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AN INVESTIGATION OF THE EFFICACY OF PARIS' READING AND THINKING STRATEGIES ON THE READING COMPREHENSION AND METACOGNITION IN READING IN LEARNING DISABLED STUDENTS

by

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THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
in the Faculty
of
Education

SIMON FRASER UNIVERSITY
July 1991

ISBN 0-315-78334-6

APPROVAL

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Degree:	Master of Arts (Education)
Title of Thesis:	An Investigation of the Efficacy of Paris' Reading and Thinking Strategies on the Reading Comprehension and Metacognition and Reading in Learning Disabled Students
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AN INVESTIGATION OF THE EFFICACY OF PARIS' READING AND THINKING STRATEGIES ON THE READING COMPREHENSION AND METACOGNITION AND READING IN LEARNING DISABLED STUDENTS

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ABSTRACT

This study investigated the efficacy of Paris' (1989) Reading and Thinking Strategies (Level 5/6) on the reading comprehension and metacognitive performances of grades 6 and 7 learning disabled (LD) students. Subjects consisted of 38 public school LD students in grades 6 and 7 who demonstrated appropriate decoding skills but at least a two year delay in comprehension. In Intervention Period 1, 19 of the LD students were instructed over a seven week period by the author/researcher using three modules of the reading and thinking strategies (Blueprints for Reading, Tools for Reading, and Road Signs for Reading). Another 19 LD students were assigned to the Control Group and received a more traditional skill-based reading instruction containing no programme of reading strategies from their respective Resource Room teachers or regular class teachers. Following the completion of Intervention Period 1, the strategy intervention was replicated with the Control Group which then became the second Experimental Group by virtue of receiving the same strategies instruction as the first Experimental Group.

Students received instruction regarding the purpose of reading, the importance of developing reading plans for different kinds of texts, the need to monitor reading progress, and the use of specific strategies to augment understanding and remembering. Strategy instruction was implemented through direct explanation that provided a rationale for strategy use, modelling of strategy use, guided practice with feedback, and independent practice.

Pre and posttests were administered to each group during each of the two intervention periods. Standardized and criterion measures of comprehension were given to determine if there were differences between the two groups and if changes precipitated by the intervention could be replicated, maintained, and transferred to curriculum material. In addition, measures of reported strategy knowledge, reported strategy use, and ratings of

self- confidence in reading ability were obtained.

The results indicated that there were significant differences between the Experimental and Control Groups on standardized and criterion measures of reading comprehension in Intervention Period 1 in favour of the Experimental Group. Moreover, in Intervention Period 2 LD students in the second Experimental Group did replicate the significant improvements achieved by the LD students in the first Experimental Group in Intervention Period 1 on measures of strategy awareness and comprehension. While the mean decrease was very small on the comprehension tests of maintenance and transfer, it was consistent for all students. However, reported strategy knowledge, strategy use, and ratings of self-confidence improved after intervention. Lastly, measures of strategy awareness and comprehension were moderately correlated.

DEDICATION

To My Mother and Father

ACKNOWLEDGEMENTS

I would like to thank my husband, Chips, and my daughters, Tige and Erin, for giving me support and encouragement when I needed it.

I would like to thank Dr. Bernice Wong for her guidance and for the confidence she showed in me.

I would like to thank the District #43 personnel who made it possible for me to complete my study, Debbie Butler for her help with my analysis, and the kind staff at Simon Fraser University who put out an extra effort to help me get finished.

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CHAPTER 1

Introduction

Description of the Study

This study was designed to compare reading comprehension scores and measures of metacognition from two groups of learning disabled (LD) students to determine if the programme, Reading and Thinking Strategies Kit (Level 5/6) (Paris, 1987), was more effective than the reading programme(s) being delivered within the chosen school settings. The Experimental Group was instructed over a seven week period by the author/researcher using three modules from the kit (Blueprints for Reading, Tools for Reading, and Road Signs for Reading). The students in the Control Group received reading instruction containing no programme of reading strategies from their respective Resource Room teachers and regular classroom teachers. Following the completion of the first experimental period of strategy instruction, the intervention was then repeated with the Control Group which then became the second Experimental Group by virtue of receiving the strategies instruction. Pre and posttesting was used to uncover any differential effects of the two groups in the first intervention period and then, in the second intervention period, to determine if the results from the first Experimental Group could be replicated.

Nature of the Problem

Proficient reading is a highly complex task requiring command and automatization of a variety of skills. Some readers accomplish the objective of reading, to construct meaning from the text, with seemingly little difficulty while others exhibit serious reading problems. Among those who belong to the latter group are some classified as learning disabled (LD) by virtue of the discrepancy between their measured potential and performance. While many approaches have been utilized to help ameliorate the problems

exhibited by these students, the current zeitgeist in education, influenced by cognitive psychology, emphasizes the individual as an active information processor. Integral to this model is the concept of metacognition. Metacognition refers to the processes utilized by the individual to direct and control his/her actions. In reading, metacognitive skills "involve predicting, checking/self-monitoring, reality testing, coordinating and control of deliberate attempts to solve problems or to study and learn" (Brown, 1980, p.454). In an effort to justify the use of a metacognitive approach in intervention, the first chapter of this study will examine some pertinent theoretical and philosophical issues. Subsequently, the model of metacognitive instruction used in this study will be introduced and the specific hypotheses under investigation will be outlined.

Context of the Problem

Can the use of a metacognitive approach to reading instruction be justified with LD students? Since the recognition of learning disabilities (LD) as a classification of education in the United States, the objectives and programmes for exceptional children, particularly in the area of reading instruction, have undergone much scrutiny and many changes. Many of the alterations have stemmed from theoretical differences amongst researchers regarding the etiology of learning problems (Wong, 1986). Much of this argument, in turn, arose from disparate assumptions held about the components of the reading model. Some other changes have resulted from a restructured philosophy of education that posits that identical educational goals should apply to all students and that those goals should be effected with students mainstreamed as much as possible. Providing a theoretical and philosophical rationale for the use of a metacognitive approach in reading instruction is critical before examining the effects of such instruction designed to serve the needs of LD students. The next three sections will address this issue, examining the basis for its use in theoretical

models of reading, in the theories of the etiology of reading disabilities, and in current philosophical approaches to education.

Theoretical Models of Reading

A theoretical position should inform the choice that a researcher or instructor makes for intervention instruction. Below are the two main theoretical models of reading that currently dominate the literature.

"Bottom-up" Approach to Reading

Research in reading that adopts a "bottom-up" approach conceptualizes reading as a sequence of closely co-ordinated mental operations in which incoming sensory data go through a series of transformations beginning with the decoding of print and ending with the extraction and storage in memory of the meaning conveyed by that print (LaBerge & Samuels, 1974; Stanovich, 1986). Adopting this information processing model presupposes that effective reading depends on maximizing the speed and accuracy of the perceptual analysis by means of teaching generalizable word recognition skills (Evans & Carr, 1985). Instruction based on this model would be designed as a teacher controlled series of systematically taught, hierarchical skills which require repeated practice. Student motivation underlying this process is seen to be generally extrinsic, based on rewards and feedback from the teacher or instructor. This model informed much research and instruction in the 1950's, 1960's, and 1970's and decoding problems, particularly problems resulting from lack of phonological awareness, are still regarded by some as fundamental to reading disabilities (Stanovich, 1982). However, others feel this model does not address the dynamic properties of the information processing system, the executive control properties of the mind that work on incoming information in an effort to construct meaning from it.

"Top-down" Approach to Reading

Many reading theorists currently conceptualize reading as an interactive, process-oriented activity in which a reader actively constructs meaning from the text by connecting background knowledge, including knowledge of language, with text information (Anderson & Pearson, 1984; Rummelhart, 1980; Samuels & Kamil, 1984). This reading model is characterized as a thinking activity which Goodman (1976) has termed a "psycholinguistic guessing game". This process is seen to operate by the reader's connecting context cues with linguistic knowledge, minimizing the need for complete perceptual analysis (Evans & Carr, 1985). As such the process is strategic. Effective use of picture cues to activate background knowledge and provide predictive value for the passage's meaning is an example of a specific strategy that might be utilized in the process. Paris (1988) defined these strategies as "mental resources," adaptable to the individual, that enable that user to be a flexible processer of information. In addition, metacognitive awareness is a crucial component of this model. Brown (1980) referred to metacognition as the deliberate, conscious control of one's cognitive actions. Readers who are metacognitive can plan, formulate hypotheses about meaning, monitor their progress, select appropriate clarifying strategies, and reflect critically on what they have learned. If encouraged through instructional techniques that connect language and reading, these metacognitive processes are seen to develop in an individual as the logical consequence of the individual's problem solving attempts. Adopting this view of the reading process, therefore, would promote and extend a self-regulated learning style.

Theories on the Etiology of Reading Disabilities

Processing problems

Early research on information processing emphasized the "hardware" (Pressley, Snyder, & Cariglia-Bull, 1989, p. 19) of the model, including the sensory registration of

stimuli and the short and long term storage of information. Influenced by this orientation, much research has been devoted to determining a specific underlying cause for the reading difficulties manifested by some LD students. In fact, the specificity of processing deficits was an integral part of the historical definition of learning disabilities. As Stanovich (1986) pointed out, learning disabilities as a separate discipline was established when psychologists rejected the explanation that individuals who violated the established IQ-reading correlation were a statistical anomaly and proposed instead that they had a specific brain/cognitive disorder. But concomitant with that acceptance was that this definition should inform the areas for research and intervention in the field. Consequently, over approximately three decades, research into domain specific or psychological processing models has flourished. Some researchers have investigated the impact of problems in perceptual processing such as phonological recoding (Fox & Routh, 1976), visual perception (Gross & Rothenberg, 1979), and word recognition (Lesgold & Resnick, 1982). The assumption of such an approach was that discovering the deficiency will lead to an effective treatment regimen. Although claims of specific processing problems in LD children appeared to be readily made, empirical evidence of a link between them and reading problems was rarely obtained. In some cases such as visual processing, not only has research not supported a link (Carr, 1981), but also attempts to train visual processing skills have not resulted in promoting reading acquisition (Stanovich, 1986). The same applies to psycholinguistic training (Hammill & Larsen, 1974).

Metacognitive Approach

While researchers have not abandoned the notion of a specific processing etiology for some handicaps, many argue for a more general focus on the motivation and the strategic processing of the reading disabled student (Paris & Oka, 1989). They have turned away from the hardware of the information processing model to the contents of the long

term storage. To illustrate, Licht and Kistner (1986) proposed that many children embark on a vicious failure cycle that is perhaps precipitated by initial processing deficits, but subsequently perpetuated by deficits in motivation, strategies, content knowledge and metacognitive development. In school settings, problems encountered by classroom teachers or reading specialists do not remain limited to specific areas but become pervasive over time. Practice on isolated skills such as eye movements or phonics usually has proven ineffective in overcoming the range of problems that has developed. Moreover, studies that have distinguished between reading disabled children who have decoding problems and those who have only reading comprehension problems suggest that they demonstrate more general learning impairments (Cornoldi, 1990), or deficits in motivational, metacognitive processes (Borkowski, Estrada, Milstead, & Hale, 1989) rather than decoding- automation skills. Therefore, many researchers have turned to the more general focus of cognitive and motivational strategies to help ameliorate some of those problems.

Schumaker, Deshler, & Ellis (1986) stated that while an instructional model inculcating cognitive and metacognitive strategies is not a panacea to the problems encountered by the LD student, it does address the unique learning problems encountered by the student and is sensitive to many nonacademic variables such as individual motivation and the disparate expectations of others. Although he supported the processing hypothesis of learning disabilities, Swanson (1989), nevertheless, argued that inefficient regulation and coordination of mental processes, in themselves, may be the etiology of a learning disability. Whether these processing differences are a consequence of initial deficits or are the initiating cause, the empirical evidence that higher order processing problems exist in LD students and that there are fundamental processing differences between LD and non LD students is well documented (Bos & Filips, 1982; Duffy, Roehler, Meloth, Vavrus, Book, Putnam, & Wesselman, 1986; Palinscar & Brown, 1984; Pressley & Levin, 1987; Wong, Wong, Perry, & Sawatsky, 1986). Using Wong's argument (1988) that without the

assumption of processing differences, developmental delays, and cognitive deficits, there would be no theoretical rationale for intervention, the preceding research evidence should serve to provide that rationale. Following is an examination of the disparity in strategy use between good and poor readers which highlights the aptness of a metacognitive approach in intervention.

Metacognitive Profile of Proficient Readers. Research shows that proficient readers are strategic. They have knowledge of and control over their thinking and learning activities. They are aware of different purposes for reading, differentiate between various task requirements, and modify their reading rate appropriately. They are sensitive to the important parts of text. They focus on the topic and identify important text details, devoting extra study time to learning more and more specific information. They are able to identify organizing elements of texts. These readers read for understanding, monitor their comprehension, and employ effective strategies to resolve conflicts. They are able to distinguish between easy and difficult text, organized and disorganized passages, and they apportion their reading time accordingly. To clarify their understanding, they may look ahead or reread previous passages. In general, proficient readers explicitly or implicitly recognize the value of approaching comprehension tasks strategically and actively, employing various strategies to assist them in their goal of understanding (Baker & Brown, 1984; Paris, Lipson & Wixson, 1983; Paris & Oka, 1986; Wong & Wong, 1986).

Metacognitive Profile of Unskilled Readers. Unskilled readers, among them LD students, lack many of the requisite metacognitive skills in reading (Wong, 1985). They perceive the purpose of reading to be decoding rather than meaning construction and, subsequently, do not monitor their comprehension or self-correct (Canney & Winograd, 1979). Often they lack knowledge about the value of strategic behaviour and are unaware

of the range of reading strategies available to them. They may fail to vary their reading speed to accommodate difficult vocabulary, complex ideas or disorganized text, fail to skim or scan to ascertain the gist, fail to take notes or selectively study, and fail to plan ahead or integrate information (Torgesen, 1982). When informed about strategies, unskilled readers may also have difficulty discriminating when and how to use strategies and may employ them ineffectively or inappropriately (Swanson, 1988).

Philosophical Rationale

In determining instructional practice, research findings and educational philosophy both influence the decisions that are made at the school level. Under ideal conditions both factors will be mutually interdependent. Following is an outline of how current educational philosophy also supports learning theory by calling for the adoption of the metacognitive approach for the remediation of reading disabilities.

Goals of Mainstream Education

Recently, theorists and practitioners concentrating on mainstream education have adopted educational philosophy, policies, and practice which reflect an holistic, integrative approach to curriculum planning and assessment. The objective of this approach is to produce independent learners and critical thinkers by addressing the academic, social, emotional, artistic, and physical development of each student. In British Columbia, the Ministry of Education has published its mandate for the future direction of education in a document called Year 2000: A Framework for Learning. Throughout, it calls for "active learning" as the basis for instruction in all subjects.

Goals of Special Education

In the past few years the philosophy of education serving exceptional students has been guided by the same philosophy. In B.C. Ministry of Education's Position Statements

(1990a), goals for the education of special students are not separate but commensurate with those of regular students. All statements made regarding the education of special students refer to how the learning environment, materials, equipment, and curricula can support this philosophy. With respects to reading, the Position Statements (1990a) document characterized the process as "essentially a dynamic thinking activity in which the reader interacts with the text, engaging personal prior experiences, expectations, and feelings to create a meaningful understanding of the writing" (p. 18). Swanson (1989) made a case for strategy instruction by outlining five advantages of conceptualizing learning disabilities in terms of strategy deficiencies. Included in these are that this perspective: a) focuses on what is modifiable and educationally relevant, b) allows for conscious and active rule creation and rule following as opposed to just the stimulus response paradigm of programmed instruction, c) incorporates the notion that environmental factors may operate differentially on students' knowledge of and ability to select appropriate strategies, d) allows the child to be actively involved in instruction, and e) allows for theorizing and instructional development such as the creation of appropriate materials (p. 5). Implicit in this metacognitive perspective and the strategies approach is that the researcher and the practitioner have the licence to become involved with the whole student, a view consistent with the new educational philosophy and no longer an exclusive domain of those involved in regular education.

Summary

In this section the rationale for the adoption of the metacognitive approach with students has been presented. This argument was made, first, because of the fundamental theoretical departure this approach takes from the traditional conceptualization of learning disabilities as a process-oriented problem and, second, because of the need to base research

on strong theoretical principles. Arguments related to theoretical models of reading, the etiology of learning disabilities, and the philosophy of education were examined.

Components of Strategy Instruction

Although Chapter 2 will examine this topic in detail, an overview of the necessary components of strategy instruction is presented here. Interventions that inform the students about reading strategies, that provide self-control training to help them use strategies effectively, and that build in motivational components to encourage extended use of the strategies address many of the deficits characteristic of unskilled readers. Not only do these methods provide direct instruction about what strategies are, how they work, why they are useful, and when to and when not to apply them, but also they help students accept responsibility for and take control of their own learning. For students who exhibit characteristics such as learned helplessness, and external locus of control, production and mediation deficiencies, and deficits in self-regulation and problem solving, such strategies appear particularly appropriate.

Instructional Programme

Scott Paris (1987) has developed several packages of strategies called Reading and Thinking Strategies that utilize both the informed and self-control interventions mentioned above. The lessons included in this package enable students to acquire tacit knowledge about (a) the purpose of the reading task, and (b) how to select and use effective strategies which promote comprehension. In addition to this informed aspect of the package, Paris has included a self-control component in the structure of the lesson plans. Teachers are instructed to encourage students to use the strategies actively and to demonstrate how the self-control component leads to successful task completion. They are to accomplish this by modelling their own strategic thinking process while reading, giving guided practice with

immediate feedback, and providing independent practice opportunities. The purpose of this instructional component is to promote attitudes and expectations about reading that will increase students' efforts and enjoyment. As outlined, increasing motivation has proved to be equally as important a variable as knowledge about strategy use and strategy value (Wong, 1988).

Results of Previous Research

In several large field studies, conducted with grade three and five students, Paris et al. tested the effectiveness of the strategies' package (Cross & Paris, 1988; Paris, Cross, & Lipson, 1984; Paris & Jacobs, 1984; Paris & Oka, 1986). Students were taught to analyze the task, understand their purposes for reading, make effective plans, monitor their understanding, and focus attention on the main ideas. Generally, results indicated that the materials do increase strategy awareness and improve performance on comprehension measures on specific populations. In particular, students at the grade five level, low in reported strategy awareness and on performance on comprehensions measures, improved remarkably after the intervention.

Description of the Population

Because this study focused on the use of this material with an LD population and because current research literature lacks clearly defined guidelines for defining "learning disabilities", it is essential that the criteria used to define the sample in this study be clarified. While the complete and specific criteria are outlined in the methodology section of this paper, generally, an LD student in this research was one who demonstrated a minimum of 1.5 year discrepancy between academic potential and corresponding performance (as recorded in psychometric reports for each subject). In addition, all students had a history of academic failure in reading despite a demonstrated competence to decode at or just below

their grade level. As such, the specific subgroup being identified here was defined as having a specific disability in comprehension as opposed to a more generalized reading disability.

Purpose of the Study and the Research Questions

The present project was planned with the purpose of extending Paris' work to a LD population of efficient decoders but poor comprehenders as a measure of the effectiveness of the Reading and Thinking Strategies programme. Its purpose was to assess the effectiveness of three modules out of the available nine to increase LD students' (a) awareness of strategies, (b) use of strategies, and (c) comprehension of text. The rationale used for selecting the three modules can be found in the section on materials. Specifically, the research questions pertinent to this study were:

(a) Did the Reading and Thinking Strategies intervention affect LD students' performance on reading comprehension tasks?

(b) Did the intervention affect LD students' awareness of strategies?

(c) Did the training transfer to comprehension measures of content area material?

(d) Was the training effect on comprehension measures maintained?

(e) Was strategy awareness related to measures of comprehension.

(f) Did the training affect students' reported strategy use?

(g) Did students' rating of their self-competence change after intervention?

CHAPTER 2

Literature Review

Chapter Outline: Components of Good Strategy Instruction

To develop thoughtful and independent readers, we need to pay attention to both "skill and will" (Winograd & Paris, 1989, p. 32). This phrase captures the spirit of how most researchers in cognitive and educational psychology characterize the components of good strategy instruction. They conclude that developing skilled readers requires inculcating in those readers strategy knowledge, metacognition about those strategies, and the motivation to use strategies. In addition, researchers recommend building up readers' background knowledge. A strong knowledge base can make strategy use redundant (Pressley, Snyder, & Cariglia-Bull, 1989; Wong, 1985a). While interdependent, the components of "skill and will" in good strategy instruction can be discussed separately. In this chapter, what different researchers have to say about the components of skill and will and about the characteristics of good strategy instruction will be reviewed with the purpose of showing how instruction that emphasizes equally "skill and will" can contribute to developing the active, independent learner our education system hopes to produce.

The "Skill" of Learners

In this section several metacognitive models of learning along with supporting pertinent research are presented. Each model will be examined to determine the components that are important to proficient learning and, by implication, to skilled reading. In turn, these components will be used to highlight the differences and deficiencies inherent in the learning of LD students.

Flavell (1978), one of the early researchers in the field of metamemory, highlighted the role that metacognition plays in enhancing learning. He defined metacognition as "knowledge that takes as its object or regulates any aspect of any cognitive endeavor"

(p. 907). Rephrased, this definition refers to two types of activities: the knowledge individuals have about their thinking and learning activities as well as those individuals' appraisal about the compatibility between themselves and the learning situation. Flavell characterized knowledge about cognition as having three interrelated and interactive components: person variables, task variables, and strategy variables. Person variables refer to what an individual learns or believes about him/herself, about him/herself and others relative to the world, and about universal principles. For example, a person's assessment of his abilities in relation to a task influences what choices he/she makes in the execution of that task. Task variables refer to the different parameters of a task. Knowledge of task variables such as identifying whether reading is for understanding or recall requires an individual to make different plans to complete the objective successfully (Brown, 1980). Research that focuses among other things on students' knowledge of task variables indicates that poorer and younger readers are unaware of the purpose of reading as a meaning- getting activity (Reid, 1986). Consequently, they focus on decoding and believe they are reading well if they can identify the words. The last component of Flavell's model, strategy variables, refers to the plans one makes to accomplish a task. Derry (1989) helps clarify this concept by distinguishing between a learning tactic, an individual processing technique one uses in the service of a plan, and a learning strategy, a combination of tactics formulated into a plan. Knowledge of a variety of strategies and whether they are employed to assist learning determine the efficiency with which the task will be executed. Not surprisingly, therefore, good readers have been found to be more aware of the usefulness of strategies than poor readers (Garner & Kraus, 1981-1982). However, while each of the three parameters in Flavell's model were considered separately, the model is not meant to be a static one. How well a task can or will be completed depends upon the dynamics existing among the different parameters. Using a situation-specific example, a panicky person studying for a pop quiz who does not recognize or utilize the organizational

structure of a text probably would engage inefficient plans to complete the task (Derry, 1989) and the results probably would reveal those dynamics.

Early descriptive research that elaborates on Flavell's model quizzed students of various ages and found distinctive age differences regarding their knowledge of person, task, and strategy variables (Myers & Paris, 1978). In this study sixth graders exceeded second graders in sophisticated knowledge about specific strategies such as paraphrasing and about the parameters of strategy use. While this study does not target LD students, subsequent research suggests that LD students exhibit a developmental delay, acting cognitively like younger, normally achieving children (Wong, Harris, & Graham, 1989).

Brown (1978) refers to metacognition as comprising two interdependent clusters of activities: knowledge about cognition and regulation of cognition. Knowledge about cognition involves determining what skills, strategies, and resources are required to achieve a reading goal (Baker & Brown, 1984a). One's knowledge of the different demands of a task, of various text structures, of appropriate fix-up or study strategies, and of his/her own strengths and weaknesses all interplay to affect the learning outcome. This knowledge is seen as stable because a person should be able to state certain facts about any of the above four parameters under different conditions, as stateable because a person should be able to discuss this knowledge, and as fallible because what a person believes may not always be correct. It is also a late-developing skill with implications for how well a person will be able to perform a task at any given time. On the other hand, regulation of cognition is a capacity utilized to some degree by very young children. This concept refers to a person's on-going ability to monitor the progress of a task in order to solve a problem. It includes mechanisms such as checking the outcome in the course of problem solving, planning the next step, monitoring its success, and testing, revising, and evaluating one's strategies for learning (Baker & Brown, 1984b). Early studies (Brown & Smiley, 1977, 1978) examining patterns of retrieval-cue selection used by students to study folk tale prose

passages reveal important age differences in their ability to regulate their learning. Given several trials, college age students shifted their attention to units at lower levels of importance to facilitate more complete recall. High school students lagged one trial behind in reducing their target level and grade eight students tended to fixate on only one set of cues across trials despite a change in their learning state. This example of the developmental differences involved in utilizing this complex study strategy illustrates the interaction between the various parameters of person, task, and strategy outlined earlier. Students must know their memorizing capabilities, understand that the task requires gist recall, be sensitive to the gradation of the importance of text information, and recognize that shifting cue levels will facilitate more complete recall.

Many other studies have investigated the relationship between metacognition and reading ability. In general, most studies demonstrate that young and poor readers report less strategy knowledge and strategy use than older and skilled readers (Garner, 1981; Markam, 1979) and that there is a modest but positive correlation between awareness and measures of comprehension (Cross & Paris, 1988; Paris, Cross, & Lipson, 1984; Paris & Oka, 1986).

The following study illustrated how age influences the relationship between strategy awareness and comprehension. Wong and Wong (1986) gave metacognitive interviews to above average, average, and LD intermediate students regarding vocabulary difficulty and passage organization in relation to the ease of studying a passage. Results support the relationship between metacognitive knowledge and level of reading performance-with above average readers showing more sophisticated metacognitive knowledge about reading than both other categories. Specifically, only above average readers both identified the role the organization of a passage would play in study time and apportioned study time appropriately. However, results challenge the assumption that LD readers have a total lack of metacognitive knowledge about reading. Although they did not express awareness that

the passage with difficult vocabulary would require more study time, nevertheless LD readers did apportion more time to it. While the effectiveness of the strategy employed in this extra study time was not assessed, some strategy awareness was operating.

These findings equate with Swanson's viewpoint (1989). He characterized LD students as inefficient strategy users rather than passive or inactive learners. His stance was that LD students lack flexibility in their strategy use. Another study conducted by Wong (1982) supported this conclusion. Gifted, average, and LD students were compared with reference to their organization and self-checking in selecting retrieval cues that would assist recall of story idea units. Results indicated that LD students had a less efficient plan than gifted students, laboriously reading each idea unit rather than engaging in a sort and re-check plan. The implication of this position that LD students are inefficient strategy users is that strategy instruction should be directed at the executive processing level, helping students to develop the ability to monitor and co- ordinate their strategic efforts.

Metacognition includes self-appraisal and self-management of one's thinking wrapped in a blanket of affect according to Paris et al. (1984, 1986, 1988, 1989). Learners need to have declarative, procedural, and conditional knowledge and the commensurate capacity to evaluate, plan, and regulate. In the context of reading, this means that readers need to know what strategies are (declarative), how to employ a specific strategy (procedural), and when to use certain strategies and why they are effective (conditional). Students also must evaluate the task and personal attributes, make strategic plans to reach a goal, and monitor and redirect their efforts. As with Brown's (1978) and Wong's (1988) models, however, the interplay of factors is influenced by motivation leading to either more or less effective procedures.

Wong (1988) presented a learning model in which "skill" (Paris, 1989) encompassed both a knowledge component, as outlined in Paris' model, and processing capacity. Thus, it addressed both metacognitive and microprocessing components. While

the model also addressed "will" (Paris, 1989), the motivational component will be expanded upon more fully later. The first component of Wong's model emphasized knowledge inculcation described as declarative knowledge, procedural knowledge, and metacognitive knowledge. Declarative knowledge equated to "knowing that" and was founded on the theoretical principle of schema. Schemata are networks of information interrelating our personal knowledge. They are flexible, built up by prior knowledge and modifiable through experience. Schemata regulates comprehension processing by allowing us to construct or by causing us to modify our interpretations of events based upon what we already know. Reciprocally, new experiences may cause us to reorganize our schemata, our declarative knowledge. Procedural knowledge is this process of "knowing how". Learners with sophisticated knowledge about a subject have a more well developed network of schemata onto which to map new information. Extensive domain specific knowledge even may compensate for a lack of aptitude. Students with extensive background knowledge on a subject can compensate for low aptitude and perform similarly to students with high aptitude on comprehension tasks (Borkowski, Estrada, Milstead, & Hale, 1989; Walker, 1989). On the other hand, an impoverished knowledge base, often characteristic of LD children, is reflected by incomplete and superficial schemata which hinder retrieval of information, prevent inculcation of new learning, or disrupt the establishment to problem solving routines (Glaser, 1984). However, students must recognize the significance of background knowledge and utilize its benefits. Wong and Sawatsky (1984) demonstrated the importance of the self-questioning strategy in activating prior knowledge in a study designed to teach good, average, and poor readers sentence elaborations. They modelled and demonstrated a set of five questions pertinent to good sentence extensions. Results showed the effectiveness for both comprehension and recall. The interactive nature among strategy use, background knowledge, and comprehension highlights the need to attend to all these critical factors in instructional or research settings.

In addition to the knowledge component just outlined, Wong, like Brown (1978), also emphasized the importance of the self-management component of metacognition. It is the student's awareness and control of the critical factors of a task that in general determine its outcome. Good readers, she pointed out, consciously and deliberately co-ordinate and regulate their own knowledge, their learning activities, and the critical task to effect the desired outcome (Wong, 1985b). As an additional component of the model, Wong cautioned that unobservable but inferable processing operations such as coding and rehearsing information must be addressed to determine how they might interact with students' attempts to develop higher order cognitive processes. She asserted that understanding how a student's ability deficit interacts with concurrent knowledge/strategic deficits promises a more complete picture of a student's learning profile than addressing each separately (Wong, 1985b).

Borkowski, Johnston, & Reid (1987) have developed a model which attempted to explain the differences in problem solving abilities of LD and non LD children and, more specifically, to explain general learning problems as opposed to specific LD. Based on the theories of Sternberg (1987) which subtyped specific and general giftedness based on the qualitative differences in componential functioning underlying special students' problem solving skills, Borkowski, Estrada, Milstad, & Hale (1989) proposed specific classifications of LD. While Sternberg proposed that specific giftedness is due to advanced componential functioning such as inference mapping, specific LD can be seen to relate to deficits in decoding- automation skills. Whether associated with sensory processing structures or immature knowledge-acquisition components, problems manifest themselves in localized or narrowly defined weaknesses such as decoding deficits. Sternberg (1987) further submitted that general giftedness results from superior metacomponential functioning; that is, the executive control structure responsible for defining a problem, selecting a strategy, allocating attention, and monitoring the solution. The parallel LD

subtype was not specifically dealt with by Sternberg. However, Borkowski et al. (1989) asserted that this subtype results from deficits in the same motivational-metacognitive processes that define specific giftedness. Students with this profile show general learning impairments across domains with accompanying motivational problems.

Borkowski et al. (1989) suggested that the metacognitive model is particularly suited to explaining this classification of general learning problems. The four parts of their model include: Specific Strategy Knowledge, Relational Strategy Knowledge, General Strategy Knowledge, and Metacognitive Acquisition Procedures. The components are characterized as dynamic and interdependent. The following illustrates their relationship. From repeated practice of a specific strategy, learners extract the attributes of a strategy including its effectiveness and range of its application (Specific Strategy Knowledge). Complete, prolonged instruction should facilitate the LD student's learning that strategy and other related strategies (Relational Strategy Knowledge). Problem situations require the student to select and monitor appropriate strategies from amongst a repertoire and to compensate for incomplete strategy instruction by developing unique personalized strategies (Metacognitive Acquisition Procedures: MAPS). Proficient learners are thought to transform simple strategies into more efficient and powerful procedures by using higher order rules to eliminate unnecessary or redundant steps (Chi, Glaser, & Farr, 1988). Borkowski et al. suggested that sufficient successful experiences should lead the student to believe in the usefulness of a strategic approach in learning and the utility of expending the energy required (General Strategy Knowledge). They proposed that incomplete development of the latter two components of this metacognitive model explains general learning problems. Failure to develop executive processes (MAPS) despite ample evidence that specific strategy knowledge can be trained (Borkowski & Varnhagen, 1984; Bos & Filips, 1982; Swanson & Cooney, 1985; Swanson & Rhine, 1985) prevents the learning, combining, and integrating of new information integral in effecting strategy transfer. In

addition, failure to develop the conviction of the utility of strategies (General Strategy Knowledge) may lead to maladaptive attributions or passivity (Torgesen, 1977). Wong (1988) supported these conclusions in differentiating between students who utilize strategies and those who are strategic. She stated that becoming strategic requires repeated use of learned strategies over a long period of time. Through metacognitive feedback which confirms the effectiveness of effort and consolidates strategic knowledge, strategy use is maintained and becomes increasingly more proficient.

Summary

The preceding examples have demonstrated more how similar than dissimilar most models of cognitive processing are. All have recognized the importance but limitations of strategy knowledge. All have emphasized the crucial component of metacognition, the executive control mechanism that delimits or activates that knowledge. Most have addressed how different levels of background knowledge serve to empower, frustrate, or make redundant active strategy use. In addition, recent models have all focused on how motivation and attributions affect deployment of the process. The next section addresses this component of "will".

The "Will" of Learners

Failure is a defining feature of almost all LD students. Their reactions to that failure have far reaching implications both at the cognitive and interpersonal levels. To investigate what effect failure has at the cognitive level and to determine how instruction can circumvent failure and related motivational problems, this study will focus on the attributional and motivational problems of LD students.

Developmental Analysis

There is evidence that from early childhood to early teens, children increasingly see

intelligence, not effort, as limiting the utility of their efforts (Nicolls & Miller, 1984). In childhood, intelligence is seen as malleable and limitless. Children develop a network of beliefs about effort; commonly, that high intelligence is equated with high effort. But as early as age thirteen, intelligence is seen as stable with only knowledge and skills amenable to change through effort. In fact, high intelligence eventually becomes associated with low effort and vice versa. Much of this change in perception is predicated on children's becoming aware of the interplay between ability, effort, and task outcome through social comparisons both in and out of school contexts.

The Vicious Cycle: Attributions and Self-efficacy

LD children often enter a vicious cycle of failure. They come to attribute their failure to lack of ability which decreases their effort and motivation, fulfilling their expectation (Torgesen, 1980). Eventually, they interpret their successes as resulting from external agents such as luck (Pearl, 1982) or the beneficence of the teacher (Marsh, 1986). They also begin to construct theories of effort which may be erroneous or distorted (Elliot & Dweck, 1988; Paris, 1989). Seligman's theory of learned helplessness (Abramson, Seligman, & Teasdale, 1978) highlights many children's maladaptive reactions when faced with repeated failure, high anxiety, difficult tasks, or low expectation of success. The belief that they cannot control success and that effort is useless becomes generalized rather than task specific (Butkowsky & Willows, 1980; Licht & Kistner, 1986). Consequently, poor performances across many tasks may not reflect students' ability for those tasks but just a decreased effort or an unsystematic problem solving routine brought about by anxiety or negative verbalizations (Diener & Dweck, 1978). Even with students at the college level who had developed sophisticated cognitive and metacognitive strategies, Pintrich (1986) found that those students with high expectancy of success performed better than those with low expectancy. In classrooms, students sometimes avoid seeking help because of the

negative implications it has on their ability. They come to devalue academic achievement. The next sections will examine in more detail how different models conceptualize motivational problems and what instructional variables can improve motivation.

Attribution Theory

Weiner (1979) developed a theory of attributions based on learners' perceptions of environmental conditions. He suggested that conditions are seen by learners as either controllable or uncontrollable, stable or unstable, or internal or external. According to his theory, combinations of these factors have implications for the LD student's motivational style. When students who attribute their difficulties to uncontrollable factors learn to attribute them to insufficient effort, lack of strategy knowledge, or inappropriate strategy use, they are likely to persist in the face of difficult tasks. Relating both success and failure to differences in effort and strategy use is recommended (Licht & Kistner, 1986). To be motivated to learn, students must also consider ability as unstable and amenable to change. However, Diener & Dweck (1980) pointed out that changing the attributions of low esteem students may be difficult to accomplish. In a study that probed students about their performance after success and failure, marked differences were found between mastery-oriented and helpless- oriented children. While the former group was accurate in assessing their performance, the latter group consistently underestimated success and overestimated failure. Borkowski, Weyhing, & Carr (1988) also pointed out that retrained attributions remain somewhat domain specific. They reason that diverse and prolonged intervention may be required across domains to affect global beliefs. In addition to this approach, research suggests that restructuring task parameters and assessment practices in schools also may accomplish this goal (Stipek & Daniels, 1988).

Constructivist Theory

Paris (1989) outlined a theory of self-regulated learning that proposed a

constructivist explanation for children's changing developmental perceptions and, often, maladaptive attributions. In this theory, children are seen as "theorists", continually integrating information into existing schemata through a process of assimilation and accommodation. The overall information input making up children's theory of self-regulation comes from four component theories: Self, Effort, Academic Tasks, and Instrumental Strategies. These will be outlined in brief.

According to Paris, a child 's theory of self-competence (Self) develops due to the interaction between "the external markers of competence and children's constructions of their own ability" (p. 174). Subsumed in this theory are the components of ability, agency, and control. A child's beliefs with respect to each of these three factors contribute to the construction of his theory of self-competence. For example, there is evidence that as children progress through school the increasing trend towards normative evaluation through patterns of teachers' praise and through comparative grading dramatically alters both their definition of the term "ability" (Stipek & Tannatt, 1984) and the sense of their own abilities. Along with perceptions of ability, perceptions of personal agency, the expectation that a person can achieve in a general sense given the means, and perceptions of personal control, the expectation that a goal is attainable, also contribute to a child's overall sense of self-competency.

Children also develop their theory of self-regulation from theories about Effort. The observations outlined earlier regarding the interactive relationship between ability and effort can be integrated into the principles of this theory. The theories children construct about effort serve to preserve their feelings of self-esteem. Blaming their failure on low effort is more palatable than admitting low ability. Concomitantly, they also calculate the "cost/benefit ratios of effort" (p. 180) depending on their expectation of success and their perception of the task's value. Success with high effort becomes an indication of low ability (Weiner, 1986).

Children construct a theory of Academic Tasks that either aids or abets the development of good problem solving strategies. Interpreting the goal of reading to be decoding words, impedes the formation of comprehension strategies. Children search for problem isomorphs and then may apply appropriate or, in an effort to minimize effort, inappropriate procedures. In addition, the success or failure a child experiences on a previous task may influence the value he places on a similar, new task. In order to preserve feelings of self-esteem, the student may avoid the challenge the task represents.

A description of the declarative, procedural, and conditional knowledge that children develop as part of their Theory of Strategies is outlined in the earlier section on metacognitive theory. Paris emphasized that this knowledge and its metacognitive component is developmental; strategic behaviour develops with opportunity over time. He also points out that strategic behaviour and children's theories of self-competence, effort, and task are co-dependent.

While the outcome of Paris' incremental, interactive theory construction is positive for many children, for others it is destructive. Proposals on how to restructure students' "skill and will" in order to develop the independent learner are multi- faceted. Paris and other researchers suggest that not only experiencing success but also coping with failure is a prerequisite to a self-regulated learning style (Chapin & Dyck, 1976; Paris, 1989). However, Paris (1989) asserted that both success and failure must be accompanied by insight. Failure generates disequilibrium and an opportunity to exercise coping mechanisms but these must be within the child's knowledge repertoire. Wong (1988) suggested that teaching students to analyze their own learning obstacles concurrently with teaching problem solving strategies promotes in students metacognition about themselves as learners as well as about the learning process. Engendering in children this belief of self-efficacy and control contributes considerably to a self-regulated learning style as has been shown. A model of instruction formulated to ameliorate the maladaptive theory structure of

LD students by providing them with insight into how strategies develop successful learning will be presented later in this chapter.

Although Pintrich's research (1987) used college students in his sample, his findings reinforce Paris' (1989) work and have implications for both research and intervention with LD students. Pintrich investigated the influence of four motivational factors: students' goal orientation (intrinsic vs extrinsic), the task value, and two expectancy factors (the expectancy for success and control beliefs). He defined extrinsic vs intrinsic orientation as the difference between a task being performed for external rewards (e.g. grades, social rewards) vs for reasons of challenge or mastery. Task value indicates both interest in and relevance of the task. Control beliefs reflect the students' assessment of the interplay between ability/effort and performance. As with some LD students but unlike students with high control beliefs, students with low control beliefs were convinced that their good performance reflected luck or ease of the task. Expectancy for success refers to students' belief that they can succeed given the means. In general, the results of the research demonstrated the interplay of strategy knowledge and metacognition with motivation. Not only did high strategy use and high intrinsic motivation lead to high performance but that the two variables were positively correlated with each other. A similar pattern of results was obtained for each of the other three motivational factors.

Research by Alverman and Ratekin (1982) investigating the relationship between perceptions of proficiency and strategy choice supported this conclusion. These investigations found that students with perceived low reading proficiency choose more "passive" strategies like rereading or reading carefully than high proficiency students who chose active strategies such as paraphrasing, identifying main ideas, and responding personally. Given the findings of these studies and what we know about LD students' failure-related problems including passivity and attributions, a simultaneous emphasis on strategies, metacognition, and motivation is a requisite for good instruction (Wong, 1988)

Attributional Retraining

Borkowski et al. (1986, 1988) concur with other researchers in assigning significant importance to motivational states in the acquisition and maintenance of strategy use. The outline of their "Good Strategy User" model presented earlier demonstrates this position. While they downplayed the importance of different conditions in training (number of sessions, interplay of dialogue, etc.), Borkowski et al. (1896, 1988) emphasized the importance of the students' beliefs about their instrumentality. A study with hyperactive boys designed to assess maintenance of strategy knowledge and attributional beliefs (Reid & Borkowski, 1987) compared an Executive condition (strategy instruction plus self-control programme), an Executive Plus Attribution condition (strategy instruction plus self-control programme plus training on antecedent and programme- generated attributions), and a Control (strategy instruction). Results indicated significant improvements in performance, strategy use, and attribution effects for the Executive Plus Attribution treatment condition. Long term maintenance of general strategic knowledge and appropriate attributions was effected after 10 months in the combined treatment condition only. In the Executive condition, which did not include attribution training along with the self-control training, minimal changes in attributional beliefs were effected. Moreover, Reid and Borkowski (1987) cautioned that changes brought about in the Executive Plus Attribution condition, although long term, were relatively domain specific with attributions regarding math self-concept not correlated with reading self-concept. Borkowski et al. (1986) recommended four principles integral to effective attributional retraining including; a) retraining needs to be intensive, prolonged and consistent, b) the initial focus should generally center on task-specific beliefs, c) the strategy-based effort/performance link should be demonstrated and, d) instruction simultaneously should include information on specific strategies, metacognition, and motivational components. They suggested that these combination of

features will engender the "purposeful, deliberate actions that constitute the heart of the educational enterprise" (p. 136).

Summary

Researchers have concluded that instructional practices and failure experiences can have a very debilitating effect on the motivation of students to learn. The low self- concept that results from these factors perpetuates the failure prophesy. Passivity or unstrategic learning styles become defining characteristics of these failing students. How to address this motivational factor will be a focus in the next section on the components of good instruction.

Components of Good Instruction.

From the theory and research outlined in this study on learner "skill" and learner "will", a number of principles can be extracted upon which to base the foundations of good instruction or intervention. Information should be provided about strategies, metacognitive variables should be addressed, background knowledge should be enriched, and attributions should be appropriately constructed or altered. As stated in previous sections, the purpose is to enable a child to become an independent problem solver and self-regulated learner. Several issues pertaining to the training method will now be outlined with the components of good instruction concluding this section.

Specific vs Executive Strategies

One issue related to strategy instruction concerns whether to teach domain specific or executive strategies. Specific strategy instruction involves content specific strategies such as the one designed by Dansereau (1985) to teach a text processing strategy to students. Using the acronym MURDER, students set the Mood to study, read for Understanding, Recall the ideas, Digest the information by correcting recall and amplifying

it, Expand on the information, and Review mistakes. On the other hand, Raphael & McKinney (1983) developed a question-answer routine (QAR) that exemplified a more content free approach. They taught students to identify text-explicit, text-implicit, and script-implicit information in passages. No evidence that metacognitive information was included in or essential to the process was provided. In addition, Deschler, Alley, Warner, & Schumaker (1981) advocated teaching a core group of strategies and have developed instructional packages that promote a variety of memory and comprehension skills such as paraphrasing and self-questioning. Other, more self-regulating, metacognitive strategies are also examples of this strategic approach. In many research or intervention designs, executive control functions include the self-regulatory processes such as planning, checking, and monitoring used by successful learners. Specifically, the self-questioning paradigm has proven particularly effective in developing this type of strategic processing (Wong & Jones, 1982). In this study, questions were used to monitor or check on the outcome of the learning situation. However, while general, content free strategy instruction promotes use across domains, it may not address the idiosyncratic problem solving requirements particular to different domains. As such, most researchers recommend including both types of strategy instruction (Borkowski et al., 1989; Pressley et al., 1989; Wong 1985a). Domain specific strategies facilitate the development of a knowledge base and appropriate skills in a domain. However, because these strategies are bound by the content, executive strategies should complement the instruction to generate transfer. A more elaborated look at this issue will now be provided.

The Heart of the Matter: Maintenance and Transfer

As emphasized, the main objective of cognitive training is to produce independent learners. Research has shown that in "blind' studies where students were taught only declarative knowledge about a particular strategy or set of strategies, they sometimes failed

to learn them, failed to perform them independently, or failed to transfer them to similar learning situations (Brown, Campione, & Day, 1981; Brown & Palinscar, 1982). In this learning situation, the trainer oversees the strategy use, guiding the student through all phases of the learning task. In "informed' studies where students received information "concerning the significance and outcome of these activities and their range of utility" (Baker & Brown, 1984b, p. 381), strategies were learned but not transferred to other domains and not maintained over time. Research demonstrates the superiority of this approach over "blind" training. Paris, Newman, & McVey (1982) trained two groups of students to categorize lists for subsequent recall. One group received no elaboration on the usefulness of the training procedure which included grouping, labelling, and cumulative rehearsal: the other group received elaboration. The informed group performed better on the task both in immediate and maintenance tests. In "informed, self-control" studies where students were given additional explicit metacognitive instruction in the orchestration, checking, and monitoring of these skills, both strategy maintenance and transfer were effected. Research, conducted by Day (1980), trained junior college students to use a variety of rules for summarizing texts. Only the informed self- control condition improved LD students' use of the rules. In this condition, students learn for themselves the value of strategy use. As has been pointed out, understanding and accepting the usefulness of being strategic has implications not only for transfer but also for students' attributions and motivation.

Critical Features of Strategy Instruction

Strategy instruction is based on an "expert model" assumption. If successful learners employ a skill in the process of learning, then teaching that skill to unsuccessful learners, deficient in it, should cause the unsuccessful learners to show improved performance (Garner, 1987). Whether because of lack of knowledge, ineffective cognitive

processing, or both, unskilled readers do conform to the outline of a strategy-deficit model. While what to teach to these learners has been addressed throughout this paper, how to teach them will now be presented.

Direct Instruction

Direct instruction has been supported by many researchers as embodying the principles most effective in cognitive instruction (Garner, 1987; Paris & Oka, 1989; Pressley et al., 1989; Schumaker, Deshler, & Ellis, 1986; Winograd & Paris, 1988; Wong, 1985a). In general, direct instruction informs the students what they need to know and then guides them through the process of acquiring that information. Instructors clearly outline the objectives of the lesson and develop a step by step procedure for explaining and demonstrating fundamental principles to students. Instructors provide guided practice in applying strategies to reading assignments, give feedback on strategy use, and fade support to encourage self-regulated learning. These components will now be outlined.

Direct Explanation

In direct strategy instruction, instructors provide declarative, procedural, and conditional knowledge about strategies. That is, students are taught what strategies are, how to use them, when they are and are not useful, and why they should be used. Students are also taught the metacognitive strategies of planning, monitoring, and checking. In that way both specific and general strategy instruction address the needs of learning within and across domains. Duffy, Roehler, Meloth, Vavrus, Book, Putman, & Wesselman (1986) outline four characteristics of effective direct explanation. First, direct explanation makes covert thinking accessible providing the opportunity for discussion. Second, it enables students to develop a problem-solving approach to reading. Next, it provides explicit, clear explanations regarding the critical features of a strategy while students are engaged in meaningful reading. Last, it ensures that the complexity of the material increases according

to the individual learning capacity of the student. Winograd & Hare (1988) also emphasized that effective teachers increase students' awareness of strategies by providing information on strategy knowledge, utility and application. Moreover, they promote strategy use by modelling their thinking processes on specific tasks and by engendering an attitude of self-assessment.

Teacher Modelling

Teachers initially model their own strategy use for students providing a clear rationale for employing them. Schunk (1987) asserted that modelling is an effective instructional technique because it concurrently imparts information about the worth of using strategies while demonstrating the process. Students who believe they can imitate the model increase their sense of self-efficacy and their motivation to learn. Brophy (1983) concurred, advocating that modelling the cognitive benefits of learning can be instrumental in developing intrinsic motivation in students who are used to working for extrinsic rewards. Pressley et al. (1989) interpreted the value of modelling to be its potential to create a "strategic environment in the classroom" (p.21), promoting acquisition and maintenance of both specific and general strategy knowledge and promoting a self-regulated learning style.

Guided Practice and Feedback

Effective direct instruction also provides ample opportunities for guided practice of the steps of a strategy and for teacher feedback until a mastery level is attained (Schumaker et al., 1986). Although feedback can be corrective, Schunk & Rice (1987) emphasized the importance of attributional feedback along with multiple sources of strategy value information. In the first of two experiments to investigate whether information about strategy use affected remedial readers' self-efficacy and comprehension, they found that both general and specific strategy value information was needed to improve self-efficacy and comprehension. In the second experiment, only the verbal feedback plus specific

information condition improved the dependent variables. While they tested effort attributional feedback that linked students' successes with increased efforts, Schunk & Rice (1987) stressed that additional research is needed on various types of strategy effectiveness feedback to gain valuable knowledge about maintenance and transfer.

Independent Practice

Students need adequate amounts of independent practice as the culminating step in developing a self-regulated routine. In this step, responsibility for determining strategy use should be transferred to the student from the instructor. Students need to monitor their progress and choose from an array of inculcated strategies those that suit his/her needs or learning style (Swanson, 1989). It is at this step that the flexible employment of strategy use will be tested.

General Recommendations

Researchers provide several other general recommendations to promote strategy use and strategy transfer. Current strategy instructions focuses on teaching a few strategies well (Duffy et al., 1986; Duffy, Roehler, Sivan, Rackliffe, Book, Meloth, Vavrus, Wesselman, Putnam, & Bassiri (1987); Schumaker et al., 1986) rather than many superficially. In this way enhancement of appropriate use of the strategy may result. To promote transfer, researchers recommend providing students with multiple exemplars for a particular strategy and incorporating strategy instruction into content areas (Paris & Oka, 1989). As Pressley et al. (1989) emphasized, strategy instruction should be incorporated into on- going reading instruction and not be taught as a separate entity. Strategies should augment enjoyment in reading and be employed when, and if, required. Also, Paris (1989) recommended the scaffolding of instruction which includes the components of direct instruction and more. Teachers must engage the interest of the child, keep the child focussed on the goal, and control the task demands so that the child's stress is reduced. After providing an idealized

model for the child to imitate, teachers gradually transfer control for learning from the themselves to the student. The objective of this process is to promote autonomy in the students by making them responsible for their own learning. In addition, non-competitive models of education such as co-operative learning are also being proposed to increase the motivation and restructure children's goals for reading (Winograd & Johnson, 1987).

Reading and Thinking Strategies

Paris has developed a comprehensive programme of strategy instruction called Reading and Thinking Strategies based on the principles of metacognitive theory, attributional theory, and direct instruction. This programme was developed as a series of kits with lower intermediate, upper intermediate, and junior high school students as the target populations. Each kit is comprised of nine lessons based upon a metaphor. Paris (1988) contended that utilizing a metaphor to explain a strategy helps students relate new information to an established schema which develops more integrated knowledge. He purported that the metaphors not only inform and communicate, but also provoke and entertain. Each metaphor is presented by means of a large, colourful poster which illustrates the interaction between the strategy and the metaphor. For example, the executive strategy contained in lesson one of the upper intermediate kit is based upon a building metaphor, "Blueprints for Reading." This strategy teaches students that they construct meaning when they read. Students learn that just like builders who use plans requiring activities before, during, and after construction, so skilled readers develop plans for reading that require using strategies throughout the reading process. The remaining eight lessons in this kit, as in the others, target specific reading strategies and introduce students to various learning tactics. Group discussions about strategic reading are designed to stimulate and share ideas, raising the profile of meaning-getting vs decoding as the purpose of reading. The lesson plans which accompany each lesson follow the informed, self-

regulated learning format. The direct instruction principles outlined earlier guide the process with the objective of developing independent, strategic learners. Students learn declarative, conditional, and procedural information about strategies. Teachers model the metacognitive approach to reading and provide motivational feedback to students about the effectiveness of effortful learning. Paris (1989) characterized this approach as a system which manages "personal cognitive resources" (p. 32) rather than workbooks. Accommodation is made within each lesson to bridge the principles to curriculum or content-based material. Paris (1989) stressed that metacognitive instruction should not become an objective in itself but should play only a functional role by helping students to fully appreciate the content of interesting material.

Several studies have been carried out using the Reading and Thinking Strategies programme. Paris and Jacobs (1984) and Paris and Oka (1986) tested this programme, formerly named Informed Strategies for Learning (ISL), in field studies using populations of third and fifth grade students. A metacognitive interview and multiple measures of comprehension including the Gates MacInitie Reading Test, a cloze exercise, and an error detection task were used as dependent measures in the former study. In the latter, reconstructed measures of awareness were developed and a measure of self-competence added to the comprehension tasks. Generally, results indicated that awareness of strategies could be improved through instruction and that there was a modest relationship between reading achievement and awareness. Additionally, while all students benefitted from the intervention, there were age and ability differences. In a re-examination of the data using cluster analysis, Cross and Paris (1988) confirmed this finding concluding, first, that there was a general trend for metacognition to become more congruent from 8 to 10 years of age and, second, that instruction benefitted almost all profiles of students but had its greatest effect on the poorest readers at the grade five level. In the Paris and Oka (1986) study the interaction between self-assessed measures of competence, reading achievement, and

motivation were highlighted. While students who accurately assessed or overrated their abilities were shown to use the strategies only those with accurate perceptions demonstrated improved performance. Those students who underestimated their competence neither used the strategies nor demonstrated improved performance.

Rottman and Cross (1990) augment these findings in a study using a modified form of the ISL. Their "Defensive" group, those LD students with low to average knowledge and awareness of strategies but very high perceived competence, made the biggest improvements in reading achievement. However, one cluster in the Rottman and Cross study that had no analogous group in the Paris and Oka (1986) study also made significant improvement. Named the "Realistic" group, it had low to average knowledge and awareness with an appropriate perceived self-competence. Their "Pessimistic" group, those with high to average knowledge and awareness of strategies but low to average perceived competence, was the only one to make no improvement. Rottman and Cross (1990) posited that the motivation usually generated by this programme promoting learning may not have affected these students. However, the success of the programme with most LD students in this study may have resulted from the goal-oriented focus of the strategy instruction. Students are taught to read for different purposes, activate background knowledge, focus on important text elements, monitor their progress, flexibly engage strategies, and be a critical, appreciative audience. In short, the programme addresses most of the strategies unskilled readers lack and demonstrates in the process that an effortful approach will improve learning.

Summary

In this chapter the components critical to effective learning have been reviewed: the "skill" that skilled learners must possess; the "will" that ensures active engagement of strategies; and the instructional design that addresses both of these two variables. Each

component has been presented with supporting research. Research focusing on "skill" has demonstrated the important and necessary interdependence among declarative, conditional, and procedural knowledge about strategies in effective learning. It has underscored the critical role played by metacognition to plan, monitor, evaluate, and restructure the learning process. Research focusing on "will" has highlighted the effects of maladaptive attributions and debilitating self-concepts on student learning. Most importantly, research focusing on instructional design has identified effective instructional methods that can re-orient unskilled learners' reading processes and self-concepts. Moreover, related field research has shown how this study's intervention programme, Reading and Thinking Strategies, which incorporates the recommended components, has been effective in promoting strategy knowledge, strategy use, and improvement in comprehension measures.

In the following chapter, an outline of the population, design, materials, measures, and procedures used to effect this study will be presented.

CHAPTER 3

Method

Subjects

The sample for this study consisted of 19 grade six and 20 grade seven students classified as learning disabled (LD). All students were mainstreamed but each had received some instruction in either a resource room or a learning assistance centre. Students came from six schools located in the Coquitlam School District. This district is comprised of middle to lower-middle class socio-economic strata. From a population of 49 elementary schools, a sample of 6 schools was drawn and these schools were assigned randomly to one of two treatment groups. Three schools were considered to be the maximum number that could be included in each group due to the scheduling considerations arising from the intervention instruction. Only schools enrolling at least 30 grade six and 30 grade seven students were considered because only schools of this size would be likely to yield enough subjects conforming to the sample definition. An inquiry conducted prior to including the selected schools in the sample determined that no formal strategy instruction had been presented to the students in those schools.

Once the schools had been identified and permission to conduct the research had been obtained from the school principal and the teachers involved, a sample of 3 and/or 4 grade six and 3 and/or 4 grade seven subjects, fitting the criteria, were chosen by the researcher with the assistance of each school counsellor. A total of 39 students could be identified. Because sex differences in studies of informed and self-control training has not been observed (Wong & Jones, 1982) and as unequal distribution of males among disabled readers is well documented, no attempt was made to balance for sex. An information letter was sent home with each selected subject summarizing the purpose of the study and requesting permission from parent(s) or guardian(s) for their child to participate. All

parent(s) or guardian(s) gave written consent. Students were interviewed separately, informed of the purpose of the study and the level of participation required, and were asked for their verbal consent. All agreed.

Learning Disabled Sample

All 39 students were identified as learning disabled (LD) consistent with the criteria outlined by the Coquitlam School District which are as follows: a) Intelligence quotients in the average or above average range as measured by the Weschler Intelligence Scale for Children-Revised (WISC-R, 1976; b) academic reading retardation of 2 or more years below grade level as measured by the Woodcock Johnson Reading Test (1984); c) absence of any other handicapping condition such as vision or hearing impairment or English as a second language. While manifesting reading comprehension difficulties, all students in this study were required to demonstrate decoding ability no more than one year below grade level to eliminate decoding problems as a confounding variable when assessing comprehension. Specifically, the subjects were assessed on the graded isolated word list in the Jerry Johns Basic Reading Inventory (Jerry Johns). Thirty-four Ss decoded at grade level and five read up to one year behind grade level. To support the conclusions based on the test results, discussions with school counsellors revealed that each student was demonstrating difficulties in Language Arts and content area subjects and that many were expressing frustration about their school work.

Group 1

The original LD sample in Group 1 consisted of 11 grade six students (range 10 months: from 10 years 10 months to 11 years 8 months) and 9 grade seven students (range 10 months: from 11 years 9 months to 12 years 7 months. One grade six student and one grade seven student were dropped from the sample just after the pretests when they were

transferred to other schools. WISC-R scores for this group ranged from 87 to 109. Percentile rankings for the Woodcock Johnson Reading Test ranged from 8%ile to 21%ile.

Group 2

The LD sample in Group 2 consisted of ten grade six Ss (range 7 months: from 10 years 9 months to 11 years 4 months) and nine grade seven Ss (range 8 months: from 11 years 11 months to 12 years 7 months). One grade seven student was dropped from the sample before the conclusion of the pretests when he transferred to another school. WISC-R scores for this group ranged from 86 to 105. Percentile rankings for the Woodcock Johnson Reading Test score ranged from 6%ile to 23%ile.

Experimental Design

Intervention Period 1

Experimental Group 1. An experimental, replication design was chosen for this study. See fig.1. During a 12 week period (Intervention Period 1), from September to December, 19 LD students from the three schools (Experimental Group 1) received pretests, instruction on using reading comprehension strategies from Reading and Thinking Strategies Kit (Level 5/6) (Paris, 1987), and posttests. Pre- and posttest data, consisting of both formal and informal measures and self-report interviews, were collected during the first and last two weeks. Intervention instruction was carried out three times per week for 23 lessons during which time data from four teacher-constructed comprehension probe tests and interviews with students on their self-reported strategy use were also collected. To measure transfer, two teacher-constructed comprehension tests using content area material were given: one during the posttest and one three weeks following the posttests. Also, to

measure maintenance of strategy use, two teacher-constructed comprehension tests were given accompanied by a measure of strategy recall at the three and six week period after posttesting.

Control Group. Concurrently, during the pretesting and posttesting periods in Intervention Period 1, data from two of the measures (Gates-MacGinitie Reading Test (Gates) and Jerry Johns Basic Reading Inventory (Jerry Johns) were collected from 19 additional students from the other three schools. This group received traditional classroom instruction using basal readers from their classroom teachers and/or modified materials from special education teachers. No classroom was utilizing any programme of strategiy instruction. Having received no strategy instruction between testing periods, this group functioned initially as the Control Group.

Intervention Period 2

Experimental Group 2. Subsequently, from January to April, the original Control Group served as Experimental Group 2 receiving a replication of the intervention conditions afforded Experimental Group 1. Using a replication design satisfied the ethical dilema of withholding instruction from students who might benefit from it .

All pretests, with the exception of the Gates, were administered. The prior use of both forms of the Gates and Form A and Form B of the Jerry Johns to establish this group as a control precluded their re-use. However, Form C of the Jerry Johns was included in the posttests of Intervention Period 2 as a repeated measure of comprehension. During this replication period, all other intervention and posttest routines from Intervention Group 1 were followed.

Protocol

The researcher was responsible for all levels of data collection and instruction.

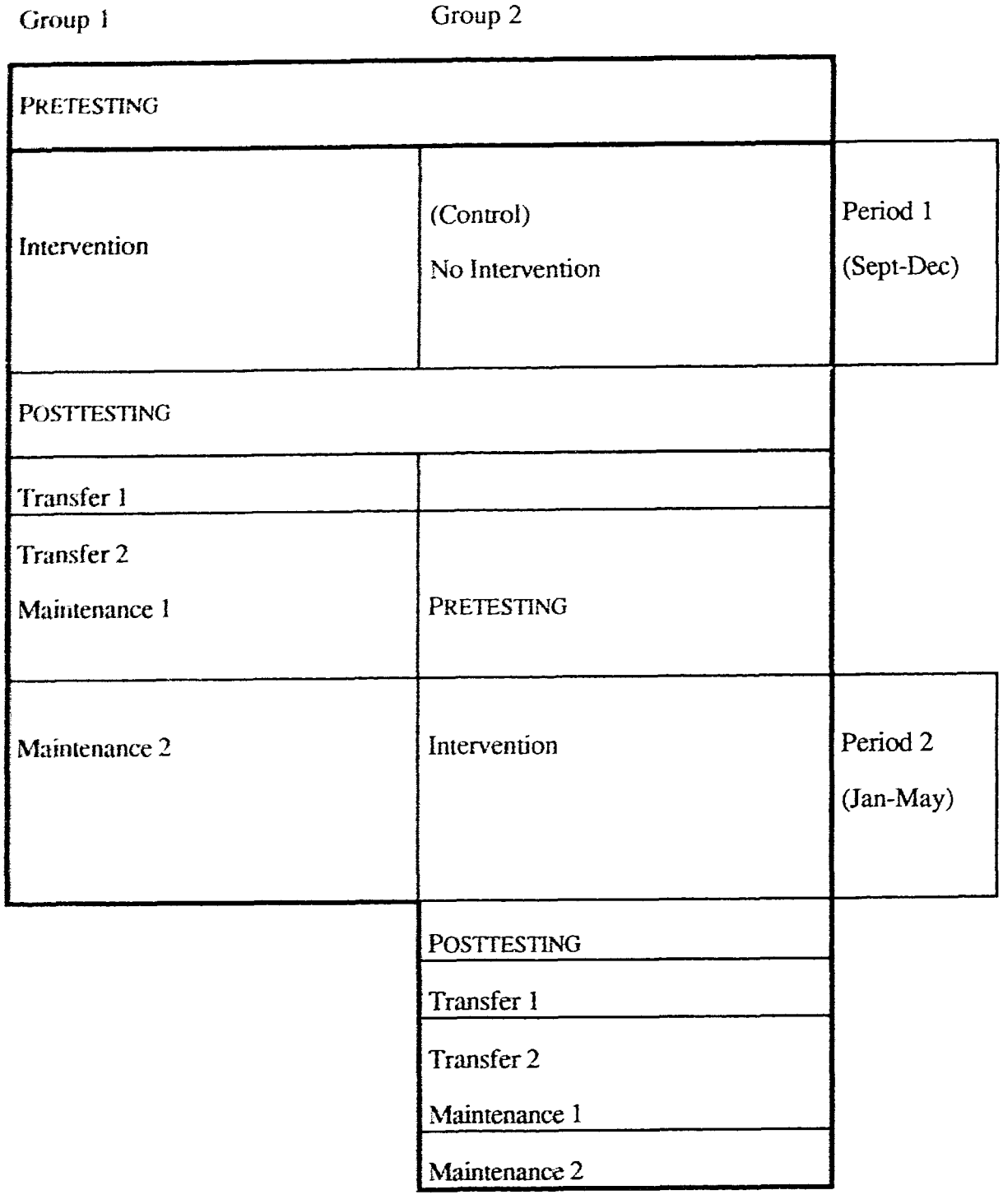

Fig.1 Experimental Design

Detailed scripted lesson plans were developed to ensure consistency among schools and between Group 1 and Group 2. Pretest and posttest interview data that outlined general knowledge about strategies was collected by means of portable cassette recorders. Interviews that detailed reported strategy use following the comprehension probe tests were transcribed directly by the researcher. All additional measures were obtained by means of paper and pencil tests either in a small group setting or on an individual basis. A random sample of all tests was marked by a colleague and reliability measures were calculated.

Materials

Pretest and Posttest Measures

Students were assessed with a battery of tests chosen to determine their reading comprehension and strategy knowledge and/or use. Following is an outline of these measures.

Reading comprehension measures. (1) Gates-MacInitie Reading Test (Canadian Edition: 1980): This test was administered to each group to obtain a standardized measure of subjects' reading comprehension abilities. This test was chosen because it is a group administered, normatively referenced test of both vocabulary and comprehension which yields raw, percentile and extended scale scores. The Vocabulary subtest measures students' word knowledge and the Comprehension subtest measures students' ability to answer questions about text information they have read. Equivalent forms of the test were used for each grade level. Level D (Form 1) was given to Grade 6 students and Level E (Form 1) was given to Grade 7 students for the pretest in September. Form 2 of each respective level was given for the posttest in December. The T-scores for the vocabulary

and comprehension subtests are reported here as well as the total T- scores combining both vocabulary and comprehension scores. T- scores were chosen because they represented equal units and could be used to interpret scores across grades and across forms. Scores for the pretest were based on the norms calculated for the Fall; scores for the posttest were based on norms calculated for Mid-year. This was deemed to be a stringent measure of any comprehension increase.

(2) Jerry Johns Basic Reading Inventory (1986): This test contains three forms (A, B, and C) each consisting of graded word lists and graded reading passages with accompanying comprehension questions. The word lists were based on basal and frequency lists. Students read as many lists as possible until they reached their instructional word recognition level (95-97% of words read correctly). The passages were graded on a "readability" basis which determines the reading level based on a combination of sentence length and word difficulty. Students read orally from the passages and responded in a "no lookback" format to ten questions. Literal, inferential, evaluative, and vocabulary questions are included in each set. After administration of tests at several grade levels, an instructional level for comprehension was established for each student. The last grade level at which the student scored 70% or above was considered to be the student's instructional level. Form A was given to both groups as a pretest in September and Form B as a posttest in December. In May, Form C was given only to Group 2 as a repeated measure of comprehension.

(3) Cloze Passages: Graded cloze passages were chosen to obtain a third measure of reading comprehension. See Appendix 1. A cloze exercise is one in which every fifth word has been deleted from each sentence (except the first and last sentences which remain intact). The readers' tasks are to infer and supply the missing words based on their knowledge of; a) syntax, b) the context of the passage, c) its word patterns and

frequencies, and d) the style of the author. Cloze exercises requiring students to supply the missing words rather than chose from a multiple choice list were chosen for this study because these exercises require students to construct the meaning of the passage. The high level cognitive processing abilities required to make these inferences are thought to be critical to reading comprehension (Hosseini & Ferrell, 1980).

Two different levels of the cloze passages were selected (one for each grade) and different forms were used for the pretest and posttest The passages used were two grade levels behind students' age grade to approximately match their assessed comprehension levels. Pretest passages for Grade six students contained 35 blanks and those for the grade seven students contained 39. Posttest passages contained 37 and 42 respectively.

Entries were scored as follows: a) 2 points were awarded if the original word was supplied, b) 1 point was awarded if the word supplied was inexact but either syntactically or semantically correct and, c) 0 points were awarded for an inappropriate word or if the blank was not filled in. Although a more stringent method of only awarding points for exact words is sometimes adopted, the method chosen was deemed to follow more closely the theoretical foundation of the test as outlined above. Moreover, Paris (1984) also reported a high correlation between the two methods (r=.90) (Paris & Jacobs, 1984).

(4) Teacher Made Tests: Teacher made comprehension questions were developed from graded curriculum material. See Appendix 2. The material chosen consisted of intact, 400-500 word passages. Three multiple choice text explicit and three multiple choice text implicit questions were taken from the questions following each passage and two script implicit questions requiring sentence answers were developed by the researcher. The use of the multiple choice format reflects research which suggests that assessment of reading comprehension requiring English production skills may not be valid for LD readers (Davey, 1987). However, as the open ended script implicit questions require the opinion

and personal experience of the reader, no alternative method was deemed viable for these types of questions. Students were given two passages two grades below grade level (at approximately comprehension level) at both the pretest and posttest.

Strategy awareness measures.(1) Index of Reading Awareness (IRA): This 20 item, multiple choice survey (See Appendix 3) from Reading and Thinking Strategies Kit (Level 5/6), [Paris (1987)] was used to determine students' awareness of reading strategies. Questions and possible answers included in this survey were developed from "The Reading Awareness Interview" (Paris &Jacobs, 1984) which assessed children's metacognitive awareness about reading in three different areas: evaluation of the task difficulty and of the reader's own abilities; planning to reach a goal; and monitoring progress towards the goal. The importance of the three kinds of knowledge in descriptions of children's metacognition is documented by Brown (1978).

2. Metacognitive Interview: A scripted interview was taped during pretesting and posttesting. The purpose of these interviews was to determine students' reported strategy knowledge, reported strategy use, and measures of self-confidence about their reading abilities. A probed interview format was used (Duffy, Roehler, Sivan, Rackliffe, Book, Meloth, Vavrus, Wesselman, Putman, & Bassiri, 1987). Students were asked five standard questions focusing on one of the objectives above. During and after students' answers, one or more probe questions were used to determine if the students could tell any more or clarify a detail. In analyzing the interview data for the first four questions, students' answers were first transcribed and then divided into thought units that represented a reading process or strategy. A numerical value then was assigned based on the level of metacognition expressed. Next the mean number of thought units in each numerical value were calculated and then converted to percent. Finally, pre and posttest differences were

analyzed. In analyzing Question 5, students ratings on a Likert scale were totaled, a mean determined, and then a percent assigned to each rating. Pre and posttest differences were analyzed as with the other questions. Below is the list of five questions asked each student. The description of the assessment criteria used for each and examples of answers that would qualify for that value can be found in Appendix 4.

Question 1: What do good readers do when they read?

Question 2: What do you do when you pick up something to read?

Question 3: What do you do when you come to a word you don't know?

Question 4: What do you do when you come to a sentence you don't know?

Question 5: This list of words can be used to describe how people feel about the kind of reader they are (very good, good, satisfactory, fair, and poor). Which one would you say you are? Does that describe how you understand stories or how you read the words?

Probe Test Measures

A measure of reading comprehension and an interview to determine strategy knowledge and strategy use was given four times during the intervention. Following is an outline of these.

Reading comprehension measures. Teacher made comprehension questions from graded curriculum material. See #4 in Pretest and Posttest Measures: Reading Comprehension in the Materials section for a complete description of these tests. One passage was administered each time.

Strategy use interviews. Scripted interviews were taped following the completion of the four comprehension probe tests given during intervention. The purpose of these interviews was to determine what strategies the students reported they were using and to ascertain how they felt these strategies helped them to understand the passages. Also, students' attention was drawn to the relationship between strategy use and comprehension scores to provide motivation for further effort and as such these interviews served as an instructional as well as a testing tool.

Measures of Maintenance

Tests to determine the durability of the intervention were given at three and five weeks following the posttests. See Appendix 5.

Reading comprehension measures. Teacher made comprehension questions from graded, curriculum material. See #4 in Pretest and Posttest Measures: Reading comprehension measures in the Materials section.

Measures of Transfer

As an indication of the success of the intervention, reading comprehension measures were given based on passages drawn from curriculum material. See Appendix 6 for texts and tests.

Science. Passages from science curriculum material were selected and comprehension questions developed to follow the format of the Teacher Made Tests. An outline of these questions can be found in Pretest and Posttest Measures: reading comprehension in the Materials section. Grade 6 students were tested on a 400-500 word passage from the grade 4 textbook, Grade 7 students were tested on a 400-500 word

passage from the grade 5 textbook. These passages were chosen because they were from recommended material which was approved for classroom use but unlikely to have been selected over the designated material. The respective levels of difficulty were chosen because they were consistent with the other testing material. However, the vocabulary was not controlled. Students were tested on this material immediately following the completion of the posttests.

Social Studies. Passages from the social studies curriculum were selected on the same basis as outlined for the Science material and questions followed the same format. Testing was administered concurrently with the first maintenance test, three weeks following the completion of the posttesting. While some confound could be expected between transfer and maintenance factors due to the considerable administration interval between the two tests, the researcher felt that students' normal scheduling should be disrupted as little as possible once it had be resumed.

Procedures

Pretest Data Collection

Collection of pretest data occurred during two time periods to allow Group 2 to function first as a control and next as an experimental group. To differentiate the different conditions brought about by this overlap of functions, the designation "Intervention Period 1" will be used for the months September to December and "Intervention Period 2" will be used for the months January to May.

Intervention Period 1. Pretest data for the Experimental Group (Intervention Group 1) and the Control Group (Group 2) were collected over a two week period in the last two weeks of September. While Group 1 received all pretests shown below, Group 2 received only the Gates Mac-Initie Reading Test (Gates) (Vocabulary and Comprehension) and the Jerry Johns Basic Reading Inventory (Jerry Johns). All testing sessions were scheduled for approximately 40-50 minutes allowing for distribution of materials and providing instructions. Approximate time on task for each test is as follows:

a) Gates-MacInitie Reading Test (Vocabulary): 20 minutes

b) Gates-MacInitie Reading Test (Comprehension): 45 minutes

c) Comprehension Passages (2): 20 minutes

d) Cloze Passage: 30 minutes

e) Jerry Johns Reading Inventory: 20 minutes

f) Independent Reading Assessment: 10 minutes

g) Taped Interviews: 10 minutes

Total testing time for Group 1 was 175 minutes and for Group 2 was 85 minutes. While some students expressed relief at finishing the longest test (Gates Comprehension Test) and showed concern about the difficulty of the Cloze passage, all appeared to remain on task until all items were completed or time expired.

In general, the testing schedule was arranged to accommodate the schools' timetables and to space out the testing demands over individuals and schools. All group-administered tests were scheduled for the 9:00-12:00 A.M. period and most individual tests were administered in the 1:00-3:00 P.M. time period. Students were made available by the teachers for the individual tests when called by the researcher. Due to the total time required to process the individual tests (approximately 20 hours), some individual tests also were scheduled for the 9:00- 12:00 A.M. time period on the Thursday and Friday of the second week. Two students who were absent for the Gates Comprehension Test and one who was

absent for the Cloze Passage completed these in the P.M. period throughout the two week testing period. No confounds were expected because of this scheduling variation. All pretest measures were collected from students in Group 1 and Group 2.

Intervention Period 2. All tests except for the Gates and the Jerry Johns were administered to Experimental Group 2 during Intervention Period 2 (January to May). As the only two forms of the Gates had been given during Intervention Period 1 (September to December) and re-administration of this test is not recommended before an interval of at least a year, no standardized reading test could be included in this period. The second form of the Jerry Johns, given as a posttest to this group (Control) during Intervention Period 1 was meant to serve simultaneously as a pretest during Intervention Period 2. As the two testing periods were separated only by the intervening Christmas break, which involved no formal instruction, no confounds were expected.

The testing schedule for Intervention Period 2 followed as closely as possible the format laid out for Intervention Period 1. However, testing time for each student was reduced to 90 minutes. Two students who missed the Teacher Made Tests and two who missed the Cloze Passage were rescheduled and received these on an individual basis in the afternoon of the second week of testing. All pretest measures were collected for all students in Group 2.

Intervention

Intervention for each group took place over nine weeks and consisted of 19 lessons instructing students on the use of reading comprehension strategies from the Reading and Thinking Strategies Kit (Level 5/6) (Paris, 1989) and four lessons assessing comprehension with a teacher constructed probe test. Intervention Group I received instruction from October to December and Intervention Group 2 from February to April. A weekly timetable of three 40 minute periods was established for each of the six schools. All instructional lessons took place in isolated settings equipped with individual desks and moveable blackboards. Eleven instructional periods and/or tests missed by students in both groups were made up on an individual basis. It is unclear what effect the lack of group discussion had on the students' learning during these make-up lessons but the small ratio of missed to attended lessons (no student missed more than one lesson and/or test) would appear to make any effect small and random.

Strategies intervention. During the intervention period, students in each group received instruction on reading comprehension strategies taken from the Reading and Thinking Strategies Kit (Level 5-6) (Paris, 1989). Each of the nine modules in the kit presents a different cognitive strategy represented as a concrete metaphor illustrated on a large, colourful, bulletin board poster. Scripted lesson cards, a student workbook containing reading material, and worksheets to assess strategy knowledge are included in the kit. Three of the nine modules were selected for intervention based on the following considerations:

a) The 7-8 week intervention period precluded presenting the whole kit which contains 26 suggested lessons.

b) Because LD students were anticipated to be deficient in some of the prerequisite skills assumed in each module, the number of suggested lessons in the three modules

chosen was expanded in order to pre-teach these skills. As Paris emphasizes that teachers mold the lessons in the kit to fit different instructional styles and classroom curriculum, the licence taken with the instruction does not seem to violate the intent of the kit and can be deemed to be a valid test of the material in a naturalistic setting.

c) Within the intervention period, time was required to test for comprehension and to determine strategy use.

The rationale used in determining the selection of each module and a precis of the contents is outlined below.

A) "Blueprints for Reading": This module uses a building metaphor which helps students understand that we should construct meaning as we read. It was selected because it introduces students to a general executive strategy, a framework for processing text. Students learn six strategies posed as questions and become aware how these strategies can be used before, during, and after reading to help them construct the meaning from the content. Once aware of this executive strategy, students can then fit in specific strategies from the other modules to assist with comprehension monitoring. The objectives of this module are to:

a) teach students to identify reading goals

b) teach students to evaluate the type of test before reading

c) teach students to select appropriate plans for reading

d) teach students the importance of monitoring the meaning as they read

e) teach students that constructing meaning is the goal of reading

f) encourage students to evaluate their reading effectively

B) "Tools for Reading": This module equates strategies with equipment used by different kinds of workers to perform a job effectively. Students learn six strategies and when they should be applied. This module was chosen because it gives students the opportunity to select, apply, and/or generate specific strategies that are useful in

comprehension monitoring and, as such, complements the general executive strategy presented first. The objectives for these lessons are to teach students to:

a) use context to help determine the meaning of difficult words or sentences

b) use imagery to make a story meaningful

c) make predictions

d) skim ahead and look back in text

e) paraphrase meaning

f) self-question

C) "Road Signs for Reading": This module equates reading with taking a trip. Students learn that employing strategies is like using road signs to ensure a safe journey. Students are taught to check their understanding periodically and to use strategies to de-bug comprehension failures. These lessons use road sign symbols to help cue students to the appropriate strategy for the type of reading or problem encountered. It was chosen because of the cuing power afforded to the LD student by a visual representation of the strategy. The objectives of these lessons are to:

a) teach students to check their understanding during reading

b) stimulate students to think of various ways to check their understanding

c) teach students to paraphrase, predict, adjust the rate of their reading, and reread as strategies for monitoring comprehension

d) make students aware of the need for and benefits of comprehension monitoring

Lesson plans. The scripted lesson plans developed for each lesson were based on the principles of the informed, self-control teaching model (See Appendix 7 for the texts). Throughout the lessons the students were informed of the definition of the strategy, its value, and its appropriate and inappropriate application. Strategies were modelled by the teacher, who verbalized the thinking process involved in the construction of meaning.

Metacognitive awareness was also fostered through group discussions of students' thoughts. Guided practice, providing corrective feedback during and after reading, was provided either within the same lesson or in a subsequent lesson depending on the demands of the instruction. Independent practice was scheduled using literature or content area material. Students were held accountable for regular lessons through a variety of assignments that were assessed by means of comparison to a standard, a self-assessment, or group assessments.

To develop strategy knowledge and encourage strategy use, students were provided with prompt cards detailing important cuing questions or strategy information relevant to each module. At the beginning of each lesson following the introduction of the strategies, students were given practice in memorizing the strategies. Then they were asked to produce them from memory on worksheets provided in the student handbook. When students demonstrated knowledge of the strategies, the prompt cards were faded by having them turned face down on the desk. Students were instructed that these cards could be reviewed if needed. Some students were observed to check the prompts occasionally.

Posttest Data Collection

Because posttest data collection between Intervention Period 1 and Intervention Period 2 differed because of the research design, each will be considered separately.

Intervention Period 1. Posttest data for the experimental group (Intervention Group 1) and the control group (Intervention Group 2) were collected over a two week period in the first two weeks of December and followed the schedule developed for pretesting. As before, four students who missed the Comprehension passages and one who missed the Cloze passage were rescheduled and received the tests in the afternoon of the two week testing period.

In addition, in the third week, students in Intervention Group I were given the first transfer test as outlined in the Materials section. Time on task for this measure was approximately 15 minutes.

Approximately three weeks after the final posttest (following the Christmas break) students in Intervention Group I received a second transfer test, a maintenance test, and a measure of strategy knowledge as outlined in the Materials section. Time on task for these tests was approximately 40 minutes.

Two weeks following this last set of tests students received the second maintenance test and measure of strategy knowledge. Time on task was approximately 25 minutes. As will be noted, all transfer and maintenance tests were scheduled for the afternoon in order to accommodate school timetabling. Any student who missed any transfer or maintenance test was re-scheduled.

Intervention Period 2. Posttest data for Intervention Group 2 was collected over a two week period at the beginning of May and followed the scheduled developed for pretesting. In addition, students were given Form C of the Jerry Johns Basic Reading Inventory. This test was scheduled into the afternoon following the format established in Period A when the other two forms were given as a pretest and posttest to both groups. Approximate time on task for all tests was 110 minutes. No students were absent for any test during this period.

The administration of the transfer tests, maintenance tests, and the measures of strategy knowledge for Intervention Group 2 followed that for Intervention Group 1.

CHAPTER 4

Results and Discussion

Overview

In this chapter the results of the Reading and Thinking Strategies training programme are presented and discussed. There are four sets of data analyses around which this chapter is organized. The first set focuses on pre- and posttest differences between the two groups of LD students, Group 1 and 2, in which only Group 1 received intervention. In the design of the study this experimental condition was referred to as Intervention Period 1. Analyses of variance (ANOVA) were first performed on the dependent variables (DV) of the Gates MacInitie (Gates) Vocabulary subtest, the Gates Comprehension subtest, and the Jerry Johns Basic Reading Inventory (Jerry Johns) test, followed by correlated t- tests. The second set of data analyses focuses on pre- and posttest differences between Groups 1 and 2 in which both groups received the same intervention. Basically, Group 2 replicated the treatment in Group 1. In the design, this literal replication condition was referred to as Intervention Period 2. Analyses of variance were performed on the dependent variables of the Index of Reading Awareness (IRA), the Jerry Johns, the cloze passages, and teacher made tests, followed by correlated t-tests. The third set of data analyses examines correlations between strategy awareness and comprehension. Correlations were calculated on Group 1 data only on the pre- and posttests of the awareness measure (IRA) and the Gates Comprehension subtest. The fourth set of data analysis examined qualitative data collected in pre- and posttest interviews. This set of data analyses focuses on establishing pre and posttest differences in students' reported strategy knowledge, strategy use, and ratings of self-confidence regarding their levels of word recognition and comprehension of stories. For those analyses the data from Group 1 and Group 2 were combined.

Pre-intervention Results

To ascertain that the two groups of LD students, Group 1 and Group 2, did not differ prior to intervention, independent t- tests were performed on the pretests of the Gates Vocabulary subtest, the Gates Comprehension subtest, the cloze measure, the Jerry Johns, the teacher made tests, and the IRA. The results of the independent t-tests are shown in Table 1.

Table 1

Pretest Performance Between Group 1 and Group 2

Test	Group	N	M	SD	+	DF	P
Gates Vocab	1	20	35.80	3.52	0.02	36	>.05
	2	18	35.78	3.70			
Gates Comp	1	20	35.60	3.93	-0.90	36	>.05
	2	18	36.83	4.53			
Cloze	1	20	52.30	13.48	-1.98	36	>.05
	2	18	59.61	8.36			
Jerry Johns	1	19	3.68	0.89	0.67	35	>.05
	2	18	3.50	0.79			
Teacher made	1	19	4.92	1.22	1.12	35	>.05
	2	18	4.50	1.07			
IRA	1	20	10.80	2.07	0.27	36	>.05
	2	18	10.56	3.49			

Results indicated that Group 1 and Group 2 did not differ on the Gates vocabulary subtest (t=0.02, df 36, p>.05), the Gates Comprehension subtest (t=-0.90, df 36, p>.05), the Jerry Johns (t=0.67, df 35, p>.05), the teacher made tests (t=1.12, df 35, p>.05), and the IRA.(t=0.27, df 36, p>.05). The mean T-scores on the Gates Vocabulary subtest for Group 1 (35.8) and Group 2 (35.78) placed them at approximately 2.5 years behind their grade level. On the Gates Comprehension subtest, the mean T-scores for Group 1 (35.6) and for Group 2 (36.83) indicated that they both were performing at approximately 3 years behind grade level. The Jerry Johns results indicated the mean reading level for Group 1 (3.68) and Group 2 (3.5) was approximately at grade 3.5. On the teacher made tests based on two tests of 8 questions each, the mean for Group 1 (4.92) and Group 2 (4.5) represented less than 59% correct. Results of the IRA were at the 54% level for Group 1 and 52.8% level for Group 2 with means of 10.8 and 10.56 respectively.

In summary, prior to treatment, the two groups of students were clearly comparable on all the dependent measures. This finding was expected due to the attempt to match the two samples on measures of potential (WISC-R), performance (Woodcock-Johnson Ability Test), and teacher recommendations conforming to an appropriate decoding/poor comprehension profile.

Post-intervention Analyses and Results

Each of the four data sets will be examined separately with reference to pertinent research questions.

Data Set 1 (Intervention Period 1)

This data set focused on the comparison between Group 1 and Group 2 in which only Group 1 received the intervention. All the dependent measures of comprehension showed the same pattern of results. A 2 (Groups) x 2 (Tests: Pre-Post tests) ANOVA was

run on each dependent measure. The results indicated that there were significant main effects of group, test, and interaction. Results from each of the dependent measures will be discussed separately with reference to the respective research question.

Did the reading and thinking strategies intervention affect performance on reading comprehension tasks?

Gates MacInitie Vocabulary subtest. A 2 (Groups) x 2 (Pre- Posttests) analysis of variance (ANOVA) with repeated measures on the second variable was calculated on the vocabulary data. The ANOVA indicated a significant main effect for Groups [$F(1, 34)=9.02$, $p<.005$]. The main effect for Tests was also significant [$F(1, 34)=31.03$, $p<.005$]. The significant main effects indicated reliable differences between the groups and between pre and posttest. Group 1 surpassed Group 2 at posttest. Additionally, the Groups x Tests interaction was significant [$F(1. 34)=29.17$, $p<.001$]. This significant Groups x Tests interaction indicated that the experimental and control groups did not differ in vocabulary at pretest, but that they differed at posttest. Table 2 presents the means and standard deviations of vocabulary performance of the two groups at pre and posttests and Figure 2 depicts the interaction.

In order to pinpoint that the strategies intervention really effected substantial change in Group 1, correlated t-tests were run. Data analysis from the correlated t-tests indicated that Group 1 improved significantly ($t= -6.43$, $df=17$, $p< .001$) from pretest to posttest on the GM Vocabulary Subtest while Group 2 did not ($t= -0.16$, df 17 $p>.05$).

Table 2

Means and SD's on Gates Vocabulary Subtest for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	**S D**	**N**	**M**	**S D**	**N**
Group 1	35.80	3.52	20	43.16	5.62	18
Group 2	35.78	3.70	18	35.89	3.60	18

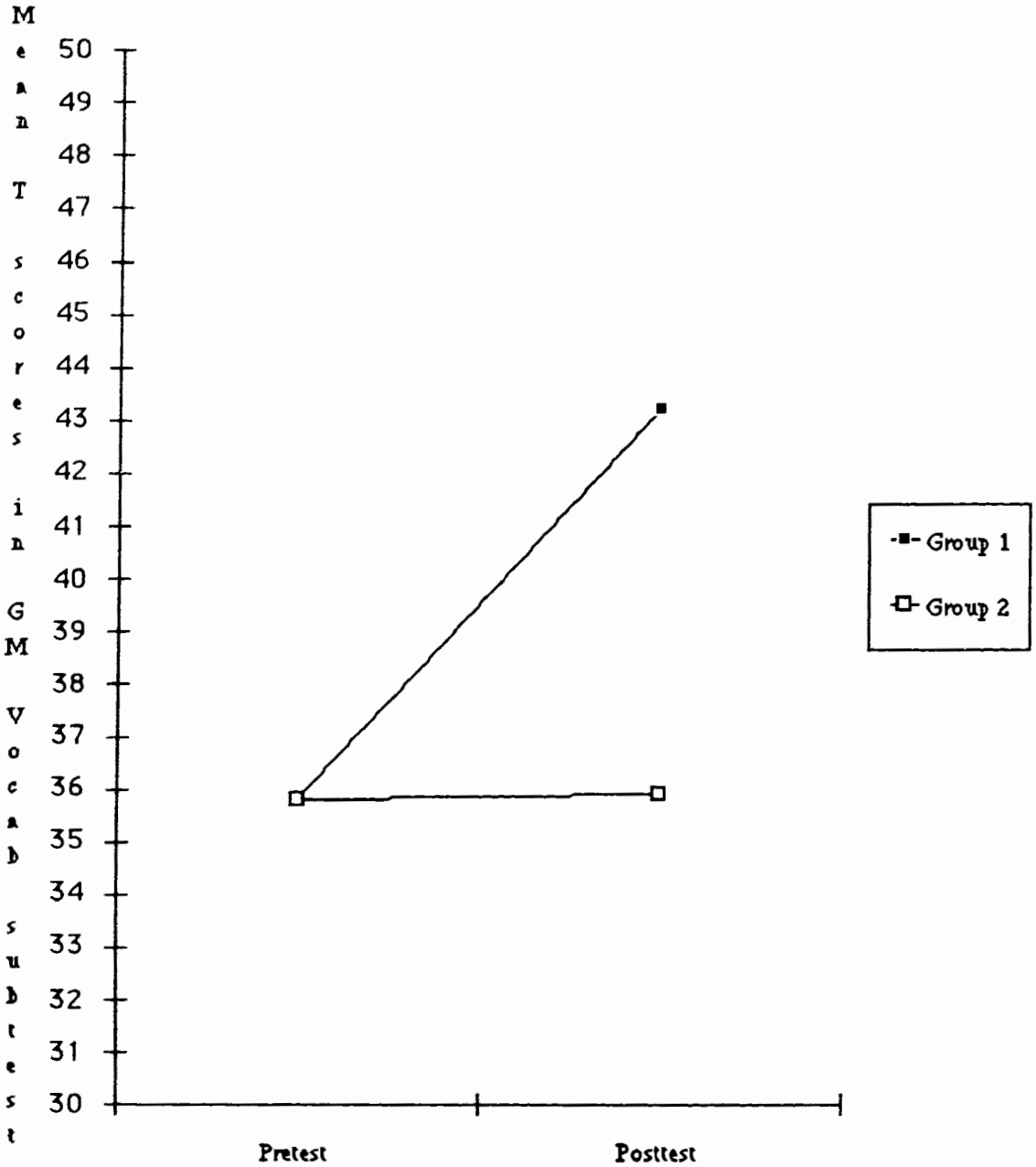

Fig 2. Pre- and Posttest Performance on Gates Vocabulary Subtest of Group 1 and Group 2

Gates-MacInitie Comprehension subtest. A 2 (Groups) x 2 (Tests: Pre-Post tests) ANOVA with repeated measures on the second variable was computed on the comprehension data. The ANOVA indicated that a significant main effect of Groups [F(1, 34)=14.99, p<.001] and of Tests [F(1,34)=28.16, p<001]. The significant main effects indicated reliable differences between treatment groups and between pretest and posttest. Group 1 surpassed Group 2 at posttest. Additionally, the Groups x Tests interaction was significant [F(1,34)=54.80, p<.001]. This significant Groups x Tests interaction indicated that the experimental and control groups did not differ in comprehension at pretest, but that they differed at posttest. Table 3 presents the means and standard deviations of comprehension performance of the two groups at pre and posttests and Figure 3 depicts the interaction.

In order to pinpoint that the strategies intervention really effected substantial change in Group 1, correlated t-tests were run on the data. Data analyses from correlated t-tests indicated that Group 1 improved significantly (t= -7.14, df=17. p <.001) from pre-posttest on the Gates Comprehension subtest while the performance of Group 2 declined (t= 2.30, df=17, p<.05). Table 3 presents the mean t-scores and standard deviations for Group 1 and Group 2.

Table 3

Means and SD's on Gates Comprehension Subtest for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	**SD**	**N**	**M**	**SD**	**N**
Group 1	35.60	3.93	20	46.67	6.91	18
Group 2	36.83	4.53	18	35.06	3.26	18

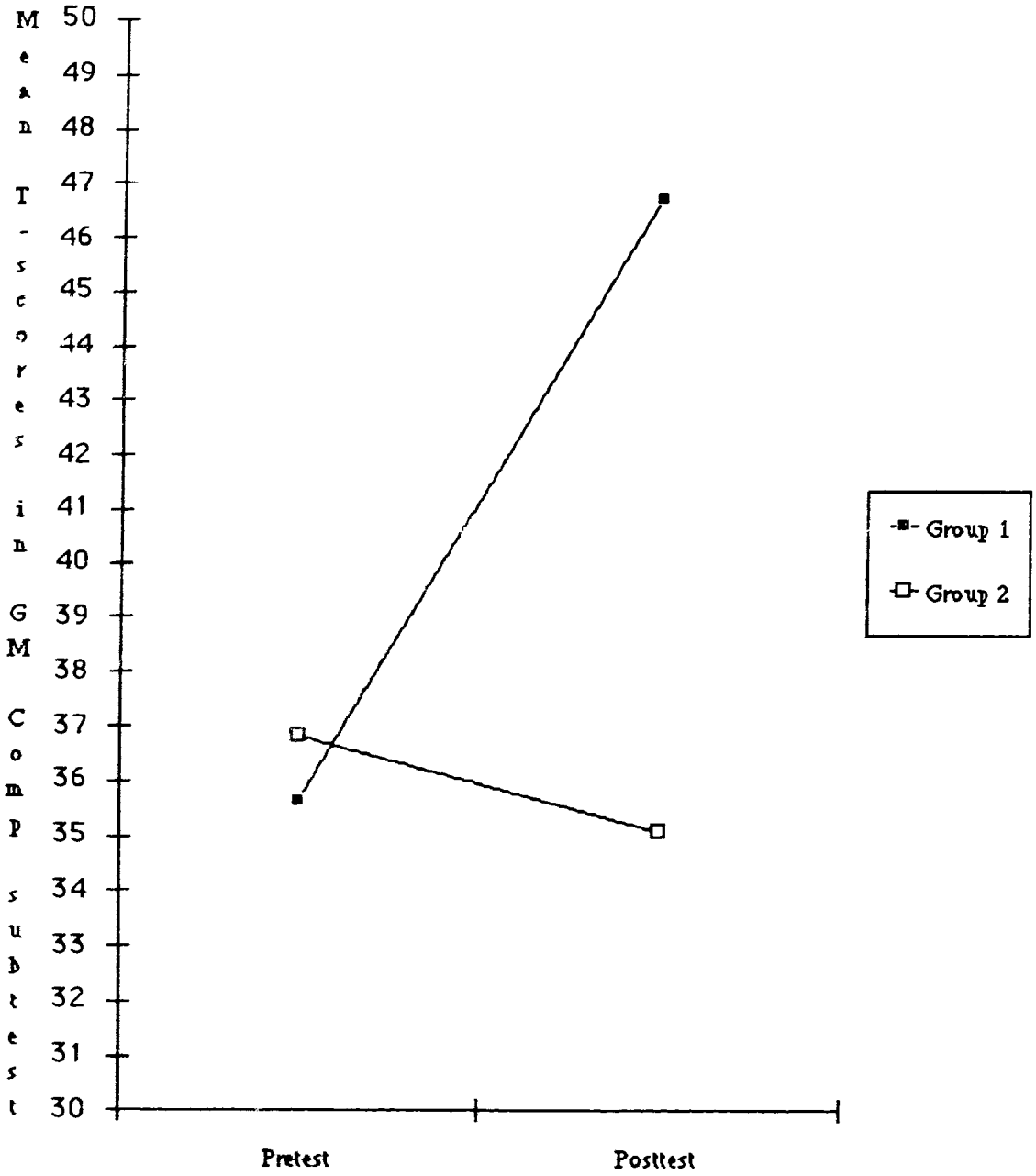

Fig3. Pre- and Posttest Performance on Gates Comprehension Subtest of Group 1 and Group 2

Given the results of other studies done using Reading and Thinking Strategies, the results of the Gates Vocabulary and Comprehension subtests were surprising. Paris et al. (1984) found no significant improvement on scores using this test and reasoned that standardized tests of reading comprehension measure general aptitudes and abilities in reading and are not sensitive to specific cognitive skills. Several reasons for the significant results found in this test are proposed below.

While both grades six and seven students in Group 1 improved about 1.5 grade levels on the vocabulary subtest and 2.5 grade levels on the comprehension subtest, neither measure was at grade level for these students. The mean T-scores still represented approximately .5 years delay in both vocabulary and comprehension. However, the magnitude of the improvement may be explained with regard to the specific comprehension nature of the students' reading disability. An explanation Paris et al. (1984) offered for their results which showed no improvement on the Gates is that the timed nature of the tests may discourage the use of the strategies or that they seem inappropriate. This conclusion may be consistent with students with generalized decoding and comprehension problems. Struggling with decoding the passages may not leave any processing room for strategies. However, having competent decoding abilities, the students in this study may have found the strategies effective for the short passages. Activating background knowledge, utilizing context to integrate information from one sentence to another, monitoring understanding, rereading parts to locate specific information, etc. are all of the instructed strategies that may be necessary for competent performance on these multiple choice/look back questions. Davey (1987) proposes that postpassage multiple choice questions may serve to externally cue readers to comprehension problems they had while reading. However, being unaware of task demands such as looking back for the answer, poor comprehenders may fail to activate the effective strategy. Garner and Reis (1981) concurred that look-back paradigms may require an awareness of the need for fix-up strategies that poor strategy users do not

have. However, as documented in the Structured Interviews in this thesis (see Appendix 8), the reported strategies use in this group increased dramatically between pre- and posttest and such increased strategy use could conceivably explain the improved performance.

An informal analysis of the two forms of the Gates (pre- and posttests) indicated that approximately the same number of questions were completed by the students (pretest mean= 37.8; posttest mean= 39.1), indicating that more accuracy and comprehension not faster processing speed were responsible for the increase. A study by Snider (1989) with LD poor comprehenders provides a possible explanation for this finding. This study revealed that the text based questions (text explicit and text implicit, p.88) were the most affected by strategy instruction; script implicit were most affected by background knowledge. As the majority of questions in the Gates Comprehension subtest were text based questions, the strategy training appears to been effective for this target skill. Despite the surprising results in this study, however, other evidence (see Jerry Johns results below) supported the dramatic increase reported on the Gates tests.

Jerry Johns Basic Reading Inventory (Jerry Johns). A 2 (Groups) x 2 (Tests: Pre-Post tests) ANOVA with repeated measures in the second variable was calculated on the comprehension data. The ANOVA indicated a significant main effect of Groups [$F(1,34)=97.72$, $p<.001$] and of Tests [$F(1,34)=14.26$ $p<.001$]. The significant main effects indicated reliable differences between treatment groups and between pretest and posttest. Group 1 surpassed Group 2 at posttest. Additionally, the Groups x Tests interaction was significant [$F(1,34)=90.57$ $p<.001$]. This significant Groups x Tests interaction indicated that the experimental and control groups did not differ in comprehension at pretest, but that they differed at posttest. Table 4 presents the means and standard deviations of comprehension performance of the two groups at pre and posttests and Figure 4 depicts the interaction.

In order to pinpoint that the strategies intervention really effected substantial change in Group 1 students, correlated t- tests were run run on the data. Data analyses from the correlated t-tests indicate that Group 1 improved significantly ($t= -9.03$, df 17, $p< .001$) from pre-post tests on the Jerry Johns while Group 2 did not ($t= 4.24$, df 17, $p< .001$).

Table 4

Means and SD's on Jerry Johns BRI for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	**SD**	**N**	**M**	**SD**	**N**
Group 1	3.68	0.89	19	6.17	0.92	18
Group 2	3.50	0.79	18	2.44	0.62	18

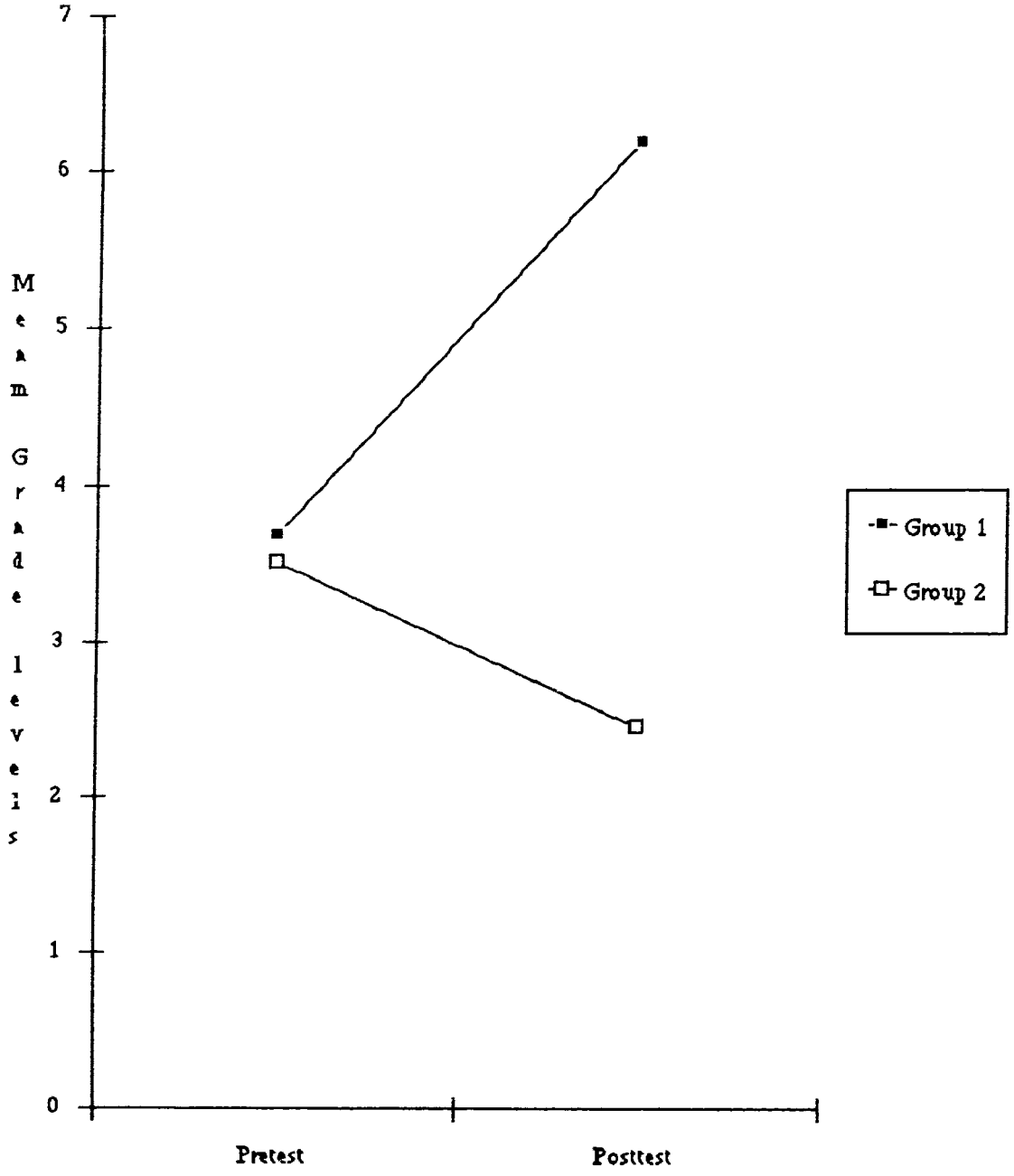

Fig 4. Pre- and Posttest Performance on Jerry Johns BRI of Group 1 and Group 2

Results on this test clearly indicated a difference between the two groups on the posttest with Group 1 showing superior performance.

As the performance of students in the control group decreased substantially on the posttest using Form 2, there is the question that Form 1 and Form 2 of the Jerry Johns were not equivalent. While this cannot be ruled out, the dramatic mean increase of Group 1 on the same form (2.5 years) did not confirm this suggestion. It appeared that the regular instruction Group 2 students received did not provide them with the skills needed for improved performance on this measure. In contrast, the results from the correlated-t tests of Group 1 supported an interpretation that the intervention did provide Group 1 with the needed processes for improved performance on this measure. Students in the Jerry Johns format read silently and were not timed which allowed individual processing of each passage. The format of the oral test (no look-back, constructed-response) was found by Davey (1987) to be more difficult than than all other test formats possibly indicating the need for more strategic processing. Overall, the results from the Jerry Johns confirmed and supported those found on other measures of comprehension, particularly the Gates Comprehension subtest results. This test also showed the same pattern of pre-posttest increase for Group 1 and decrease for Group 2.

Data Set 2: Intervention Period 2

In Intervention Period 2 a replication was done of the study in Intervention Period 1. Group 2 became the second Experimental Group and received the identical intervention treatment as Group 1 in Intervention Period 1. Of interest was if the results achieved by Group 1 on a pre-posttest measure of awareness (IRA) and three comprehension measures (Jerry Johns, the cloze test, and teacher made tests) could be replicated by Group 2. Also of interest, was whether a similar pattern of results could be achieved on comprehension measures of transfer and maintenance.

The dependent measure of awareness and most of the dependent measures of comprehension showed a consistent pattern of results. A 2 (Groups) x 2 (Pre-posttest) ANOVA calculated on each measure showed there were no significant main effects for Groups but significant main effects for Tests. There were no significant interaction effects. The exception was the cloze test which showed a main effect for Groups due to the large difference in pretest scores. The data replicated those of Group 1 from Intervention Period 1. Results from each of these tests will be discussed separately with reference to pertinent research questions.

Did the reading and thinking strategies intervention affect awareness of strategies?

Index of Reading Awareness (IRA). A 2 (Groups) x 2 (Pre- Posttests) ANOVA with repeated measures on the second variable was run on the awareness data. The ANOVA indicated no significant main effect of Groups [$F(1,34)=.28$ $p>.05$]. However, the main effect for Tests was significant [$F(1,34)=112.02$ $p<.001$]. The Groups x Tests interaction was not significant [$F(1, 34)=.02$ $p>.05$].

In order to pinpoint that the strategies intervention really effected substantial change in both groups, correlated t-tests were run. Data analysis from the correlated t-tests indicated that both Group 1 ($t= -6.89$, df 17, $p< .001$) and Group 2 ($t= -8.32$, df 17, $p< .001$) improved significantly from pre-posttest on reported awareness as measured by the IRA.

Means and standard deviations for the IRA are shown in Table 5. Results are stated as raw scores out of a possible 20 points. The pretest and posttest means for Group 1 and Group 2 were almost identical. The mean gain for Group 1 was 5.98 and for Group 2 was 6.00.

Table 5

Means and SD's on IRA for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	**SD**	**N**	**M**	**SD**	**N**
Group 1	10.80	2.07	20	16.78	2.21	18
Group 2	10.56	3.49	18	16.56	1.38	18

As the intervention directly instructed the information tapped by this test and as the multiple choice question format is the easiest kind (Davey, 1987), it is of note that the posttest results were not higher. Only 1/38 students registered 20/20 and 4/38 registered 19/20. However, as some questions on this test measured students' reported strategy use as well as strategy awareness, some errors may have reflected not a lack of knowledge about the strategies but a failure to use the strategies. For example, some questions asked "What should you do when.....?" and some ask "What do you do when....?". As was pointed out earlier, a knowledge of strategies does not guarantee a use of them.

Did the reading and thinking strategies intervention affect performance on comprehension tasks?

Jerry Johns Basic Reading Inventory. Because Form A and Form B of the Jerry Johns are non-equivalent and Form B appears more difficult, Form B was dropped from the analysis. A two-way ANOVA was computed on Experimental Group 1's pretest data on Jerry Johns Form A and posttest data on Jerry Johns Form B; and on Experimental Group 2's pretest data on Jerry Johns Form A and posttest data on Jerry Johns Form C. The ANOVA indicated no significant main effect for Groups [$F(1,34)=.35$, $p>.05$]. However, the main effect for Tests was significant [$F(1,34)=260.78$, $p<.001$].

Additionally, the Groups x Tests interaction was not significant [F(1,34)=4.32, p>.05]. Table 6 depicts the means and standard deviations of comprehension performance of the two groups at pre and posttest and Figure 5 depicts the interaction.

.c8.Table 6:

Means and SD's on Jerry Johns BRI for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	SD	N	M	SD	N
Group 1	3.68	0.89	19	6.17	0.92	18
Group 2	3.50	0.79	18	6.67	0.91	18

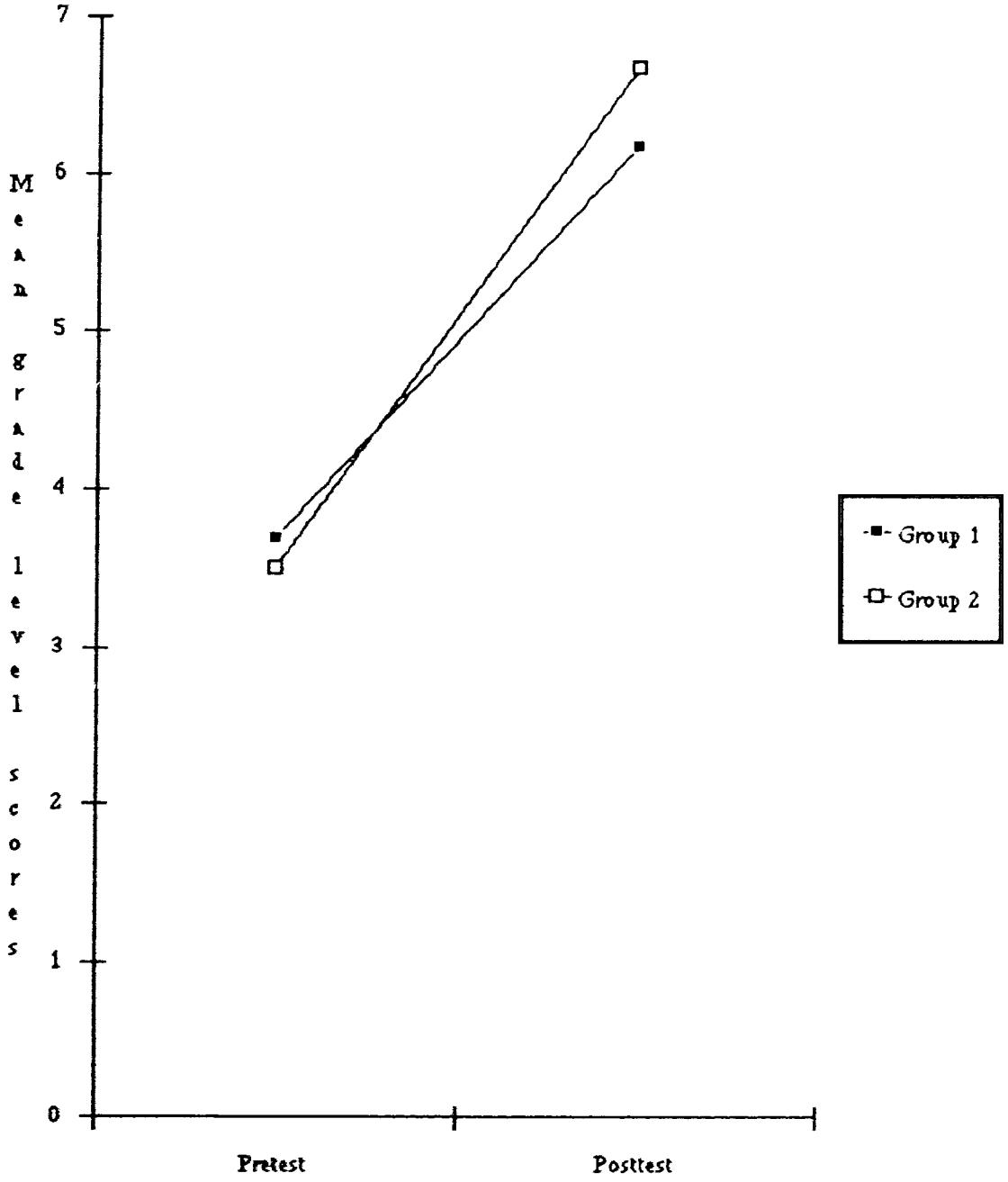

Fig 5. Pre- and Posttest Performance on Jerry Johns BRI of Group and Group 2

Subsequently one-way ANOVA's indicated no differences between Experimental Groups 1 and 2 at pretest [F(1,34)=.46, p>.05] nor posttest [F(1,34)=2.84, p>.05].

In order to pinpoint that the strategies really effected substantial change in both groups, a correlated t-test was run. Data analyses from the correlated t-test indicated that both Group 1 (t= -9.03, df 17, p<.001) and Group 2 (t= -14.55, df 17, p<.001) improved significantly from pre to posttest on the Jerry Johns tests.

Cloze test. A 2 (Groups) x 2 (Tests: Pre-Post tests) ANOVA with repeated measures on the second variable was computed on the cloze data. The ANOVA indicated a significant main effect of Groups [F(1,34)=6.66, p<.05] and of Tests [F(1, 34)=115.75, p<.001]. However, the Groups x Tests interaction was not significant [F(1,34)= p< .681]. Table 7 presents the means and standard deviations of the cloze measure for the two groups at pre and posttest. As shown in Table 7, the mean difference between the groups at posttest was 8.00. However, this difference should be viewed in light of the difference at pretest which was about the same (6.722). The main effect of Tests indicated that the intervention had effected a change in posttest scores. An analysis of the means indicated that both groups made substantial gains from pre- to posttest with Group 1 improving 16.53 (52.3 to 68.83) and Group 2 improving 17.22 (59.61 to 76.83).

Table 7

Means and SD's on Cloze Test for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	SD	N	M	SD	N
Group 1	52.30	13.48	20	68.83	8.10	18
Group 2	59.61	8.36	18	76.83	7.78	18

In order to pinpoint that the strategies intervention really effected substantial change in both groups, a correlated t-test was run. Data analyses from the correlated t-test indicated that both Group 1 (t= -7.12, df 17, p< .001) and Group 2 (t= - 8.13, df 17, p< .001) improved significantly from pre to posttests on the cloze tests.

This result reflected other research (Hosseini & Ferrell, 1982) which found cloze to be one that is sensitive to strategic processing such as using context.

Teacher made tests. A 2 (Groups) x 2 (Tests: Pre-Post tests) ANOVA with repeated measures on the second variable was run on the comprehension data. The ANOVA indicated that there was no significant main effect of Groups [F(1,34)=.69 p>.05]. However, the main effects of Tests was significant [F(1,34)=264.57 p<.001]. A Groups x Tests interaction was not significant [F(1,34)=1.25 p>.05].

In order to pinpoint that the strategies intervention really effected substantial change in both groups, correlated t-tests were run. Data analysis indicated that both Group 1 (t= -11.23, df 17, p< .001) and Group 2 (t= -11.77, df 17, p< .001) improved significantly from pre to posttest on measures of teacher made tests.

Table 8 presents the means and standard deviations for the teacher made tests. These means are based on the totals of two 8 point pretests and two 8 point posttests. An examination of the posttest means show that they were identical (7.528), representing 94% achievement on these tests.

Table 8

Means and SD's on Teacher Made Tests for Group 1 and Group 2

	PRETEST			POSTTEST		
	M	**SD**	**N**	**M**	**SD**	**N**
Group 1	4.92	1.22	19	7.53	0.47	18
Group 2	4.50	1.07	18	7.53	0.40	18

This result could be due to a ceiling effect for many students on the tests. The readability of the tests (two grades below age grade level) was held constant for pre and posttest. Given that both groups made improvements of several grade levels on the Jerry Johns tests, there is an indication that these teacher made tests may not have tapped the real improvements made by some of the students.

Did the reading and thinking strategies training transfer to comprehension measures of content area material?

Teacher made transfer tests. A 2 (Groups) x 2 (Tests: Pre- Post tests) ANOVA with repeated measures on the second variable was computed on the comprehension data of the teacher made posttests and tests of transfer. The ANOVA indicated there was no significant main effect of Groups [$F(1, 34)=.93$, $p>.05$]. However,

the main effect for Tests was significant [F(1, 34)=46.85, p<.001]. There was no significant interaction [F(1, 34)=3.24, p>.05].

Data analysis from the correlated t-test indicated that the drop in measures of transfer was significant for Group 1 (t= 6.23, df 17, p< .001) and Group 2 (t= 3.5, df 17, p<.005).

Table 9 presents the means and standard deviations for Group 1 and Group 2 on the teacher made posttests and tests of transfer. The significant main effect for Tests reflected a drop in results by both groups from teacher made posttests to transfer tests. The mean difference between the means for Group 1 was .67 (7.53 to 6.86) or 8.4 % and Group 2 was .39 (7.53 to 7.14) or 4.9%. While the decrease in mean scores was small, the direction of the change was consistent for almost all students.

Table 9

Means and SD's on Teacher Made Posttest and Transfer Test for Group 1 and Group 2

	POSTTEST			TRANSFER TEST		
	M	SD	N	M	SD	N
Group 1	7.53	0.47	18	6.86	0.56	18
Group 2	7.53	0.40	18	7.14	0.51	18

One possible explanation for the decrease in scores could be related to the vocabulary level of curriculum material which has been calculated as high as Grade 12 However, this result still represented significant gains from pretest measures of comprehension on teacher made tests. A mean gain of 1.94 (4.92 to 6.86) or 20% was made by Group 1 and 2.6 (4.5 to 7.139) or 33% by Group 2. As a result, transfer can be seen to have been effected.

Did the reading and thinking strategies training affect comprehension measures of maintenance?

Teacher made maintenance tests. A 2 (Groups) x 2 (Tests: Pre-Post tests) ANOVA with repeated measures on the second variable was computed on the comprehension data of the teacher made posttests and tests of maintenance. No significant results were obtained (all F values were <2, p>.05).

Table 10 presents the means and standard deviations for Group 1 and Group 2 on the teacher made posttests and tests of maintenance. These results indicated that the two groups performed similarly. While there was a slight drop in mean maintenance scores this drop was not significant. The mean drop for Group 1 was .17 (7.53 to 7.36) or 2.1 % and the mean drop for Group 2 was .08 (7.53 to 7.44) or 1%. As with the results from the transfer tests, these scores represented significant gains from the pretests. A mean gain of 2.44 (4.92 to 7.36) or 31% was made by Group 1 and 2.94 (4.5 to 7.44) or 37% was made by Group 2. In general, the effects of the intervention can be seen to be maintained over time.

Table 10

Means and SD's on Teacher Made Test and Maintenance Test for Group 1 and Group 2

	POSTTEST			MAINTENANCE TEST		
	M	**SD**	**N**	**M**	**SD**	**N**
Group 1	7.53	0.47	18	7.36	0.64	18
Group 2	7.53	0.40	18	7.44	0.48	18

Data Set 3

Is strategy awareness related to measures of comprehension?

Pearson Correlations were calculated between the scores from the IRA and both the vocabulary and comprehension subtests of the Gates MacInitie Reading Test. Table 11 presents correlations for the pre and posttests.

Table 11

Correlation between IRA and GM Vocab and IRA and GM Comp

IRA	Pretest	p	Posttest	p
GM Vocab	0.29	0.107	0.58	0.006
GM Comp	-0.30	0.098	0.52	0.014

Results of the pretest correlations indicated that there was a weak but non-significant relationship between the IRA and the Gates Vocabulary subtest and a weak inverse but non-significant relationship between the IRA and the Gates Comprehension subtest.

Results of the posttest correlations indicated that there was a moderate relationship between the IRA and the Gates Vocabulary subtest (r=.58, p.<.01). Because there has been no research on the relationship between awareness and vocabulary, only tentative interpretations will be made here of the finding. Vocabulary scores on the Gates are based on selecting synonyms for the designated words. As multiple choice formats may allow for strategic elimination of non-examplars and as an activation of background knowledge may serve to connect meanings, awareness of strategies may help to improve identification.

Results of the posttest correlations also indicated a moderate relationship between the IRA and the Gates Comprehension subtest (r=.52, p.<.05). This finding supported

those found by other researchers (Cross & Paris, 1984; Forest-Pressley & Waller, 1984; Garner & Kraus, 1981-1982). It was also consistent with the increasing congruence found between awareness and comprehension across ages in studies by Cross and Paris (1984) and Byrd and Gholson (1985). In the Cross and Paris study, correlations on several measures were stronger for students in grade five than for those in grade three. For example, the correlation between awareness and the Gates Comprehension test was .28 for the students in grade three and .40 for those in grade five. The trend continued in this study with the correlations for the grade six and seven students reaching .52.

Data Set 4: Interview Data

A structured interview was administered to all students before and after training to determine reported knowledge of strategies, use of strategies, and self-assessment of reading competence. A probed interview format was used (Duffy et al., 1987). Students were initially asked five standard questions that focused on one of the above objectives. Within each question, a general probe was used to ascertain if any more information was available to the students. For example, when they paused after answering, students were asked if they could tell any more. If an answer lacked clarity or detail, students were asked if they could explain what they meant by that answer. Unlike the interviews outlined by Duffy et al. (1987), no specific probes tapping declarative, conditional, or procedural knowledge were used as it was felt that the quality of awareness demonstrated by students would be different under the two different conditions. The transcribed pre and posttest interviews can be found in Appendix 8.

In analysing the interview data, thought units within each question were determined and then assigned a numerical value based on the level of metacognition that was expressed. While a brief outline of the thought units are included in this analysis, a complete description of the parameters used for analyzing the thought units in each question

can be found in Appendix 4. The mean number of thought units in each numerical value was calculated and then converted to percent in order to determine and analyze the group pre- and posttest differences. Following is the analysis of each question with reference to the pertinent research question.

Did the reading and thinking strategies training affect students' reported strategy knowledge.

Question 1: What do good readers do when they read? This question asks students to report their level of awareness of reading processes. Strategy values of from 0-4 were awarded the thought units based on the following criteria: 0 was awarded thought units that reflected no strategic value such as "they're perfect at reading"; 1 was awarded to units that indicated processing at the text level such as "they sound out the words"; 2 was awarded to units that indicated passive strategic processing such as "they read slowly"; 3 was awarded to units that recognized active strategies but did not specify their value such as "they paraphrase"; 4 was awarded to units that indicated metacognitive awareness such as "they paraphrase so they can remember the information better if they have a test".

To determine pre- and posttest differences in the quantity of strategies identified, group totals for each numerical value were calculated. To facilitate a qualitative analysis of the type of reading processes used by students before and after intervention, means were calculated and shown in percentages for each of the five strategy value ratings. Pre- and posttest percentages for each strategy value are presented in Figure 6. Interrater reliability between two raters for Question 1 was calculated at: a) Pretest 96%, and b) Posttest 94%.

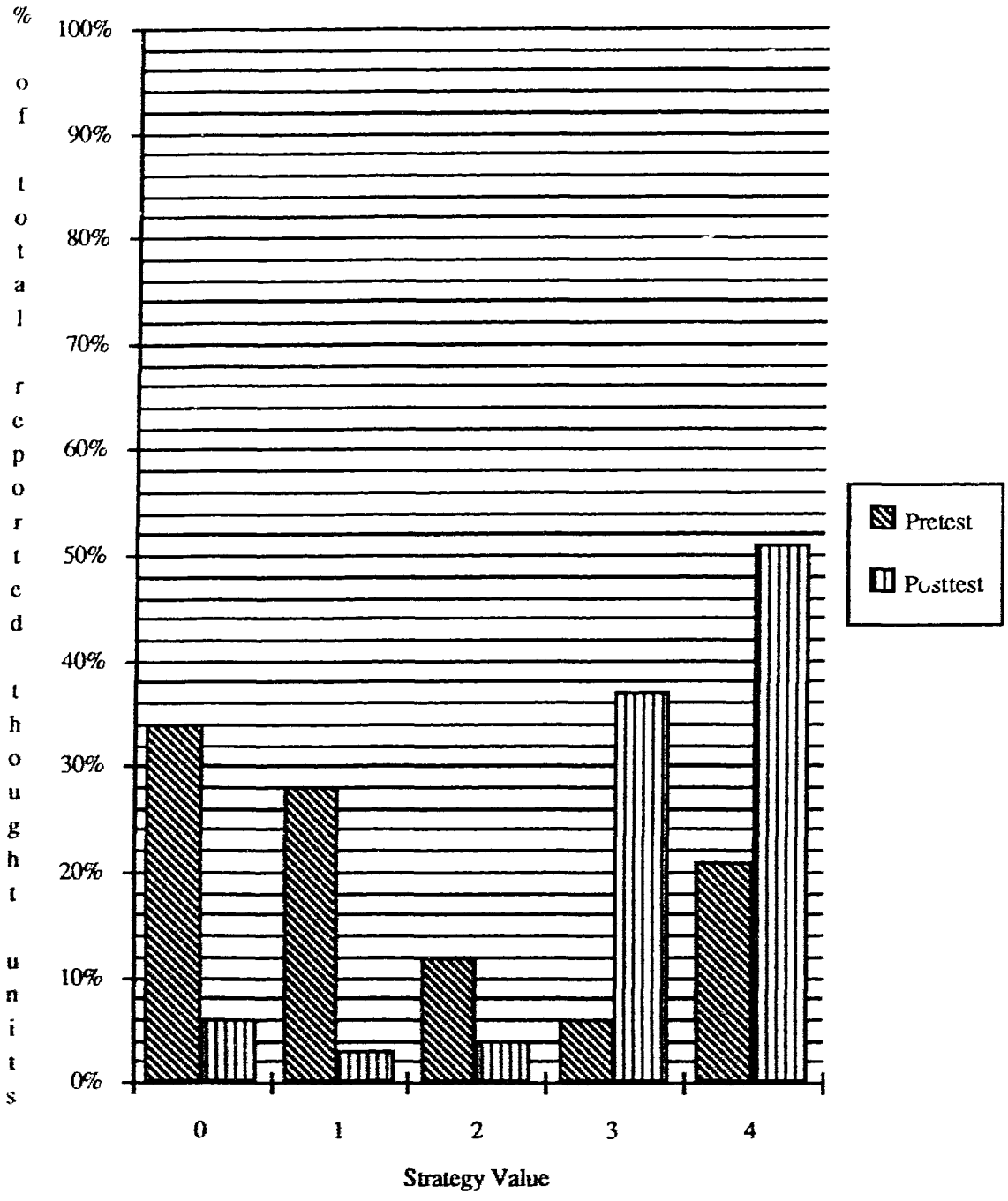

Fig 6: Pre-and Posttest Percentage Differences in Reported Thought Units Assigned to Each Strategy Value in Question #1, "What do good readers do when they read?"

Note Rating of 0-4 (refer to text for evaluative criteria)

Notable differences were found between the number of thought units identified by students in the pre- and posttest answers to Question 1. In the pretest, 102 thought units were calculated with a mean of 2.83 per student; in the posttest, 255 were calculated with a mean of 7.08 per student. In addition to this quantitative improvement, clearly defined qualitative differences were noted between the pre and posttest ratings. Of the thought units identified at the pretest, 61.8% were assigned either a "0" (34.3%) or "1" (27.5%) value. This finding indicated that the LD students' awareness of reading processes was mostly limited to either those with no strategic value or ones that reflected word level strategies. Answers like "They can get the story done" or "They'd read it word for word" were representative of the answers in this category. In contrast, at the posttest, 87.5% of the thought units were assigned either a "3" (36.1%) or "4" (51.4%) value. After intervention, students primarily reported an awareness of the value of strategies and metacognition to good reading. Reflecting on "before" reading strategies, one student said, "Well, they plan their reading because if they don't plan then they won't know what to do if they have trouble. And they figure out why they're reading because it wouldn't be good to just skip over a part if you have questions." Addressing that understanding is the central purpose of reading, this student said, "Even if they're a pretty good reader they could have a couple of problems and go back to the place and reread the story....and, uhm.....well if they had really bad trouble, I'd take.....they'd probably take their time going over it and ask a bit of questions and, after the end, (ask) if if they understood it." Despite all the technical descriptions, this comment captures the spirit of many of the answers given at this time. "A story should always be in your mind. So you read a perfectly good story...it shouldn't be like, after you read it....you think you've got better things to do so you throw it away. That's like a waste of a story." However, even at pretest, 20.6% of the thought units reported by students were at the metacognitive level (value 4) indicating some pre-intervention awareness of the value of this activity to good reading. Primarily, students

reported that good readers understand what the story is about or think ahead to make the story more interesting. Despite this surprising finding, the pre- and posttest interview data supported the results of the IRA test results which showed that students gained significantly in awareness after the intervention.

Did the reading and thinking strategies training affect the students' reported strategy use? The next three questions ask students to report their level of strategy use. Question 2 probes for students' strategy use during general reading situations and Questions 3 and 4 probe for strategy use in response to specific reading difficulties.

Question 2: When you pick up something to read, what do you do? The categorization of the thought units within this question and the analyses of the data followed the identical format used in Question 1. Pre- and posttest percentages for each strategy value are presented in Figure 7. Interrater reliability between two raters for Question 2 was calculated at: a) Pretest 93%, and b) Posttest 96%.

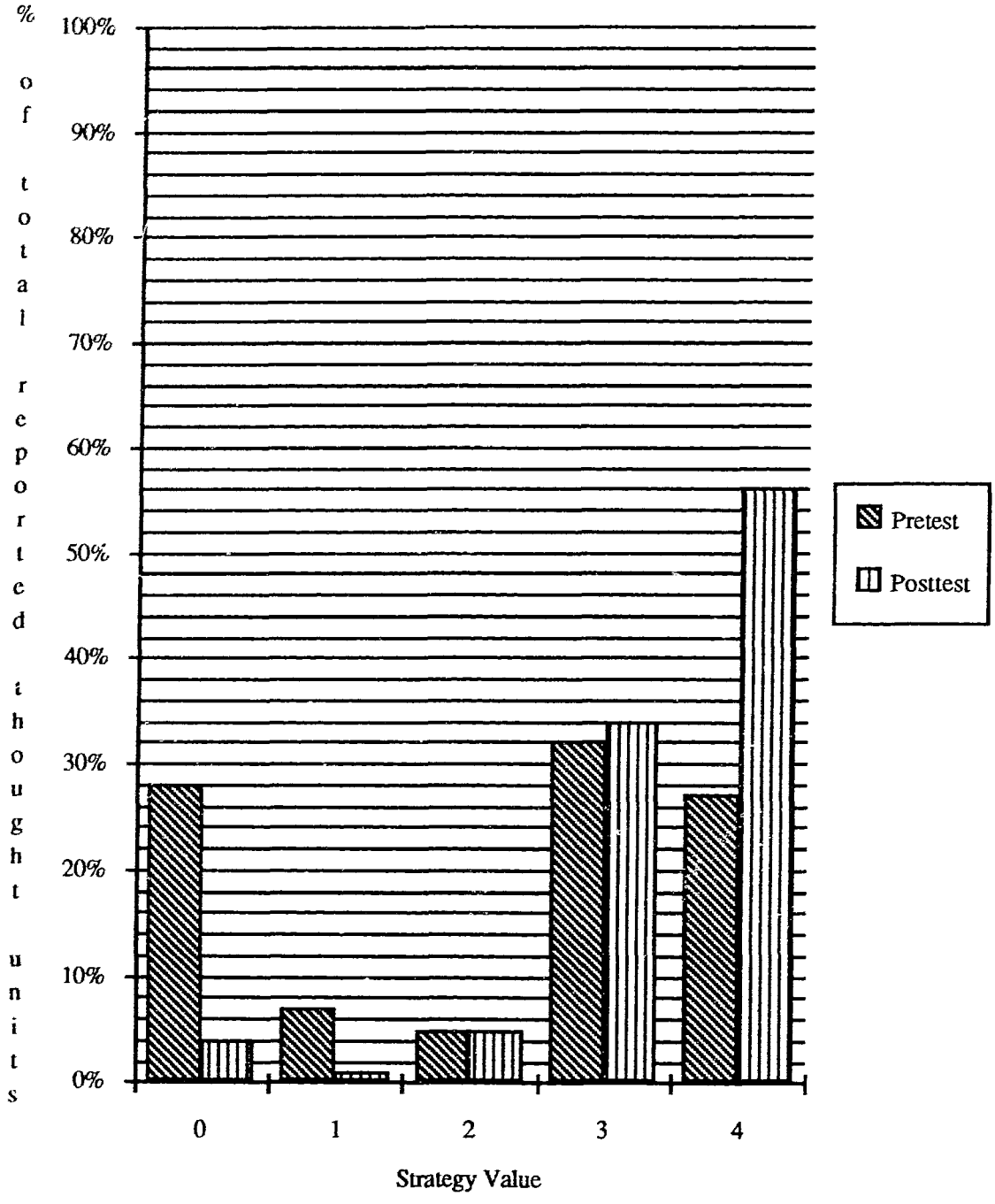

Fig 7: Pre- and Posttest Percentage Differences in Reported Thought Units Assigned to Each Strategy Value in Question #2, "When you pick up something to read, what do you do?"

Note Rating of 0-4 (refer to text for evaluative criteria)

Notable differences were found between the number of thought units identified by students in the pre and posttest answers to Question 2. In the pretest, 74 thought units were calculated with a mean of 2.05 per student; in the posttest, 223 were calculated with a mean of 6.19 per student. After intervention, students reported using substantially more reading strategies. In addition to this quantitative improvement, notable qualitative differences were found between the pre and posttest ratings. Of the thought units identified at pretest, 35.2% were assigned either a "0" (28.4) or "1" (6.8%) rating. This finding indicated that, as supported by research, a substantial portion of LD students' reported use of reading processes was limited to either those with no strategic value or ones that reflected word level strategies. Students reported "making bookmarkers" and "trying to read fast because everyone else does" in response to this question. In contrast, on the posttest, 4.9% of the thought units were assigned to these categories (4.0% and .9% respectively) indicating almost a complete elimination of this level of processing after the intervention. As 89.7% of the thought units were assigned either a numerical value of "3" (33.6%) or "4" (56.1%) after intervention, this finding indicated that students reported very high use of strategic or metacognitive processes at this point. As one of a number of strategies most students reported using the pictures and title to get an idea of what the story was about and predicting what would happen next. One student said, "When its boring or dull I won't summarize because its too dull. Then it might get more interesting so I'll summarize them both together." Another said "I'd mostly use imagery if I had background knowledge, because you could do that easily." Another reported "Sometimes I certainly slow up, uhm....if I get into a good part of the story which I usually do. In the middle of the chapter, I'll slow down and at the beginning I'll speed up again." However, also of interest, was the pretest results for these two numerical values. 59.4% of the thought units were categorized as being either strategic (32.4% for value 3) or metacognitive (27.0% for

value 4) at pretest. This finding indicated that higher level thinking was occurring prior to intervention despite the low comprehension level of these students. Students' inappropriate or ineffective use of strategies could be posited to explain this result. However, the mean number of thought units in these two values reported for the pretest was 1.2 and the mean number for the posttest was 5.5. Despite the quality of the processing, perhaps the amount of processing was not adequate for good comprehension to be effected. An examination of the responses also points out another problem. The majority of students reported using the same, and only one, strategy at these levels--reading the title and making a prediction of what the story was going to be about or if they were going to like it. The range of strategic awareness during the pretest interview did not seem to be very broad.

Question 3: What do you do when you come to a word you don't know? In analyzing the data for this question strategy, values of from 0-3 were awarded based on the following criteria: 0 was awarded if the students indicated that the word would be skipped without any effort to understand it; 1 was awarded if the student said they would skip the word but after some effort to understand it; 2 was awarded if the student indicated various strategies (but not using context) would be tried until the word was understood; 3 was awarded if the student used context as one of the strategies ending in an understanding of the word. Pre- and posttest percentages for each numerical value are presented in Figure 8. Interrater reliability between two raters for Question 3 was calculated at: a) Pretest 90%, and b) Posttest 95%.

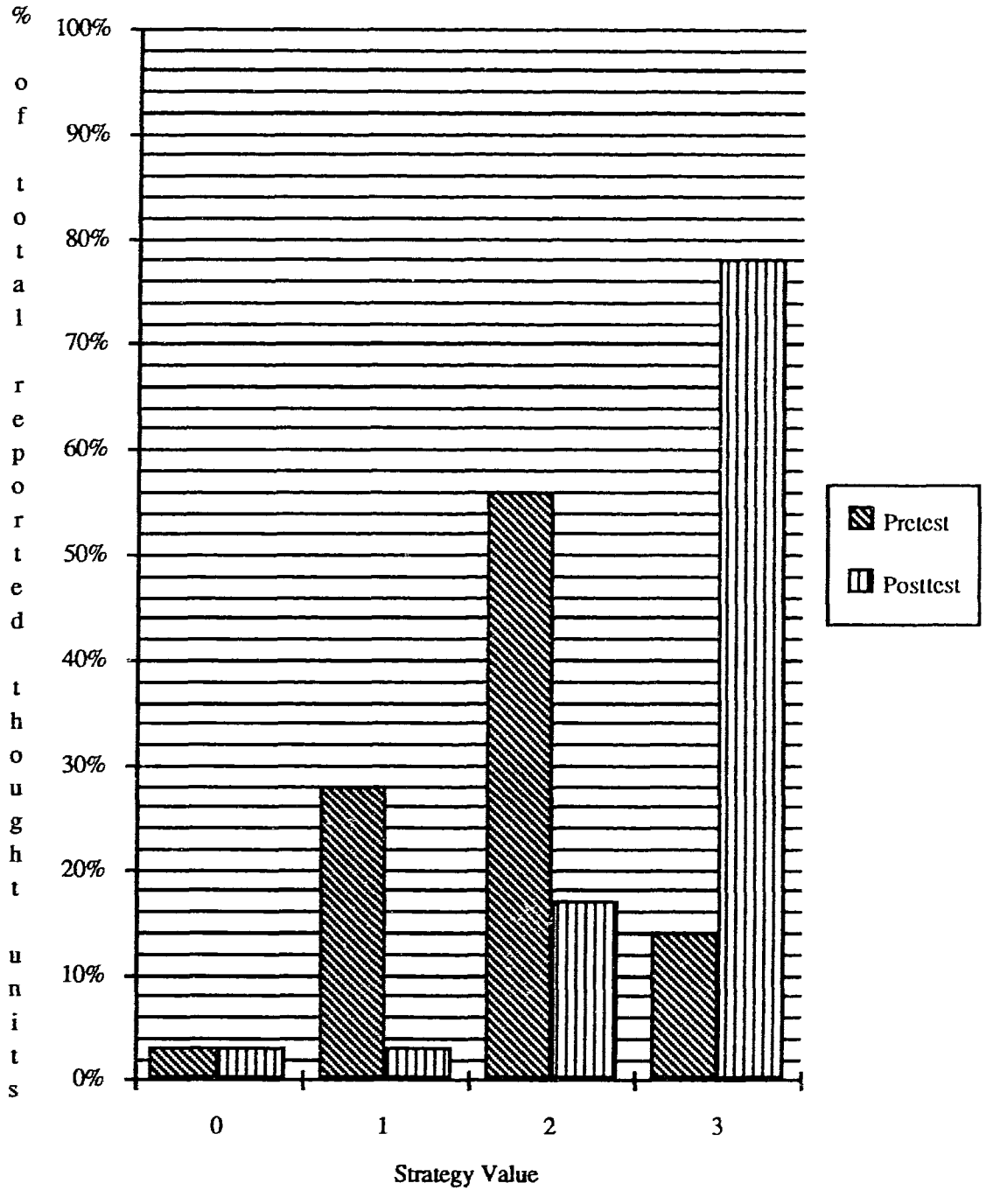

Fig 8: Pre- and Posttest Percentage Differences in Reported Thought Units Assigned to Each Strategy Value in Question #3, "What do you do when you come to a word you don't know?"

Note Rating of 0-3 (refer to text for evaluative criteria)

While 30.6% of the students indicated at pretest that they would skip a word either immediately or after an effort to figure it out (2.8% for value 1 and 27.8% for value 2), only 5.6% said they would do so after the intervention (2.8% for both values). Although at pretest only 13.9% reported using context to try to figure out a word, the proportion that said they would use some kind of strategy to find out the meaning of the word was 69.5% (including 55.6% in value 2 who said they would use other methods). Of interest at posttest is that the trend for these two categories was reversed. Of the 94.5% who said they would end up knowing the word, 77.8% (value 3) indicated that they would include using context as one method and 16.7% (value 2) said that they would use methods other than context to come to an understanding of the word. As using context was a focus of the strategies' training, the effects of the intervention were very visible here. However, both the pre- and posttest results should be interpreted with caution as there is no indication of how well these students were monitoring their reading and, therefore, no indication of how stringently they were applying these processes. These results indicated what they reported they would do when they recognized they did not know a word.

Question 4: When you come to a sentence you don't understand, what do you do? The same criteria used for analyzing Question 3 were used for this question. Pre- and posttest percentages for each numerical value are presented in Figure 9. Interrater reliability between two raters for Question 4 was calculated at: a) Pretest 95%, and b) Posttest 100%.

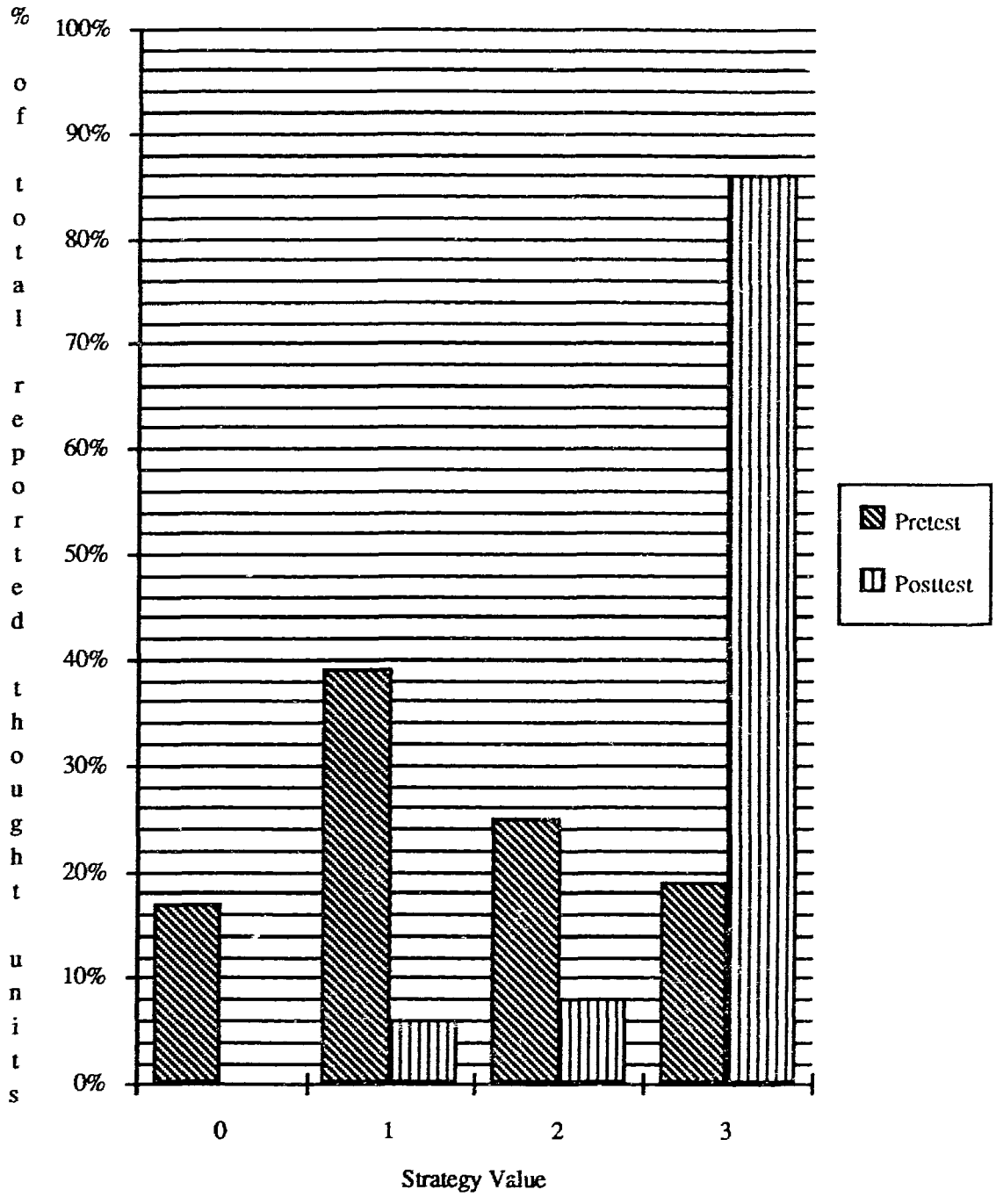

Fig 9: Pre- and Posttest Percentage Differences in Reported Thought Units Assigned to Each Strategy Value in Question #4, "What do you do when you come to a sentence you don't know?"

Note Rating of 0-3 (refer to text for evaluative criteria)

Results for the pretest indicated that slightly over half the students reported they would end up by skipping a sentence they didn't understand (55.6%: 16.7% and 38.9%), and slightly less than half said they would use some strategy to figure it out (44.4%: 25.0% and 19.4%). At posttest, none indicated that they would skip over a sentence with no effort to understand it while only 5.6% said they would skip it after some effort. Of the 94.4% who indicated at posttest that they would come to an understanding of the sentence, 86.1% included using the context of other sentences to help them in this effort (value 3). As using context to assist understanding emphasizes independent effort as well as the importance of the integrated nature of meaning in stories, this finding implied a shift to a self- regulated learning style amongst a majority of the students.However, as with Question 1, caution should be exercised when interpreting the data because of the limitation of the interview format to determine the students' state of monitoring as well as actual use of the strategy.

Does Students' Rating of Their Self-competence Change After Intervention?

Question 5: This list of words can be used to describe how people feel about the kind of reader they are (very good, good, satisfactory, fair, poor). Which one would you say you are? Does that describe how you understand stories or how you read the words? This question in the pre- and posttest asked students to assess their competence in reading words and in understanding what they have read based on a Likert scale (very good, good, satisfactory, fair, poor). In the posttest interview, students were not apprised of their previous answers. To facilitate a qualitative analysis of the self-competence ratings before and after intervention, means were calculated and shown in percentages for each of the five Likert scale ratings. Each of the two definitions of reading will be discussed separately.

Decoding words. Pre- and posttest percentages for each Likert scale category are presented in Figure 10. Differences between pre- and posttests demonstrated a general trend for improved ratings of self-competence in reading words. A decrease in the "poor" category from 8.3% to 0% (8.3%) and in the "fair" category from 38.9% to 28.6% (10.3%) was achieved. These decreases were reflected in an increase in the "satisfactory" and "good" categories. The former increased from 22.2% to 31.4% (9.2%) and the latter from 22.2% to 33.3% (11.1%). The decrease in the "very good" category from 8.3% to 5.6% was seen as minimal and perhaps reflected only a more realistic assessment of competence. However, the relatively high numbers of students who ranked themselves "poor" or "fair" in both the pre and posttest was unexpected due to their demonstrated competence with decoding. One possible explanation is the inability of the students to discriminate the nature of their reading problem resulting in the tendency for feelings of poor self-competence to generalize (as reported in research sited earlier). While enlightening, this analysis utilizing percentages did not account for movement within the categories. To determine the pattern of rating shift, an additional analysis was carried out. Students were assigned a "+", "0", or "-" rating depending on whether they rated themselves improved, the same, or less competent. Results indicated that 6 students (17.1%) rated themselves less competent, 14 (40%) rated themselves the same, and 15 (42.9%) rated themselves improved. Generally, the data suggest that the intervention could improve the students' ratings of self-competence in reading words. As no posttest data was collected on level of decoding, this self-assessment cannot be compared to actual changes.

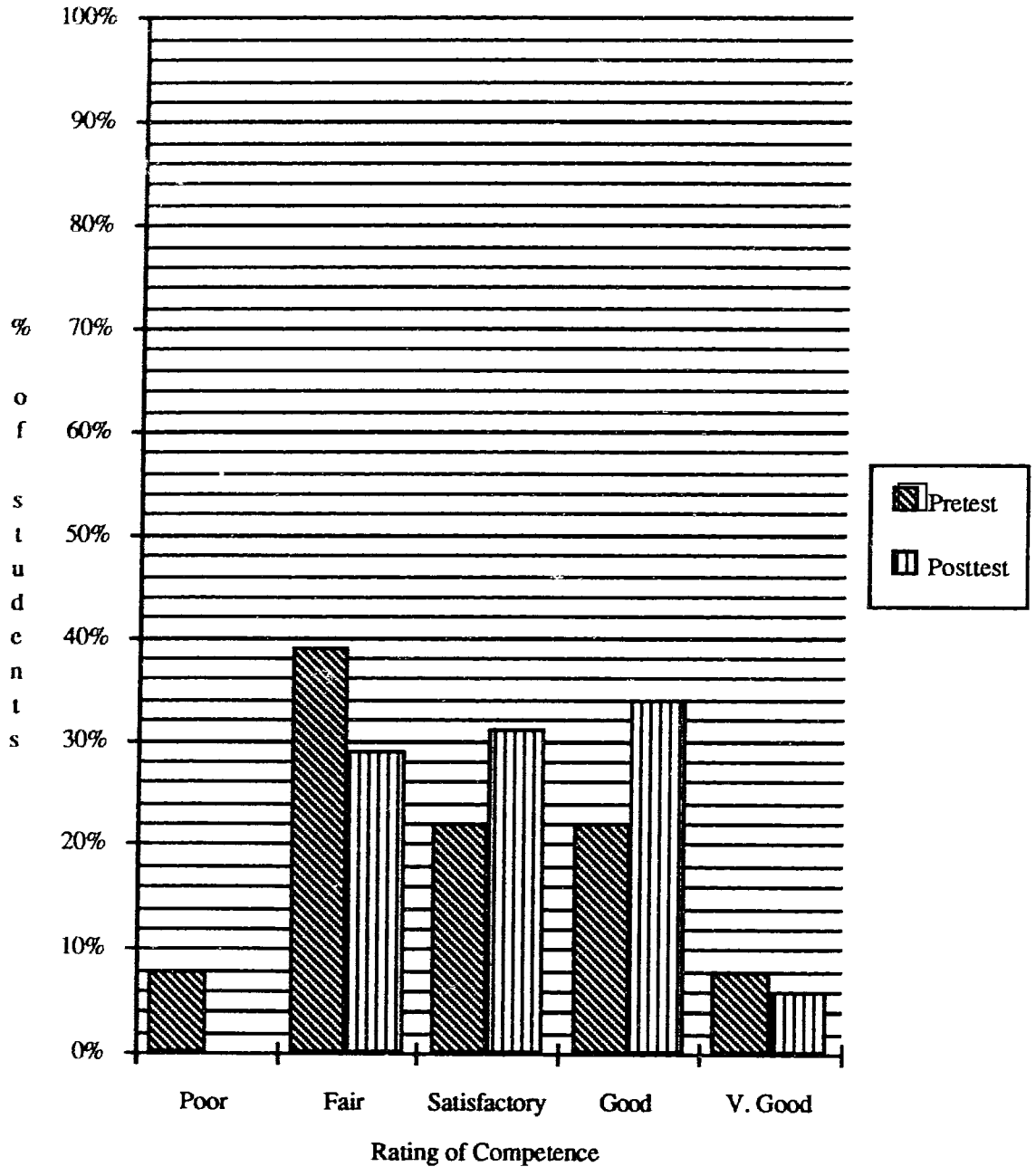

Fig 10: Pre- and Posttest Percentage Differences in Reported Rating of Competence in Decoding Words

Comprehending text. Pre- and posttest percentages for each Likert scale category are presented in Figure 11. Differences between pre- and posttests demonstrated a strong trend for improved ratings of self-competence in understanding what students read. A decrease in the "poor" category from 5.6% to 0% (5.6%) and in the "fair" category from 38.9% to 11.1% (27.8%) was achieved. These decreases were reflected in an increase in the "satisfactory" category from 33.3% to 44.4% (11.1), in the "good" category from 19.4% to 33.3% (13.9%), and in the "very good" category from 2.8% to 11.1% (8.3%). To support this interpretation, the analysis to determine the pattern of rating shift was carried out with this data also. Results indicated that 7 students (19.4%) rated themselves less competent, 6 (16%) rated themselves the same, and 23 (63.9%) rated themselves improved. Given that the intervention inculcated declarative, conditional, and procedural knowledge and that students reported that they were using the strategies, these findings of improved self-competence in comprehension suggest the intervention improved the students' ratings of self-competence in understanding what they have read.

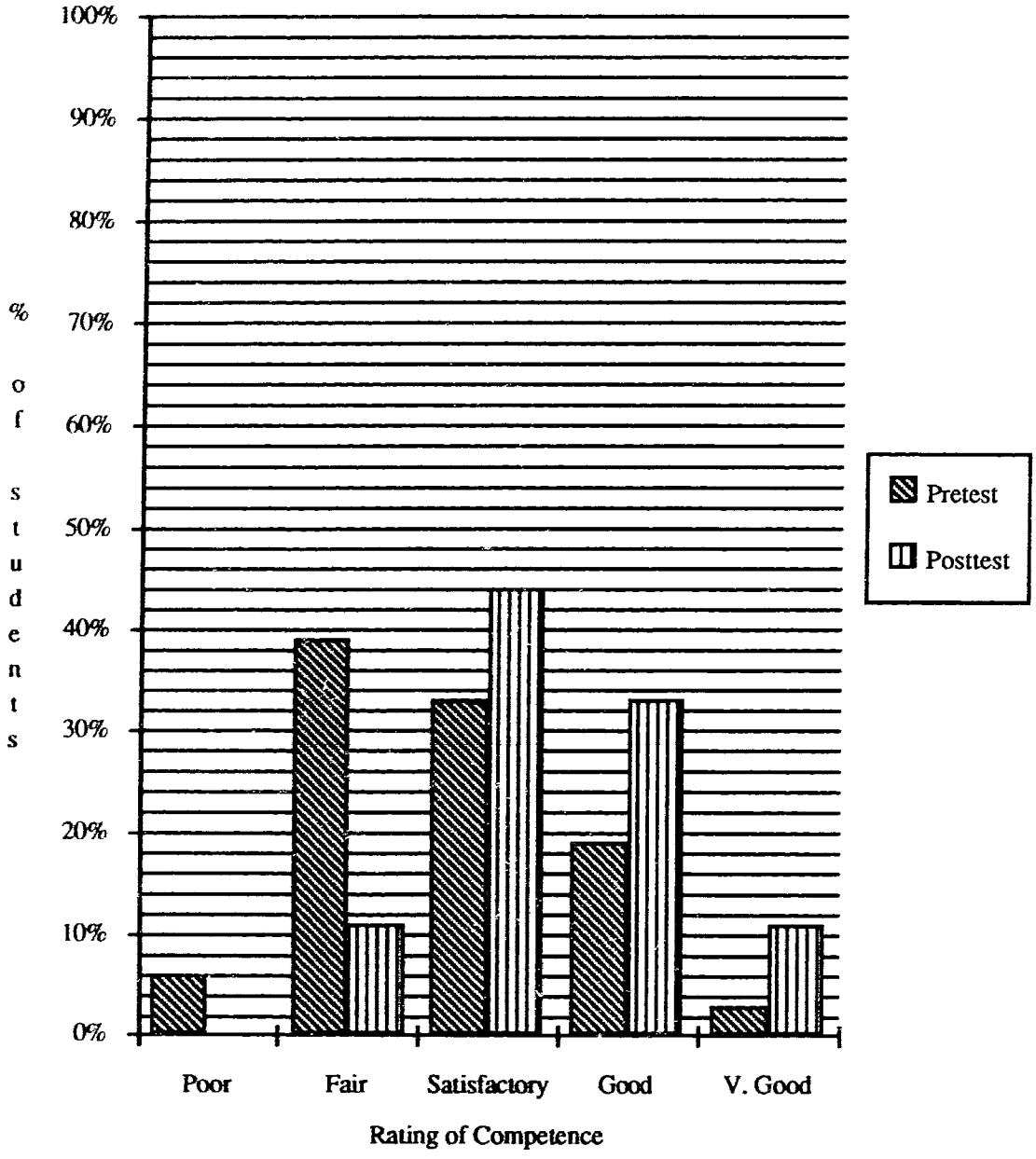

Fig 11: Pre- and Posttest Percentage Differences in Reported Rating of Competence in Comprehending Text

General discussion of interview data.

Overall, in the interviews, students reported more awareness of strategies, increased use of strategies, and improved ratings of self-competence in both reading words and understanding stories. These findings supported the findings from the pre- and posttests of comprehension and awareness that indicated that students gained awareness and improved on many measures of comprehension after training with the Reading and Thinking Strategies intervention.

CHAPTER 5

Discussion

General Conclusions

Of interest in this study was whether a classroom programme of strategies' instruction, Scott Paris' Reading and Thinking Strategies, would improve the comprehension, reported strategy knowledge and use, and ratings of self-confidence regarding decoding and comprehension of a subgroup of LD students who displayed poor comprehension but appropriate decoding skills. Specifically, seven questions were asked. First, did the reading comprehension of the students improve.? Second, did the students' awareness of strategies improve? Third, did the training transfer to comprehension measures of content area material? Fourth, was any training effect on comprehension maintained? Fifth, was strategy awareness related to measures of comprehension? Sixth, did the training affect students' reported strategy use? Seventh, did the students' rating of self-confidence change ?

Results of comprehension testing indicated that the programme was effective in improving comprehension in both Experimental Group 1 and Experimental Group 2. After intervention, both groups showed significant improvements on both standardized and criterion referenced tests. While the Gates Comprehension subtest and the Jerry Johns Basic Reading Inventory given at pretest had established the reading level of both groups to be approximately 2.5 years below grade level, the posttests indicated that the students were achieving to within one year of grade level on the Gates and slightly above grade level on the Jerry Johns. Results for both groups on the Gates were surprising as significant results are rarely reported However, in most studies using LD students, decoding difficulties are not controlled and may confound the results of posttest comprehension measures. In addition, Forrest-Pressley and Waller (1984) found that, at the grade 6 level,

scores on the Gates were best predicted by strategy efficiency scores. Given the evidence from the posttest interview data that students reported using not only more but also more sophisticated strategies than at pretest, it appears that the strategy intervention was particularly suited for this subtype of LD student. Caution must also be taken in overinterpreting the results of the Jerry Johns given that the reliability testing for the different forms has been questioned. Helgren-Lempesis and Mangrum (1986) found the reliabilities acceptable but suggested cautious interpretation. However, results of the other criterion referenced tests supported the conclusion that the intervention was effective. On the cloze test, both groups improved significantly from pre- to posttest on percent of questions correct. As suggested by Hosseini and Ferrell (1982), this improvement indicates increased ability to make use of meaningful context, grammatical structure, word patterns and frequencies and style to infer what word fits the blank. Results from the strategy interview may explain the improved scores on this measure. On Question 3, which asked students what they did when they came to a word they didn't know, on pretest they reported using context 13.9% of the time but on posttest 77.8% of the time. On Question 4, which asked what students would do when they came to a sentence they didn't know, using context was reported 13.9% for pretest and 86.1% for posttest. This substantial increase in reported use of context may explain the increase on comprehension measures requiring that skill. However, as no direct online measures of use of context was taken, this explanation remains conjecture. On the teacher made tests, both groups of LD students achieved 94% on posttests while on the pretest Group 1 had achieved 60% and Group 2 56%. Although the predominance of questions on this test were of multiple choice (the easiest kind for LD students according to Davey, 1987), questions on the Jerry Johns were of the constructed type. Given the consistency of results on test questions featuring various processes, it appears that the intervention was successful in improving comprehension in general. However, it must be noted that all passages were of 400 words

or less and tests with longer, more complex passages may prove too demanding for students to maintain strategy use or integrate their learning.

Both groups significantly increased their awareness of strategies as measured by the Index of Reading Awareness (IRA) test and the strategy interview. Mean scores on the IRA, multiple choice test improved approximately 30%. In addition, reported strategy awareness as indicated by Question 1 on the interview also increased substantially. Students reported a total of 102 examples of strategy knowledge at pretest and 255 at posttest in answer to the question about what good readers do when they read. Quality of reported strategy knowledge also improved. While over 60% of reported reading processes in the pretest were rated either non-strategic or a text-level based strategy, almost 90% at posttest were rated as strategic or metacognitive. However, the pretest result of approximately 20% of thought units in the metacognitive category, does support the position by Swanson (1989) and Wong (1988) that LD students are not lacking in metacognitive processing. This study's results do question LD student's range of the metacognitive processing, though. Most strategies reported at pretest were restricted to using the title and picture to predict what the story would be about so that it would be more interesting. Few examples of more advanced planning such as making different plans for different texts, varying reading speed for difficult or unfamiliar material, or changing plans to suit unforeseen circumstances were reported. Almost no examples of monitoring reading for understanding or remembering were reported and few examples of critically appraising the character, plot, or author's style were given. As such, although metacognitive strategies were reported by most students, the restricted range calls into question their value in helping the student to understand or remember material for a variety of reading purposes. Although verbal reports have been questioned (Cavanaugh & Perlmutter, 1982) and should be interpreted cautiously, both measures of awareness collected in this study support the conclusion that the Reading and Thinking Strategies

intervention did increase students' awareness of strategies. In addition, some evidence exists that this warning should apply more to reports of strategy use than strategy knowledge. When asked to report strategy use, students have been found to report more about what they thought they should do than what they did do (Garner and Reis, 1981). As this question did ask students what they think they should do, only the completeness of the report not the veracity should be questioned.

While results indicated a significant drop in scores from teacher made posttests to teacher made tests of transfer, those results should be viewed in the context of classroom practice. While the mean drop was 8.4% for Group 1 and 4.9% for Group 2, the mean increase over the pretest scores was 24% for Group 1 and 33% for Group 2. In addition, the mean Transfer test score for Group 1 was 86% and for Group 2 was 88% on the two 8 mark tests. These results indicated that both groups had achieved marks far above ones that classroom teachers consider mastery on most content area tests (80%), while they had achieved a mean score of only 59% on the teacher made pretests. In general, the transfer tests had more unfamiliar content and more unrestricted vocabulary than the teacher made tests despite a similar length and questioning format. Therefore, although some decrease in scores was registered, it seems reasonable to consider that the transfer was effected due to the increased difficulty of the testing material and the acceptable level of posttest performance.

No significant results were found for the maintenance tests indicating that achievement did not differ significantly from the teacher made posttests. In addition, a mean for both groups of 92% supported the conclusion that maintenance had been achieved. Effectively, students maintained skills over a six week time period. As students returned to instruction which did not directly utilize the programme or the principles of strategy instruction, the vigor of the results was surprising. However, the question of how permanent the maintenance would be given the intervention conditions (21 lessons

delivered in a setting isolated from the classroom environment) needed further investigation which the scope of this study did not permit. Future studies may want to explore in more depth the conditions necessary for long term maintenance.

Significant posttest correlations between the IRA and the Gates Vocabulary and Comprehension subtests supported results found by other researchers (Cross & Paris, 1988; Paris & Jacobs, 1984). However, while correlations found by Paris and Jacobs (1984) were modest for the Grades 3 and 5 students (.28 and .40 respectively), correlations for the Grades 6 and 7 students in this study increased to the moderate range (.52). Given that the potential confound of decoding was eliminated from this study, this result may be more reflective of the relationship between the knowledge about and use of strategies and reading comprehension.

Results from Questions 2, 3, and 4, in the metacognitive interview indicate that not only knowledge but also use of strategies increased. The results of Question 2 reflected the results from Question 1. Not only were more strategies reported, but also the strategies were of a higher order. As found in other studies, students reported using less strategies than they knew (255 and 223 respectively). However, the strategies students reported using were also of a high order: 89.7% of reported strategies were either strategic (naming the strategy or describing it) or metacognitive (describing how a strategy helped to them to plan, monitor, check, or appraise a story). Several reasons for the difference between reported strategy knowledge and strategy use can be proposed. Students may only use the strategies that they deem useful to them. One student remarked, "And I usually...in a lot of make-believe stories, that might be true or something, it's just a lot easier if I keep on using imagery because it gives me a basic idea about the story. It's a lot easier (than using paraphrasing)". When asked what they do when they read, students may have visualized a different task than they did for the pretest such as reading for enjoyment vs reading for a test. Some students may not be motivated to use the strategies because the results do not

have value for them. For example, one student said, "I know they help. I just don't care." On Questions 3 and 4, 95% of the students said they would end up knowing the word either through using context or getting help from someone and 94% said they would end up finding out what a sentence meant by using the same processes. This compared to 70% and 44% respectively for the pretest. This result implies that students reported using more fix-up strategies than at pretest although no interpretation can be made of how much monitoring was actually going on because of the lack of on-line tracking. Did students recognize more errors at posttest than at pretest and then fix them up or did students recognize the same number of errors as at pretest and just fix up more of them? Another study may consider focusing on this question. However, in general, results of this study indicated that students reported using substantially more strategies at posttest than at pretest. However, as Garner (1982) found delayed reports less likely than immediate reports to include all cognitive events observed by researchers, caution should be exercised when interpreting the results of this interview data.

Results from Question 5 support the conclusion that students' self-confidence improved as a result of the intervention. This question asked students to report their level of self-confidence regarding their ability to read words and understand stories. Approximately 64% rated themselves more competent. This result may have reflected the emphasis during training on ascribing increased performance to increased effort and use of strategies. Students were able to determine comprehension performance by graphing the results of probe tests and to evaluate strategy use through means of post-probe test interviews in which they were asked to describe the strategies they used, how they helped, and which ones helped the most. In cases where comprehension decreased, students were asked to speculate why this happened. They were encouraged to ascribe decreased performance to lack of strategy use or inappropriate strategy use rather than poor ability. As was documented in Chapter 2, literature on motivation and attributions supports this

approach to helping students overcome helpless attitudes and behaviours and, consequently, improve performance. As reported by Rottman and Cross (1990), "a hypothesized mechanism for the effectiveness of ISL is that he program changes the motivational dynamics of learning (p. 277). This study supports this hypothesis.

Addendum

On the posttest interview students also were asked how they thought their reading had changed from before they started the strategies training. Although no comparative data are available, these anecdotal comments are representative of the responses and further support the motivational component of the programme.

"A lot. Well I never thought that reading had so much value in it."

"I learned to use the strategies when I need them...and that'll help me read better."

"How to be, like, a better reader and to get over words you can't understand and stuff like that and to kind of get an overhead on what you are reading. Oh I can read harder books and I can read them a bit faster than I used to."

"Now (sic) I'd just pick up a piece of paper and read it because I had to. But now I like reading now. I went in there and I read two short books...and it was fun."

"Oh I learned don't skip the words or sentences because it might be on the test and if you skip them you might need them to answer the questions and to understand what the story is all about."

"I would just start reading it and that's it and I would reread it sometimes. Now I'm getting better using the strategies and understanding the stories."

"I could never read Stuart Little. I couldn't get through Chapter 1 and now I'm on Chapter 4 already. Before, when I'd read for the class, I'd get stuck on words. Everyone'd laugh and I'd get embarrassed and now no one laughs. I never get stuck on words. The only time I got stuck was when I was reading a poem by Jack Pelusky but even the teacher

said it was really hard words. Everytime I really get stuck on a word I use context and ....[smiles and gestures that everything's OK].

In most cases these statements are just part of the appraisal the students made of their reading. However, they are reflective of the objectives of the strategy training; increased strategic and metacognitive knowledge, increased strategy use, improved metacognition, improved self-confidence, increased effort, more accurate attributions, and increased enjoyment. For the complete text of the answers refer to Appendix 8 (Question 6).

Recommendations for Further Research

As specific limitations were outlined during discussion of each measure, this section will focus on recommendations for further research. with reference to the general limitations of the study. First, students were removed from the class setting and the six students to one instructor made instruction intense. The intervention period was also relatively prolonged: three forty minute periods per week for 21 instructional lessons. Further research is needed on the effects of in-class instruction and of different intervention periods. Due to the increased integration of LD students, the former would be particularly opportune.

Second teacher differences must be considered. In this study, one instructor was used for all students. Would results have been different had different instructors been trained to provide strategy training under the same circumstances?

Third, while an executive strategy (Blueprints for Reading) and specific strategies (Tools for Reading and Road Signs for Reading) were taught in this study, lesson plans from the Reading and Thinking Strategies Kit (Level 5/6) were extended to teach some of the requisite skills students were judged not to have in their repertoire. Research on what strategies are necessary and sufficient for improved performance on specific reading tasks is recommended.

Fourth, as tests used to measure comprehension were of limited length, future research should include tests that reflect instructional practice in school settings as a more stringent measure of comprehension.

Fifth, as this design requires repeated testing for Group 2 to serve as both the control and experimental group, tests with forms of higher reliability are needed.

Sixth, what conditions would be necessary to generate long-term maintenance of strategies? While students were considered to have maintained the strategies after three weeks, no data was collected after that time. Did students maintain strategy use after intervention despite being instructed by methods that did not focus on it? What follow-up would be necessary and sufficient to maintain use?

Recommendations to Teachers

The Reading and Thinking Strategies Kit proved to be a valuable tool for presenting strategy instruction. However, several recommendations can be made in working with the material. First, the practice reading material provided in the kit is generally interesting and chosen from different genre. However, it is important to bridge the strategies to curriculum material quickly including content area subjects and to provide interesting follow-up activities for students in order to keep the focus on reading enjoyment and comprehension rather than on metacognitive instruction. Second, not all modules from the kit should be taught in one year. Select the ones considered by testing to be the most necessary and teach them to mastery. Third, as recommended by Paris in the teacher's guide included in the kit, the lessons can be extended or modified to suit the skills possessed by the target students. Fourth, students should be able to see the results of strategy use through the results of testing or work samples. Reading interviews of students should focus on the process as well as content of material read to make the strategy use/performance link.

Fourth, while this is a comprehensive instructional package, other strategies specific to memorizing or studying also should be considered as part of a complete strategies instructional programme. Finally, in teaching strategies, the process is as important as the content. Attention should be paid to the components of good strategy instruction in order that students make the appropriate attributional links. That is, strategy use leads to improved understanding.

APPENDIX 1: CLOZE EXERCISES

THE DARK TENT

Mike was excited! Last week. he and _____ friends had persuaded their _____ to let them camp _____ alone at Floating Stone Campground. To his _____, Mike's mom and dad had _____ him a pup tent. _____ boy now had his _____ tent. Since everything was _____ and ready, they would _____ early in the morning.

_____ Mike was getting ready for _____, he suddenly realized he'd _____ to spend the night alone in a dark _____. He would be afraid, _____ he certainly did not want his friends to find _____. No matter what happened, _____ would just have to _____ his fear.

Early next _____, the boys hiked to _____ campground. They pitched their _____ and then went fishing.

_____ supper, they sat around _____ campfire and tried to _____ each other with ghost _____. Each boy tried to _____ the scariest ghost story.

_____ midnight, they slowly crawled _____ their sleeping bags, but Mike _____ fall asleep. He kept _____ strange noises. Was something _____? He lay there petrifies. _____ he take a look?

Mike _____ the tent flap finally _____ peered out. A deer _____ nosing around the picnic _____! How foolish Mike felt! He was glad he had been brave enough to look.

THROUGH THE STORM

Mother anxiously cradled Becky in her arms. The crying baby's face _____ flushed and damp. As Tom _____ the firewood into the _____ cabin, he shot a _____ glance at his mother _____ baby sister. "Storm's getting _____," he said, closing the _____.

"I wish your father _____ home now, and not _____ trapping," she answered. "He _____ fetch the doctor."

"If _____ the doctor you want, _____ can fetch him. I'll _____ now so I can _____ there before dark. The _____ will be drifted high _____ morning."

"Tom, you'll freeze. It's five _____ to town."

"I'll make _____. I'm 12 now, remember?"

What will she do? Becky might not _____ until morning. But if Tom _____ immediately, he might reach

_____ before night came. "Get _____ snowshoes, Tom," she sighed.

Snowdrifts _____ beginning to blanket the _____ as Tom set out. He _____ against the fierce wind _____ blinding snow. Daylight was _____. Several times he felt _____, but a familiar tree _____ bend in the road _____ him going. He was _____ cold and more tired _____ the minute.

Just as _____ thought he couldn't take _____ step, Tom reached the crest _____ the hill. The snow _____ falling. Shining faintly below _____ the lights of the _____. He plowed on. As _____ neared the town, Tom saw _____ the doctor's sleigh was _____ its place. Tom was relieved, for he knew they would get back in time.

SUPERSTITIONS

Are you superstitious? Many people are. Some _____ show that they are _____ by wearing certain objects. _____ believe these objects will _____ them healthy or bring _____ good luck.

A long _____ ago, superstitious people believed _____ some objects could prevent _____. They thought a fever _____ be prevented if they _____ a dead spider. A _____ would often hang garlic _____ her child's neck. The _____ didn't have any magic, _____ the smell kept people _____. This included those people _____ might have been sick.

_____ protect themselves from evil, _____ also wore charms. Fortune-_____ chose special stones as _____ for each month of _____ year. They told people _____ wear

these stones for _____ luck. Today we refer _____ such stones as birthstones _____ still wear them for _____. Other charms still worn _____ are the rabbit's foot, _____ mustard seed, and the _____-leaf clover.

People's lives _____ still affected by superstitions. _____ long as some people _____ fears and do not _____ certain about the future, _____ may continue to be _____. These people will wear favorite charms for health or good luck, even though charms do not have any proven power.

DR. NORMAN BETHUNE

Dr. Norman Bethune was a Canadian who believed in helping people fight for their freedom. He used his skill _____ as surgeon to save _____ lives on the battlefields _____ Europe and China.

Norman Bethune's life-work began _____ World War I broke out in Europe. He _____ as a stretcher-bearer _____ the front line. Soon _____, he was badly wounded _____ carrying a soldier away _____ the battlefield.

When he _____ well again, Norman Bethune returned to _____ University of Toronto to finish medical training.

_____ became well known for _____ skill as a surgeon, _____ this did not satisfy _____. He wanted something more _____ life.

When the Spanish Civil War started _____ 1936,

he decided he would _____ to Spain to help the _____ fight for their freedom. _____ there, he organized a blood transfusion service on the _____. Many lives were saved _____ more blood was available.

_____ he heard of the _____ in Northern China. He went to _____ the Chinese people, who were _____ against the Japanese Army without modern _____ or medical supplies. He _____ a medical team and _____ up the slogan, "Doctors! _____ to the wounded! Do not wait for them to _____ to you.

While performing _____ operation without rubber gloves, Dr. Bethune _____ his finger. The cut _____ infected. Two weeks later _____ died of blood poisoning _____ he did not have _____ medical supplies.

APPENDIX 2: TEACHER MADE PRE- AND POSTTESTS

TIMED READING QUESTIONS

PRETEST 1 (Grade 6)

A Cowboy's Life

Name_____Date_____

1. What do you think would be the hardest part of a cowboy's job? Why?

_____

_____

2. Loose pants on a cowboy are
( ) a. dangerous ( ) b. expensive ( ) c. stylish

3. Cowboys used to poke cattle with sticks to move them onto
( ) a. flat beds ( ) b. grassy plains ( ) c. loading ramps

4. Many cowboys today like to be called
( ) a. cowhands ( ) b. cowpokes ( ) c. cowpunchers

5. A ten gallon hat is very
( ) a. deep ( ) b. loose ( ) c. stylish

6. Do you think we will always have cowboys? Why

_____

_____

7. Today's cowboy uses some modern
( ) a. buildings ( ) b. equipment ( ) c. novels

8. Almost every cowhand today owns a
( ) a. gun ( ) b. horse (0 c. whip

TIMED READING QUESTIONS

PRETEST 2 (Grade 6)

Weapons of Long Ago

Name_____Date_____

1. The bow was used more than
   ( ) a. 8,000 years ago
   ( ) b. 20,000 years ago
   ( ) c. 30,000 years ago

2. Man tracked his prey when he used the shortbow because the shortbow did not
   ( ) a. bend easily
   ( ) b. shoot far
   ( ) c. weigh much

3. Name a method that might have been used to catch prey before the shortbow was invented.

_____ _____

4. This article hints that
   ( ) a. bows and arrows are easy to carry
   ( ) b. early man did not use the bow
   ( ) c. some people still hunt with a shortbow

5. The shortbow has limited
   ( ) a. length ( ) b. power ( ) c. use

6. The arrowheads on a longbow were made of
   ( ) a. feathers ( ) b. steel ( ) c. wood

7. Why do you think a person would choose now to hunt with a bow and arrow rather than a gun or rifle?

_____

_____

8. The longbow was probably discovered
   ( ) a. before the shortbow
   ( ) b. at the same time as the shortbow
   ( ) c. after the shortbow

TIMED READING QUESTIONS

PRETEST 1 (Grade 7)

Pollution and You

1. What percent of a person's body is water?
( ) a. 25 percent ( ) b. 50 percent ( ) c. 65 percent

2. This article suggests that polluted water
( ) a. always looks dirty
( ) b. carries many germs
( ) c. is not very common

3. What is a way you and your family could help to reduce water pollution?

_____

_____

4. Water often becomes polluted because we allow
( ) a. oil barges to travel our waterways
( ) b. people to swim and boat in clean water
( ) c. untreated wastes to enter our waterways

5. Water is used in making
( ) a. coal ( ) b. gold ( ) c. steel

6. Power plants use water for
( ) a. boating 9) b. cooling ( ) c. transportation

7. What would happen if all the world's water was polluted?

_____

_____

8. Which of the following can help keep our water clean?
( ) a. stronger chemicals
( ) b. treatment plants
( ) c. wire fences

TIMED READING QUESTIONS

PRETEST 2 (Grade 7)

A Special Indian

Name_____Date_____

1. This article hints that the white man treated the Indians
   ( ) a. kindly
   ( ) b. respectfully
   ( ) c. unfairly

2. Do you think Black Hawk was a hero or a criminal? Why?

_____

_____

3. Black Hawk was a
   ( ) a. Fox Indian ( ) b. Sauk Indian ( ) c. Sioux Indian

4. Black Hawk's fame as a warrior began when he was
   ( ) a. 10 ( ) b. 15 ( ) c. 20

5. We can see that at times
   ( ) a. the Indians grew tasty corn
   ( ) b. Indian tribes fought each other
   ( ) c. white settlers travelled in wagons

6. What could the white man have done to try to prevent Black Hawk from making war?

_____

_____

7. The Sauk Indians were mostly
   ( ) a. farmers ( ) b. fishermen ( ) c. hunters

8. Black Hawk
   ( ) a. hated the 1804 treaty
   ( ) b. liked the 1804 treaty
   ( ) c. signed the 1804 treaty

TIMED READING QUESTIONS

POSTTEST #1 (Grade 6)

DELIGHTFUL DIVING DUCKS

NAME_____ SCHOOL_____

1. Where would you most likely find a diving duck's nest?

( ) a. in a cave ( ) b. near a pond ( ) c. on land

2. Diving ducks dive to get

( ) a. a drink ( ) b. food ( ) c. mate

3. Diving ducks have

( ) a. big eyes ( ) b. long feathers ( ) c. large feet

4. Name two ways that man threatens the life of ducks

_____

_____

5. We can see that diving ducks

( ) a. are easy to hunt
( ) b. live in groups
( ) c. never get wet

6. Why should we make sure that we control where houses are built?

_____

_____

7. A diving duck sits on her eggs for about

( ) a. 2 weeks ( ) b. 4 weeks ( ) c. 6 weeks

8. Diving duck hens

( ) a. protect their young
( ) b. kill their young
( ) c. leave their young alone

TIMED READING QUESTIONS

POSTTEST #2 (Grade 6)

Think Before You Throw

NAME_____

SCHOOL_____DATE_____

1. What is this article mostly about?

( ) a. noise polution
( ) b. solid waste polution
( ) c. water polution

2. Excess packaging adds to our

( ) a. air polution
( ) b. health problems
( ) c. solid waste problems

3. Clean waste materials that can be reused comes mostly from

( ) a. factories ( ) b. hospitals ( ) c. homes

4. Name two things you can do to help stop solid waste polution.

_____

_____

5. We can see that cardboard cartons are easy to

( ) a. burn ( ) b. store ( ) c. reuse

6. Getting rid of litter is

( ) a. cheap ( ) b. easy ( ) c. expensive

7. More than two thirds of litter consists of old

( ) a. cars ( ) b. clothes ( ) c. packages

8. Why do you think that manufacturers use so much packaging even though they know that this is harmful?

_____
_____

TIMED READING QUESTIONS

POSTTEST QUESTIONS #2 (Grade 7)

Think About It

NAME_____SCHOOL_____

1. Which of the following should not be used when trying to escape a fire?

( ) a. elevators ( ) b. fire escapes ( ) c. stairways

2. This fire tells us how

( ) a. to escape a fire ( ) b. to put out a fire
( ) c. to start a fire

3. From most homes you can escape a fire through the

( ) a. attic ( ) b. garage ( ) c. windows

4. Why is education about fire safety a good idea?

_____

_____

5. If you are trapped in a room during a fire, it is a good idea
( ) a. to lie under a bed
( ) b. to open a window
( ) c. to stand perfectly still

6. Name one way to prevent fires around the house.

_____

_____

7. How far from the ground is the second floor sill?

( ) a. 13 feet ( ) b. 25 feet ( ) c. 32 feet

8. We can see from this article that

( ) a. breathing smoke might be harmful
( ) b. rope ladders should not be used in a fire
( ) c. youngsters most often start fires

TIMED READING QUESTIONS

POSTTEST #2 (Grade 7)

Castles In The Air

NAME_____

SCHOOL_____DATE_____

1. People during the Middle Ages were

( ) a. friendly ( ) b. poetic ( ) c. warlike

2. Castles were built to protect people from

( ) a. enemies ( ) b. wild animals ( ) c. storms

3. The castle was also a

( ) a. church ( ) b. market ( ) c. prison

4. Why do you think moats were built on high ground?

_____

_____

5. This article hints that castles were mostly made of

( ) a. cement ( ) b. stone ( ) c. wood

6. Getaway passages were probably used when people wanted to

( ) a. escape ( ) b. fight ( ) c. vacation

7. The ditch filled with water that surrounded the castle was called a

( ) a. crevice ( ) b. keep ( ) c. moat

8. What feature of the castle do you think kept the lord and his family the safest from enemies? Why?

_____

_____

APPENDIX 3: INDEX OF READING AWARENESS (IRA)

Strategic Reading

Circle the best answer to each question.

1. What is the hardest part about reading?
   a. Sounding out the hard words.
   b. When you don't understand the story.
   c. Nothing is hard about reading.

2. What would help you become a better reader?
   a. If more people would help you when you read.
   b. Reading easier books with shorter words.
   c. Checking to make sure you understand what you read.

3. If you are reading a story for fun, what would you do?
   a. Look at the pictures to get the meaning.
   b. Read the story as fast as you can.
   c. Imagine the story like a movie in your mind.

4. What is special about the first sentence or two in a story?
   a. They always begin with "Once upon a time."
   b. The first sentences are the most interesting.
   c. They tell what the story will be about.

5. How are the last sentences of a story special?
   a. They are the exciting, action sentences.
   b. They tell you what happened.
   c. They are harder to read.

6. If you are reading for Science or Social Studies, what would you do to remember the information?
   a. Ask yourself questions about the important ideas.
   b. Skip the parts you don't understand.
   c. Concentrate and try hard to remember it.

7. What kinds of stories are easy to understand?
   a. Stories with easy words.
   b. Stories with familiar topics.
   c. Stories with lots of pictures.

8. If you could only read some sentences in the story because you were in a hurry, which ones would you read?
   a. The sentences in the middle of the story.
   b. The sentences that tell you the most about the story.
   c. The interesting, exciting sentences.

9. How can you tell which sentences are the most important ones in a story?
   a. They tell the most about the characters and what happens.
   b. They're the most interesting ones.
   c. All of them are equally important.

10. If you are reading for a test, which would help you the most?
   a. Read the passage as many times as possible.
   b. Talk about the passage with somebody to make sure you understand it.
   c. Say the sentences over and over.

11. When you tell other people about your reading what do you tell them?
   a. What happened in the story.
   b. The number of pages in the book.
   c. The names of the characters.

12. If you are reading a library book to write a book report, which would help you the most?
   a. Sound out words you don't know.
   b. Take notes in your own words.
   c. Skip the parts you don't understand.

13. Before you start reading, what kinds of plans do you make to help you read better?
   a. You don't make any plans. You just start reading.
   b. You choose a comfortable place.
   c. You think about why you're reading.

14. Why do you go back and reread things?
   a. It is good practice.
   b. You didn't understand it.
   c. You forgot some words.

15. If you had to read very fast and could only read some words, which ones would you try to read?
   a. The new vocabulary words because they are important.
   b. The words that you could pronounce.
   c. The words that tell the most about the story.

16. Which of the following would help you read better?
   a. Check to see if you understand the meaning.
   b. Copy the whole story.
   c. Write down the words you don't understand.

17. What should you do if you come to a word and you don't know what it means?
    a. Use the words around it to figure it out.
    b. Ask someone else.
    c. Go on to the next word.

18. Which of the following would help you understand a story?
    a. Think about what the sentences mean and how they go together.
    b. Look up all of the words in the dictionary.
    c. Read the story aloud.

19. What should you do if you don't know what a whole sentence means?
    a. Skip it and read a different story.
    b. Sound out the words.
    c. Think about the other sentences in the paragraph.

20. Which of the following is the best way to remember a story?
    a. Say every word over and over.
    b. Think about remembering it.
    c. Write it down in your own words.

APPENDIX 4: INTERVIEW QUESTIONS AND ASSESSMENT CRITERIA

INTERVIEW QUESTIONS AND ASSESSMENT CRITERIA

QUESTION 1: What do good readers do when they read?

QUESTION 2: When you pick up something to read, what do you do?

Value 0: Lacks strategic value

-don't disturb others

-get it done as fast as they can

-skip stuff I don't know

-I don't know (not sure)

-I open the book and start reading

-get in a comfortable position

-follow with my fingers

Value 1: Process at the word level

-sound it out

-pronounce the words right

-read lots

-can read bigger books

-look up the words in the dictionary

-don't skip

Value 2: Passive text level strategies

-concentrate harder

-go back over it

-read it over

-reread

-read slowly

-get help -ask a friend (or the teacher) to tell me

Value 3: Active text level strategies (no metacognitive statements)

-paraphrase

-use imagery

-use context

-think it over

-look for the main idea

-ask questions

-predict what the story will be about

Value 4: Active text level strategies with metacognition

-make a plan for reading to help me understand (or remember better)

-ask myself questions so I can remember what I have read

-if I'm stuck on a word, I leave a blank and read around it to see if I can find a word that will give me a clue

-if I don't understand, I will check back

-I put myself in the character's place so I can experience the story more

-I look at the title and the picture and try to predict ahead because it makes it more interesting

QUESTION 3: What do you do when you come to a word you don't know?

QUESTION 4: What do you do when you come to a sentence you don't know?

Value 0: Skips it.

-I don't do anything, I just skip it.

-Leave it out.

-Skip over it.

-Forget it.

Value 1: Attempts to use a strategy (including context), but ends up skipping.

-I try to sound it out, but if I can't I just leave it out.

-I read it over, but if I can't get it I just skip it.

-I might read ahead or behind, but then I just skip it.

-I might try to break it into parts, but if it's too hard I just don't worry about it.

Value 2: Uses any strategy except context and ends up know the word.

-I ask the teacher to help (or a buddy).

-I try to sound it out, but if I can't I ask a friend if they know.

-I might look it up in the dictionary or the glossary.

-I look for a small word in it, and get help.

Value 3: Uses context as one strategy and ends up knowing the word.

-I might leave a blank and read ahead, to see if I can figure it out and then I get help.

-I read around it and then, if I still can't get it, look it up in the dictionary.

-I might read behind or ahead and look for the word again, to give me a clue what it might be about but I still don't get it I get help.

-I think about what the word might be from the clues in the picture, and then I ask someone.

QUESTION 5: This list of words can be used to describe how people feel about the kind of reader they are.

Very good

Good

Satisfactory

Fair

Poor

What one would you say you were?

Does that describe how you understand stories or how you read the words?

Look at this list again (repeat list) and tell me how you read the words "or" understand the stories (whichever one was not stated in the first answer).

APPENDIX 5: MEASURES OF MAINTENANCE

Maintenance Test Questions

A Lively Lake Indeed!
Maintenance Test #1 (Grade 6)

Name_____School_____

Date_____

1. The first sailing ship on Lake Michigan was LaSalle's

( ) a. Cayuga ( ) b. Griffin ( ) c. Hurd

2. Choose the best title for this story.

( ) a. Great Indian Legends
( ) b. History of Lake Michigan
( ) c. Steamers on the Move

3. Name two problems of still having sailing schooners on Lake Michigan.

_____

_____

4. The whaleback ships handled well during a

( ) a. drought ( ) b. flood ( ) c. storm

5. This article hints that

( ) a. many ships have disappeared on Lake Michigan
( ) b. early steamships travelled slowly
( ) c. Indians often attacked the whalebacks

6. The early steamships were called "teakettles on a

( ) a. barge ( ) b. raft ( ) c. stove

7. How many feet a day could the "Independence" be moved?

( ) a. three ( ) b. four ( ) c. five

8. Why do you think so many legends were made up about the ships?

_____

_____

Look Around You
Maintenance Test #1 (Grade 7)

Name_____School_____

Date_____

1. The environment is everything around you that is

( ) a. living ( ) b. non-living
( ) c. living and non-living

2. Choose the best title for this article.

( ) a. The Environment and You
( ) b. Pollution is Everywhere
( ) c. Water and Air to Clean

3. Why do you think it is important for us to worry about animals or plants that are almost extinct?

_____

_____

4. This article hints that man

( ) a. can travel from one environment to another
( ) b. does not enjoy living on the planet Earth
( ) c. ignores the non-living environments around him

5. Man cannot live on the moon unless he has special

( ) a. friends ( ) b. equipment ( ) c. weapons

6. The whole environment can be changed by

( ) a. walking through the woods
( ) b. painting a country scene
( ) c. cutting down a forest

7. Before we change anything in an environment, we should

( ) a. ignore any changes
( ) b. think about the changes
( ) c. kill all living things

8. What do you think is a very important environmental problem that people in B.C. have.

_____

Follow That Goose
Maintenance Test #2 (Grade 6)

Name_____School_____

1. Choose the best title for this article:
( ) a. Alaska-The Wild Land
( ) b. All About the Emperor Goose
( ) c. A Trip to Canada

2. The Emperor Goose is a North American
( ) a. amphibian ( ) b. reptile ( ) c. waterfowl

3. We can see that the researchers have learned much about the goose's
( ) a. eating habits
( ) b. nesting habits
( ) c. sleeping habits

4. How might pollution affect the goose's survival?

_____

_____

5. What state does the Emperor Goose nest in?
( ) a. Alaska ( ) b. b. Iowa ( ) c. Yukon

6. As the Emperor Goose grows from a baby to an adult, it changes its
( ) a. colour ( ) b. diet ( ) c. personality

7. Why is it important for the survival of the young that the male and female mate for life?

_____

_____

8. When the female goose tries to protect her nest, she looks like a piece of
( ) a. dirt ( ) b. rock ( ) c. driftwood

Probing With A Purpose
Maintenance Test #2 (Grade 7)

Name_____School_____

1. Which of these would be a good title for the article?
( ) a. How Rockets Help Us
( ) b. N.A.S.A.'s Space Science Program
( ) c. Visitor's From Outer Space

2. In what year were the Voyager probes launched?
( ) a. 1975 ( ) b. 1976 ( ) c. 1977

3. After the probes pass Jupiter, Saturn and Uranus, they will probably
( ) a. burn up
( ) b. keep on going
( ) c. return to Earth

4. Some people say that the space science program is too expensive and that we should spend the money differently. What do you think?

_____

_____

5. Which of the following planets will the Voyagers pass?
( ) a. Neptune ( ) b. Pluto ( ) c. Jupiter

6. The goal of all research is
( ) a. to make sure other countries don't know more than us
( ) b. to make things better for man
( ) c. to stop war before it begins

7. Name two problems that the space science program might cause.

_____

_____

8. In order to gain information about the planets, N.A.S.A. uses deep-space probes and
( ) a. comets ( ) b. meteors ( ) c. satellites

APPENDIX 6: MEASURES OF TRANSFER

SCIENCE TRANSFER TEXT (GRADE 6)

Everything you need comes from your environment. You get food, water and air from it, as well as shelter, clothing and fuel. You need these things to live. But your environment also contains things you don't need. In fact, some things in your environment are harmful to you.

You put food, water, and air into your body every day. Together they provide the materials and energy that you need. But food, water, and air may not always be helpful to you. It depends on what they contain. It depends upon the environment.

UNWANTED CHEMICALS

Insects can cause a lot of damage to crops. So farmers often spray their crops with poisonous chemicals. Some of the chemicals get into insects and kill them. Then, when other animals eat these insects, the poisons can get into them too. Even animals that eat animals that eat the insects can be poisoned.

Some of these poisonous chemicals get washed into rivers and lakes. There they may get into tiny plants or animals. In time, poisons used to kill insects can get into the food used by people.

MERCURY IN FOOD

Mercury is used in some kinds of thermometers. But do you know that chemicals containing mercury can get into your food? Do you know that when this happens it can be harmful?

Factories that use mercury or chemicals that contain mercury sometimes let the waste go into rivers or lakes. There these wastes pass into the tissues of tiny organisms in the water and mud. These tiny organisms are eaten by larger ones. And those by even larger ones. So the chemicals containing mercury get passed along. In this way, they may appear in fish or in other things that people use for food.

One problem with poisonous chemicals in food is that some of them last so long. These chemicals may pass form one organism to another, again and again. It may be years before the chemicals are no longer harmful.

GASES IN THE AIR

Smoky, dirty air can be cleaned. It can be sent through a filter as in an air conditioner. This may remove most of the dirt and smoke particles. But often it is not smoke particles in the air that are harmful. It is unwanted gases. And these are not usually removed by a filter.

When gasoline burns in a car engine, poisonous gases are given off. Where there are a lot of cars, there may be dangerous amounts of these gases. Poisonous gases also come from the chimneys of factories, power plants and even homes.

POISONING YOUR BODY

It is bad enough to have to eat, drink, and breathe unwanted chemicals! It is bad enough when you cannot do enough about it. But strange as it may seem, some people put poisons into their bodies on purpose.

People who smoke take millions of tiny particles into their lungs. Some of the particles stay in their lungs. In time, they can cause serious damage to the lungs. And what happens to the particles smokers breathe out?

As you can see there are many ways for poisons to get into our body.

SCIENCE TRANSFER QUESTIONS (GRADE 6)

STEM SCIENCE (RED)

NAME_____SCHOOL_____

DATE_____

1. Everything we need comes from

( ) a. energy ( ) b. chemicals ( ) c. the environment

2. This article hints that

( ) a. chemicals pass from on part of the environment to another.
( ) b. we can't do anything about chemicals in our environment.
( ) c. we need to spray insects with chemicals so they won't eat our crops.

3. Mercury is

( ) a. an organism ( ) b. a chemical ( ) c. a thermometer

4. Name two ways bad chemicals can get into our bodies.

_____

_____

5. Gases in the air

( ) a. can be cleaned by an air filter
( ) b. are safer than smoke
( ) c. can be poisonous

6. A good title for this article is

( ) a. Growing Food Without Chemicals
( ) b. Unwanted Things in Your Environment
( ) c. How to Stop Pollution

7. To help protect ourselves against gases in the air we can

( ) a. reuse or recycle our wastes.
( ) b. stay inside or ride to places in a car
( ) c. try not to breathe too deeply

8. What could you tell a smokers about the problems they are causing?

_____

_____

SCIENCE TRANSFER TEXT (GRADE 7)

Part of man's success as a competitor lies in his ability to invent things. Each year he finds new ways to do whatever he wants to do. He has invented ways to travel above, below, and beyond the earth's surface. He has also invented ways to explore the tiniest bits of Earth and himself, and to repair damage to himself.

Man has put many energy sources to work to accomplish his goals. He has invented ways to extract and use the energy stored in all kinds of fuels.

Mountains are no match for high explosives, giant cranes and bulldozers. Valleys are no obstacle to being filled in with concrete and water. Whenever man wants to "develop" a part of his environment, he seems to be able to do so.

But with each of man's inventions comes an increased need for ores for metals, chemicals for plastics, fuels for energy, stone for roads and water for washing, cooling and waste disposal. All of these are taken from the ecosystem. In taking them, man often messes up his environment.

Also with each new invention and the materials that supply them, comes a need to get rid of waste metal, plastic waste, waste building materials, dirty water, and waste heat, smoke, and gases. All these wastes must be put somewhere in the ecosystem. In getting rid of these things, again, man often messes up his environment.

Population pressures, industrial needs and the mismanagement of resources is affecting our environment. The quality of the air, water, soil, minerals, forests, and wildlife is rapidly getting worse.

However, there are some signs of progress. Car makers have developed and are installing pollution control devices. At the same time, they are experimenting with other power sources--- steam, and electricity for example. Some cities even restrict the use of private cars in crowded areas.

Water-testing laboratories have been set up-sometimes on boats-for testing waterways near near certain industries. These laboratories can trace the source of pollutants. Then action can be taken to prevent pollutants from being added to the water.

In some of the rivers, lakes and harbours near big cities, people are fishing again. This is only possible when the neighbouring communities control their pollutants.

These are only beginning steps. In many areas, a great deal more needs to be done. For example, people need to think about their own actions.

They need to make decisions on even little questions such as--

*soap or detergent?
*let the motor running while waiting?
*returnable or non-returnable bottles?
*plastic or paper?

It is easy to talk about what industry or the government does or does not do about the environment. It is harder, but it is also better, to think about what you yourself can do. Because what you see happen in your environment is not what "they" did. It is what "you " do! "They" are just a lot of "you"!!!

SCIENCE TRANSFER QUESTIONS (GRADE 7)

STEM SCIENCE (BLUE)

NAME_____SCHOOL_____

DATE_____

1. This article says that our pollution problem must be solved by

( ) a. the government ( ) b. the scientists ( ) c. everyone

2. This article hints that

( ) a. people use too much from the environment
( ) b. people can solve all their problems
( ) c. people must stop building things

3. Car makers are trying to power cars with

( ) a. chemicals ( ) b. steam ( ) c. pollutants

4. How can we make industries stop polluting the environment?

_____

_____

5. The main idea of this article is

( ) a. How man's inventions can hurt us.
( ) b. How recycling can solve the pollution problem.
( ) c. How pollution is caused and can be corrected.

6. A waste product that comes from new inventions is

( ) a. ore ( ) b. smoke ( ) c. fuel

7. When there are lots of fish in rivers

( ) a. pollutants from factories are being controlled
( ) b. people aren't fishing there
( ) c. fish are not affected by pollution

8. Why does the government think that making gas expensive will help to solve the pollution problem?

_____

_____

SOCIAL STUDIES TRANSFER TEST (GRADE 6)

THE INUIT AND THE INDIANS COME TO CANADA

Long ago, there were no people living in the land now called Canada. Then, thousands of years ago, the first people came to our country. Today these people are known as the Inuit and Indians. They are Canada's native people.

Some people think the native people came across the Bering Strait from Asia in small groups of hunters. The Inuit stayed in the north along the shores of the Arctic Ocean. There they hunted seals and caught fish. Gradually the Inuit moved east, all the way across the Arctic.

The Indians hunted musk oxen and caribou. As they followed the herds, the Indians slowly moved south and east across the country. Some Indians lived in the forest, and some lived on the grasslands called the prairies. Others stayed near the lakes and rivers. Eventually the Indians settled all across Canada.

The native people were Canada's first explorers. They lived here for a long time before anyone else came to this country.

PEOPLE FROM EUROPE CAME TO CANADA

On the other side of the Atlantic Ocean, people in Europe did not know anything about Canada. No one from Europe had ever crossed the ocean. Long ago people looked at the ocean much as we look at outer space today. People thought that sailors who went too far from land would be swallowed up by monsters or that their ships would fall off the edge of the earth.

We don't know when the first person from Europe crossed the Atlantic Ocean. There is a legend that a monk sailed across the Atlantic 1400 years ago. The monk was Saint Brendan. He sailed from Ireland with some other monks in a small boat made out of leather. They were looking for some new lands. The legend says that although the sailors thought that they found land, they just landed on the back of a whale. Recently some young men built a leather boat and set out to see if Saint Brendan could have found America. Although they did land on the shores of Newfoundland, we cannot be sure if the story of Saint Brendan is true.

EXPLORERS FROM EUROPE CROSS THE ATLANTIC

About 500 years ago, the merchants in Europe began looking for a new route to China. They wanted to get silks, spices and jewels from China to sell to the people in Europe. For a long time the merchants had sent camels eastward across Asia to China. That route was long and dangerous. The merchants wanted to find an easier, safer route so they sent out ships across the Atlantic Ocean thinking they could reach China by going the other way.

They were going where other Europeans had not been before. They were going into the unknown. To do this, they had to be brave and fearless.

SOCIAL STUDIES TRANSFER QUESTIONS (GRADE 6)

Name_____School_____

1. The first Inuit and Indians are Canada's native people because
( ) a. they hunted and fished for their own food
( ) b. they came from Europe
( ) c. they were the first settlers in the land

2. The first people who came to our land came from
( ) a. Asia ( ) b. Ireland ( ) c. Europe

3. The Indians moved South and East across the country because
( ) a. there wasn't room enough in the Arctic for them all
( ) b. they were searching for food
( ) c. they needed trees to build houses

4. How would you say that the early explorers were like today's astronauts?

_____

_____

5. The Indians hunted
( ) a. camels ( ) b. seals ( ) c. caribou

6. What would be a good title for this article?
( ) a. The First Canadian Settlers
( ) b. The Legend of Saint Brendan
( ) c. Searching for Gold in the New World

7. Name two problems that the Inuit people might have had when they came to our land.

_____

_____

8. The European explorers came across
( ) a. the Bering Strait ( ) b. the Arctic Ocean
( ) c. the Atlantic Ocean

SOCIAL STUDIES TRANSFER TEXT (GRADE 7)

JOINING CONFEDERATION

On July 19, 1871, people in the new town of Barkerville stayed up very late. At midnight, British Columbia became one of the provinces of Canada and people wanted to celebrate their first moment as Canadians. Exactly at midnight members of Barkerville's volunteer fire department began to ring the fire bell and a salute of 21 guns was fired in the air. In the morning, stores and businesses were decorated with flags and streamers. One storekeeper had designed a special flag as a sign of his pride in joining Canada. To make the flag, he had painted a white circle with maple leaves around it on the red background of a British Ensign. In the circle he had drawn a beaver. The flag flew all day from a pole in the center of Barkerville.

The biggest celebration was held in Victoria, the capital of the new province. The Victoria newspaper, the Colonist, said that people rang bells, fired guns, burned candles, set off firecrackers, and cheered and cheered and cheered. During the day there was a huge picnic in Victoria. There were banners, songs and a giant hot air balloon that flew over the city. Bands played the popular Canadian song, "The Maple Leaf Forever." There were many speeches telling how joining Canada would change the lives of people in British Columbia.

The main speech was made by Amor de Cosmos, the first owner and publisher of the the Victoria Colonist newspaper. He called the holiday Confederation Day. He used the term confederation to explain how British Columbia had become part of the Canada. Confederation meant the joining of different provinces and territories to form one country. When British Columbia joined five other Canadian provinces and a large region called the Northwest Territories, Canada became a country from coast to coast.

Amor de Cosmos explained that as partners in confederation all the people of Canada shared the same laws and government. Like Canadians in other provinces, British Columbians would now have the right to vote for people who would go to Ottawa, the capital of Canada, to speak for them in the Canadian parliament. Members of parliament from all the provinces helped make the laws for all Canadians.

To help people in British Columbia stay in touch with people in other parts of the country, the government of Canada agreed to help pay for mail service. Because travel across Canada was too difficult for frequent trips, mail from Eastern Canada was sent by train across the United States to San Francisco. From there it was carried to Victoria by steamer.

A steamer brought newspapers from Eastern Canada every two weeks. They were full of pictures that told what was happening in other parts of Canada. The prime minister of Canada, Sir John A. MacDonald promised to help people in all parts of Canada reach each other more easily by having a railway built. The railway would stretch across the country from eastern Canada to the Pacific Ocean.

SOCIAL STUDIES TRANSFER QUESTIONS (GRADE 7)

NAME_____SCHOOL_____

1. This passage tells about:
( ) a. the building of the railway
( ) b. how the government of Canada started
( ) c. what happened when British Columbia joined confederation

2. The only feature on today's flag that is the same as the one made for the celebration is:
( ) a. the maple leaf ( ) b. the beaver ( ) c. the white circle

3. To help bring all provinces of Canada together, the government promised:
( ) a. a newspaper ( ) b. a railway ( ) c. a mail service

4. Although people in this passage were happy to join Canada, name a problem that people in B.C. might have being part of this country.

_____

_____

5. The capital of Canada is:
( ) a. Victoria ( ) b. Barkerville ( ) c. Ottawa

6. When Newfoundland became part of Canada, we said it joined:
( ) a. parliament ( ) b. confederation ( ) a union

7. Why do you think it was important to the rest of Canada to have B.C. join with them?

_____

_____

8. Mail came from San Francisco by:
( ) a. train ( ) b. plane ( ) c. steamer

APPENDIX 7: LESSON PLANS

READING AND THINKING STRATEGIES LESSON PLANS

INTRODUCTION TO LESSONS

1. Review purpose of testing
2. Introduce the programme
   -identify the time line
   -identify why students taking part and what programme will do
3. Outline what we know about good students
   -use strategies (methods) to help them to read well
   -read for meaning
   -think about why they are reading and what they want to want to have happen at the end
4. Outline objectives of programme
   -going to teach those strategies to students to help them become better readers

READING AND THINKING STRATEGIES:LEVEL 5/6

Module #1 Card A Lesson 1

BLUEPRINTS FOR READING

1. Introduce poster

-each lesson will include a poster to help remember the strategies that will be taught

-how many of you have seen blueprints?

-what are they for?

-we need a plan for building a house or a plane or a car

-we need to know what steps to follow, what materials to use and what measurements to use

2. Make link between poster/blueprint and reading/blueprint

-we understand about how builders and architects use blueprints for constructing buildings but our poster says Blueprints for Reading. What do you think that means? Poke for connection that reading requires plans, steps and construction to build meaning.

-establish that good readers build meaning by using strategies before, during and after reading (refer to interview questions)

3. What is my reading goal?

-establish that for a couple of lessons we are going to practice some strategies before reading

-focus on three questions on poster blueprint

-identify that these are three questions that students should ask themselves before they start to read (remind them of the interview question-What is the first thing you do when you pick up a book?)

-Why is knowing what your goal is important?

-important to know that knowing a purpose will tell them how to read a selection (reading a newspaper ad for the time of a concert would be different from studying your science book for a test)

-think of this question as building the foundation of a building
-make a list of types of goals on blackboard e.g. fun, solve a puzzle, get main idea, write a report, learn new information, follow directions, etc.

4. What kind of reading is this?

-this question like constructing the floor of your building

-why is that an important question?

-should read differently for different kinds of reading

-make a list of different types of texts on blackboard e.g. novels, science, social studies, poetry, comics, letters, ads, recipes, etc.

5. What is my plan for reading?

make the plans before you read.

-wouldn't be a very good idea to start building a house without plans...wouldn't know which to do first...might have to tear something down after you start...waste time and money.

-should know what kind of reading you have so you know what you want to do with it.

-match the goal and type of test on the board and make a plan for how that should be read

-CONCLUSION: many plans for reading and must determine the type of text and why you are reading it before you can chose your plan.

6. Modelling/Guided Practice: Fine-Feathered Dinner Guests

- I would build my foundation for reading by asking the first question "What is my reading Goal?"

-I would build the floor by asking, "What kind of reading is this?"

-In order to construct walls I need a plan, eg. skim to pick out key words, stop to determine if I understand it.

-I will read first verse orally and then summarize the meaning to make sure I understood what I read.

-I will read second verse orally. (Give personal reaction and respond to question, "Why do some think the cardinal is annoying?" Tell students why this process helps me understand and remember what I have read.)

-Tell students that we will read third verse together so that they can have a chance to practice what I have done. Have them give reaction and answer "Why does the bluejay get angry?"

-Tell the students that they will read fourth verse and summarize whole meaning of poem. Ask "Which bird is the most welcome dinner guest?"

9. Strategy knowledge Check

-What are blueprints for reading? (plans to help construct meaning)

-Why do you identify goals and type of reading before you start? (read differently/build a good foundation.

-Why is it important to make different plans for different kinds of reading materials? (good readers don't read the same all the time...one thing changes another.

READING AND THINKING STRATEGIES:LEVEL 6/7

Module 1 Card B Lesson 1

BLUEPRINTS FOR READING

1. Review lesson #1a

-cover up words on poster

-ask for students to remember the 3 reading strategies that we used to build meaning while we read

-using new graphic, place sticky strip into appropriate place

-ask other students for examples

-remind students that this is the way good students read and that they are showing the knowledge that they need to become good comprehenders

2. Introduce lesson: to develop plans for reading by looking at titles and pictures

-hand out booklets and have students look at story "Seeds as Travellers"

-ask kind of text..ask students to write it into the foundation section

-ask what goals for reading...ask students to write it into floor section

-ask plans for reading (read and remember information)...ask students to write it into the walls section

-introduce using titles and pictures as ways of learning

3. Developing prereading strategies (titles and pictures)

-ask students where else other than the text a reader can get information that will help build meaning

-using picture develop what ideas students get from it

-using title ask students to predict what the passage will be about

-find our what students know about subjects....inform students that if they think about everything they know about a subject before they start reading it will help them to connect their old knowledge with their new knowledge to help them understand better....reading stories with familiar topics will be easier than a new one

-develop mind map about what they know about how seeds travel

-after finished, have students add titles and pictures to plans for reading section

inform students that they have a lot of information now and that this selection should be easier to understand and remember

3. Guided practice

-ask students to read selection

-when finished ask students to give an additional piece of information that they learned from the passage

4.Feedback

-ask for the three steps using the building terms

-ask how the students find these strategies are helping them understand better

-ask students if the strategies are easy or hard to do....encourage that even if they are not easy the effort is worth it to improve their reading and their performance in school

-identify that next time we will learn some strategies that will help us while we read and will finish building our house

READING FOR THINKING:LEVEL 5/6

Module 1 Card B Lesson 2

BLUEPRINTS FOR READING

1. Review of strategies 1-3

-remind students that they have been learning and using three strategies for reading for the past two lessons

-remind them that we had built our reading foundation from the foundation, floor to the walls

-have them picture the three strategies in their minds

-have the students write the first three strategies on the worksheet

-collect them when finished

2. Introduce next three strategies

-today we are going to finish constructing our house by talking about plans we can make not only before but during and after reading as well

-what kinds of plans can you follow during and after you read? (write these down on the blackboard)

3. Strategy #4: to monitor comprehension as they read

-the next strategy that we are going to learn and practice is one that good readers do constantly when they read....that is they make sure that everything is in the right place and makes sense

-if we were thinking about constructing a house instead of constructing meaning we could think of this step as putting in the windows and doors in the right place so that you can see clearly and get out when you want

-you need to ask yourself if all the words and sentences make sense

-you need to trust yourself when you start to feel confused and know that something has gone wrong

-if you get that feeling you may have to go back and reread or look up the meaning of some words

4. Strategy #5: to identify the main idea (get the meaning)

-the next step is to put on the roof of the building

-every building has a roof that ties everything together

-in a story the main idea ties the story together

-who can explain what the main idea is?...the meaning or theme of the story

-the main idea is the most important thing to know about the story and passage

5.Strategy #6: to evaluate their reading

-the last thing that we have to do is construct the chimney of our building.....in reading we do that by thinking back about the story or passage

-did I like it? Did I learn anything new? Was it easy or difficult? Would I like to read more about the topic or more by the same author? Was it easy or difficult?

6. Summary

-you have now learned how to construct meaning when you read just like a builder constructs a building

-you have your blueprint for reading starting before, continuing during your reading and even continuing after you have read

-let's practice the steps together before we start to read today

7. Guided reading

-today you are going to work your way through a passage using your blueprint for reading

-you will put in the steps just like you did this morning and then describe below what you did

-you may look at this prompt sheet if you forget what the step is

-first work on the steps for before reading, stop while you are reading the passage to fill in the step for during reading and then fill in the steps after you have finished

8. Review

-discuss the answers for each section emphasizing that answers may vary

9. Conclusion

-review steps 1-6
-are these steps easy or hard to follow
-how have these steps helped you read

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 1 Card B Lesson 3

BLUEPRINTS FOR READING

Review: Modelling/Guided practice

-inform students that when it is important to remember things that I usually recite them because practice helps to make a stronger image in my mind

-demonstrate for students by reciting the six strategies

-ask students to recite the three pre-reading strategies together (reinforcing the analogy of "constructing a house.")

-recite the strategy for during reading

-recite the two strategies for after reading

-inform students that for many people, writing things down is the best way to learn and that is the way for me so the nest step to help me remember will be to do that

-write strategies on board and point out problem solving strategies of what to do if I forget (emphasize that I want to get the meaning down and that if some words are not exactly the same, it doesn't matter)

-have students write the strategies on the worksheet

-check individually for accuracy and meaning (particularly using title and pictures for activating background information)

2. Assignment: Modelling

-introduce the assignment (to identify the main idea of a passage)

-inform students of importance of knowing main idea

-read short paragraph and, using the "main idea" plan on the worksheet, demonstrate how I go about deciding what the main idea will be

3. Assignment: Guided practice

-inform the students that they will now do this independently

-fill pre-reading information on strategy worksheet

-read story and fill in the "main idea" worksheet (using text)
-work independently on assignment

-check for accuracy on strategy use worksheet and main idea assignment

4. Feedback

-share information on main idea word, supporting information and main idea statement

5. Conclusion

-ask why it is important to know what the goal for reading is

-ask what factors influence the plan for reading

-ask students when they could use these strategies in their classroom (transfer)

-tell students that for the next lesson they are to have one example of when they used the strategy

READING AND THINKING STRATEGIES:LEVEL 5/6

Module 1 Card B Lesson 4

BLUEPRINTS FOR READING-Test

1. Review

-review the 6 steps for constructing reading

-what were the two areas that we worked on that gave us information to start building the meaning in our passage? (title and picture)

2. Independent practice-test

-today you are going to practice using those six strategies on your own

-you are going to write down the strategies that we practiced on your building blueprint that you saw last day

-then you are going to write down how you used the strategy, what you did in your head at each step

-then you are going to read the story

-your assignment today will be to answer the questions on the worksheets as carefully as you can

-if you use the strategies well you should see that it is easier to understand the story and to answer the questions

-are their any questions?

3. Interviews

-when students are finished interview as many as possible (see interview sheet)

4. Conclusion

-we have worked independently with the first three strategies today that you use before reading and next time we will work on those to finish building our house....those that will help us build even more meaning into our reading

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 1 Card B Lesson 5

Blueprints for Reading

1. Review

-draw students' attention to graphs and indicate progress and relationship to using strategies

-indicate that today's lesson will continue the emphasis on what students could do "during" reading to construct meaning

-direct students' attention to last lesson and review the strategies that came up (reread, context, imagery, paraphrase)

2. Guided Practice

-tell students that today's assignment will be to read a story independently and to write down two strategies after reading that they used to help them understand the story better

-tell students that they will have to state exactly where they used this strategy by referring to the paragraph #

-tell students that we will discuss what they did after as a group

-have students identify their goal for reading

-have students identify the kind of reading and elaborate on how this is different from non-fiction (structure, content, plot)

-have students identify how they are going to read this including using title and picture as clues

-have students make prediction about story

3. Independent practice

-have students read story and write out strategies on answer sheet

-when finished, go through story and identify the strategies and how they helped to make the story more memorable and understandable

4. Conclusion

-ask students their opinion of the picture (did it help in making a prediction about the story. Does it matter if you are wrong.)

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 1 Card B Lesson 6

Blueprints for Reading

1. Review

-indicate that today's lesson will continue the emphasis on what students could do "during" reading to construct meaning

-direct students' attention to last lesson and review the strategies that came up (reread, context, imagery, paraphrase)

2. Guided Practice

-tell students that today's assignment will be to read a story independently and to write down two strategies after reading that they used to help them understand the story better

-tell students that they will have to state exactly where they used this strategy by referring to the paragraph #

-tell students that we will discuss what they did after as a group

-have students identify their goal for reading

-have students identify the kind of reading and elaborate on how this is different from non-fiction (structure, content, plot)

-have students identify how they are going to read this including using title and picture as clues

-have students make prediction about story

3. Independent practice

-have students read story and write out strategies on answer sheet

-when finished, go through story and identify the strategies and how they helped to make the story more memorable and understandable

4. Conclusion

-ask students their opinion of the picture (did it help in making a prediction about the story. Does it matter if you are wrong.)

READING AND THINKING STRATEGIES: LEVEL 5/6

Module 1 Card B Lesson 7

BLUEPRINTS FOR READING-TEST

1. Review

-remind students of the last three strategies that they learned and practiced for during and after reading

-have students verbally repeat all the strategies

-have students fill in blank worksheet with all strategies

-remind students that they have their prompt card and that they may use this if they cannot remember (record usage)

2. Independent activity-test

-advise students that they are going to work independently on their reading today

-advise students that their assignment will be to fill in the strategies worksheet

-advise them that there will be questions to answer at the end

-before reading develop prereading skills by discussing predictions for the story (vocabulary and plot) using the title and the picture

-have students complete assignments

3. Interview

-while students are reading interview students as to their prereading and during reading strategies (see outline)

4. Conclusion

-have students retell the strategies and one in-class assignment to which they will apply the strategies

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 1 Card B Lesson 8

BLUEPRINTS FOR READING

1. Review

-review the 6 strategies for reading that the students have constructed

-ask students why they are important

-instruct students that they will not write them out today but that they will be asked to verbally recite them to me during the lesson

-inform students that we will be concentrating on after reading strategies today

2. Modelling

-inform students that they have a right to an opinion about stories-that they will not like all stories, that they will not like all parts of a story, and that not all students will agree on whether a story is enjoyable

-read a short paragraph and demonstrate for students my reaction to it (refer to parts of the story-plot, characters, language, topic, etc.)

-encourage students to give opinions that they back up with examples especially those that disagree with mine or that have different reasons for their opinion

-inform students that by have personal reactions to stories, they will enjoy reading more and will remember what they have read better

2. Independent activity

-instruct students to prepare for reading with the prereading strategies and then to read the story provided at their level

-instruct (and write on board) that the assignment will be to write an assessment of the story ie. language, topic, characters, plot, etc.

-indicate to students that these are areas that you can consider when assessing "how you feel"

3. Interview

- while students are completing questions complete interview on what strategies they used, how it helped them at the three reading intervals

4. Conclusion

-identify to students that this will be the last lesson on this module and that next session will focus on some specific strategies to be used while reading

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card A Lesson 1

TOOLS FOR READING

1. Introduction

-we learned over the last couple of weeks that we can construct meaning as we read just like a builder constructs a house by doing things before, during and after we read

-today we are going to start to learn to use more tools to help us construct the meaning in our stories

-can any of you name some tools that a builder uses? a cook?

-we need lots of tools to complete a job but we must also know which ones to use to get the job done

-you would not use a hammer to cut a piece of wood and you would not use a knife to stir soup

-good readers know lots of different tools to use when they read, they chose the right ones and they use them all the time even when they are frustrated

- who can name some of the tools you already have been using

-today's lesson is about a tool that can help you understand words or sentences that you can't understand

2. Using context

-many of you have told me that you already use this strategy for understanding

-it is important though to learn more about it and when to use it

-when we have difficulty figuring out what a word or sentence means we should use context to help us figure it out

-you should use the words or sentences around it to help you get the meaning

-how many of you think you use context now?

-for those of you that don't here is an example that might help you understand what I mean

-(on board) "I couldn't ride my bike because the sprocket was broken" What do you think a sprocket is? How did you get that ides?

-even sometimes if you don't know exactly what something is you can get a good enough idea to help you understand the meaning

-who might understand that sentence better than us (a bike racer, a repair man)

3. Guided practice

-today we will start practicing using context by working together on a story

-identify that both titles and pictures are good context because they give us lots of clues about the story

-have students read the title and make guesses as to what the story might be about

-have students look at the picture and try to guess the plot

-discuss the story using the underlined words and phrases as problems

-have students underline with a coloured pencil the context that helps to clarify the meaning of the identified problem areas

-at the end of the story identify that we will use our after reading strategies to complete constructing the meaning

-have students give the main idea of the story and their opinions of it

4. Conclusion

-what tool did we work with today?

-when would you use this tool?

-do you think this tool would be hard or easy to use

-why do you think it would be worth the trouble

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card A Lesson 2

TOOLS FOR READING: USING CONTEXT

1. Introduction

-direct students to poster

-ask students to identify why tools are useful when doing jobs

-ask students for some examples of occupations and the tools they use

-ask students what tools we have found useful for reading

-ask students why these tools have been useful

-ask students what tool we worked with last time

-ask students why it was useful for us to use this tool

2. Review

-ask students how we used context while reading last lesson

-remind students that this strategy required work but that it was worth it to be able to understand stories better and to be able to read independently

-remind students that the exact meaning of each word was not always possible but that if the overall meaning was clear then it was not necessary to consult a dictionary or teacher

3. Guided practice

-introduce students to the cloze method for using context by illustrating that often we can use context to give us the word even if the word is not there

-state that we use our knowledge of the subject matter and our knowledge of how our language works to fill in the word

-give example: The elephant raised his trunk and his ..... swayed back and forth.

-remind students that to use all the context in the sentence, they should always read to the end of the sentence substituting a grunt or nonsense sound for the word and then reread the sentence and put in the word

-explain how we can picture what is happening and we fill in the blank from our knowledge about elephants

-ask students what kind of stories or passages would be easiest to do this with (easy words, easy sentences, familiar topics)

-tell students that they often also get clues from the letters in the word as well as from what they know about the subject

-give example: The elephant raised his trunk and his h(ead), t(ail), e(ars) swayed back and forth.

-tell students that they are going to do a cloze exercise today taken from a story that they had previously read

-tell students that they can work in pairs or threes to determine the words until #25 and then they should practice on their own

- inform the students that I will be available for consultation as well

-ask for questions about the assignment

4. Independent practice

-at #25 redirect the students to their seats to work independently

-circulate and question students as to how they are doing the exercise and ask if they find it easy or hard

_encourage them to continue as this is the secret to success

5. Conclusion

-ask students what the purpose of the exercise was

-ask students to think about using this method for at least one reading exercise in class today and to come prepared to report on how they found it to use and how they think it helped them

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card A Lesson 3

TOOLS FOR READING: ASSESSMENT

1. Introduction

-ask students what strategy they have been studying

-ask students when they would use this strategy

-ask students why they think this strategy would be useful

-reinforce students use of this strategy by informing them of the good results of the cloze exercise

2. Independent practice

-inform students that today they will be using what they have been learning to read a passage and answer questions

-inform students that reading and understanding questions is just as important as reading and understanding the passages

-suggest to students that many mistakes are being made not because the passages are not understood but because students are rushing through the questions and not stopping to make sure that they know what the question is asking

-suggest to students that they use the same strategies for the questions as for the passages

-inform students that they will be interviewed about what they did before, during and after reading

-inform students that the passages and questions are like the ones they have done before with multiple choice and written answers

-ask for questions about directions

3. Interview

-when students are finished reading and are working on their questions, interview each to determine strategy knowledge and use

4. Conclusion

-before students leave have them estimate whether they thought that they are using the stategies all the time, much of the time, a little, not very much, not at all

READING AND THINKING STRATEGIES: LEVEL 5

Module 3 Card B Lesson 4

TOOLS FOR READING: IMAGERY

1. Introduction

-reinforce good results on tests by showing the graphs and emphasizing that those who told me they used the strategies the most got the best results

-inform students that while they should continue to use the title and picture context before reading and the words and phrases in the story to help them better understand the story that we are going to add another tool to our reading kit

-inform students that many students had told me that they liked to read fiction stories because they were the easiest

-tell students that the reason some people gave was that it was easy to follow

-inform students that they are going to learn or practice to use the strategy of imagery to help them to remember a story plot

-tell them what they are going to do is to try to imagine a story like a movie in their minds to help them remember it at the end

-inform students that to start practicing that I am going to read a story to them and that to do this the best way is to close their eyes and make a movie screen out of the black

2. Guided practice

-inform students that we are going to use our blueprint for reading like we always do

-establish goal: to listen to a story and make a movie out of it so that they can tell it back to me in order

-text: fiction best because of the action

-plan: close eyes and project like a movie

-read story (BONES AND STONES #4)

-after story have students recount the main idea of the story

-have students recall the story plot and write points on the board

3. Independent practice

-tell students that they will now practice this on their own, read a story and do a story board after they are finished

-have students verbalize their blueprints for reading

-establish goal: to read and make story board

-text: fiction

-plan: to read and stop at an important point and picture what they could draw about

-allow 20 minutes for acivivity

-students who are finished first can retell the story to me or a friend

4. Conclusion:

-ask students how many had some or no trouble doing this

-inform students that practice will perfect the technique

-ask students where this strategy would be used best

-encourage students to use it with something in their class

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card A Lesson 5

ROAD SIGNS FOR READING: PARAPHRASING

1. Review

-ask students to recall the first two strategies that we learned and practiced

-ask when these strategies would be most useful and why it would be worth the trouble to use them

-remind students that good readers spend the time doing this while they read but that they use them for specific purposes

2. Introduction

-refer to the poster and introduce students to the new strategy: paraphrasing

-ask students if they know what this strategy is and when it should be used

-confirm that this is telling what a paragraph or story is about in your own words and that it is used to check for your understanding of the selection

-tell students that it can be used as a check periodically throughout the story just like we did to make a movie of the story and that it can be used at the end of the story to reinforce recall of the whole story and to check for understanding

-inform students that the difference is between paraphrasing and just telling about the plot is that you combine quite a bit of information and that a two page story can quite often be told in about 4-5 sentences

3. Guided practice

-tell students that to practice we are going to read a story together paragraph by paragraph and paraphrase after each and at the end

-read "Paper, Paper Everywhere" from NEW PRACTICE READER (F)

-at the end of every paragraph ask for a one sentence paraphrase of it and write these on the board

-discuss the merits\problems of each emphasizing that all the information must be present but that the words must be the students' own

-at the end of the passage, solicit a couple of complete paraphrases

-end with a reaffirmation of the value of this activity to aid racall and to check for understanding

4. Independent practice

-tell students that they will now do a passage on their own, pararphrasing paragraph by paraghraph on a worksheet

-tell students that they should also be paraphrase at the end of the story and be able to tell it to me

-allow about 15 minutes for the exercise

-check the work and assist where necessary

5. Conclusion

-ask students to recall what paraphrasing is, how it is used and when it should be used

-ask students what they are telling themselves if they cannot paraphrase the selection and what strategy(s) should be used to solve the problem (reread and practice paraphrasing more often)

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card B Lesson 6

TOOLS FOR READING: PARAPHRASING

1. Introduction

-ask students what strategy they had worked on last

-ask students what kind of reading was this strategy best suited for

-ask students why you would use this strategy (good review of material to help to remember, good test of understanding)

2. Independent practice

-instruct students that they will be using the strategies on their own today

-instruct students to remember to use their pre-reading strategies to get them off to a good start to start building their understanding of the story

-instruct students that there is a phrase in the beginning paragraph that is hard to understand without some background knowledge "Jeckyll and Hyde" Explain

-instruct students that today they are going to read an article from the newspaper that appeared about two days ago and that the sections that are appropriate for paraphrasing are checked off at the side

-instruct students to use the sheet provided to do their paraphrasing

-instruct students to be prepared to paraphrase the story at the end verbally

-circulate and help individual students with difficult sections and encourage them to use context to aid in understanding of difficult words

3. Conclusion

-have students paraphrase story and to give a critical assessment of it

-ask students if the strategy is easy or hard to use and why it would be worthwhile to persist in using it

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card A Lesson 7

TOOLS FOR THINKING: TEST

1. Introduction

-inform students that today is testing day

-ask what strategies the students might want to use today before, during and after reading

-ask students what we discussed was important to do when doing the questions

-inform students that they can consult their prompt cards if they are not sure about what strategy they should use

2. Independent reading

- have students read the stories at their level and do questions

-circulate and question students about specific sections of the story to check if they are reading for meaning, are unaware of their lack of comprehension or are skipping sections that they don't understand

3. Interview

-as students are doing their questions interview to determine if they are using context, developing imagery or paraphrasing

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card A Lesson 8

TOOLS FOR READING: KIT LESSON 3A

1. Introduction

-refer students to results from last test and inform students that those who have been using the strategies continue to make gains in reading comprehension

-tell students that we now have about 4 more weeks of lessons and will be working on learning several more useful strategies, practicing with ones we have learned and will be using different kinds of materials to show that these strategies are useful in all circumstances

-tell students that today we are going to read a story together and practice using the strategies we have been practicing

2. Guided practice

-refer students to the story in their books

-ask what we do first (discus purpose, type and plan)

-ask how we can get a jump start on the story (title and picture)

-discuss prediction and how it helps understanding and remembering (right or wrong)

-instruct students that we are going to take turns reading the story not so that I can judge how well they know the words but to see how we all think our way through the story and how people do different things to help their understanding

-tell students that we are going to keep a tally of the number of times that we use the tools for reading (on board)

THE WOODCUTTER'S HELPER

(1) imagery to visualize the scene and who Hodja is

(2) context for "stove lengths"

paraphrasing for the story up to now

(3) context for "who is Sirajed-Din Bey"
(4)-----

(5) imagery for the woodcutter cutting, the boss grunting and the Hodja watching

(6) ----

(7) ----

(8) paraphrase to clarify what the paradox (joke) is

(9) summarize to check for story sequence and understanding

(10) context to define "nimble wit" vs "sober wisdom"

imagery of the two woodsmen moving hands as fast as tongues

(11) context for "gurush"

(12) paraphrase to clarify arguement

(13) ----

(14) prediction of what the Hodja will do to solve the problem

(15) imagery of the Hodja waiting for the arguement to stop

(16) context to determine "beckoned"

(17) ---

(18) summarize from the part where the scene changes to the town

(19) ----

(20) --------

(21) imagery for "greedily aglitter"

(22) Paraphrase the clanking of the coins

prediction for what will happen

(23) prediction throughout the paragraph

paraphrase "sound of money....sound of working"

summarizing from when the tray was brought to the Hodja

-ask for opinions of the story, what made it a good story, what could have made it better
-ask students if they felt that using all the tools for reading helped them enjoy the story better, gave them a better feeling for what was going on and allowed them to join into the story better

READING AND THINKING STRATEGIES

Module 3 Card A Lesson 9

TOOLS FOR READING: KIT LESSON 3A

1. Introduction

-remind students that we are going to finish the story that we started last lesson

-have students paraphrase what the arguement was between the woodcutter and the helper

-ask students if they have any different predictions about what will happen to the money than what they did last time

-remind students that as the goal and text are the same as last time that we will have the same plan

2. Guided practice

-refer students to paragraph #12

-continue with oral reading using the plan in lesson #3ah

-at end of story discuss the strategies used, ask how they helped the students understand the story better and ask for opinions about the story (refer to Guy de Maupassant as also having twists in his stories)

3. Conclusion

-remind students that we read the story as good readers would read and remind them that good readers are always aware of having the story make sense and not just getting the words out

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card B Lesson 1

TOOLS FOR READING: TEST

1. Introduction

-tell students that today they will get a chance to test out how well the strategies are working for them

-emphasize that those students who have used the strategies in the past have done very well on the tests

-tell students that they should read the story using the before, during and after reading strategies we have been practicing keeping in mind that understanding and remembering what they read will be important as they will have questions after the reading selection

2. Test

-assign passages for the appropriate grade level

3. Interview

-when students are answering questions, interview them one at a time

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 3 Card B Lesson 2

TOOLS FOR READING: KIT LESSON 3B

1. Introduction

-tell students that for they are going to learn one new strategy today and then practice all there strategies independently on a reading assignment

-encourage students to continue to use the strategies like they did in the last assignment as it is really helping those who are using them to understand what they are reading better

-ask students what most often is the goal for reading in school (answering questions, remembering what you read for a test)

-tell students that there are several important questions that teachers ask that students can ask themselves before they come to a test situation

-ask if anyone knows any important types of questions that often come up on a test (who, what, where, when, why, how)

-relate these questions to the type of information that a writer must think of when they are writing and that as a result these questions reveal a lot of important information that a reader should know

-review the wording that could be used for a question eg. in what country (where) name the characters (who) what caused the explosion (why) what is the main idea (what)

-review with some of the information from the last story "The Woodcutter's Helper"

-when finished tell the students that they should use this strategy along with the others they used to help them understand the stories better

2. Review

-tell students that we are going to draft an outline of all the strategies that they can use in a story so that they will have a guide when doing today's assignment

-write out a building understanding guide on the board using the before, during and after reading strategies we have learned

3. Independent practice

-have students turn to the story "Crossing the Atlantic"

-tell students that today's assignment will require them to stop at the tool boxes in the margins and list a tool that they have used up to that point

-tell them that they can refer to the board but that I will be coming around to talk with each student to see how they have used the strategy

-remind students that there are many options when using strategies and that each students may be different...strategies are to be used when needed and should suit the need

-ask for questions

4. Conclusions

-if time permits compare tools for the first two or three

-ask students which tools they find the most useful to them and why

-ask students how asking questions can help them understand

-praise students for using the strategies and for increasing their understanding of the stories

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 6 Card A Lesson 1

ROAD SIGNS FOR READING

Review:

-praise students for excellent results on test and reinforce that everyone was able to show me that they had used the strategies

Introduction

-tell students that we have talked about what we do before, during and after reading and that we have learned many tools to help us build our understanding about what we read

-indicate to students that the major problem left seems to be that some students do not know when to use the strategies and that we are going to practice a technique for becoming more aware of problems as we work our way through a story

-(refer to poster) when I saw this poster I was reminded that road signs help me to drive

-for example stop signs regulate traffic at intersections so that there will be not collisions, speed limits help me to be aware of the road conditions, curve ahead warns me of danger

-wouldn't it be nice if there would be little road signs in books that helped you plan your reading trip and warn you of danger

-unfortunately there are no road signs in books that tell us like road signs do, what is ahead, when to slow down, or when to stop

-good readers must put in there own road signs to help them to read better and I am going to help you do the same thing

-let's look at the road signs on the poster and see if they are like any of the mental signs we can use when we read (select the stop sign and ask...what does it mean in traffic? What do you think it might mean in reading? (end of sentence, paragraph, story)

-can anyone else select another sign that can provide a direction for reading?

Directed reading

-today we are going to read through a story and discuss the road sign and what direction you should follow for you to improve your comprehension

-direct students to their books and the new story "Why the Bear is Stumpy Tailed"

-QUIET ZONE Where does this sign occur? Where would you expect to find this sign on the road (hospital) What direction do you think it could give a reader? (get ready to read) How would you do that? (look at title, pictures, think about what I know about the subject, predict what the story will be about, look at some of the hard vocabulary). If I

were about to read this story I might think that I know animals have different features because of evolution and that would make this a scientific story but I have also heard of stories that sound like this title and they are usually fables---stories like an Indian tale that has a moral at the end---something somebody learns.

-OK we have done all our prereading strategies and we can start our reading with a good jump start

-CURVE AHEAD This sign means to think about what will happen next ---to predict. When do you think you could use that? (when the action gets exciting, when you can feel the author is setting you up for something). What do you think is going to happen next? (that the fox is going to trick the bear). What gives you that idea? (sly)

-SLOW This sign means to pause and think about what you have read. Remember how you were critical of the author at the end of a story? Well you can also be critical of the character's actions in a story and decide for yourself whether you would have given that advice, done that thing, etc. From what we know already what do we think of the advice the bear gave the fox?

-STOP This sign means to say it in your own words. Where have we heard that idea before (paraphrase). When have most of us decided to do that? (at the end of each paragraph, at the end of a particularly hard sentence, etc.) Who can paraphrase the last paragraph for me?

-SPEED LIMIT This sign means to adjust your rate of reading. When would you know to do that? (when there are many hard words, many ideas in one sentence, etc) Why might we slow down here?

-YIELD This sign means to get help for the words you can't understand. What will you already do before you do this? (use context) Can someone think of a road sign we could make up for using context? (railway sign...stop, look, and listen) What word or idea might be difficult here? (fast) Can anyone figure it out form context? (stayed) OK I will tell you ....you must yield to me. It is a figure of speech that means was stuck hard.

-STOP We have met this sign before. What did it mean? (paraphrase) Why is this an appropriate place? Why would you use it? (to check for understanding, to increase your memory) You should be able to tell what happened to the bear in your own words to make sure you know what the story was about.

Summary

-What were some of the road signs for reading?

-Why is it important to use these signs? (so that you can plan your trip through the story and make sure you make it to your reading destination safely....so you can understand what you read.

-CURVE AHEAD Who can remember what this sign means? (think about what will happen next) What do you think we will do next time? (review, practice on our own)

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 6 Card B Lesson 1

ROAD SIGNS FOR READING

MATERIAL: LAVENDER

Review:

-discuss the signs introduced in previous lessons and practice them orally

-have students complete the individual puzzle and when they feel ready have them complete the worksheet on sign meanings

Introduction:

-tell students that they have shown a good knowledge of strategies and have shown that they use them in their reading

-indicate to students that they will have an opportunity to use the strategies with some help from the book as guidance

-direct students to read the story they find in their booklets and fill in the reading strategy indicated by the sign

-tell students that as they read I will come around and discuss with them how they use the strategy and whether they felt it was necessary for them or if they would have chosen another one or an additional one

Independent practice:

-circulate and determine if students are indicating the correct strategy and how they used it and how they think it helped them at that point

-have them indicate any additional ones in the margin

Summary:

-have students as they finish indicate where they should use strategies and what benefit they have been to them

-ask students what strategies they would use most when reading and why

READING AND THINKING STRATEGIES: LEVEL 5\6

Module 6 Card C Lesson 1

ROAD SIGNS FOR READING

MATERIAL: GRADE 6\7 PRESCRIBED TEXT

Introduction:

-tell students that they have shown a good grasp of the signs for reading that if used will help to make a safe trip through their reading journey

-inform students that good readers are good because they use these signs when they are needed for all their reading

-tell students that they will have an opportunity to use some classroom material to practice the signs and strategies they have used

Review:

-tell students that before they do that they will have an opportunity to review the signs before they start and that they will also have a prompt card to help them if they get stuck while they are reading

-distribute the "road signs response sheets" and have students fill in the meaning of the signs

-mark and clarify any errors

Independent practice

-distribute the reading selections and tell students that the goal today is to read the material and note in the margins any of the tools they used to help them understand the story

-inform them that they can use the prompt card to help them remember the sign if they get stuck

-tell the students that I will circulate to ask them how they used the sign and how it helped them understand what they read

Summary:

-ask students what sign they thought helped them the most to understand the story and ask them to compose a what and why question that they would ask if they were the teacher

APPENDIX 8: PRE- AND POSTTEST INTERVIEWS

PRETEST INTERVIEW

STUDENT: 1161

1. Uhm.....I don't know. They read fast so they can get the questions done. They might have to read the story again if they forget some of the questions.

2. I look at the back of the book or the title. Uhm.....I try to think about if I might like it.

3. I ask my teacher or I look it up in the dictionary.

4. I just skip it or ask my teacher if she is here.

5. Oh.....fair. How I understand the story. Satisfactory.

POSTTEST INTERVIEW

1. Uhm.....they, uhm.....look at the title and look at the picture if there is.....and try to make a story in their mind.....what's it going to be about, thinking ahead. Well, when they're stuck they use context. If they can't really get it they use "yield" and after probably they'll say the story in their own words. Well, uhm.....sometimes they'll think ahead in the story, what's going to happen or uhm.....slow their "speed limit" because when they come to a harder part or a more interesting part when you want to get into the story.

2. I look at the title first and think that, uhm.....I'll read at the back of the story if it's going to be an interesting one. Well, I'll look at the picture and if it's an interesting picture or interesting title, I'll read it. I try to get into the story. I'll try to use all the strategies.....and the road signs. If I don't understand them, uhm.....you really want to read the story.

3. I look around in the sentence to look for any other clues for the word. And if I still can't get it, I'll go ask the teacher.

4. I read the whole paragraph and try to use context.....and if I still don't understand the whole sentence, I'll go to the teacher.

5. Good. How I understand the story. Satisfactory.

6. I learned how to use the strategies when I need them.....and that'll help me read better. I didn't use the strategies and didn't know when I got stuck and now I know what to do when I'm stuck. I just kept on reading.

PRETEST INTERVIEW

STUDENT: 1162

1. They read te words over and over again so if they have questions they can answer them.

2. I read the title. I think about what the story's going to be about.

3. I sound it out or ask my mom or ask my teacher. I try writing it down to see if I can understand it better.

4. I ask the teacher or my mom what it means. I try to figure it out and look in the dictionary for words I don't understand.

5. Good. How I understand the story. I don't really undestand you. Oh. Fair.

POSTTEST INTERVIEW

1. Well, they read the story over and over again so they really understand it, so they'll remember it.....so they'll remember the story and if they're studying for a test they'll really remember it. They might paraphrase, summarize, ask questions during the middle of the story.

2. I look at the title and picture and think about what it's going to be about. If there's any hard words in there, if you hear it in the title, you might know it. The title gives you some of the information and helps you figure out the story. Then I paraphrase at the end of a paragraph to make it make sense and if I have questions at the end I might figure out some questions. Or I might make a movie in my mind so I can remember it easier. After, I might try to tell myself the story again or find another book like it to read if I like it.

3. I sound it out or I ask the teacher. I think about it first.

4. Ask the teacher. First I think about it though. Maybe paraphrasing or summarize and try to figure it out.

5. Fair. How I understand it. Uhm.....I used to be poor but now I'm fair.

6. That when you retead it for a test you'll understand it more. That when you read the title and look at the picture you'll be able to figure it out.....what the story will be about. When you summarize and stuff, then it'll help you go through the story better. And I ask myself questions now.

PRETEST INTERVIEW

STUDENT: 1163

1. Some good readers follow along with their fingers to help them keep their place and sometimes if they're stuck they'll just find it out or just keep on going.

2. First I'll look over the story and then I'll read the story and then I'll.....if I get stuck on a word.....I'll go ask the teacher. I look in the index first.....for the story I'm reading.

3. I'll sk.....I'll cover the word I can't get properly.....that I can't do.....and then I'll do the rest I can do and then I'll go and see if I can say that word out syllable by syllable. Then I'll go ask the teacher.

4. Sometimes I'll leave it out and then I'll go and ask the teacher.

5. UHM.....poor. I don't like reading so I don't really read. So I guess that will be with the words. Uhm.....fair.

POSTTEST INTERVIEW

1. They, uhm.....they, uhm.....they stop at the paragraphs and they look and they think about it and they picture it as a story and they follow along with their fingers. They look at the pictures first, and the title, to see what the story's going to be about from the picture and the title. It gives them an idea about what the story's going to be about.....so you can understand it a lot better.

2. I look at the pictures and then I begin to read.....and I look at the title too. I think the story could be boring or be good. Then I paraphrase at the end of the paragraphs so that I know what the story is about or I imagery. Then I have the story like a movie.

3. I ask my mom or I use the syllables that Miss X tells me. I go ask Miss X or my mom.

4. Sometimes I'll leave it out or I'll figure it out or I'll go ask my mom what it means. I sometimes read ahead and if I figure it out, I go ahead. Usually I don't leave it anymore.

5. Fair. How I understand the story a little bit. Uhm.....satisfactory.

6. That I could stop at every paragraph and read or stop at every paragraph and think and just go up and ask for help if you need it.....not just sit there and wait.

PRETEST INTERVIEW

STUDENT: 1164

1. They, uhm.....they can read very well. They're perfect at reading. If they want to read a really hard book in the library and they're good at it, they can.....with hard words. They can get good at it with easy words. They study the words if they're having a test.

2. I look at the book, go through the words. If it's hard, I put it back to get another one. I'd flip through it and if it's too hard, I'd get another one and flip through it and if it's easy, I'd read it.

3. Sound it out or if I know some of the words, I put my fingers in between it.

4. Try my best to sound it out or go on and skip it.

5. Uhm.....good. How I read the words. Very good.

POSTTEST INTERVIEW

1. Uhm.....before they read they look at the title if the story has a title and they think what the story will be about and they go on and read the story. If they're stuck on a word, uhm.....they read the paragraph ahead, I mean, reread the sentence they're stuck on and read the paragraph ahead 'cause then they can understand the story. If it's a true story, they'll stop and paraphrase and think about the story. If it's not a real story and they understand it, they won't stop and paraphrase. They'll just keep on reading. If.....they finish reading.....if you don't.....I would stop and ask yourself questions.

2. Uhm....well, uh...I first look at the title and the picture to see if I can get what the story will be about. And then I think that if it will be a hard story, I might go back and reread it to see if I can understand it better the next time. Sometimes I say the story to myself at the end.....sometimes at the end of a paragraph too. But I have my plan and I, uh.....might read fast or slow if it's a hard story. But after I will think about if I understood it and if I have to go back and reread some parts.....if I don't understand it. And I think if I want to read another story the same.....if I liked it.

3. If I can't get it, I go back and reread the sentence, skip the word, read more and go back to that word and try and get it. I'll get help if I can't get it.

4. Go to the end of the sentence, read the next sentence on and go back and read it because if there's a sentence that means a little bit the same it will help you.

5. Uhm.....satisfactory. Uhm.....how I understand the story. Uhm.....very slow. Fair.

6. Uhm.....that I.....when you go away I will not quit doing these uh.....stuff when you're gone. Like imagery, paraphrase, reread, summarize.....all that stuff.

PRETEST INTERVIEW

STUDENT: 1171

1. Uhm, they remember what they read and they concentrate. I'm not sure. They read it over.

2. Read the title . You think what the story's going to be about.

3. Look it up or try to sound it out or ask a teacher.

4. You can ask a teacher or read the sentence and try to think about it.

5. Fair. Understand. Very good.

POSTTEST INTERVIEW

1. Remember the story. Ask themselves questions and go back and paraphrase what they've read. Context. Like if they get stuck on a word they read the word or sentence around it to get an idea of what that word means.

2. Like when I pick up a book? I read the title or maybe if you're reading a book.....at the back there's a thing telling you what it's about. And I think of the title and think about what it might be about . I think of.....look at the picture, look at the thing at the back and predict. If you guess and you're right , then it'd be easier to remember the story. And I use imagery to remember, or paraphrase to see if I understand sometimes at the end of the story or a paragraph. And I read slowly if its hard or maybe fast if I know about it and its easy. At the end I ask questions but not if I'm reading for fun.

3. I read around it.....and read the words and the sentences around it . Yield. Uhm, to get help by a teacher.

4. Then I read it slowly or read other sentences around it and then if that doesn't work, I ask a teacher.

5. Good. Understand. Satisfactory.

6. Uhm, well, I learned what the signs meant and how to use them. If I never learned them, when I get stuck, I wouldn't know what to do. I'm faster and I can understand them better. The signs and the words. The list of the words, the things we learned before we did the signs. (like) Why I'm reading it and stuff? What kind of reading is it? What's my plan for reading? Tools for reading. We didn't really learn tools like a list of words. We just learned stuff to use.

PRETEST INTERVIEW

STUDENT: 1172

1. Pronounce the words that they can't spell fast.

2. Uhm.....look at the title to see what it's about. See if I like it or not.

3. Look it up in the dictionary or glossary at the back. Ask the teacher.

4. Read the paragraph around it because it gives you more the meaning.

5. Fair. How I read the words. Satisfactory.

POSTTEST INTERVIEW

1. Uhm.....they paraphrase and ask themselves questions as they go along so they understand. They think about what they're reading before hand and why they're reading it, what kind of book it is and how they're going to read it and make their plan at first. Sometimes they summarize at the end so they get it all right.

2. I read the title and read the back. I think about what the story's going to be about. Then I paraphrase at the end of each paragraph to make sure I understand it or help make the information small. And I imagine the story in my own way. And if I get stuck or can't remember, I will reread it or just some parts. And at the end, I summarize or maybe make up some questions like for a test.....if we're having a test. But if I have lots of background knowledge I might not have to because I already know most of it.

3. Uhm.....read the sentence around it and if I still don't get it and I read the sentences in front or back of it and I still don't get it, I'll ask the teacher.

4. I read the paragraph around it and then if you don't get the whole paragraph, I mean the sentence, in between, then you ask the teacher.

5. Satisfactory. Both.

6. Uhm.....to stop and look at the story instead of reading it right through and leaving it. Because now if I don't understand it, I'll reread it or ask myself questions to make sure I understand it.

PRETEST INTERVIEW

STUDENT: 1173

1. They concentrate on what they're reading and they try to understand what the reader is reading about.

2. Uhm.....read the title. I think about what the story might be about.

3. I'll look it up in the dictionary or I'll ask someone else.

4. I'll read the sentence before it and after it and then maybe I'll understand it. I get help.

5. Satisfactiory. How I understand stories. Fair.

POSTTEST INTERVIEW

1. Well, they think about what they read and they explain to themselves what the reader's (author"s?) trying to tell them. They reread, they paraphrase, and if they can't get it, they get help. They do it before reading, during reading and after. Like, one paragraph they might paraphrase and then after the story they might paraphrase again.....or reread some parts.....so they can remember. And if the teacher is asking questions they can remember.

2. I'll look at the title and the picture and then I'll look at the back and put my ideas together about what the book's going to be about. I think about why I'm reading, like for fun or for a test, and put in my plan.....maybe reread, or paraphrase if I have to remember, or imagery so I have a good picture in my mind.....like you said, "a movie." Or sometimes I "go slow" if I don't have background knowledge or there's hard words. And after, I think about questions.....or sometimes I think about questions other times. But I think about if I liked it and then I might get more books.

3. I read around the sentence and if I still can't get it, I get help.

4. I read the paragraph that the sentence is in and if I still can't get it, I get help.

5. Fair. Understand. Fair.

6. That you should read more and you should paraphrase and reread if you have to.....if you don't understand the story. You don't just read right through. You have to stop at certain spots if you get stuck.

PRETEST INTERVIEW

STUDENT: 1261

1. Well they.....first of all they look to see at the title, what it's about, and then even if they didn't really like it they might get interested in it. And they'd, uhm.....they'd read it quite fast and when they didn't understand, uhm.....they'd keep on going until they understood it. And if they finally couldn't understand it, they'd probably ask someone!

2. Well first of all I look at the cover, the title of the book. And, well, that tells me what it's about. And, uhm.....I just look through the pages.

3. Well, I mostly read the sentence through a couple of times and then I ask someone. Well, I'm mostly trying to get the words around it to figure out the word.

4. Well, uhm.....I just read all the other sentences around it, just like if I come to a word I don't understand.

5. Probably satisfactory. Probably, mostly how I understand. Probably the same one.

POSTTEST INTERVIEW

1. Uhm.....well, first of all, before they read? OK. Before they read, first of all, they look at the title and if there isn't a title, I just read the first sentence and took that as a title and thought about it. And then plan how you're going to read it.....fast, slow, and uhm.....when you're going to have a "home free." And then when you're reading you use your plan that you made.....you think about what you've read in your plan. Uhm.....well, yah, and then after you're reading, you criticize it, or, if you don't get it, you might want to skim through it. I like using context and.....well, just like, the two I like best are 'you look around the word you're, like, having trouble with' and 'you stop and think about the paragraph'. I'd read a paragraph and then I'd just stop and I'd look up somewhere and say it to myself and if I don't know, I'd just try it out, try and say it, and then I look down at it.

2. Uhm.....well, first of all I look at it, look at the title, they mostly do have titles, look at the title and think about how I'm going to read it. I mostly would paragraph by paragraph. Like after each paragraph I would take a "home free".....just a break, a little break. I have a little break.....so.....then after I have that, I just keep on reading and I think abot what two strategies I'm, going to use the best.....I want to use the most. And the, like, judging from the title, if you have background knowledge, like you know that you're.....what you're mostly going to use because you know what they're for. But if you don't have background knowledge or whatever you have on it, you just know what tools you're going to use. I'd probably use imagery if I had background knowledge 'cause you could do that easily. And uhm.....for background knowledge, I'd use imagery. And, uhm.....I'd use context mostly.....well you would really use context the most because you would really know what it was. Imagery, the most, and.....I don't know about the second one.....it's just whatever might pop up.....I might use.....but mostly imagery and something I know.

3. Just use context.....look around the words that I do. If I can't get the whole sentence cause of that word, just look around the.....first of all look around the sentence, specially hard.....I mean just around the word.....and then look around the sentence.....and, well, I don't really go into another paragraph,.....you shouldn't do that really because, like, "footwear", one would be on hiking and one would be on running and you wouldn't really want to go up to your hiking one when you're doing your running one. So I'd probably get help.

POSTTEST CONT'D: STUDENT 1261

4. Look around the sentences! And if I couldn't do that, get help.

5. Well probably between satisfactory and good. How do you mean? Well, uhm.....probably how I understand them, unless it's something I've got background knowledge on. Read the words? Well, it's hard to say. If I've got background knowledge, between very good and good. If I don't.....like if it's something I don't really like and I don't have anything on it, between satisfactory and fair.

6. Well, how to read, more or less. How to read it. Like it's like doing a test. You could be smart but you might not know how to do it. Well, it's sort of the same because I really never knew how to read it, you know. I was just *reading* it before and now I'm using all the things to help me.

PRETEST INTERVIEW

STUDENT: 1262

1. Uhm.....well, I don't know. Read it word for word. I don't know . They understand what most of the words mean in the book or whatever they're reading. They might have tricks to understad the word if they don't understand it at first. Maybe if they don't understand a word they read the beginning of the sentence, then skip over that word and read it and that would give them a clue to what the word is. That's what I do.

2. See if it's interesting. I look at the cover. Mostly if the cover looks interesting, I will enjoy the book. The picture expresses what the book will be about. If I see a cover I think is kind of dumb, kind of boring, then I don't read it because I think it would be dumb and boring. Like with flying elephants on it , it would be dumb and boring, because it would be for the younger grades.

3. I already said what I would do. I'd skip it out and then read it again to see if I could get it.

4. I'd skip it or ask somebody.....It's usually, when I read a sentence.....I have a bit of dyslexia so I mix them around so I read them over and over and over again. So sometimes I read it backwards to see if I've done it properly and then I ask somebody.

5. Uhm.....probably fair. How.....I guess both. Yah, both.....reading them.....pronouning them is my really biggest problem with reading. Like I go across and I read something and I come to something I can't read and I try to sound it out but it just won't sound right.....so I just forget it.

POSTTEST INTERVIEW

1. Uhm.....they like.....plan their reading and think, "Have I ever read this story before?" And, sort of like.....they, like, think about.....look at the pictures, the titles, to think about what it might be about and.....that's about it. No, well it's hard to explain. Maybe if they don't understand a word they use context to, uhm.....look at the words around it to see if they can figure it out. And they, uhm.....could.....if they didn't understand something they could reread it.....or.....and.....say it was a long story with lots of paragraphs in it, they.....if they wanted to remember it .....they could paraphrase it and at the end summarize it. And if one sentence didn't have a picture, it would be like really.....it really didn't make sense.....they could use imagery to kind of help them along with the sentence. And after, they could think, "How do I feel about the story?" and if it was badly written. And uhm.....they.....I guess that's about it, I guess.

2. I look at the title and pictures and see if I'm familiar with the topic and to kind of dig a bit deeper to see what it''s about and, uhm.....then I'd find a quiet place to read because I'm kind of....I kind of find it hard to read when someone's talking. And, uhm.....so then what I'd do.....I'd think to myself, uhm....."This is a good book to read. Do you think it would be for my level?" And then what I'd do is I'd take a normal page, right? and I'd read it, right? and if there was 5 words I couldn't read it would be too hard.

3. Now I use context. Like I..... if I come to the word, I'd kind of like say "blank" or something and read to the sentence and usually I could get the word if I read to the end of the sentence. If I couldn't get it still, I'd sound it out.....like if it was like "balcony", I'd use maybe long A, short A, all kinds of A's and stuff and if I still couldn't get it, I'd ask somebody.

4. Probably reread it. Then I'd say to myself, "It wasn't your fault. It might be poorly written." And then I'd ask somebody if, uhm.....it made sense to them and if it didn't, then it's obviously poorly written.

5. Now? I'm probably good at it. Uhm.....I really don't understand that. But I think I'm a good reader because I can understand them. Probably good.

6. How to, like, be a better reader and to get over words you can't understand and stuff like that and to kind of get an overhead on what you are reading. Oh.....I can read harder books and I can read them a bit faster than I used to,.

PRETEST INTERVIEW

STUDENT: 1263

1. Uhm.....well I don't know. Maybe they read the story fast and then answer some questions or maybe, uhm.....they could write a story to finish the book. Sometimes, maybe they might read the back of the book, uh....like where they tell about it and see if they like it but usually, uh.....even if they didn't think they would like it they probably would have to read it anyway. So they would read it but maybe skip parts if they didn't like it too much or maybe read it twice if, uh.....it was interesting.

2. Well, I uh.....read the back of the book. But first maybe I would look at the picture on the front and if, uh.....well, if somebody had read the book first, I would ask them if they liked it but then I wouldn't always read it but maybe I might.....unless the words were too hard. But if I had to read it and the words were too hard, I probably wouldn't like it but I'd read it because I had to.

3. Well, uh.....I'd sound it out if I could but usually if, uh.....well if the word was too long , well if it had an ending, I might take off the ending first but usually I just might look it up in the dictionary or uh....., well, maybe sometimes I'd skip it out.

4. OK. Well sometimes I'd skip it out too.....or maybe I'd ask my teacher but usually I'd skip it out or just read it and then think about it but if I still couldn't get it I'd probably, uh.....well, just skip it out.

5. Fair. Oh yes, well, probably how I read the words. Oh, you mean understand the story too. Well, yes, maybe, poor sometimes because I have to answer questions and most times I get lots wrong and my teacher, uh.....well, sometimes she says I don't really understand it.

POSTTEST INTERVIEW

1. Uhm.....well, they.....first they skim over it and then, uhm.....they read, well, "Go back a bit." First they look at the title and then they look at the picture and get a pretty good average idea and then they probably skim over it, read the story.....if.....even if they're a pretty good reader they could have a couple of problems and go back to the place and reread the story.....and uhm.....well if they had really bad trouble, I'd take.....they'd probably take their time going over it and ask maybe a little bit of questions and after the end (ask) if they understand it. Uhm.....they might use other strategies like "Stop" at periods.....and paraphrase if they want to get a really.....like if they want a book report and put it down in short lines. They might get it in their own words and put it down. After reading they might ask themselves questions.

2. Same things as I told you.....actually one thing I don't do is stop at periods. I read the first three lines or if I get the first page, I just go to the next page and see if its pretty easy because if it's too hard what's the sense of reading it because if you don't know.....maybe words that are too long or you don't want something that's really big.....you don't know.....because you need words you've seen before and you've stuck with it (them?) for a while.....When you get into grade seven you might see the word again and you will know it.

3. Use context....."I feel like I'm on the news." Context is.....you go back to either the beginning of the sentence and you read it and when you come to the word you put in a blank or something, read the next word, and when you come to the end of the paragraph, you think of the person's name, the person that was doing (the action). You think, "In this particular position, what would they do?" If I couldn't get it, then I'd ask. If you haven't anyone to ask I'd.....maybe a dictionary might help you or an encyclopedia.

4. Oh, like a whole sentence from beginning to period. Maybe do the same as context. Go to the beginning of the first sentence, read that, stop, think, "What's going to happen next?", and then you go to the paragraph after, (or) before it and you think, read it, and you think if it's a person doing something. You think, "OK". You say the words. If you don't know what it means, then you'll probably get a good idea of what it is. You might not get exact words they have on paper but you'd get a really good idea. Then I'd ask a teacher.

POSTTEST CONT'D: STUDENT 1263

5. I don't know. Right now? Well I got 8/8 three times. I'd say very good. How I understand. I'd say maybe good.

6. I've learned that if you really have trouble with a word, you can really pronounce it out with the strategies and stuff like that.....and if you don't understand you can use the context. I always use the strategies t read. I could never read Stuart Little. I xouldn't get past chapter one, and now I'm on chapter four already. Before, when I'd read for the class, I 'd get stuck on words. Everyone'd laugh and I'd get embarassed and now noone laughs. I never get stuck on any words. The only time I got stuck was when I was reading a poem by Jack Pelusky but even the teacher said it was really hard words. Every time I really get stuck on a word, I use context and.....(smiles and gestures that everything's OK).

PRETEST INTERVIEW

STUDENT: 1271

1. They read over and.....they sort of just read over and words they don't understand, look up in the dictionary or ask. They sort of.....like get in their heads the important words, like memorize them, figure out what they mean so they can do better on the questions.

2. Read the back to figure out what its about. I read the first couple of pages to see if I like it and maybe into the middle.

3. I either ask or look it up in the dictionary. I sound it out.

4. I ask the teacher or I read it over and over again until.....I read the sentences before and after it. Just like if you read.....if it's saying something like "What a cat likes".....and then the next sentence says something and then the next sentence says something about a dog, you know it says something about what the cat likes.

5. Fair. Understand them and read. Well I'm pretty good at understanding what I read 'cause I have to read out loud to hear myself.
(re-ask question) Fair. Read the words. Good.

POSTTEST INTERVIEW

1. They think about what they read and they read slow. Well, they speed up and they go back over what they don't understand. They use strategies I guess. They go back and read. They reread. They figure out why they are reading. They pause after sentences and think about what they've read. After, they think about what they've read and probably ask questions.

2. I use the strategies you taught me now and I usually go into a quiet place to read. I think about why I have to read, what's my goal, what I'm reading. And while I'm reading I use the other ones like yield and stuff, and paraphrase. After, I ask questions and summarize to get the main points and I think about how I liked the book.

3. I read the words around it and if I still don't understand it I go and get help.

4. I reread it and reread it and then I read the sentences around it and then I go and get help because I don't understand it.

5. Satisfactory. Understand them. Fair.

6. Ways to help me read and.....uhm.....I read faster and I understand more because now I'm using the strategies and stuff and I know what I'm reading for and what I'm looking for in the sentences. Like if I'm in a hurry, I look for the key words and stuff.

PRETEST INTERVIEW

STUDENT: 1272

1. They go over things. They go down the page and make pictures in their mind of what they're reading. Poor readers just read through really fast. They don't care. They don't memorize it or anything. They just read it fast and it's over with and if they have a test on it they don't know what it's about.

2. I read the headline, like the title, and read the first page in the story to see what its about.....read the back maybe. I'd see if I could read the words.

3. Like do I have to tell you? I'd probably skip it.....I don't care about the word.....forget it. Like forget it.

4. Uhm.....same thing.

5. Fair. Oh, how I understand them. Poor.

POSTTEST INTERVIEW

1. They look at the picture, look at the title and think what's the story about. Uhm.....they look at the first sentence because it's the most important sentence. It tells you what the story's about. They sometimes stop and remember things, paraphrase. They stop after each paragraph and remember what happened. They might skim it. When they're finished. And most people go over the story.....skim, fast.

2. Just look at the title, pictures, and think what the story's about.

3. Just go for it. I miss it. Just go to the next word.

4. Uhm.....depends. Like I'll try to read all the words and try to get something out of it. Say goodbye to it and go on.

5, Fair. Read the words. Satisfactory.

6. Uhm.....things to do when you're reading. Proofread and look at the pictures and stuff. Now I look at the pictures and stuff and sometimes I stop and look over the story. Before I'd just go through it and didn't know what it means.

PRETEST INTERVIEW

STUDENT: 1273

1. Let's see. They read the story and then they.....most people write a paragraph or something.....seeing what the book was like and if they liked it and it was very good. A good reader can read bigger books and novels than other people can.

2. I turn to the back to see if there's anything what's the book's like. Well I just look at the beginning of the book and the middle and the end to see if it's any good.

3. I write it down on a piece of paper and after I look it up in the dictionary. I write the meaning down in my word book.

4. I go and ask somebody who knows. I just try to figure out what it means. I read it over and over a couple of times.

5. Fair. How I read the words. Fair.

POSTTEST INTERVIEW

1. They use different skills to read and it helps them better and they pronounce out their words and they get help if they need help. And, like, they use context, imagery, uhm....."yield", "stop", and lots more. Before and after.....they might paraphrase it and before they might think about what they're doing. And in between.....the words in the middle....they know what they mean or they reread it or use context to figure out what it means. The read before and after it to figure it out.

2. I look at the title and think about it and then I open the book and start reading and then stop in the middle and paraphrase what I've just read to help me remember if I have questions. Sometimes I go back and reread if I don't understand.

3. I read back in the sentence before and maybe in the sentence after to see if I can figure it out. I use the context. Then I get help with it.

4. I get help with it if I can't figure it out. First I read around it to figure it out. Then I get someone to help me read it and then find out what it means if I don't know what it means.

5. Fair. How I understand. Fair.

6. Lots of different stuff and more stuff to help me learn different things. Well, I learnt new stuff like to help me do tests like paraphrasing and context....to help me read better. I can pronounce the words easier and I learnt rereading and imagery to help me understand. Before I just skipped over stuff 'cause it was boring and too hard sometimes. Now I figure it out. You can probably get a better mark if you use them properly.

PRETEST INTERVIEW

STUDENT: 1361

1. I don't know. Uhm.....with expression.

2. Uhm.....sign it out. Read the title and check the table of contents. For the chapters and the titles to find out what's the book's about.

3. Sound it out. Uhm.....ask the teacher.

4. Ask someone else.....my reading partener in my classroom. If he didn't understand it, I'd ask the teacher.

5. Fair. How I read the words. Uhm.....fair.

POSTTEST INTERVIEW

1. They, uhm.....use context. They get ready to read and if they have problems with a word, they ask someone. Sometimes they paraphrase. Uhm.....they get in a comfortable position and sometimes they paraphrade the story after they've read.

2. I read the title and think what it will be about and if I don't like it, I'll put it back and if I like it, I'll sign it out and start reading it. Uhm.....if there's questions, I'll answer those.

3. I usually ask a friend or ask a teacher. No. I sound it out first.

4. Uhm.....I.....uhm.....it's hard. I read around it, the sentences around it. And then I'll come back to it and think about it again or read the sentence again, or the paragraph again. Then I'll ask a friend or the teacher.

5. Uhm.....I would say good now. Uhm.....it's both.

6. I've learned how to read better, read faster, understand the story more, use context, use.....I mean, well, I mean like, uh.....understand the story more and know what it's about. I'd use context in a hard spot, thinking about it, rereading it maybe, skimming.....I don't know.....just reread it or something.

PRETEST INTERVIEW

STUDENT: 1362

1. They answer all the questions and usually get them all right. They remember what they read.

2. I try and remember whatever I read.

3. I try and sound it out and I look after the word to see.....and it gives me some clues. I skip it.

4. If I don't.....I keep on reading it over and if I still don't get it, I skip it.

5. Uhm.....satisfactory. How I understand. Hmmm.....satisfactory.

POSTTEST INTERVIEW

1. Uhm.....use their strategies. Most good readers can.....well, not necessarily read fast but sometimes read fast and know.....understand what they're reading. They use "Yield, Quiet Zone, Stop".....Uhm.....if they're stuck they use "Yield." They.....if .....it's hard....."Stop".....if they're having trouble....."Go back and see what you've read." You go.....if you're reading in a paragraph, you go to the first paragraph.....the beginning of the paragraph and reread.....if you get stuck. Uhm.....they know what they're reading.....they understand. They read carefully. If they're stuck, they read slow or if it's easy, they read a bit faster and if they have trouble, they go and ask a teacher or go and get help. And they just use.....what strategies. They think about what's happening.

2. Now.....I use the strategies. I think about what the story's going to be about first and then I see if there's any pictures to get some clues and usually at first I think about going slow and if there's something I know about it's usually easier for me to understand so I go a little faster. And if it's really hard and it doesn't really click in to me, I reread the paragraph. I think about what I've read at the end. I ask myself questons like.....for instance.....the story we've just read.....I'd make up some questions like.....to see if I could get them and if I couldn't, I'd reread.

3. Yield. If it's a test and noone can help me, I look at the sentence and the words before the word and after the word and usually I can get it.

4. Read the whole paragraph again and if I don't get it, I do it again and then I "Yield" if I still don't get it. If you get it, it kind of clicks in, the words, what they mean.

5. Good. Both.

6. I've learned strategies and I read better, I think, now. Last time when you tested me, I picked satisfactory and I think I was satisfactory or a little below that and now I think I'm quite good. Now I think I understand the words and my reading pace.....I can go a little bit faster now. Before, I'd just pick up a piece of paper and read it. Now it means a lot more to me. Before I'd pick up a piece of paper and read it because I had to. But now I like reading now. I went in there and read two short books.....and it was fun.

PRETEST INTERVIEW

STUDENT: 1363

1. Uhm.....read it over again maybe. Because maybe they don't get through it the first time and they read it again and understand it more better.

2. I don't start readinng it at first. I liik at the pictures. They might be neat pictures and they tell me what the story's about and that.

3. First I sound it out. I just.....don't read it.

4. Ask the teacher what it is. No.

5. Good. How I read the words and fair for how I understand.

POSTTEST INTERVIEW

1. They look at the title and figure out what it means and they might paraphrase after they read or something like tat and they look back on the story. If they don't know a word. they might sound it out or use the signs or stuff. They think what the story's about.

2. Look at the title and think what its going to be about and if its my own spare time and the title doesn't sound good , somethimes I don't like to read it. Uhm.....if its not, I look at the pictures and the title and think what its about and if I get to a good part, then I slow down and sometimes I use sme of the signs like slow. That means I slow down and read it carefully or I'd use imagery or paraphrase at the end to help me remember. But if I don't understand I might read it again.....just the part I can't get. And if I like it I'll go look for a same book.

3. First I sound it out and see if I can get it and then I'll read around it to see if I can get it or ask a friend.

4. I'll read around it again or ask a friend what it means.

5. Satisfactory. How I understand. Good.

6. Uhm.....all the things that can help me how to understand, the signs an how to read faster and uhm.....some strategies I can use when I read. I understand more about the storybecause I wouldn't think about it and I wouldn't understand it.

PRETEST INTERVIEW

STUDENT : 1371

1. Uhm.....I don't know. They read faster. They understand the words better.....pronounce the words. They read a lot.

2. I read the index, the summary and if I like it, I'll read it.

3. Sometimes I'll ask someone to help me or I'll look in front of it to see if I can get it.

4. I'd read it again. I'll skip it.

5. Fair. Understand. Probably poor (words).

POSTTEST INTERVIEW

1. They read slowly and after a paragraph they paraphrase and if there's questions they might ask themselves questions. When its difficult or when they have questions they do different things. Before thy can predict what's going to happen and plan how they're going to read and after they can paraphrase to get the important points and maybe think if they liked it. Then they'd get another book.

2. I look at the title and see if its interesting and look at the back of the book to read the.....something to see if its interesting. If it sounds interesting or of it's got a good picture on it I'll read it. Then I predict what's going to happen in the story and predict in the story as I go along. And paraphrase or reread if I don't understand.

3. I use context.....I look around the sentence to see if the other words connect to the other word you want to find what it is. I see if it matches the other one. Maybe I look in the dictionary or ask the teacher or someone to see what it is.

4. Reread it or paraphrase it to see if I can get the picture of it. Then I just skip it and go on and then come back ad try and get it.

5. Satisfactory. Understand stories. Fair.

6. Trying to learn how to use context or paraphrase. Learning how to slow down or go fast or stop. I was just reading without stopping or paraphrasing.

PRETEST INTERVIEW

STUDENT: 1372

1. They read a lot so they could learn a lot more. Well they like to read a lot so.....they kind of like do. They think it over to figure out what the story's about or write summaries if it's a novel. They'd do it for the teacher but not on their own. They'd just read it.

2. Read the back of the book to see if it's good.

3. I probably would look it up in the dictionary to see what the meaning of it is. I'd read on.

4. I'd just skip it and read on.

5. Just plain fair. How I read the words and understand stories.

POSTTEST INTERVIEW

1. They read their book and think about it and if they're in class and they had to do questions, they'd probably be able to answer the questions better than other readers. They probably paraphrase or use context if they didn't understand what they read and if they used context for a word, they didn't use.....know about.....they'd probably be able to find out from the other words around it. They probably get comfortable just before they start reading the story and look at the paragraph and probably get a.....get a.....prediction about it.....think what it might be about. They look at the title and think about it and think what it might be about. And they might have to answer questions when they finish so they think about questions.

2. I'd probably use my strategies that I'd be using in my reading program. I look at the title and think about the title and predict about it and get comfortable and read through it. I'd use my context for words I didn't know. I'd probably use imaginary for paragraphs I couldn't understand and I'd picture them up in my mind....probably understand it and summarize it at the end of the story.

3. I'd use context or look it up in the dictionary or go to my teacher. Look in the sentence, look around the sentence to see if there's any word closer to it.

4. I'd look at it, read it and read it and probably understand what it might mean. Go to my teacher.

5. Probably satisfactory. How I understand stories and read the words.

6. I learned how to be a faster reader, how to use context and how to paraphrase and stuff like that. And how to do questions after.....I read a story and answer them really good.

PRETEST INTERVIEW

STUDENT: 2461

1. They.....usu.....they probably.....usually sit back and relax and take it easily. They don't read fast and take their time reading and they don't.....they usually do about a paragraph every 15-20 minutes because they want to read everything over good.....if they were at home and they have to do something for a second, they would probably have to reread it so they wouldn't miss anything so if you just started from where you ended off you might start back from where you were before.

2. Well, I usually see what the book's all about before I usually start to read.....I usually go to the back when it tells you what it's all about or the inside cover. Then I'd usually read the introduction and read how many chapters and then I'd start reading from the beginning and I'd usually go about a chapter a night or something.

3. Uhm.....sometimes I'd ask my Mom or my Dad or, uhm.....I usually try to sound it out. Or I'd try to read the paragraph through and see what word might fit in.

4. Uhm.....sometimes I might skip it out but.....well, if I tried to read it over but it didn't go through my mind too good and then I'd think it over for a couple of seconds and then I'd usually read the sentence before and then the sentence after. I usually don't skip it out. Then I'd just go to the next sentence.

5. Satisfactory. Between satisfactory and fair. Satisfactory for how I understand and good for the words.

POSTTEST INTERVIEW

1. Well, uhm.....they usually.....they don't really.....they don't go really fast. They usually take their time unless it's for a test or something if they're in university. And, uh.....my mom does this a lot. After she reads it, after a paragraph or something, she'll usually, she'll tell someone else what it's about. Then she'll tell someone else and someone else has a pretty good point what it's about. Before, they do the "before " strategies but it doesn't take them very long , like 5 seconds.....like "think," "plan," and "do." They plan how they're going to read, like what kind of book it is. Certainly for a mystery you're not going to think it's going to be a nice story about someone walking up the side of a road carrying a pizza. When they read, they'll reread it. After, like I said, they'll tell it to someone else. I've even seen someone do book reports. Uhm.....well that's.....I can't really think of more.

2. I usually.....I look at the front cover to see who the author is. I like most authors. Then I'll read either the inside where it tells about the story or the back cover and then I'll make a prediction at the beginning and that at the end of a page or two I'd.....when I'm thinking about picking that book, if it's not good, I'd just put it back and get another book. But usually it works out that I like it. Uhm.....well, if I just picked it up.....for a day or so I haven't read it.....I look back about 3 pages and then I'd start reading. I'd give myself questions. But I usually know the answers to them because I'm thinking of the questions. There's a book that I'm reading now and I'm not even using imagery because it's not even.....I'm not even going to say. Sometimes I certainly slow up, uhm.....if I get into a good part of the story which I usually do. In the middle of the chapter I'll slow down and at the beginning I'll speed up again. Usually, after, I'll tell someone about the book and they read it and then a few weeks later, I'll be writing a book report usually with my dad. If I finish it, I'll write down the author so I can find more books.

3. I use context a lot. Well I usually go looking for it before that and I'll go about two sentences back and I'll go skimming through it to find the meaning and then I go after and then I'll ask someone.....or look in my doctionary.

4. I'll ask someone because usually if a sentence is.....there's just usually the one before it and the one after it that would help me with it. Usually it doesn't help me much with it. But usually I'll reread the sentence 3 or 4 times and then I'll finally come to it. But if I don't I'll ask.

POSTTEST CONT'D: STUDENT 2461

5. Good. Uhm.....yah, understand stories. Ahh, good, because there's always one or two words I always get stuck on.

6. Uhm.....most of the stuff, using everything else like. uh, the.....context. Like I always used to go for help. I never knew, like, to use context. I just used to pick up the book and start reading and when I was finished, I'd put it back on the shelf and get another. Now I use strategies. It helps me for tests, not for French.

PRETEST INTERVIEW

STUDENT: 2462

1.. Uhm.....I'm not sure. Well, they, uh...maybe a bad reader has their book right in front of their faces and are reading magazines and good ones are reading novels. They're probably picturing the story.

2. I first look at the front cover and see if its interesting. Well, I like adventure. Like at the beginning it might say, uhm....."in a dark cave." I start with one chapter and if the first chapter's exciting I might go on.

3. Look in the dictionary. No, I try to sound it out and then I look in the dictionary. I might ask somebody else if they know.

4. I might ask someone else or read another sentence and maybe fit it in with the other one. Well, I read the beginning so I might know what the sentence means. I'd keep reading on or behind.

5. Uhm.....good. How I understand them because I'm very adventurous. Good.

POSTTEST INTERVIEW

1. Uhm.....they might use the strategies at the beginning or find out what the story was about by reading the cover. They "get ready to read." They maybe get into a quiet place and make sure there's no interruptions. You might use the picture or the title to refer to something he's read before or to something that's maybe happened to him. He may ask a friend to ask him questions at the end. If they're stuck on a word, they go to the dictionary or get help. Or at the end of some paragraphs, if they don't get the picture they can reread it. If they get stuck, they might use other clues to the sentence to what the word might be. They might read other stories that are similar to it and maybe get a big picture in his mind what these stories are about. Well, if they might not get a picture after, they might skim over the story or ask somone to ask them questions if that person's read that story. Or if they get a picture they may stop at the end of a paragraph to get the picture like putting the piece of a puzzle in. He might tell someone else what the story was about.

2. I.....uh.....read the couple of first sentences of the title if it has one and picture to see what the story might be about and I read the first paragraph to see if I might understand the rest of the story. In the first paragraph there might be hard words or I might go to the back to see what the story will be about. I make sure I understand it and I put the picture in some words and help reading along. I might keep reading or read back or if its a hard word look the word up in the dictionary or if I know any words similar to it. After I stop reading and look back on the picture I have formed and I see what the story was about. Part by part I put the puzzle together and I go over it to see if I could remember it. I'd probably read it slowly if I had questions at the end or when an exciting part comes. I tell myself at the beginning to read it slowly because I have questions at the end.

3. I look for any words around it that describe the words and if there aren't any I maybe ask a friend who knows it and if nobody does I look in the dictionary.

4. Read the paragraph over and see if it pieces together. I read ahead or I try to figure out what they mean by the beginning and end of that paragraph to piece together that sentence. Then I'd probably ask someone what the sentences means.

5. Probably satisfactory. How I understand. Probably good.

Posttest Interview cont'd: Student 2462

6. A lot. Well, I never thought reading had such value in it. Before I came to here I was.....I skipped over the words. If the sentence didn't make sense, I just closed the book and put it back but now I keep reading to see what a sentence or word is. Probably it helps most in my report because I have to do a lot of reading and this is really helping me and in my math to solve questions. I'm reading them better. And in grammar. Say if there's a word left out, I piece together the sentence to make the sentence make sense.

PRETEST INTERVIEW

STUDENT: 2471

1. Use their finger. A poor reader goes too quick and you miss some important words and doesn't understand the story. A poor reader doesn't read.

2. I read the back of the book to see what the story's about. I read the plot. I read the book.

3. I sound the word out. Ask someone. I might skip the word over. Maybe it might be in another paragraph and you might get it then.

4. I might skip it and forget about it. Probably ask someone.

5. Good. How I read the words. Satisfactory.

POSTTEST INTERVIEW

1. They look at the title and think about what the story's going to be about. And they, uhm.....I forgot.....reading the back of the book to see if it's interesting or not. Uhm.....they stop and summarize it.....like the paragraph. They.....if they read a word and they don't understand it they look in the story and they find what it means. If they don't find what it means in the story, they look in the dictionary. In case they read and they don't understand it, they read it over. Well, they don't read too fast. Maybe if it's a little book they might read fast. It's not so long right? So they can read it over because it doesn't take too long. They use imagery.....picture the story in their mind.....what's happening. Uhm.....maybe after they test themselves what the story's about.....summarizing what the story's about. Test themselves. Get someone to ask what the story's about.

2. Usually, well, I read the back of the book and look at the title and think what it's about and, uhm.....sometimes I use summarizing a bit. Sometimes I read parts of the story and I don't understand it. I go back and skim through it. I don't read too fast. Sometimes we get questions and I just remember it. I tell myself what the story's about. I don't mean to but I just tell myself what it's about.

3. Well, I kinda try to sound it out and then look in the dictionary.

4. I, uh.....kinda read it over and over again until it makes sense. I, uhm.....read some of the sentences and take some of the words out of it that aren't important.....to make it shorter. Sometimes it has difficult words so I take them out and it makes more sense. Well, I would just go on. Well, if I go on to a couple more sentences it might make it easier and I'd go back.

5, Satisfactory. Both. Sort of.

6. Uhm.....how to.....well, I've learned how to summarize.....when to do it. And I learned to adjust my "speed limit." What to do before reading. Like read the title and learn to use imagery and use the signs. Well, before, I'd come to a word and just leave it. Why I go back to the word and use the sentence to find out what it's about.

PRETEST INTERVIEW

STUDENT: 2472

1. They read it so they can find how interesting the story is. (Bad readers) have to practice more.....they have to read more times to understand and get the words.

2. I look at the back to see what it's about and I take it. I start reading it.

3. I try to sound it out. Probably ask someone. I skip it.

4. I read it over. Ask someone.

5. Satisfactory. Uhm.....how I read the words. Probably satisfactory.

POSTTEST INTERVIEW

1. They read slowly or fast.....when they have questions after or when they're reading for fun. They might look at the title and get what it's going to be about. They have a plan. They decide how they're going to read and.....if the story is old (if they've already read it), and if it's new, they might read slowly and carefully. They might reread some paragraphs if they didn't understand a paragraph or a word. They might skim over a story to see if they missed anything out or para.....summarize, do a summary if they have questions at the end.

2. I look inside the cover and see what the story's about.....if it's interesting I.....read.....look at the title and picture to see what it's going to be about. I look over some paragraphs. I would look back in the story if I've forgotten something in the story.....if I have a summary of it in my mind.

3. I re.....look before and after it to see what it would be. If you don't get what it means, I look before the starting of the sentence or after it. I'm trying to find the meaning of the word. Ask someone.

4. I maybe read over it a couple of times and I read before the sentence and ifI still don't get it, I'll ask someone.

5. Satisfactory. How I understand stories. Fair.

6. I've learned more things about reading that I didn't know before and more strategies that can help me understand. Before I used to have trouble reading.....understanding. Now I can understand using the strategies. I would just start reading it and that's it and I would reread it sometimes. Now I'm getting better using the strategies and understanding the stories.

PRETEST INTERVIEW

STUDENT: 2473

1. Well, they just get interested into the book and experience it. Or they use their imagination. Well, if it was a bad reader and he was stuck on a word he would just skip it and never find out what it was. A good reader might look at a word if he was stuck on it and try to find out what it was.

2. Well, at first I read the back to see if its interesting and if I don't think its interesting I just get a different book and if that one's interesting I'd read it. I like unicorns so I have a whole collection of "Secret of the Unicorns". Well, I just go ahead and start to read.

3. I look it up. Well I just try to figure out what it means.....just use my imagination. I'd reread and try and fit it in.

4. Well, I read the whole paragraph over again and try and use my imagination.

5. Good. Understand and read the words.

POSTTEST INTERVIEW

1. Well they first choose a book and they read the back and if it sounds interesting they read the first two pages and then if they find it's interesting they read more. Maybe they'd use lots of imagery. Well, you can really get into the story. You're really in the story so you could imagine it. Well, they could predict what the story will be.....maybe at the beginning or in the middle. Maybe if they're stuck on a word they could get help or use context. Uhm.....just maybe with the picture on the front the'd predict. Well, after reading they can.....some stories you might need to criticize the stories because it might need a little more action or something . If they're getting a test or something they might take notes and ask themselves questions.

2. I look at the first page or I look at the back. Well, I'm reading The Babysitters Club and the first thing I did was read the back, then I looked at the front and it was something about a bad luck mystery and everything in the picture fit well because it had so many things so I thought "Well this has got to be a good book." So once I started I used imagery and I predicted what would come after. If I had a test I'd read really slowly and carefully. I'd use context. After, I'd probably read it over again or if I was stuck on a paragraph.....if the sentence didn't make sense. The first time I read a story I usually don't understand it but the second time, I usually understand it.

3. I use context. Well, if there's a word I.m stuck on that I don't know, I'd look ahead or look behind.....maybe I'd go a couple of sentences. I'd probably look the word up or get someone to help me.

4. I'd probably try to put it in my own words and make it make sense. I'd probably read the whole paragraph over. I'd probably get help.

5. Good. How I read the words. Very good.

PRETEST INTERVIEW

STUDENT: 2561

1. I don't know. They read their best. Well, they know what they're reading. They practice reading a lot.

2. I read the back of it first to see what the story is about. I then go and sign it out from the library or, if it's at a bookstore, I go and buy it. Then I read it. First it's kind of boring and then you put it down and you force yourself to read it and it gets better. The more you go along, the more you get used to what the author's trying to say.

3. I try to sound it out or when I'm finished, after that chapter, I'll ask my mom.

4. I just read it and try to understand it but if I can't understand it I'll go on with the rest of the story. Then I might come back after I'm finished.

5. Kind of a good reader. How I understand them. Fair.

POSTTEST INTERVIEW

1. Well, they first.....first they would think about how they're going to read it. If they know why they're reading it.....like for a test or for fun, and then they think about the kind of book it is so they can know if they can use imagery or not or if they have to stop and tell themselves what the stories' about.....like paraphrase at the end of the story or maybe before that if there are paragraphs. But when they're reading they might change their plan because the story might be different than they thought. Or if they didn't know much about it, they know they have to read slow if it's hard. But if they don't understand, they might reread it or use context or think about what was in the other sentences. Or sometimes, if they can't understand at all, they might have to choose an easier book or get help. And then at the end they might think if they liked the characters so maybe they could choose a book from the same author or another one with characters the same. If they're studying for a test they might ask questions. Yah, I think that's all.

2. I look at the picture and the title and, uh.....think what the book might be about and if I might like it or if I've read anything like it before. But if it's for a test then I think about asking questions or maybe paraphrasing or even underlining if it's on a worksheet so I don't get in trouble. But sometimes I might do everything. But I like imagery because you can make a movie in your mind and it's more exciting. But sometimes if it's for fun I might skip to the good parts or maybe the end to find out what's happening. And then if I understand it then I finish. But sometimes I might go back and re read the parts that were hard so I can answer the questions. Uhm.....most of all though I like to use imagery to make it exciting.

3. Use context. Well, uh.....well, sometimes I put in a blank or I reread the sentence or maybe go back and try to think what that sentence was about and sometimes go on to the next sentence and come back. If I can't get it, I'll ask somebody or get my dictionary. But mostly I ask.

4. Sort of the same. Like go back and maybe to the start of the paragraph. Or think about the subject but sometimes I only get a little idea but that might be enough. Or I get help.....maybe from my friend or the teacher.

5. Now? Very good. Understanding. Well, maybe very good too because I can usually guess the words now.

POSTTEST CONT'D: STUDENT 2561

1. Oh.....well, before, I just read the words and I didn't use much imagery so I didn't have many good pictures in my mind and it was hard to remember. And I'd skip parts because I was bored of it. But now I can see it mostly and then sometimes I'd try to put it in my own words, like big chunks so it was easy to remember and I don't skip parts anymore. And I reread stuff now to understand it better.

PRETEST INTERVIEW

STUDENT: 2562

1. Well they read really well and they don't miss any words and they read really closely and they look at the words. Then they do the questions or if they have to write a report, they might just copy out some of the words.

2. At books, I read at the back to see if it's a good story and if it's a good story, I just read it really slowly. Well, that's it.

3. I try to sound it out or ask my teacher. Well, ask a friend maybe.

4. I just say skip it. That's it.

5. Probably satisfactory. Probably both.

POSTTEST INTERVIEW

1. Well, they look at the picture first to get the idea. And maybe the title if there is one so they will know what the story might be about. But if there's not, then they just would probably read it all. But maybe they might stop if it was for a test to see if they understood it so they could remember it and maybe ask questions after if they could think of any. But mostly they'd probably use imagery to get a good picture of it. That's it.

2. What good readers do. Like before, I.....I look at the title and see what it's about and look at the picture and use imagery.....to see what the story's about. I use "quiet zone", get ready to read. I read the first sentence or paragraph to see what the book's about. When I read I usually just use imagery. Well, if I get stuck on parts, I just ask a teacher or use the dictionary.....but I usually try to get the word first. I read it over. I reread it to try to figure out what the word or sentence means. After, like, I paraphrase it. Most of the time I summarize it.

3. I'd try to sound it out but if I can't, I'd ask a teacher. If they can't do it or if they tell me, I'd look in a dictonary. Maybe I'd use the sentence in it.....like I'd use the word in the sentence to see if it make sense or.....

4. Same thing. I reread it several times. Then, ask a teacher. Then look in the dictionary.

5. Probably. I don't know....it's probably between these two...probably good.....probably satisfactory for how I understand stories. How I read the words.....probably good. No, very good.

6. Like how you read before.....like before you read.....how you understand it.....like how to get help.....and like in the middle of the story, how to understand it. And at the end of reading, you just see if there's anything else you need to.....anything else you need to know and reread it. Well, like before, I read, I didn't do anything. But now I use imagery and rereading and before I didn't do anything.

PRETEST INTERVIEW

STUDENT: 2563

1. O h, well, I think they just start to read and read fast and then they can do the questions. Everybody in my class reads fast because they want to get finished because then we can go to the games area. But sometimes they might have to look back for the answers.....so maybe they might have to read some parts over.

2. Oh, I can't read fast but I try because everybody gets finished first. So sometimes I skip over parts so I can keep up.....or else everybody's finished. If I'm looking for a book, I look at the back of the book to see if it's easy. Most times I look at the words to see if they're easy because then I can read faster.

3. Mostly I skip it.....well.....sometimes I try to sound it out or take off the ending to see if I know part of the word. But if I can't get it, I skip it.

4. Well, uh, mostly I don't get stuck. But sometimes it's because I was losing it so I might go back because I was losing it.....to read over the other sentences again. But if I can't get it, I skip it.

5. Oh, poor. Well, how I read the words because I'm slow. Well, maybe good.

POSTTEST INTERVIEW

1. Well, they figure out what they.....they stop before they start. Then they think about "Why am I reading this?" And they look at the title and the picture if there is one and then they start reading. They try to find out what the story's about and if you know what the story's about then you have a lot of background knowledge and it would probably be a lot easier.....to read. Well, they say to themselves, "Why am I doing this.....why am I reading this?" Like the reason is...."Is it for a test or is it for fun?" They do this to find out why.....well say it's for a test, they .....you'd probably be reading a lot more cautiously. Or if it's for fun, you 'd be reading it just anyway you want. or have different plans. When you're reading, you stop at every paragraph and you think what was the story about so far, if you remembered anything, and if you haven't, you should go back and read it from where you forget. Well they also might use rereading and imagery and context and things like that to help you read better.....well, like you might read more fluently, and you're aware of yourself when you're reading and stuff. So it's a lot easier. After, you'd think probably, "Have I met.....do I understand what I've read and, uhm.....do I know what I'm saying makes sense or something?" And if it doesn't, you'd probably just have to go back and read.

2. Well, I usually ask why do I have to read this because I really don't like to read.....I don't really like reading and stuff but like if it's for fun, I like to read sometimes.....if I have nothing else to do. I'm not really a good reader compared to someone else so I don't like it. I usually just think about stuff when I'm reading but if we're reading in class, Mr. X would give us time to read but I never *ever* have time to finish because the other kids are finished and I'm only half way finished.....because I read a lot slower too. If I try to go faster, then I have to go back because I'm missing words and stuff and I have to go back and it slows me down. I think if I had the time, I'd understand the story as well as everybody else, probably a lot better. When I'm reading I still use rereading and imagery. And I usually..... in a lot of make-believe stories that might be true or something. It's just a lot easier if I keep on using imagery because it gives me a basic idea about the story. It's a lot easier. After, I read.....I usually.....I just put it down. If I feel I've read it well enough, I just put it down but if I don't I just start rereading parts I don't understand. Usually after the second or third time I'd probably have it down.....like, I'd know what it is.

POSTTEST CONT'D: STUDENT 2563

3. Well, sometimes I skip it and sometimes I keep going over it and over it and over it. Well, if I'm trying to read fast and keep up with the group, I'd probably skip it. But if I have lots of time, I'd just reread it.....well not just the word.....probably the sentence. Like if I could catch onto the word, I'd just read the sentence over. Then if I couldn't get it and I had time, I'd stop and write it down a few times and work it out like that. Maybe then I'd just stop and ask a teacher.

4. Uhm.....well, I usually just start to reread and reread and read the sentences around it, so uhm.....most of the time there aren't too many hard sentences in the books I read because I pick pretty easy books when I read. I usually just try to go on. Well, if I finished the story and I had the time, I might come back to it.

5. Uhm.....I'd probably say about fair. OK, how I read the words. It'd probably be satisfactory.

6. Well.....like.....imagery.....I've always used that but I really didn't know about paraphrasing or summary or context, like that. I knew about rereading and all that but I never knew paraphrasing or context or summarizing. Usually when I read a story, sometimes I.....I.....now.....we have to read a lot harder books in class so it would probably help me. Well, it was that.....like I was skipping sentences before I didn't know, and skipping words I didn't know that are pretty hard to understand. Now, like, I'm reading some pretty hard books now and I'm catching on. So it's easier.

PRETEST INTERVIEW

STUDENT: 2564

1. I don't know. I don't know. (A bad reader) is someone who doesn't know how to read. No one can understand what they're saying because they don't know what the words mean. (A good reader) knows what the words mean. They can stop at the end of the sentence. Uhm.....I don't know.

2. I look at the back.....to find out what's the story about. But I don't really like it. I sign it out. I'd open the book and start.

3. Uhm.....I sound it out. Tell the teacher. I wouldn't read at home.

4. Skip it. I'd skip it and get another book.

5. Satisfactory. Both.

POSTTEST INTERVIEW

1. I don't know. They probably use the strategies. They look at the title and the picture and they think about what the story will be about and.....they.....I don't know.....they use context and stuff.....and imagery. Imagery all the time and context when they can't get a word. They paraphrase.....after a paragraph.....so they could remember it. During reading they use context and imagery and they might try to read it hard.....going over the words really carefully.....or they might just read it for fun and skip over a few words. After, they might paraphrase, summarize the main points.....so the can remember it.

2. I look at the back and see if it's good. Like if it was long, I'd read a bit. But if it was a short story, I'd read it. If I didn't understand a word, I'd skip it.....if it was something for me. But if it was for the teacher, I'd read it more better. I'd have to read it closely, like hard, like no mistakes. Yah and remembering it. By paraphrasing and summarizing the main points.....and getting help sometimes when I can't get a word.

3. I use context and if that doesn't help, I spell it ot and if that doesn't help, I look in the glossary and if that doesn't help, I ask the teacher. I go on to the next word and the rest of the sentence to see, uhm.....to see like.....to see if the word makes sense in that sentence.....something I know. Then I'd go back and sound it out.

4. The whole sentence? Well, if I'm reading, just a book, I read the next sentence and if I don't know that, I think it's a hard book and it's above my level. I will get the teacher to read it for me. First, I'd read it over to see if I left out any words.

5. Satisfactory. Both.

6. A lot. Like.....uhm.....like before.....reading, I know how to sound out the words but I didn't know the context thing. I know some of the strategies but I never done them before.....I didn't *know* them but I was *using* them. Like.....I didn't know it was called context or imagery but I was using them. I feel like.....see if I'm reading for a test I can read better now.

PRETEST INTERVIEW

STUDENT: 2561

1. I don't know. They read their best. Well, they know what they're reading. They practice reading a lot.

2. I read the back of it first to see what the story is about. I then go and sign it out from the library or, if it's at a bookstore, I go and buy it. Then I read it. First it's kind of boring and then you put it down and you force yourself to read it and it gets better. The more you go along, the more you get used to what the author's trying to say.

3. I try to sound it out or when I'm finished, after that chapter, I'll ask my mom.

4. I just read it and try to understand it but if I can't understand it I'll go on with the rest of the story. Then I might come back after I'm finished.

5. Kind of a good reader. How I understand them. Fair.

POSTTEST INTERVIEW

1. Well, they first.....first they would think about how they're going to read it. If they know why they're reading it.....like for a test or for fun, and then they think about the kind of book it is so they can know if they can use imagery or not or if they have to stop and tell themselves what the stories' about.....like paraphrase at the end of the story or maybe before that if there are paragraphs. But when they're reading they might change their plan because the story might be different than they thought. Or if they didn't know much about it, they know they have to read slow if it's hard. But if they don't understand, they might reread it or use context or think about what was in the other sentences. Or sometimes, if they can't understand at all, they might have to choose an easier book or get help. And then at the end they might think if they liked the characters so maybe they could choose a book from the same author or another one with characters the same. If they're studying for a test they might ask questions. Yah, I think that's all.

2. I look at the picture and the title and, uh.....think what the book might be about and if I might like it or if I've read anything like it before. But if it's for a test then I think about asking questions or maybe paraphrasing or even underlining if it's on a worksheet so I don't get in trouble. But sometimes I might do everything. But I like imagery because you can make a movie in your mind and it's more exciting. But sometimes if it's for fun I might skip to the good parts or maybe the end to find out what's happening. And then if I understand it then I finish. But sometimes I might go back and re read the parts that were hard so I can answer the questions. Uhm.....most of all though I like to use imagery to make it exciting.

3. Use context. Well, uh.....well, sometimes I put in a blank or I reread the sentence or maybe go back and try to think what that sentence was about and sometimes go on to the next sentence and come back. If I can't get it, I'll ask somebody or get my dictionary. But mostly I ask.

4. Sort of the same. Like go back and maybe to the start of the paragraph. Or think about the subject but sometimes I only get a little idea but that might be enough. Or I get help.....maybe from my friend or the teacher.

5. Now? Very good. Understanding. Well, maybe very good too because I can usually guess the words now.

PRETEST INTERVIEW

STUDENT: 2562

1. Well they read really well and they don't miss any words and they read really closely and they look at the words. Then they do the questions or if they have to write a report, they might just copy out some of the words.

2. At books, I read at the back to see if it's a good story and if it's a good story, I just read it really slowly. Well, that's it.

3. I try to sound it out or ask my teacher. Well, ask a friend maybe.

4. I just say skip it. That's it.

5. Probably satisfactory. Probably both.

POSTTEST INTERVIEW

1. Well, they look at the picture first to get the idea. And maybe the title if there is one so they will know what the story might be about. But if there's not, then they just would probably read it all. But maybe they might stop if it was for a test to see if they understood it so they could remember it and maybe ask questions after if they could think of any. But mostly they'd probably use imagery to get a good picture of it. That's it.

2. What good readers do. Like before, I.....I look at the title and see what it's about and look at the picture and use imagery.....to see what the story's about. I use "quiet zone", get ready to read. I read the first sentence or paragraph to see what the book's about. When I read I usually just use imagery. Well, if I get stuck on parts, I just ask a teacher or use the dictionary.....but I usually try to get the word first. I read it over. I reread it to try to figure out what the word or sentence means. After, like, I paraphrase it. Most of the time I summarize it.

3. I'd try to sound it out but if I can't, I'd ask a teacher. If they can't do it or if they tell me, I'd look in a dictonary. Maybe I'd use the sentence in it.....like I'd use the word in the sentence to see if it make sense or.....

4. Same thing. I reread it several times. Then, ask a teacher. Then look in the dictionary.

5. Probably. I don't know....it's probably between these two...probably good.....probably satisfactory for how I understand stories. How I read the words.....probably good. No, very good.

6. Like how you read before.....like before you read.....how you understand it.....like how to get help.....and like in the middle of the story, how to understand it. And at the end of reading, you just see if there's anything else you need to.....anything else you need to know and reread it. Well, like before, I read, I didn't do anything. But now I use imagery and rereading and before I didn't do anything.

PRETEST INTERVIEW

STUDENT: 2563

1. O h, well, I think they just start to read and read fast and then they can do the questions. Everybody in my class reads fast because they want to get finished because then we can go to the games area. But sometimes they might have to look back for the answers.....so maybe they might have to read some parts over.

2. Oh, I can't read fast but I try because everybody gets finished first. So sometimes I skip over parts so I can keep up.....or else everybody's finished. If I'm looking for a book, I look at the back of the book to see if it's easy. Most times I look at the words to see if they're easy because then I can read faster.

3. Mostly I skip it.....well.....sometimes I try to sound it out or take off the ending to see if I know part of the word. But if I can't get it, I skip it.

4. Well, uh, mostly I don't get stuck. But sometimes it's because I was losing it so I might go back because I was losing it.....to read over the other sentences again. But if I can't get it, I skip it.

5. Oh, poor. Well, how I read the words because I'm slow. Well, maybe good.

POSTTEST INTERVIEW

1. Well, they figure out what they.....they stop before they start. Then they think about "Why am I reading this?" And they look at the title and the picture if there is one and then they start reading. They try to find out what the story's about and if you know what the story's about then you have a lot of background knowledge and it would probably be a lot easier.....to read. Well, they say to themselves, "Why am I doing this.....why am I reading this?" Like the reason is...."Is it for a test or is it for fun?" They do this to find out why.....well say it's for a test, they .....you'd probably be reading a lot more cautiously. Or if it's for fun, you 'd be reading it just anyway you want. or have different plans. When you're reading, you stop at every paragraph and you think what was the story about so far, if you remembered anything, and if you haven't, you should go back and read it from where you forget. Well they also might use rereading and imagery and context and things like that to help you read better.....well, like you might read more fluently, and you're aware of yourself when you're reading and stuff. So it's a lot easier. After, you'd think probably, "Have I met.....do I understand what I've read and, uhm.....do I know what I'm saying makes sense or something?" And if it doesn't, you'd probably just have to go back and read.

2. Well, I usually ask why do I have to read this because I really don't like to read.....I don't really like reading and stuff but like if it's for fun, I like to read sometimes.....if I have nothing else to do. I'm not really a good reader compared to someone else so I don't like it. I usually just think about stuff when I'm reading but if we're reading in class, Mr. X would give us time to read but I never *ever* have time to finish because the other kids are finished and I'm only half way finished.....because I read a lot slower too. If I try to go faster, then I have to go back because I'm missing words and stuff and I have to go back and it slows me down. I think if I had the time, I'd understand the story as well as everybody else, probably a lot better. When I'm reading I still use rereading and imagery. And I usually..... in a lot of make-believe stories that might be true or something. It's just a lot easier if I keep on using imagery because it gives me a basic idea about the story. It's a lot easier. After, I read.....I usually.....I just put it down. If I feel I've read it well enough, I just put it down but if I don't I just start rereading parts I don't understand. Usually after the second or third time I'd probably have it down.....like, I'd know what it is.

POSTTEST CONT'D: STUDENT 2563

3. Well, sometimes I skip it and sometimes I keep going over it and over it and over it. Well, if I'm trying to read fast and keep up with the group, I'd probably skip it. But if I have lots of time, I'd just reread it.....well not just the word.....probably the sentence. Like if I could catch onto the word, I'd just read the sentence over. Then if I couldn't get it and I had time, I'd stop and write it down a few times and work it out like that. Maybe then I'd just stop and ask a teacher.

4. Uhm.....well, I usually just start to reread and reread and read the sentences around it, so uhm.....most of the time there aren't too many hard sentences in the books I read because I pick pretty easy books when I read. I usually just try to go on. Well, if I finished the story and I had the time, I might come back to it.

5. Uhm.....I'd probably say about fair. OK, how I read the words. It'd probably be satisfactory.

6. Well.....like.....imagery.....I've always used that but I really didn't know about paraphrasing or summary or context, like that. I knew about rereading and all that but I never knew paraphrasing or context or summarizing. Usually when I read a story, sometimes I.....I.....now.....we have to read a lot harder books in class so it would probably help me. Well, it was that.....like I was skipping sentences before I didn't know, and skipping words I didn't know that are pretty hard to understand. Now, like, I'm reading some pretty hard books now and I'm catching on. So it's easier.

PRETEST INTERVIEW

STUDENT: 2571

1. Uhm.....think, they look at the title first to see if they understand the story.....and they read through the story and if they don't find out what the meaning is they, they.....I'm not sure.....Uhm.....they write down in their own words how they think the story will go.

2. Uhm.....I look at the title and if there's any pictures, I look at the picture to see if I know what the story's about and when I get stuck on a word I try to figure it out. Say the title.....the title.....well the title's mostly about the story. Then if I know what it would be about I'd check, uhm.....I don't know if you really looked at the title if you knew what it would be about.

3. I look around it to see if I could read through and then I would pick up the word. I usually look around and then I usually pick up the word. I'd look at the starting of the word and then the ending. That's it really. I'd look it up in the dictionary.

4. Uhm.....I usually look around the sentence. Like mainly.....I usually read it through once or twice and then I read the sentence before it and after it.

5. Uhm.....fair. How I read the words.
Uhm.....good.

POSTTEST INTERVIEW

1. Well, uhm.....they check their understanding when they're finished and they ask themselves questions in the beginning. Uhm.....before they start to read they ask themselves questions like, "What kind of story is this? What's my plan? and, uh.....What's my goal?" And uh.....when they're reading they ask.....they use context, and uh.....imagery and a bunch of other things. And at the end they ask, "How do they feel? and What's this story about?" And they ask themselves questions to understand the meaning better.

2. Uhm.....I look at the picture and the title and ask myself if I have any background knowledge of the topic. If I do I'd read on and see how the story is. I ask myself questions, "What is my goal.....for reading? What kind of reading is this? and What is my plan?" When I read I ask myself questions and I use imagery, context.....uhm.....if I'm stuck on a word, I look around the word, in the sentence or the paragraph to see if I can find the meaning of that word. Uhm.....at the end I generally ask myself questions. Uhm.....if I'm not sure of myself, I reread. I paraphrase after each paragraph. But not if it's easy; I just go on. Well after, I ask myself questions.....and how I feel about the story and should I go on.....should I read some more of the author's books.

3. I look around the sentence.....uhm.....using context. I look around the sentence to find out the meaning of the word. I go to the dictionary and then the teacher if I still don't understand.

4. I look around the sentence. I look around each paragraph to see.....uhm.....if I can find out the meaning of the word and I use background knowledge. I look at the sentence around it.....before it and after it.....and then read it all together to see if it made sense. I couldn't go to the dictionary so I'd just go to the teacher.

5. Uhm.....good. How I read the words.
Uhm.....satisfactory.

6. I learned what we mainly did before, during, and after, and using my plans better, and uhm.....how to.....if I was stuck on a word.....how to deal with that word and the same with a sentence. Uhm.....before, I didn't think of anything. Before, I just looked at the title and read it and went on. I didn't think about anything. I just read word for word.

PRETEST INTERVIEW

STUDENT: 2572

1. Uhm.....they keep their mind off making sounds that disturb everyone else from reading. And they just keep their minds on reading. They find an interesting book by going to the library and ask the librarian.

2. I find a subject that I want to read about and I go looking through the card catalogue to see if they've got that book. I just read the back of it to find out what the book is about and then if I thought it was interesting, I'd read it.

3. I.....sometimes I quietly look it up in the dictionary or ask someone else.

4. I read it over a few times to see if I understand it after a few times over. Then I might understand it but if I don't I just skip it.

5. Satisfactory. How I understand the story. Probably good.

POSTTEST INTERVIEW

1. They read the back cover and if tey come to a word they don't understand, they might use context. Well, they'll just find out how the word means. They'll just read the rest of the sentence to help them figure it out. They keep their mind on it.....on reading the book. They're not doing anything to disturb them. Before reading they use the other strategies like, "What kind of reading they're doing." And uhm.....the plan they have for reading and why they're reading. If they choose to read it, they concentrate on it and won't let anything disturb them. But if they're just going to read it quickly, then they might not get the idea. They might paraphrase or summaarize after every few paragraphs to remember the story. And after they finish, they summarize to see if they get it all. If they don't get it, they might reread it over.

2. I might read the back of the cover first. Uhm.....I might figure out what the title meant and get a plan for reading.....usually I choose to read it carefully. I wouldn't run right through it to get it over with now. I read it a little slower so I can pick up the words. When I look at the title, I try to get interested in the story by predicting. It may take a little longer but it will keep my interest.

3. I use context in the rest of the sentence. Uhm.....next I would look it up in the dictionary. And then I still wouldn't skip it: I'd reread it a few times.

4. A sentence I don't know? Well, first I usually reread it and then.....then I'll.....the whole paragraph.....trying to understand what that sentence means. It's just further context. Then I'd.....I don't know.....sometimes if you keep rereading it enough times, you'll understand it. Then I'll use the rest of the story to try and get it.....not the whole story.....like a puzzle.....just figure out where the piece goes.

5. Good. Understand the story. Still the good one.

6. I learned more about how to understand the story. Well.....before I didn't. Most of the story, if I didn't understand it, I'd just skip it. I wouldn't spend my time on it to figure out what it meant. Well, I know how to remember the story now. Before, I'd just forget most of it. I paraphrase or summarize. Then if I don't remember it, I just reread it. I didn't know I was supposed to do it before.

PRETEST INTERVIEW

STUDENT: 2573

1. Uhm.....they read twice over it to be sure. Well she reads one paragraph and she makes sure she knows what it is and goes on to the next. She goes over it twice.

2. Uhm.....I read it and then I read over it to make sure I know what it is. I put my name on it and date first.

3. I either look it up in the dictionary or leave it out. Well, if it's a really hard word, I guess I'll use my dictionary.

4. I'd leave it out and then go on and finish the other sentences and then go back to it and ask my teacher and he'll explain to me what its about.

5. Fair. Uhm.....well, actually how I understand the story. Uhm.....very good.

POSTTEST INTERVIEW

1. They read what the story's about and they pick out the most important part of the story. They read the title to see if they can guess what the story's about. They might stop and reread the first sentence or two in case they got a word wrong or something. Well, while you read the sentence you might have got a word wrong so the sentence doesn't sound as good. They might stop and paraphrase after each sentence or when they're in trouble. They're trying to find out what the story's about. After they read, they might reread the whole story again.

2. I read the title and try to guess what the story's about. I sort of read it slowly to understand it better. After reading I might just reread it over again.

3. I just start from the beginning of the sentence and try to find out what the meaning of the word is. Uhm.....I just ask the teacher.

4. Just ask the teacher what it means.

5. Satisfactory. Mostly how I understand the words. It describes how I understand the story. Satisfactory.

6. I learned practically everything. It's a lot better now. Finding out what the meaning is. If I'm stuck when I'm reading in class, I can find out what the meaning of the word is. I just used to read through it. If I came to a word I didn't know, I'd just read through it.

PRETEST INTERVIEW

STUDENT: 2661

1. Uhm.....probably read slowly and read for fun. Uhm.....probably get fun books, funny books to read.

2. I look for authors that read funny.....or make funny books. Well, usually they have things on the back that tell.....I found a book called Elubber by Judy Elume.....I read the back and it usually tells whether it's funny or not. I would, uhm.....I make.....what I'd do is I'd make a book marker and make a funny little thing on it, like.....and something....and I'd read how many chapters there are and then I'd read it.

3. Well sometimes I'd sound it out and sometimes I'd guess what it is and then I'd just read on. I'd guess the way it sounds, the way it looks. Like something like "sentence". If I didn't know what that was, I'd probably say something like "sen/tence".....or something like that. Then I'd ask.

4. A sentence I don't know? Uhm.....probably just skip it.....or read it. Try to sound out the words. Or reread it until I understand it. Then I'd skip it.....and sometimes come back to it at the end of the chapter or paragraph.....if someone told me what the joke was, I'd go back and reread it.

5. Probably about satisfactory. How I understand the story. Uhm.....I would pick good.

POSTTEST INTERVIEW

1. Well, first they look at the sentence to see what they think it's about and then if there's a picture they look at the picture.....try.....they recognize it in their background information or whatever. They think about what it's going to be about if they know a lot about it and when they fin.....then they start to read.....and at the end of the paragraph they start to paraphrase so they know what that first section's about and then they'll do it all the way.....and at the end they'll summarize all the paragraphs together. Oh yah! They imagine the thing like a movie going off in their mind. Like they're in the action. Like, "I swung across the vine." They'd imagine themselves swinging across the vine. Like say when there's parts.....something's going to happen like in the story that we read where we had to think ahead about what's going to happen. Like something like, "He started to laugh." Like we have to think about what's going to happen while he's laughing. Well a good reader doesn't always go through it without mistakes. Like everybody makes mistakes.....so he'd probably reread. Or like if he doesn't understand the story like a weird word in there, he'd probably.....he'd reread or if he couldn't get it, use context or if he couldn't get it, "Yield".....get the teacher to help. After depends what's going to happen. If there's a test, they'd know a lot about it 'cause they were summarizing or paraphrasing, so they'd probably get 8/8 on a test. And a story should always be in your mind. So you read a perfectly good story.....it shouldn't be like, after you read it, it was so good, you just remember it, but you just think I've got better things to remember so you throw it away. That's like a waste of a story.

2. Well first I look at the back.....I look for an interesting title, something like, "Can Monkey's Fly From Buildings?".....something like that. I'll say, "That's kind of a strange thing." So I'll look at the back to see if there's any interesting chapters like, "On the Trail".....like in the book I'm reading right now, Forbie Goes Wild. Uhm.....first I would.....always there's a picture on the cover so I'll look at that and see what's happening and see if it shows a monkey hanging from a branch chewing his foot and so I'd think, "He's a weird monkey. Hmmm.....maybe it's funny because he might do stupid things." And so I look at that and then I look at the paragraph, the first chapter, sentence....."The monkey flew from the building".....like that. And then so I'd start to read it and if there's something I don't understand, I would.....uhm.....reread it. Say there's an interesting word and you've never heard of it before and you get it and it tells what it's about, you can learn a

POSTTEST CONT'D: STUDENT 2661

new word but if you just skip it and forget.....some people learn that new word and some people won't get it. So they could be saying this word that the person won't understand because he didn't read it. I'd use context. Say the beginning words I know, but the last part I don't. Then it'd be pretty easy because I know the first word and I'd just have to think and I'd practically know the last part if I knew the first part. Sound out the first part, know the last part, get the whole word. If it's a very long story I'd summarize at the end of each chapter and sometimes I summarize each second chapter. When it's boring and dull, I won't summarize because it's too dull. Then it might get more interesting so I'll summarize them both together. Uhm.....most of the time I'll read the end of the book first to see if it's a good ending or a dull ending. Well if the teacher has assigned it, I practically don't like any stories in the school except for One Potato, Two Potato. The other one's in Owl's in the Family, I usually like them. If it were a normal story with 10 questions, I'd read it, summarize it, and then do the questions. But if you have to do a report, we'd get a facts sheet of 20 facts. We write down what we're going to write about, write down 20 facts, cut it up, put them in groups, and write a story about them. After I finished, if it was a very good book I'd recommend it to my friends to see if they thought it was a very good book like I did.

3. Uhm.....context, I'd use context. And reread it before I'd use context and if I still couldn't get it, I'd get help. Say the word's in the middle of the thing and there's another word right a sentence before like "thrilling", and the other word's like "action", and I couldn't get "action". I'd think "act..." and "thrilling" and I'd probably get "action".Then I'd get help, "Yield".

4. A sentence I don't understand? Like, "Tom did the dishes and, before he did the dishes, he washed his hair and played ball." I wouldn't quite understand that but, so I think.....I'd try to put them in order. Well I'd ask my friend if he understood it or ask the teacher.

5. About good. How I read the words and how I understand.

6. Uhm.....I learned how to read stories better than I did before and how to understand them more and a lot more ways to help you when you have mistakes. Well, before, I never know about using context. I used to sound out and if I sounded it out I'd think it was right. But now I'd use context to understand the word. And I never used to ask the teacher for help or anything. I'd just skip it. Now I'd just keep it because if it was on a test and I'd skip, I wouldn't get it.

PRETEST INTERVIEW

STUDENT: 2662

1. Well I think they have fun when they read because they don't have to sound out all the words they can't hear.....read....don't know. And they can just whiz through and they're done with that book When they're reading they can stop and chat because they're so fast they can get it over with quickly.

2. Well usually I talk for a couple of seconds or a minute and I go and read the book and then if its boring I put it down and pick up another book. I can usually tell in the first two or three pages or if I just skim the back of the book. Then I start reading. At the end of the chapter I tell my friends what happened or if I'm at home I lie down on my bed and start reading and read and if my cat's there I tell him the funny parts . First I tell (my friends) what happened and then ask them if they think that's funny and my friend, he or she, might ask if they can take the book out.

3. I usually either try to sound it out or read the whole sentence or ask someone . I'm trying to fit it in . It's a puzzle....that's what it is .....and you're trying to get the whole picture.

4. I usually ask someone or read the paragraph around it and if it seems like a sentence I can't get but I still know the meaning of the paragraph , then I just leave it .

5. Good or fair. Fair (understand). Fair (words).

POSTTEST INTERVIEW

1. They look at the title and in thir mind they think, "This is the title . What could this story be about?" Then they give a prediction and then they paraphrase and at the end of the story they just think of the story again. They might just look back and see the story again and they might saw (sic) a mistake that didn't make sense but they found. Then they could reread that part or that page or correct the mistake by looking at it. Oh yah.....after he's done, he asks himself how he feels and he probably says I like this book. They'd stop in the middle and maybe they'd chat. They can stop because they can remember it better than others or they could just quickly skim through it and pick it up quickly.

2. Well I look at the title or if I've already read it I just skim through it to remember what I've already read and.....stuff like that. I'm reading one book ad its The Plant That Ate Dirty Socks and I only read for 1/2 an hour a night and when I pick it up I just paraphrase in my mind and try and make it into my life because I have a humongous plant in my room. I'm using imagery. I'm looking at the title and when the chapter has a title I just go on reading or I make my goal and my plan and stuff like that and then I just go on reading. Uhm.....I use context sometimes. Sometimes there's words I don't understand and they're half one word and half another word. So I think of my background. Have I ever heard of this word? And if I think of it and think of it, I'll read ahead or maybe behind again and if I still can't get it I'll ask my mom or something or if I'm reading at night, I'll just leave the book off there. After, I sit back , after I'm ready to go to sleep, I'll put my book down and I'll just think of the book or the paragraph or the page and when I'm done thinking I'll go to sleep. But I'll think about how I feel about the paragraph or think about a couple of changes. If I was writing a test I'd skim through and ask myself some questions and I might write it down and keep on reading through. If I was writing a test and I didn't know what the questions would be and I've never had a test like this before, I'd probably write down some of the dark words and find the definition of them.

3. First I use context and then if I can't get it I try to sound it out and if I still can't I ask my mom. I yield. I'll look at the word and then I'll look at the paragragh and if I see some other word like that I'll read that sentence.

Posttest Interview cont'd: Student 2662

4. I'll skip it and I'll read ahead and think of it and if I can't get it I'll read from the beginning of the paragraph and if I can't get it I'll take it and put it in orderand I'll do anything I can to get that sentence. I'll use background knowledge or context or imagery and I'll paraphrase and maybe that'll help. Then I'll yield.

5. I'd say good. Uhm.....well how I understand. Satisfactory because some words I'm not too good at.

6. Well, I know I've learned a lot because before I used to just sound out the words and if I couldn't get the word I'd skip it and now if I can't get the word, I'll paraphrase or use context or imagery.....lots of things. Before I used to just zoom and I wouldn't think of looking at the title or anything or looking and seeing what I've learned out of the book or something. I'd just read the book and say I've done and now before I read I think of my plan and I look at the title and think about it and then I get reading and I paraphrase, use context or imagery, summarize , and do lots of things after that. You could actually make up a rap song out of that.

PRETEST INTERVIEW

STUDENT: 2663

1. What do good readers do when they read? They study hard. They read books about what they're studying like Social Studies or if they're studying for a test they'll read a book about it. They would put it up in their brain or just sort of remember it and when they came to the questions they'd say "Oh I remember that."

2. I read it and look at the pictures and find out what it's about and if it's a good book I'll take it out. I fall asleep with the book on my face and I dream about what it's going to.....like Alice in Wonderland.....I pretend I'm Alice.

3. Sound it out. Ask somebody "Can you tell me what this word is? Oh, its 'don't'!" Just leave it out or skip it.

4. I ask the teacher "Can you help me?" I try to figure it out in my mind. I go on to the next sentence and that's hard so I put it back and get a good book.

5. Very good because you know when I'm reading I'll bring it to life. When other readers are reading they'll just say the words like "This is a list of words." I'll say "*This* is a list of *words*" How I understand the stories. Satisfactory because I do bad because I have some errors.

POSTTEST INTERVIEW

1. Well , they plan their reading because if they don't plan then they won't know what to do if they have trouble. And they figure out why they're reading. Because it wouldn't be good to just skip over a part if you have to answer questions. So you do those things and sometimes you'd imagine, use imagery, so you could see what's going on or put yourself in the picture like I do sometimes when I'm asleep. But sometimes you should say the story to yourself like at the end of the paragraph so you can know if you know the story. Or you could ask questions if you can think of them.....if you don't have trouble. Or use the words around a hard word to figure it out. Or read ahead to help you figure it out like I do. But at the end you should think if you liked that book because if you didn't, or maybe if you did, you could get another book the same because it wouldn't have too many hard words.

2. Well I look at the picture and the title to see what I think the story's going to be about.....if it has a title. But if it doesn't I read the first sentences to see if there are hard words and what it will be about. Well first I have a plan. If there is going to be questions, maybe you will think you should stop and look ahead or paraphrase. So you can follow your plan. But sometimes I just use imagery because I like to make me part of the story or my friends and then you can be like sort of in a movie.....but in your mind. And sometimes I'll say to read slow or fast if it's a part that I know.....if I know a lot about this part. So when I get finished, I'll ask some questions like, "Who are the characters?" and "Where will they go?" and like maybe "What will happen next?" So then I might put the story back or if I can't think about the answers I'll read it over again like fast or find a part I can't remember.

3. Well first I read the sentence twice and then, if I still can't get it, I'll read the other sentence behind but maybe I'll just leave it until the end to see if there is another place to figure it out. Then I'll ask somebody like my friend or the teacher.

4. I read all the paragraph to put it all together like a puzzle or maybe ask somebody if they're reading the same story.

5. Yes, very good. Understand. Well good now.

6. I know how to read now not just sound out the words and I think about the story and I can use a strategy if I am in trouble. I used to skip it out because I didn't know strategies to use to help me.

PRETEST INTERVIEW

STUDENT: 2671

1. They take their time reading. They can understand it a lot better. Poor readers can't understand it quite as well and they read through it fast because they can't understand it.

2. I read it and then if I don't understand it or I get frustrated with it, I just start all over again.

3. Uhm.....try it.....either ask the teacher for help or ask someone else or try to figure it out.....by sounding it out.

4. I skip it and sometimes I come back to it. I just think to myself that I'll go back.

5. Poor. How I understand. Fair.

POSTTEST INTERVIEW

1. They go back and check it over when they're done. They use context if they don't understand a word and they never skip it and they ask a teacher if they're stuck. Before they read they get ready. They get the reading book and they go over the stories. You think about what it's going to be about from the title and the picture. They stop after each paragraph and look back to see if they understand it. They go over the paragraph again and paraphrase it and try to get it as short as you can. It helps them to get all the important details instead of the whole thing and it's shorter for them to remember. They check back. They look back to see if they can get the story as short as they can.

2. I get ready. I look at the pictures and the title and see if it's fiction or non-fiction....like that. I see if it's an easy book or a hard book and then.....a hard book would be more difficult to understand. I would try to read it. I wouldn't just try to put it back. I just take the first page and I'd summarize it. If it was easy, I'd just read through. I stop after each paragraph and look back to see if I understand the story and if I don't understand it, I get help from the teacher.

3. I use the words in the front of it or in back of it to find out what it means or ask the teacher. And if I didn't undeerstand it I'd leave it and come back to it.

4. I'd keep on rereading it and if you don't get it leave it and then after you read some more you come back to it and if you still don't understand it, ask the teacher.

5. Like what kind of reader I am? Good. How I understand the story and the way the story..... Good. How can I say each word? Pronounce them out? Satisfactory.

6. What have I learned? Oh. Oh. I learned don't skip the words or sentences because it might be on the test and if you skip them you might need them to answer the questions and to understand what the story was about. I learned how to pronounce them out better, read them better, from the "road signs." I'm pronouncing the words better.....and I can understand it better. Like I can understand the words better. I can read a story without stopping after a word. I just get better at it and like, I can read the words faster because I understand them better.

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