should be used, or whether or not certain aspects of it should be used at all!

I consider the town where I teach to be a progressive town when it comes to education. The administrators and principals are very aware of the current emphasis on thinking and whole language and have encouraged teachers' efforts in this regard. Since I have been teaching, the practice of getting teachers together periodically (usually town-wide by grade level) to discuss curriculum has been elevated in importance. There is an atmosphere which supports experimentation even at the risk of

failure. And teachers are allowed to make many decisions for themselves regarding exactly what materials they will use and how they will use them. At my school we have spoken of setting up a collaborative for teachers, a system whereby teachers could share with, and help each other. We still have a ways to go in all these endeavors, but they are a real beginning.

Through my reading I have discovered, however, that this openness to change and freedom for teachers is much less prevalent in some school districts, or even states, than in others. Goodman et al. (1988) report that in some southern, southwestern and most western states there is a state level committee which chooses which ones among all basal series on the market local districts must choose if they want state funding for textbooks (p. 32). They report further that Texas teachers are subject to a fifty dollar fine if they are caught teaching reading without an approved textbook (p. 33). They note that new state initiatives in many states are attempting to standardize the goals of schooling as basic skills, to regulate the amount of time teachers spend on different school subjects and oversee textbook content (p. 33). The most extreme example seems to be Florida.

> Florida legislated basic skills as the goals of reading instruction, basal materials as the means of reading instruction, and minimal competency tests and basal publishers as the monitors of program effectiveness (Goodman,1988, p. 34).

Teachers who have been afforded the luxury of choosing some of their own materials must do it thoughtfully, then, if they are to

retain that right. In reading, teachers must look for literature which they deem to be whole, well written, age-appropriate and thought-provoking. Teachers who have not been given the opportunity to choose their own materials must take their professionalism seriously and fight for that right. They should communicate to administrators and publishers what they need in the way of resources and demand a voice when materials are chosen and ordered. They should work with state and local officials to abolish policies which offer teachers no choice about what they are teaching or how they are teaching it. Moffett (1988) puts it this way:

> It's time for teachers to quit playing dumb and passive, even if that was part of their training... Sweeping aside the intervening clutter, recall yourself as a young learner, then review those learners in front of you. You know. But you must assume the power to do what you know (p. 9).

If teachers do not learn to think for themselves, if they do not value their own decision-making ability, how can they hope to model it for, and teach it to, others? If the movement in critical and creative thinking has done nothing else, it has certainly encouraged those it has touched to be "thinkers." Teachers must not teach thinking without engaging in it wholeheartedly themselves in every arena of their lives. To be a thinking teacher, one must take time for introspection, time to examine what works well in the classroom, what gets students motivated, what helps

them to learn and what causes them to think. This brings us to our sixth point.

Frequently Ask, "Why am I Teaching This?" and "Why am I Teaching it This Way?" It is very easy for educators to get into a rut. A textbook is before them. Educated people have supposedly written the textbook, including certain things for certain reasons. Teachers have workbooks or other materials they have used for years. They are familiar to them and the material has "worked" reasonably well in the past. Why change?

In his book, The Art of Thinking (1988a) critical thinking advocate Ruggiero writes that change is feared because people think it will make demands upon them which they can not meet. Unsure of one's ability to cope, one resists rather than welcomes the new (p. 41). He goes on to point out that,

> (u)nfortunately, if we are resistant to change, we are resistant to discovery, invention, creativity, progress...To resist change is to set our minds against our own best and most worthwhile ideas (p. 41).

In an article entitled, "Are Teachers Motivated to Teach Thinking?" Garmston (1985) notes that the prototype for the person who will succeed at teaching thinking is the high risk taker for whom success is important. It strikes me that this might be a prototype for successful people in many fields.

Change just for the sake of change is not good, but teachers do need to regularly examine what they are doing and why. They

need to be very aware of current research in education while, at the same time, they need to recognize the frailty of research. Research is not always done accurately, and even when it is, research *alone* should not dictate what occurs in classrooms. What really works best for every classroom and every teacher differs. Research offers a guideline which should always be seasoned with common sense.

Let me offer an example. Phonics instruction as a part of overall reading instruction is a very controversial issue among educators today. Research done in the 1960's and early 1970's resulted in Jeanne Chall's (1967) book, Learning to Read: The Great Debate. This became the "bible" of the "pro-phonics" faction. While some still hold to its tenets, others have questioned the validity of the research which formed the basis of the book. Weaver (1988) is one such person and she suggests, in fact, that Chall (1967) herself had some reservations about the way in which the information was compiled (p. 158).

It is not my purpose in this paper to prove or disprove the importance of phonics instruction in elementary education or the validity or lack of validity of Chall's work. It is interesting to note, however, that even the authors of Becoming A Nation of Readers, (Anderson, et al., 1985) who support phonics instruction to some extent, have this to say:

> Once the basic relationships have been taught, the best way to get children to refine and extend their knowledge of letter sound correspondences is through repeated opportunities to read (p. 38).

> The right maxims for phonics are: Do it early. Keep it simple. Except in cases of diagnosed individual need, phonics instruction should have been completed by the end of second grade (p. 43).

Most advocates of whole language approaches have not abandoned using phonics with students but they do it in the context of real language. A very simple example would be instead of saying, "Read these 'ch' words," the whole language teacher might say, "What word that begins with 'ch' would make sense in that sentence?" The whole language teacher might use the natural patterns of assonance in poems or chants to "teach" vowel sounds. Whether or not one agrees with the effectiveness of this approach, it is difficult not to see that it would motivate children much more than sitting doing a worksheet on "ch" words or vowel sounds. With the exception of a few of the newest editions of basals by a select core of publishers, it can be said that,

> Though there is some concern in all the basals for meaning and context there is more concern with controlling the sequence of sounds, words, and skills than in providing authentic language in texts (Goodman et al.,1988, p. 71).

There are numerous other aspects of the teaching of reading besides the importance or lack of importance of phonics instruction which teachers should examine on a regular basis.

Authors of Becoming A Nation Of Readers report that publishers say that the demand for seat work activities is "insatiable," and that students spend up to 70% of the time allotted for reading instruction in independent seatwork (Anderson et al.,

p. 74). They go on to report their findings that most of the seatwork requires very little thought, and that children rarely have to draw conclusions, or reason on a higher level (p. 75). Their recommendation is that only skillbook and worksheet tasks which will actually contribute to growth in reading be used, and that these be kept to a minimum (p. 76).

Of course there were reasons why this "mountain of seatwork" came about. Teachers were conducting small reading groups and the children not involved in the group currently with the teacher needed to be occupied with something which would not disturb the teacher or the group reading.

There are alternatives to this, however. First of all, when teachers are conducting reading groups children not involved in the reading group can be doing actual reading of books silently to themselves. They can also be involved in writing activities which directly pertain to a story they have read, even if this necessitates the teacher creating the worksheets himself/herself. These activities should involve higher order thinking, such as, "Describe for me how you would have felt if you had been in Maureen's situation?" (This causes the child to infer and evaluate, to put himself/herself in "Maureen's shoes.") Children can also engage in meaningful activities involving reading and writing at learning centers. (These are stations set up in different locations in the room which focus on skills development or hands on activities.) In the case of reading, children at a center might be encouraged to read a play and then respond to it by creating a sequel. They might be allowed to listen to a taped story and draw a picture of their

favorite part. A student might be given a chance to do research on a topic of interest to him/her or one that ties in with what is being studied in social studies or science.

At the school at which I teach, some of the teachers who are experimenting with a whole language approach are setting aside reading groups for the most part and conducting reading as a whole class activity. This is another alternative, and it seems to me, would frequently be a better use of the teacher's time than constantly grouping children. Instead of discussing the same story with three or four different groups at various times during the year, a practice which becomes a bit repetitive, the teacher works with the whole class at once, without interruption. The whole class may then respond to a book or section of a book in writing or through oral discussion. The rest of the reading "block" may then be taken up with sustained silent reading of a book each student has chosen, with other kinds of writing projects or with the teacher reading to the children, etc.

My point is that educators need to be creative in the ways in which they organize their classrooms and the materials they use. Perhaps the standard of a "set reading group" for each child needs a second look. If small groups are desired by the teacher, heterogeneous groupings could be tried. Perhaps children could be allowed to conduct their own "reading groups" from time to time with the teacher only circulating from one to another to make sure discussion is flowing along. There are numerous possibilities and educators should not feel totally locked into traditional patterns.

Much thought needs to go into decisions about how much time is allotted for things such as spelling and language mechanics and again, how these are taught is crucial. Some whole language advocates would question the practice of weekly spelling tests. They would argue that spelling improves naturally through increased reading and writing and that testing as a source of evaluation is overused (Moffett, 1988, p.11; Holdaway, 1979, p. 168). If spelling tests are to be given, however, the words should *at least* come from the reading the children have done that week, or from the children's writings, not from an arbitrary list in a book. Time spent on drills in spelling books then becomes superfluous at best.

Likewise, I think we need to examine what is really important in the teaching of language. To me the most important thing about teaching "language" is that children learn to express themselves through writing. Therefore it follows logically that only those things which directly support that broad goal should be included in language instruction.

Should a third or fourth grade teacher, for example, spend time teaching the parts of speech, such as nouns, verbs and adjectives? Some whole language advocates would probably argue with me about this, but I believe that knowledge of the parts of speech can lead to better writing, not just more grammatically correct, but more colorful as well. Still, does an educator need an English book to accomplish this goal? Perhaps, as a guideline, but not as the total English curriculum! Children should be examining the way nouns, verbs and adjectives are used in *real literature* not

solely in some sterile drill-oriented English book! They should be discussing which author uses adjectives in the most interesting way. They should be modeling that writing, not spending hours on senseless drill. As Moffett puts it:

> So we needn't get into any conflict about who's for basics and who isn't. I think we're all for the literacy skills, along with everything else. It's just a question of whether the small things are going to be taught in the thrust of whole growth or whether they're going to be isolated out very ineffectually into the old drills and rules approach (p. 58).

In his book, Teaching Thinking Across the Curriculum (1988b), Ruggiero suggests that when rules or principles *need* to be taught the critical thinking way of doing it is to present examples of the "rule" first and then have students work out the conclusions or discover the principles (p.107). This can be done in the context of whole language, as well. When I teach children nouns , for instance, I look at a page in a book I have read with them and I say something like the following: "On this page I see the words refrigerator, baseball, and boy. These words all have something in common. They are all nouns. Can you guess what a noun is?"

Of course they don't know yet, so I give them more clues. Eventually, however, they begin to close in on what a noun is. They enjoy the guessing game, while at the same time, they are using their minds to problem solve.

Educators must be careful not to carry the "labeling game" too far however. I was disappointed last year, for example, when

segments of my son Nathan's seventh grade language class time was spent doing such things as differentiating between different types of obscure adjectival clauses. This kind of analysis, to my way of thinking, does little or nothing to improve writing ability. Moffett says it this way:

> You can try artificially to stimulate the growth of sentence structure by lots of drills and exercises and by trying to teach kids directly to analyze the sentence and the parts and to ticket all the parts and so on. I think this has nothing to do with really effective growth and may have a retarding effect. What makes people complicate their sentences , essentially, is questioning by other people. Assuming authentic speaking and reading situations where there is a real reason to be communicating, the elaboration of sentence structure into adverbial and adjectival modifiers depends upon the eliciting action of questions (direct or implied) of other people. Where did it happen? When did it happen? (p. 53)

My son's need for examining and responding to literature through writing could have been filled by his reading teacher had she not used an antiquated basal reader which offered little in the way of higher order thinking. A good segment of time in reading class was spent on vocabulary development as well. This I am not opposed to to some extent, as long as the children are examining vocabulary in context and learning to discern its meaning in that way.

The bottom line is that we must give children large segments of time for reading, writing and discussing if we are to promote thinking in any serious fashion! And *in order to do this* we must eliminate the less essential and sometimes even "garbage"

elements of our teaching. Whole language advocates and critical thinking advocates would agree that much thought needs to be given to what is taught and how. I have found no one from either the whole language or thinking skills camps who would support children doing mountains of meaningless seatwork when they could be engaged in reading real literature, participating in meaningful discussion, or expressing themselves through writing, the next point discussed in this thesis.

Allow Time for Writing. Why should so much time be spent on writing? Goodman (1986) points out that traditionally very little "authentic" writing has been done in public schools. He laments the fact that, beginning in elementary school and continuing up, the emphasis has been on spelling, form and language mechanics rather than on the ability of the writer to express his/her ideas succinctly (p. 274). Another way of saying this is that focus has been on *format* rather than *thought*. There has been public outcry , however, as college administrators and those who report test results claim that students do not know how to express their ideas in writing (Moffett, 1988, p. 78).

One way this can begin to be remedied is to give children more time to write about what they have read. This causes them to really *think* about what they have been reading and, at the same time, get it down on paper.

In my third grade classroom last year, for instance, we read a book entitled, Warton, the King of the Skies (Erickson, 1989). In the book there is a family of weasels who are all rather unpleasant

characters. As an exercise after the children had read the book, I asked each child to grade each weasel as to how well each performed his/her job. They were to give each weasel a letter grade and then make comments as a teacher would on a student's report card. The children enjoyed doing this because they loved "playing teacher" but it also afforded them the opportunity to really examine how they felt about each character, what information there was in the story which would support giving a particular grade, how other story characters felt about the weasel in question, etc. There was a lot of meat for discussion, e.g., "Can a person (or animal in this case) be a good worker and yet not a good person?" "What makes a person (animal) a good worker?" or "Which weasel was the worst? The best?" And the all important follow up, "Why?" Because the children had time to put their ideas down on paper first, they were reminded during discussion of their original opinion and the reasons for it. Some of the children changed their opinions after the discussion and because they could examine their original argument on paper they could then better see the evolution of their thought processes. Most questions which could be used as good higher level discussion questions could be used first as items for a writing assignment. Moffett comments:

> Reading responses don't just pertain to reading. They constitute an invaluable part of a student's mental life and can be used not only to enhance comprehension and appreciation of texts but to fuel thinking, talking, and writing on the many subjects to which reading experience contributes (p. 191).

Other methods for getting children to think about what they have read might include asking them to write a sequel to a story, asking them to write a conversation one story character might have with another, asking them to write a diary entry for a story character, etc. In my opinion this type of assignment serves two purposes: It gives the child a chance to think more in depth about a story while at the same time, through practice, increases the student's ability to express himself/herself. As noted previously, the common practice of giving unrelated fill-in-the-blank dittos as seat work during reading time usually fulfills neither of these objectives.

Goodman et al. (1987) note that there is an important relationship between reading and writing, namely that people "use in writing what they observe in reading" (p. 275). This is another good reason why reading and writing should be linked academically.

This past spring I did a poetry unit with my third graders. My primary objective was to show the children the many different styles of poetry which exist and then to allow them time to experiment with the various forms. We read many examples of poetry from books. Some I read to them, but also on their free time they were encouraged to browse through the numerous anthologies and individual poetry books I had obtained from our school library and the local public library. When we shared poems together, I would ask them, "What makes this a good poem?" or "Why do you like it?"

When they began writing their own poems I was amazed at the results! Because they had seen models first hand, they became

thoughtful writers themselves. They knew what comprised a "good poem" and they used that knowledge to create their own.

The current trend in whole language is to have children write a first draft and then work to revise and edit the first draft until a final draft is reached (cf. Calkins, 1986; Atwell, 1987). Children are taught to revise their thoughts and ideas *before* they worry about editing for punctuation and grammar. To me this method of teaching writing is better than the old method of "teacher-find-mistakes-and-red-line" because children are taking responsibility for improving the way they express themselves and it encourages thought. Lucy Calkins puts it this way:

> Whereas spoken words fade away, with print we can fasten our thoughts onto paper. We can hold our ideas in our hands. We can carry them in our pockets. We can think about our thinking. Through writing we can 're-see,' reshape and refine our thoughts (pp. 19-20).

Structure Classrooms for Interaction. Each time I see a news clip of a classroom on television, which is frequently these days, I am amazed to see that, in the majority of cases, the students are sitting in straight rows, equally distant from one another, facing the front of the room. I am amazed because this classroom arrangement seems so antiquated to me.

Robert Slavin (1987), author of "Cooperative Learning and the Cooperative School," writes that there is "substantial evidence" that students working together in small cooperative groups or pairs can master material presented by the teacher better than students working on their own (p. 7). Arthur Costa et al. (1985) say that

collaborative strategies provide a way to structure student groups for learning, that they help students think about and solve problems, accomplish jobs, and improve social skills (p. 177). Let us examine what some of these activities might be in a whole language classroom.

Students could work in pairs to read stories together. They could work together to identify the characters, settings, problems and problem solutions in stories. They could practice summarizing stories to each other. They could help each other revise and edit stories or they could write a poem, story or play together. Each student benefits by seeing how the other members in the group work any problems out. They benefit by having more time to read, and by having someone with whom they can discuss what they have read. They have feedback on how well they are expressing themselves in writing, and whether or not what they have written can be understood by their peers. None of this could be accomplished by sitting in straight rows all day long.

Classrooms must be structured for interaction in subtler ways as well. Children will not engage in thinking in a classroom where thinking is not encouraged. This seems so logical and simple and yet it needs to be said. Teachers need to provide an atmosphere where everyone's ideas are respected and listened to and children need to be taught that everyone's ideas are important and that everyone can make a contribution. Costa (1985), from the critical thinking movement, discusses this importance of "classroom atmosphere" but what is even more impressive is that he really does teach that way himself.

I was privileged to have Arthur Costa as an instructor for one week in the summer of 1986, as he discussed with us what constitutes "the thinking classroom." Although we did many interesting things that week, it was his general manner which impressed me, and several of the other students, the most. He always provided students with time to think before calling on them for an answer, and he always allowed himself time to think before responding to a student's answer. Frequently his response, when it did come, was a "hmmm..." or a "I see..." which encouraged others to participate in the open-ended discussion.

Of course sometimes there *is* a right or a wrong answer to a question, but when thoughtful dialogue is the desired result, educators can take a lesson from Costa, others in the critical thinking movement, and those in the whole language movements, who know the importance of thinking themselves and of giving others the chance and predisposition to think.

Teach Skills and Strategies Through Guided Practice. I have referred several times in this paper to the importance of having some kind of list of thinking skills which can be used as a backdrop for the teaching of reading (Beyer, 1985; Ennis, 1981; Feuerstein et al., 1980; De Bono, 1980.) But from where should such a list come?

Critical thinking experts have made up various lists of skills frequently applicable to all subject areas. There are skills lists in basal readers, but are they the same as thinking skills? The answer is no; usually basal skill lists are longer because they often contain

skills which relate to phonics, decoding, word study and vocabulary as well as to comprehension and thinking. Some basal companies such as Silver Burdett and Ginn (Pearson et al., 1989) put skills such as inferring and analyzing under a category called "thinking." Other basals, especially older ones, omit those skills altogether or just list them under "comprehension skills." Because of these discrepancies in basals, and also because the focus in this paper is solely on *thinking* in reading (not phonics, etc.), I am advocating that teachers use a list of thinking skills specifically designed to relate to reading. This list was first published by The Department of Education in Massachusetts in 1987 in a booklet entitled Reading and Thinking: A New Framework for Comprehension (see Figure 1).

Close examination of this list will reveal that the authors delineate five broad skill categories which represent cognitive activities. These pertain to:

1. the type of information (in a story or text)
2. the relationship of elements (in a story or text)
3. main ideas/issues (in a story or text)
4. reliability of sources (in a story or text)
5. use of evidence to draw inferences (from a story or text)

(Massachusetts Department of Education, 1987)

A Critical Thinking Framework for Reading Comprehension

Skill Category	Perspective Relative to Text: External	Perspective Relative to Text: Internal
Analyzing Text		
Type of Information	identify genre (type of selection) recognize meaning/purpose of structural/organizational cues (headings, italicized words, etc.)	†•distinguish fact from opinion recognize inferences and/or conclusions (including generalizations, predictions, and deductions) •recognize assumptions
Relationships of Elements	associate genre with its characteristics (purpose, structure) recognize topics in which prior knowledge would benefit comprehension	†•identify causal relationships (cause and effect stated) •identify similarities and differences (compare, contrast, categorize) recognize ambiguity/ equivocation associate reasons w/ conclusions recognize analogies
Main Ideas/Issues	•identify author's purpose, point of view, tone	•identify main ideas summarize
Evaluating Ideas/Extending Meaning		
Reliability of Sources	evaluate relevance and reliability of prior knowledge and sources	•identify propaganda/bias evaluate expertise/reliability of sources assess quality of information
Use of Evidence to Draw Inferences	make predictions about the structure and types of information in text evaluate and select reading strategies evaluate and adjust chosen strategies (incl. self-checking and drawing analogies)	evaluate evidence/ inferences of author/ characters †•draw and evaluate inferences about causes †•draw and evaluate inferences about effects •make and evaluate generalizations (incl. identify theme)

Figure 1: A Critical Thinking Framework for Reading Comprehension
From: Reading and Thinking: A New Framework for Comprehension
Massachusetts Department of Education, 1987, p.5

These, along with the specific abilities listed under them, provide a good guideline for teachers interested in encouraging thinking through literature. Users of the Department of Education list are not abandoning traditional comprehension skills; they are merely expanding upon them. As the authors of Reading and Thinking: A New Framework for Comprehension (1987) note:

> The names of the traditional reading comprehension skills bear a remarkable resemblance to names of critical thinking skills found in these categories. However, critical thinking experts would claim the way the reading skills are represented in practice is much too limited, even simplistic. Interestingly, current interest in critical thinking skills appears to be more in conjunction with other school subjects. The use of a critical thinking framework for reading could serve to unify instruction across curricular areas (p. 4).

Another reason that I am advocating a thinking skills list for reading which is separate from any basal, is that increasing numbers of educators involved in the whole language movement are thinking of rejecting, or have rejected, basals altogether. They are using, or are thinking of using instead, an all trade book (paperback book) approach. I believe this "trade book" approach can work well, but I also think educators must be careful that their reading program does not become just a time for social reading without any guidance on the part of the teacher. Recent basal readers have had long and comprehensive skills lists (Goodman et al., 1987, pp. 58-59) and many have recently tried to include activities geared for higher level thinking. While teachers may not want to "buy into" any one basal program because of the way skills are presented, it

may also not be totally advantageous to either instructor or student to abandon all the skills basals have advocated, especially those pertaining to thinking, in favor of a totally "laisez-faire" approach. Again, this is why I have provided the list published by the Massachusetts Department of Education.

I believe a good story is like a diamond. There are many facets which go to make up an interesting story. There are twists and turns in plot. There are differences in characters. There are subtle messages the author sends the reader through a character's actions or something he/she says. There are chains of causal events. If people see a diamond across a room they notice a sparkle, but if they examine it up closely they can see its depth and intricacy much more clearly. I believe the same is true of stories. What is valued and learned from a story increases as the many facets of the story are examined. This can often be done through a skills approach. As these story facets are examined, abundant opportunities for thinking emerge.

Let me offer a simple example and one that will be familiar to all. Let us take the story of "Goldilocks and the Three Bears." This story has been enjoyed by children for years. Children usually hear the story for the first time before ever coming to school. Older children (perhaps grades 2 or 3) might enjoy re-examining "Goldilocks," however, with the idea of discovering what *caused* Goldilocks to go into the bears' house and what the *effects* of that decision were. Is there anything in the story that might lead the reader to believe that the reason she entered the bear's house was that she was hungry, or tired, or maybe even poorly mannered?

Why would someone go into someone else's house? Likewise what were the consequences of her actions? That she was awakened with a start is obvious, that she was frightened we can glean from her behavior as she raced out of the house, but what else *might be* an effect? Perhaps she will go home and tell her parents, perhaps she will be punished, perhaps she will decide never to go near that section of the woods again. When educators engage students in this type of dialogue they are teaching children how to find cause and effect. This is done by looking for clues in the story, then using imagination tempered by good judgment. By showing children how to find clues and think about stories, teachers are giving students a richer perspective on what might have been a simple story.

The lesson ideas I have sketched out pertaining to "Goldilocks and The Three Bears" and other lessons like them are acceptable to both whole language advocates and critical thinking advocates. Critical thinking advocates like them because they focus on a skill. Whole language advocates will accept them because they present the skill in the context of real literature.

Another skill that students can work on is comparing and contrasting. Students can compare and contrast two characters from the same story and perhaps even follow that up by discussing how those character's personality differences affect the plot. ("Cinderella" would work well for this!) Likewise children might gain new knowledge about themselves and a character in a story by comparing themselves with a given character. Another activity children could engage in, would be to read two or three stories by a particular author and then compare certain aspects of the stories.

Again, all of these activities give the child a new way of looking at literature and a chance to engage in real thinking.

At my school, teachers have used Venn diagrams to teach the skill of comparing and contrasting. If comparing two story characters, for instance, students would list all the qualities of one character on the left side of the Venn diagram and the qualities of the second character on the right side of the diagram. Any qualities which they have in common would be listed in the center section of the diagram, indicating an overlap.

Venn diagrams can help as children do research also. After my students read Warton and The King of the Skies (Erickson, 1989), they looked up information about weasels and toads and compared them on a Venn diagram. Venn diagrams can also be used when students are reading materials for social studies and science. An example of a Venn diagram used in this way is shown in Figure 2. It is comparing tundra and desert regions.

Venn diagrams provide a useful visual aid for children as they endeavor to compare two things. More complex venn diagrams can be used to compare more than two things, but might be difficult for students in the lower elementary grades (K-3).

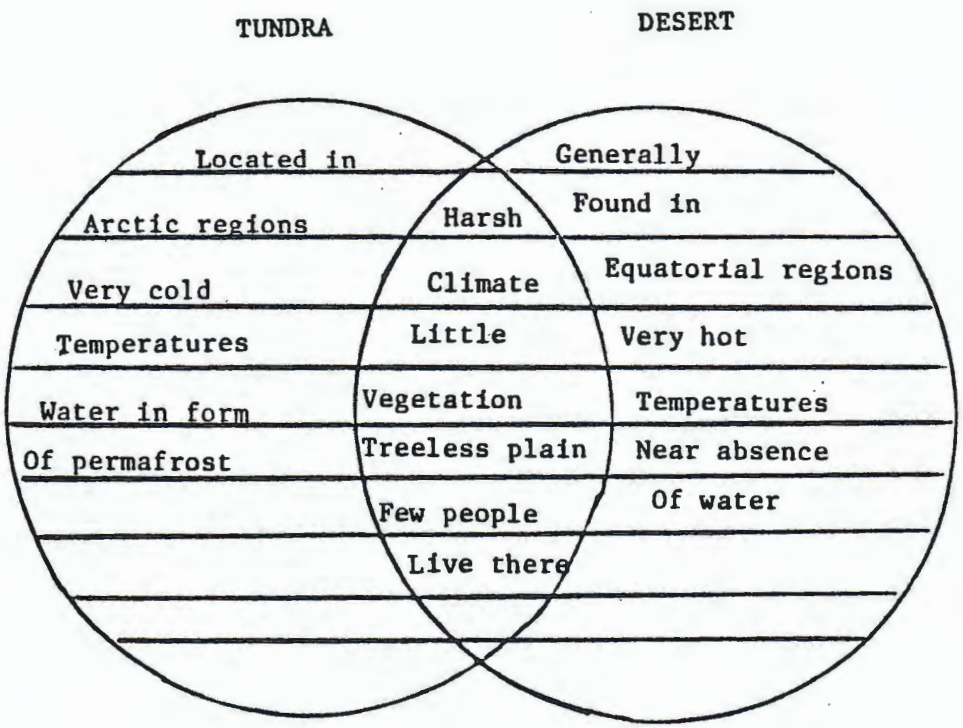

Figure 2: Venn Diagram
From: New Directions in Reading Instruction
International Reading Association, 1988, nonpaginated

Use Thinking Tools and Models in the Classroom. The Venn diagram is a thinking model which is used to teach compare and contrast, but there are other visual aids teachers can use when teaching for thinking. In 1988 the International Reading Association published a booklet entitled, New Directions in Reading Instruction, (International Reading Association, 1988) which gives a compilation of simple strategies, tools or models various educators have devised to help teachers increase thinking in students before, during and after reading. Some of these strategies are better suited to the reading of non-fiction, but since both fiction and non-fiction should be used in any comprehensive literature program, I will discuss some of each type.

Let us begin with a very simple strategy which works well with the reading of non-fiction. In the International Reading Association booklet, Hammond (1988) says that before reading students should generate questions about a topic or concept. After reading the teacher can then ascertain from the children which questions that they had posed were answered in the text and which had been left unanswered. Hammond feels by encouraging children to ask their own questions, children learn self- monitoring, which in turn helps them comprehend more (p. 16). I agree that it does this as well as encourages the child to go beyond the information at hand and perhaps engage in further research to find answers to the remaining unanswered questions.

Johnson and Johnson (1988) offer advice on how inference can be taught in fictional writing. (Inference, it will be noted, was one of the skills listed in The Department of Education's Critical

Thinking Framework for Reading Comprehension.) Johnson and Johnson say that there are ten major types of inference of which children can be made aware. These are: location, agent, time, action, instrument, cause-effect, object, category, problem-solution and feeling-attitude.

Ten Major Types of Inference

Location: "While we roared down the tracks we could feel the bounce and sway."

Agent (Occupation or pastime): "With clippers in one hand and scissors in the other, Chris was ready to begin the task."

Time: "When the porch light burned out the darkness was total."

Action: "Carol dribbled down the court and then passed the ball to Ann."

Instrument (Tool or Device): "With a steady hand, she put the buzzing device on the tooth."

Cause-Effect: "In the morning we noticed that the trees were uprooted and homes were missing their rooftops."

Object: "The broad wings were swept back in a 'v' and each held two powerful engines."

Category: "The Saab and Volvo were in the garage, and the Audi was out front."

Problem-Solution: "The side of his face was swollen and his tooth ached."

Feeling-Attitude: "While I marched past in the junior high band, my Dad cheered and his eyes filled with tears." (p. 8)

If I were to teach these types of inference to students I would probably do one type every week for ten weeks. I would begin by giving the children two or three examples of the type of inference I would be teaching that week, see if they could figure them out, and then ask them to write some of their own examples. After that, I would encourage them to look for examples of the type of inference they are working on, in their current, day-to-day reading. We would then discuss these together. I believe teaching inference is important because as children practice finding incidences in literature from which inferences can be drawn and then share these with others, they should become more analytical and strategic readers (thus better thinkers) and also be better prepared to engage in more complex independent reading.

Semantic mapping, developed by Johnson and Pearson in 1984, is mentioned in the booklet by The International Reading Association and also discussed at length in the book, Semantic Mapping: Classroom Applications by Joan E. Heimlich and Susan D. Pittleman (1986). Simply put, semantic mapping involves taking a topic and finding ideas to go with the topic and then putting those ideas into an organizational framework (see Figure 3).

Completed Classroom Map for *Washington, D.C.*

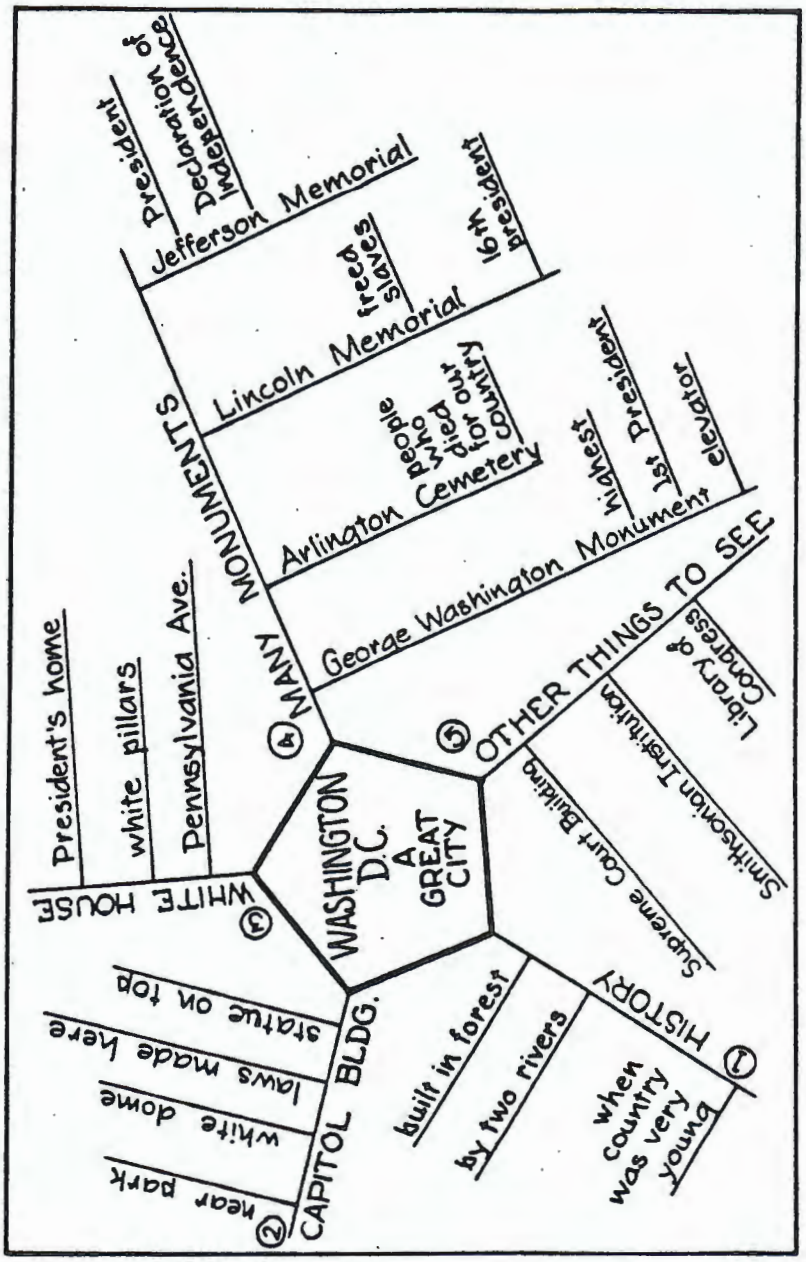

Figure 3: Semantic Mapping (Webbing)
From: Semantic Mapping: Classroom Applications
Joan E. Heimlich and Susan D. Pittleman, 1986, p. 18

This technique can be used for general vocabulary development, for pre-reading and post-reading activities or as a study skill. If used as a post reading activity children might, for example, read a story about Washington, D.C. Following the reading of the story the teacher would write "Washington D.C." on a large piece of poster-board. He/She would then list, or have children list, all the sub-topics they could find in the reading about Washington, D.C. These would then be depicted on the poster board as "arms" coming from the main topic of "Washington D.C." Children could then go on to fill in the details under each sub-topic. (p. 18).

Webbing is just one example of semantic (or cognitive) mapping. Others include sequence steps or chains, vector charts for cause and effect, story maps (which help children locate story sequences, problems and themes), analogy links, and flow charts for decision making and problem solving (McTighe and Lyman, 1988). Although I will not get into a discussion of all of these, my point is that all of these graphic organizers promote thinking and organizational skills as the child must compile the pertinent information and determine where it belongs in an organizational framework.

I would, however like to discuss just two more graphic organizers discussed in "Cueing Thinking in the Classroom: The Promise of Theory Embedded Tools" (McTighe and Lyman,1988). These are the "thinking matrix," and think-pair-share wheel.

The thinking matrix is a device used to aid teachers and students in generating questions and responses (see Figure 4). The vertical axis of the matrix contains symbols of types of thought while the horizontal axis lists categories such as "character" or "setting." This was adapted by two staff members of the school at which I teach.

Questions can be made up by teachers or students using the intersection of any of the boxes. For example, if a child put his finger on the box where "differences" and "setting" intersect he might come up with a question such as, "How did the differences in setting at the beginning and end of the story affect how the story would end?" McTighe and Lyman note:

> In essence the thinking matrix allows for shared metacognition in which teacher and students have a common framework for generating and organizing thought as well as for reflecting upon it (p. 20).

The other technique proposed by McTighe and Lyman which I would like to discuss is "Think-Pair-Share." After the teacher asks a higher level question, children think for ten seconds and then talk in pairs as the teacher moves an arrow on a wheel from "think" to "pair." After they have finished discussing in pairs, the teacher moves the arrow to "share" and whole class discussion takes place. "Think-Pair-Share" is a simple technique which combines the benefits of wait time (allowing children time to think before they must answer) and cooperative learning.

	Characters	Events	Story Theme	Fact	Problem	Setting
Recall						
Cause						
Effect						
Compare						
Contrast						

Figure 4: Thinking Matrix
Adapted by Peg Harbert and Terri Caffelle
Original from: McTighe and Lyman in
"Cueing Thinking in the Classroom:
The Promise of Theory Embedded Tools"
Educational Leadership, April, 1988, p. 19

Graphic organizers such as these and others educators have developed are encouraged by people such as Weaver (1988) in the whole language movement and Winocur (1985a) in the thinking skills movement. I believe the thinking tools and models mentioned, should aid students as they seek to derive meaning and understanding from the written word.

Summary

In summary, then, educators should:

1. Make the reader of central importance.
2. Allow free time for reading.
3. Allow time for group or whole class discussion.
4. Use whole literature.
5. Take professionalism seriously.
6. Frequently ask, "Why am I teaching this?" and "Why am I teaching it this way?"
7. Allow time for writing.
8. Structure classrooms for interaction.
9. Teach skills and strategies through guided practice with real literature.
10. Use thinking tools and models in the classroom.

CHAPTER V

CONCLUSION

A Final Look at the Thinking Skills and Whole Language Movements

Thinking skills experts such as Costa (1985), Beyer (1985), and Ruggiero (1988a, 1988b) advocate having teachers infuse the teaching of thinking into their current curriculum in all subject areas. They, and many others in the movement, also want teachers to create a classroom atmosphere conducive to thinking, ask questions which require children to reason beyond a literal level, pose problems and encourage debate. These suggestions, and the research done prior to formulating them, should be recognized as fundamental contributions of the thinking skills movement to education in general.

Another important contribution of the thinking skills movement has been the many lists of critical and creative thinking skills put forth by people such as Bloom (1956) and Ennis (1981). Because of these pioneers in the field, and those who would follow, educators have become more aware of the kinds of thinking that children, and all people, *can* and *do* engage in. I believe that slowly writers of curriculum in all subject areas are becoming more sensitive to the importance of nurturing thinking in children. This, I feel, is a direct result of the work of many in the field of critical and creative thinking.

The area of reading instruction specifically has been impacted directly by all that I have mentioned so far. In addition, as previously cited, many new editions of basal readers are making real attempts at including questions and lessons which foster higher level thinking. (Durr et al., 1989; Pearson et al., 1989). My hope is that many educators who depart from using basals will incorporate the teaching of thinking into their trade book lessons as well. Packaged programs such as Lipman's "Philosophy for Children" and Will's "Great Books" provide excellent models for teachers interested in teaching thinking through literature.

The whole language movement, or philosophy as it is often called, has made many contributions to the teaching of reading as well. One of these is the emphasis on reading whole, unabridged texts (Goodman, 1986). Hopefully reading whole books and paired, group, or whole class discussions of books will take the place of much of the "busy work" children have been doing in classrooms. Hopefully also, children will learn to love reading and see that it can be a vehicle for enjoyment and a tool for new knowledge and thought.

The whole language movement has emphasized reading for meaning and taught strategies for dealing with problems in reading, for example: what to do when you don't know a word, how to use broad face titles, how to skim material, or how to know when careful, detailed reading is necessary (Weaver,1988). It has emphasized the activating of schema through pre-reading discussion and the importance of predicting based on evidence (Goodman, 1986; Goodman et al., 1987).

The process approach to writing (Calkins, 1986) has become part of the whole language approach, and writing is seen more and more as an important instrument for self expression and a vehicle for thinking. When students learn to evaluate what they have written, they are also learning to evaluate how well they have thought or, at least, how well they have been able to transcribe their thoughts onto paper.

There are many other contributions which the whole language movement has made, and yet if I were to choose one other which stands out in my mind, it would be that the whole language movement challenges teachers to value their students and themselves. It asks educators to allow their students to make choices and to think. It requires that educators become thinking people themselves. The whole language movement is revolutionary. It asks educators to question some of *what* has been done in reading instruction for years, and it challenges much of *how* it has been done. It says to educators, "Be responsible for your teaching. Think through what you are doing and why. Make your own choices."

The thinking skills movement is demanding reflection from educators as well. Although writers such as myself can make recommendations, there is no one "right" thinking skills method or program. There are many good ideas and educators must choose their own pathway.

The thinking skills movement and the whole language movement are not the same. Each has its own emphasis and some of each one's ways of approaching things may differ slightly. Still

whole language and thinking skills can be combined. Like partners in a good marriage, the movements have enough overlapping goals and joint ideals to work together.

A Final Reflection

I have said that both the movement in critical thinking and the movement in whole language have demanded that teachers think about their teaching. Here is some thinking I have done about mine.

When I was eighteen years old I wrote in a journal,

> To teach is to show people every day what you know of life- of the sky, and the trees, and the sea...and (of) men, and dreams, of the past, and the present, and the future. To teach is to add another dimension to someone's perception of existence and the world.

I am twenty years older now, and I know there is truth in what I wrote long ago. I also know that children have a lot to teach me, that they can tell me about life and the sky and the trees and the sea, that they know a lot about men - and women - and that they can share with me their dreams, their past, their present, their ideas for the future. And they can add another dimension to my (and others') perception of existence and the world, if we will just give them the chance.

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APPENDIX

SAMPLE LESSON

Book Title: Phoebe's Revolt by Natalie Babbitt

Story Summary: Phoebe is growing up in a well-to-do family. The year is 1904 and Phoebe is eight years old. Her main problem in life is that she has absolute disdain for the clothes she is expected to wear: frilly dresses, fancy hats, shoes with roses on them, ribbons, stockings, etc. She informs her father that she would like to wear his clothes instead, as she deems them much simpler!

When Phoebe continues to make a fuss each day about what to wear, her mother has a thought. The family will give a party, Phoebe's friends will be invited, they will all come in lovely dresses, Phoebe will see how nice they all look and decide she's been acting foolishly! Phoebe's dad is not so sure the plan will work, but he agrees.

On the day of the party, the children arrive, a bear is hired to do tricks, and all is ready - except Phoebe. Phoebe is in the bath tub and will not come out unless she can wear her father's clothes. The guests and dancing bear are sent home, and Phoebe is left to sit in the cold tub.

When Phoebe's dad returns from work, he agrees to let Phoebe wear his clothes for one week. As soon as he agrees, however, Phoebe's interest in the clothes seems to wane and the evening shirt with the starchy collar, white cravat and tall silk hat are less flattering and less comfortable than Phoebe had imagined. When the week is up,

she quite reluctantly agrees to return to her frilly dresses and accessories.

Meanwhile, Phoebe's father has unearthed an old photograph of another very unhappy young lady about eight years old dressed in frilly clothes. This he places on the grand piano. When Phoebe's mother recognizes the picture is one of herself at a young age, she orders some very simple broadcloth dresses to be made for Phoebe - and for herself!

Thinking Skills: Cause and effect, introduced through chart and whole class lesson. (Can also be done partly in small groups and then shared with whole group in intervals.) Skill of compare and contrast utilized in writing assignment.

Whole Language Strategies: Pre-reading discussion to elicit prior knowledge, use of trade book, follow up activities including tie ins with writing, drama and art.

Materials Needed: Copies of the book Phoebe's Revolt for each child, chalkboard, chalk, paper, pencils, and crayons for each child. (Props as desired for drama follow-up.)

Time Frame: I would do pre-reading discussion and begin the book the first day, complete the book on day two, do the thinking skills lesson on day three, and writing and other follow ups on days four and five. (The writing time would need to be extended if several drafts were going to be done.)

Format:

1. Ask children to examine the cover of the book, title and illustration. Discuss the meaning of the word "revolt" (Illustration may help.) Have them give examples of people revolting. Ask them if they can think of a time when they revolted against something. Ask, "Was it a good idea to revolt or not?" Have them tell why or why not.

2. Have students read the book silently. (Optional: oral reading by teacher following silent reading by students.)

3. Present chart for cause and effect listing definitions and steps:

CAUSE AND EFFECT

Cause: Why an effect happens
Effect: What happens as a result

1. Examine the problem.
2. Brainstorm causes.
3. Examine the problem.
4. Brainstorm effects.
5. Examine evidence. Choose the best cause. Give proof.
6. Examine evidence. Choose the best effect. Give proof.

Say, "Today we are going to learn about a new thinking skill called cause and effect." Review definition and give a simple example of cause and effect. (e.g. "You fell on the playground. What caused it?" (Elicit "running" or other logical answer.) "What was the effect, or what happened *because* you fell?" (Elicit "I cut my knee," or other logical answer.) (More elaborate demonstrations of the skill can be done if time. One time, at the school at which I teach, the staff agreed

to arrive in class with torn, dirty clothes and "wounds" and have the kids figure out what had caused us all to look that way!)

Say, "In this story Phoebe had a problem. What was it?" (elicit "She wouldn't wear fancy clothes," or something similar.) Write Phoebe's problem in the middle of the chalkboard and circle it. Say, "Now let's figure out all the reasons we can think of *why* Phoebe wouldn't want to wear fancy clothes. These are called *causes*." List them on the board to the left of the problem under a heading entitled "causes." (They might include such things as: she was a Tomboy, she couldn't play well in them, she was just stubborn, etc.) After children have listed all the causes say, "Next, let's think of all the things that happened *because* Phoebe wouldn't wear the clothes. These are the *effects* of her not wearing the fancy clothes." List these on the board to the right of the problem under a heading called "effects." (These might include she irritated her family, she missed her party, she wore her father's clothes, she finally got new clothes.) Continue through the remaining steps on the chart, starring the cause and effect which the children select as being most likely or most probable. (If children cannot choose one best cause or one best effect, have them pick two or three which are the best.) This step gives them a chance to further evaluate the thinking which they have done as a group.

After completing the lesson with the children, review the steps gone through on the chart. If this is the first time children have done a cause and effect lesson, it might also be a good idea to ask them if they can think of other times that they might be able to use the skill of cause and effect in their day-to-day lives.

Lesson Follow Up -Writing:

1. Ask children to think about how life has changed since Phoebe's time. Have them write a story about what they think Phoebe would enjoy about living now as opposed to the early 1900's.

2. Ask them to write a sequel to this story with Phoebe facing another problem, e.g., "Phoebe Meets the Giant" or "Phoebe Learns to Ride a Horse."

3. Ask them to compare and contrast Phoebe's mom and dad. How are they alike? How are they different? (Or they could compare Phoebe with the other girls in the story.)

4. Ask them to write a story about how they would feel about wearing clothes like Phoebe had to wear or living back in those days.

5. Have them write a diary entry for Phoebe for the day of the party.

6. Offer an open ended writing assignment such as, "Write about something this story meant to you or made you remember or think about."

Lesson Follow Up-Drama:

1. Divide the class into sections and have the whole class do a choral reading of Phoebe's Revolt.

2. Have some students pantomime the story while someone narrates. (The story is written as a poem, so is probably more effective done as a poem rather than re-written as a play.)

Lesson Follow Up- Art:

1. Have students design a modern day outfit for Phoebe which they think she would like. Share it with the class.