

**IMPROVING NARRATIVE COHERENCE WITH LEARNING DISABLED  
AND LOW-ACHIEVING WRITERS**

by

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**B.G.S., Simon Fraser University, 1985**

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### Abstract

Story grammar training has proven effective in helping students to compose more complete narratives. However, it has not improved coherence as expected, nor showed consistent maintenance. In contrast, students taught a comparison processing strategy, whereby adjacent sentences are compared and revised for local coherence, have shown significant improvements in the coherence of their narrative writing. The present study investigated the effects of combining story grammar training and comparison processing, with self-instruction and self-regulation procedures, on the narrative writing of grade five and six learning disabled and low-achieving students (N=13). Results indicated significant improvements in both the completeness and local coherence of the students' narratives. Moreover, improvements were maintained as measured by probes given at one and three weeks following training. Limitations of the study, as well as implications for future research and educational practice were examined.

## DEDICATION

I wish to dedicate this thesis to my loving wife, Donna, daughter, Erin, and my parents and relatives, for their encouragement and patience throughout this lengthy endeavor.

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## Chapter I

### Introduction

Writing is an important component of the school curriculum. Besides being the main portal for teachers to assess what students are learning, writing is a powerful medium for the exploration of thought, emotion, and the recording of ideas. Over the past decade there has been an increased interest in the techniques used to teach writing. There have been doubts expressed from employers, educators, and the public regarding the adequacy of writing instruction in our schools (Graham & Harris, 1988). These doubts have raised calls for more writing time in schools and better quality instruction (Graham & Harris, 1988). As well, minimum competency requirements are being instituted in a number of jurisdictions which require adequate writing skills in order to receive a high school diploma (Graham, Harris, MacArthur, & Swartz, 1991a). Due to the obvious importance writing plays in education it has been, and will continue to be, a well researched instructional area.

Over the past dozen years there has been a shift in emphasis in writing instruction research from a product orientation to one of process (Englert, 1990; Harris & Graham, in press; Harris, MacArthur & Swartz, 1991; Wong, 1991). At the start of the eighties, the writing research by Flower and Hayes (1981) has been credited for this change.

Since then, research in writing instruction has focused on the higher-order cognitive skills of composition rather than the lower-level, surface features such as spelling, punctuation, and grammar (Wong, 1991). With this shift in orientation has come the need to articulate the cognitive operations and strategies effective writers use in their compositions (Graham & Harris, 1989a). Further, once these cognitive operations and strategies are identified, effective instructional practices to promote them must be validated.

This change in research focus has not been limited to regular education research. Rather, it is a "spill over" from regular education into the field of learning disabilities (Wong, Wong, & Blenkinsop, 1989). Such change is timely in that recent practice in the remediation of writing problems with the learning disabled (LD) writer has come under criticism (Englert, 1990). Englert (1990) writes of the apparent mismatch between the needs of the LD writer and the remedial instruction they receive. Specifically, she notes a focus on the part of special education teachers towards the mechanical aspects (i.e., spelling, handwriting, grammar, etc.) of writing. While these are important to effective writing, they have not proved effective points of instruction for students with low writing competence (Graham et al., 1991a). Recent research findings report significant qualitative gains with LD writers who were taught effective strategies to aid their writing processes (Graham & Harris,

1989a; Graham and Harris, 1989b; Graham, Harris & Sawyer, 1987; Graham, MacArthur, Swartz & Voth, 1992; Sawyer, Graham & Harris, 1991; Raphael, Englert, & Kirschner, 1989). As further empirical support for strategy instruction is grounded in LD research, more effective instruction to remediate the writing problems of the LD writer should be observed in practice.

One strategy that has proved effective with narrative writing for both LD and low-achieving (LA) students is story grammar instruction (Fitzgerald & Teasley, 1986; Graham & Harris, 1989a; Harris & Graham, in press). Story grammar refers to the underlying pattern (setting, plot, climax etc.) that all good narratives display. Story grammar instruction works at imparting knowledge about narrative structure and encouraging the use of this knowledge in the composition of stories. LD and LA writers often fail to include even the most basic story parts in their narratives (Barenbaum, Newcomer, & Nodine, 1987). However, in a study completed by Sawyer et al. (1991) LD subjects made such significant gains as to be indistinguishable from their normal achieving counterparts on measures of story completeness following story grammar instruction. Considering that composing stories is the most frequently requested form of writing task assigned to elementary students (Fitzgerald, & Spiegel, 1987), and that this task represents a significant obstacle for the LD writer (Barenbaum et al., 1987; Graham & Harris, 1989a; Graves &

Hague, 1991), identifying effective strategies to improve the LD writer's ability to write stories is warranted.

While writing strategy instruction featuring story grammar is gaining empirical support, the maintenance of this value over time remains suspect. Gordon (1988) reported many of the students who received story grammar instruction failed to use the strategy following the intervention. Similarly, McGee, Ratliff, Sinex, Head, and LaCroix (1984), found no significant relationship between the knowledge ten year old students possess about story grammar and artifactual evidence of this knowledge in the stories they composed. In the study cited by Sawyer et al. (1991) the two week maintenance probe indicated strategy use had declined to where only seventy-three percent of the students used the strategy. The maintenance of a useful strategy must be considered one of the essential components of effective instruction. However, this goal has proved elusive in the context of writing intervention which featured story grammar instruction (Gordon, 1988; Graham & Harris, 1989a). Clearly, maintenance of the gains associated with story grammar instruction is an area requiring further research.

While research attempting to identify factors which promote strategy maintenance is an emerging area, there are a number of promising prospects (Harris & Graham, in press). Instructional routines which exhibit the characteristics of self-instruction and self-regulation (both of which will be discussed in detail in subsequent sections), where the

students are active participants in both the learning of the strategy and the monitoring of its use, have been theorized to promote strategy maintenance (Graham et al., 1987; Pressley & Levin, 1986; Sawyer et al., 1991). The results of studies undertaken by Sawyer et al. (1991) and "general findings in the literature" (Sawyer et al., 1991) are supportive but not conclusive. Thus, there appears a need for more research identifying effective instruction that promotes strategy maintenance.

In Fitzgerald and Teasley's study, while general improvements in narrative writing were noted following story grammar intervention, the coherence of the subjects' writing was not impacted as expected (note: coherence was not addressed specifically in either of the Graham and Harris studies cited). More recent research has reported similar findings to those of Fitzgerald and Teasley. Montague, Graves, and Leavell (1991) concluded story grammar instruction to be insufficient to improve coherence with the grade eight and nine students they studied.

Coherence is an important characteristic of effective writing (McCulley, 1985). This importance is reflected in the significance coherence carries in evaluation practices (McCulley, 1985). Despite its significance in writing evaluation, coherence remains an ill-defined term that is often used without precision (Spencer & Fitzgerald, 1993). For the purposes of this study, coherence will be defined as a composite of the connectedness observed between individual

sentences and the more global relationships sentences have to a writing piece as a whole. The term "local coherence" (McCutcheon & Perfetti, 1983, p.72) will be used in reference to the micro-level, sentence to sentence relationships and "global coherence" (Bamberg, 1983, p. 421) will refer to the macro-level relationships that exist in a coherent text.

Examinations of LD students' writing clearly show a lack of coherence in the compositions they produce compared to normal achieving students of the same age (Harris & Graham, in press; Nodine et al., 1985). Unfortunately, despite calls from research (Cooper, 1988), there is very little research available on effective instructional strategies designed to improve writing coherence (Graham et al., 1991). However, some headway appears to have been made by McCutcheon and Perfetti (1983).

McCutcheon and Perfetti (1983) conducted a qualitative study observing the revising behavior of grade four and six LD writers. They concluded that attention to sentence level connectedness significantly improved local coherence in one grade four student's writing. While McCutcheon and Perfetti's observations were reported from only one subject in their study, the degree of improvement noted was very encouraging and warrants further research with a larger number of subjects.

More recently, Cooper (1988) provides additional theoretical support for textual analysis as a method to



improve coherence in expository writing. Informed by research emanating from linguistic studies, Cooper proposes a model similar to that proposed by McCutcheon and Perfetti. She argues for a method of instruction whereby students are taught that succeeding sentences contain both previously mentioned information as well as new information. In her view, it is this overlapping or chaining of information that gives text coherence. Cooper's subjects demonstrated improvements in writing coherence following instruction utilizing her method. She acknowledges the need however, for further empirical support to validate the efficacy of her model. As well, Cooper's study was conducted with normal achieving college students. The applicability of her model to younger children, particularly low-achievers and students with learning disabilities, is as yet untested.

Promising research in a companion discipline (i.e. reading) may prove supportive to the research efforts of both McCutcheon and Perfetti (1983) and Cooper (1988). Elliot-Faust and Pressley (1986) reported significant results after teaching students a comparison processing strategy for assessing inconsistencies in text similar to the one used by McCutcheon and Perfetti. They concluded that lightening the cognitive load by focussing on the more manageable task of sentence-level comparisons aided readers in identifying inconsistencies in text. Because recognition of a need to improve something is a precursor to appropriate action, perhaps such a strategy involving sentence-level

comparisons could aid in fostering more coherent text in students' writing.

Writing is a complex task. Attending to the executive demands of writing is arduous, especially for less able writers. Once the complex task of writing is broken down into its constituent processes, some researchers contend these processes may be amenable to instruction (McCutcheon & Perfetti, 1983; Cooper, 1988).

The purpose of this study was to validate a multi-component writing intervention intended to enhance the quality of students' narrative writing. Narrative writing is an area that has been identified as problematic for LD and LA students. Researchers and educators both have requested more research into efficient and effective strategies to update current writing instruction practices utilized in the field. Effective strategies have recently been identified which are effective in enhancing the overall narrative quality of both LD and LA students. Story grammar instruction is one such strategy. Story grammar alone, however, has not proved complete in enhancing the coherence of students' stories. Strategies aimed more directly at coherence have proved more effective. Unfortunately, very little research has been done to validate instructional strategies for enhancing coherence in narrative writing.

Furthermore, research addressing the maintenance of gains attributed to story grammar instruction has been inconclusive. Instructional regimes which included self-

instruction and self-regulation of story grammar strategies have shown promising maintenance results. However, research on the maintenance of the sentence comparing strategy has not been undertaken. Clearly, strategy maintenance continues to be an important area for writing instruction research.

This study was designed to test the viability of an instructional model which integrates a validated instructional strategy (i.e. story grammar) with a technique theorized to promote/enhance coherence (i.e. sentence comparing), within an instructional design known to enhance strategy maintenance (i.e. one utilizing self-instruction and self-regulation).

It is hypothesized that students who complete this writing intervention will produce more complete narratives, demonstrate better coherence, and that these benefits will be maintained following the completion of the intervention.

#### Research Questions

1. Do trained students demonstrate significant pretest to posttest improvements in story grammar scores?
2. Are improvements in story grammar quality maintained following the completion of the story grammar phase of the intervention?
3. Do trained students demonstrate significant pretest to posttest improvements in coherence ratings?

4. Are the improvements in coherence quality maintained following the completion of the coherence phase of the intervention?

## Chapter II

### Review of the Literature

In the following sections, a detailed description of the research related to story grammar, comparison processing, self-instruction, and self-regulation will be presented.

### Story Grammar

Story grammar, or narrative structure, as it is also called (Fitzgerald & Teasley, 1986), refers to the underlying structure that all well written narrative stories exhibit. Archaeological studies have observed a common story grammar in cultures throughout the world (Spiegel & Fitzgerald, 1986). At its most simplistic level, story grammar could be thought of as comprising the setting of a story, the main character, a problem of some kind, and finally, a solution to the problem. A model used by Gersten and Dimino (1989) for teaching fourth grade students about story grammar will serve to illustrate:

What is the story about?

What is the main character trying to do?

What happens when he/she tries to do this?

What happens in the end?

While this model by Gersten and Dimino (1989) is a very simple one, it captures the essence of the story grammar concept.

Many students develop a sense of story grammar as they mature (Spiegel & Fitzgerald, 1986). This "sense" of story grammar is characterized as "a scheme, or idealized internal representation of the parts of a typical story and the relationships between these parts" (Mandler & Johnson, 1977, p. 112). Children as young as four years of age evidence a rudimentary story grammar in their stories (Olson & McGee, 1988). As children get older their scheme of story grammar matures and becomes more well defined (Brown, 1977; Stein, 1983). By age eleven most children have a well developed scheme for narratives (Nodine, Barenbaum, & Newcomer, 1985).

While many children appear to develop this scheme for story grammar unaided, not all children do (Spiegel & Fitzgerald, 1986). As a result, empirical studies intended to address the importance of story grammar knowledge to both reading and writing achievement have been undertaken. Many research studies have supported the importance of story grammar in reading comprehension (Doyle, 1983; Fitzgerald, 1984; Gordon, 1988; Gordon, 1989; Gordon & Braun, 1988; Idol & Croll, 1987; Olson & McGee, 1988; Pressley, Johnson, Symons, McGoldrick, & Kurita, 1989; Taylor, 1992; Wong, 1991). Story grammar has also been cited in its contribution to writing achievement (Fitzgerald & Teasley, 1986; Raphael

et al., 1989; Montague, Maddux, & Dereshiwisky, 1990). As children develop their story grammar scheme they become more fluent in their narrative writing (Applebee, 1978). As well, a significant positive correlation has been reported between the overall quality of narratives and their completeness in terms of story grammar (MacArthur & Graham, 1987).

Laughton and Morris (1989) compared the story grammar knowledge of both LD and normal achieving (NA) students in grades three and six. In comparing the percentage of students who wrote minimally complete stories (i.e. a main character, a problem, and a resolution) the grade six LD students resembled the NA students at the grade three and four levels. They concluded LD are developmentally delayed when compared to NA students of the same grade level.

A consistent observation of LD writers is how inordinately short their writing tends to be when compared to the NA population (Graham et al., 1991; Nodine et al., 1985). As well, length of composition has been strongly associated with favourable evaluation by teachers (Wong et al., 1989). When LD writers composed more "story-like" narratives (i.e., included more of the necessary parts of a story) the length of their compositions increased (Nodine et al., 1985).

Nodine et al. (1985) studied the story quality of eleven year old LD and NA students. In their study only thirty percent of the LD students could compose minimal stories. In contrast, seventy-one percent of the NA students

composed stories that fulfilled the criteria of a minimally complete story.

Researchers have reported improvements in students' expository and narrative writing following interventions which included instruction in text structure. Carol Sue Englert (1990) developed a program of instruction intended to improve writing through enhancing expository text structure knowledge. Her work with fourth and fifth grade LD students has been successful in enhancing both text structure knowledge and overall quality in expository text.

Literature on the effectiveness of instruction which featured narrative text structure (i.e., story grammar) has also been noted (Stein, 1983; Fitzgerald & Teasley, 1986; Graves, Montague, & Wong, 1990; Montague, Graves & Leavell, 1991). Fitzgerald & Teasley (1986) completed a study with nine and ten year old students who had a been identified as lacking in story grammar knowledge. Following story grammar instruction the students demonstrated improved story organization, and increased overall quality in their stories. Graham and Harris (1989a) in their research with grade five and six LD students reported substantial improvements in the quality of the students' writing following story grammar instruction, improvements substantial enough to render their work indistinguishable from the work of the NA control group.

Other studies which featured story grammar instruction have utilized procedural prompts to enhance story quality



(Graves, Montague & Wong, 1990; Montague, Graves & Leavell, 1991). Anne Graves and her colleagues (1990) studied grade five and six LD students. In this study they compared the effect of planning time only versus planning time with cognitive and metacognitive prompting. The group which received planning time, a story grammar cue card and a story grammar checklist outperformed the students who received planning time alone.

Montague, Graves and Leavell (1991) in a study with older students may shed light on the amount of procedural facilitation required to induce strategy use. In their study they compared the narratives of grade seven and eight LD students across three conditions: no planning time, planning time, and planning time plus a story grammar prompt. Prior to the intervention the NA group outperformed the LD students in all conditions. Following the intervention, LD students who were encouraged to plan and use the story grammar prompt were producing stories not significantly different from their NA counterparts. It should be noted, however, that despite being encouraged to plan, and a prompt outlining story elements, the LD students began writing their story from the start of the five minute planning time. At the end of the five minutes they merely transcribed what they had written on the "planning sheet" to the lined composition paper provided by the researchers. Unlike the previous study, Montague and her colleagues did not include a checklist for the students to use as they planned each of

the story elements. Taken together, the results of these studies suggest LD students may not know what it means to "plan" before they write. More specifically, they appear to benefit from support guiding *how* to plan as well as *what* to plan in the composition of a story.

Scardemalia and Bereiter (1986) identified several areas of writing competence that are problematic for developing writers: generation of content, organization, and revising. Research suggests these points correspond with troublesome areas for the LD writer as well (Barenbaum, et al., 1987; Graham et al., 1991b). Story grammar instruction may be efficacious for improving writing for the LD because it may facilitate the processes of writing at each of these points. A frequent observation of LD writers is that they do little planning in advance of writing (MacArthur & Graham, 1987). Even when LD writers have been instructed to "plan before they write" observations show they typically spend less than one minute before beginning their compositions (MacArthur & Graham, 1987). Story grammar may serve as a framework to aid writers in both the generation and drafting of their ideas (Englert & Thomas, 1987). Englert and Thomas speak of writers who are sensitive to text structure as "activating scheme with well defined slots and nodes that subsequently serve as prompts that enable them to fill out this scheme with appropriate details" (Englert & Thomas, 1987, p. 100). At the revision stage, story grammar scheme could serve as a standard against which to judge the

completeness of one's work (Raphael et al., 1989). Thus, story grammar could serve as one metric of the "internal criteria of acceptability" (Wong, 1991, p. 81) which writers use to determine the need to revise. It is this knowledge of what constitutes good prose that writers require before they can articulate a well-defined diagnosis of a writing problem worthy of revision (Wong, 1991). Good writers appear to draw upon their knowledge of text structure when they compose, and revise (Graham & Harris, 1989b). LD writers, by contrast, appear to lack a sense of organization at both the planning and the published stages of writing (Graham & Harris, 1989b).

In summary, these studies suggest writers who possess knowledge of story grammar can be encouraged to use this knowledge when they write. Procedural prompts, particularly those combined with an executive prompt such as a checklist, appear to be important contributors to the effective use of story grammar knowledge. When students use their knowledge of story grammar to write, the narratives they compose are more complete and reflect organizational qualities characteristic of more capable writers.

While story grammar instruction appears to have the potential to be "a powerful heuristic" (Englert & Thomas, 1987, p.103) in writing instruction, there are a number of important issues yet to be resolved. Specifically, story grammar instruction has yielded less than expected improvements in the coherence of students' writing

(Fitzgerald & Teasley, 1986) and the use of story grammar knowledge as a strategy to improve writing has not been well maintained over time (Gordon, 1988; Harris & Graham, 1991). Each of these issues will be explored in detail in the remainder of this chapter.

## Coherence

"Coherence is generally accepted as  
the sine qua non in written discourse."

(Bamberg, 1983, p.417)

While the quote from Bamberg clearly states the importance coherence plays in written expression, the definition of coherence in research and instructional practice has not been as clearly articulated. In fact, coherence has often been ill-defined and used without precision. Spencer and Fitzgerald (1993) in a recent survey of the literature reported finding twenty-seven different definitions for coherence. While all of the definitions shared common characteristics, a wide range of meanings was found.

Coherence, in general terms, refers to how well things are held together (Bamberg, 1984). But coherence in writing is more than this (Golden & Vukelich, 1989). Not only must

the individual sentences relate to one another, but each sentence must relate to the writing piece as a whole to be truly coherent (Gagne, 1985). While coherence at the local level is important to the overall coherence of the text, it is not considered sufficient (Gagne, 1985; Golden and Vukelich, 1989). Kintsch and van Dijk (1978) summarize this relationship cogently: "A discourse is coherent only if its respective sentences and propositions are organized at both the micro- and macro-structure levels" (p.365).

Bamberg (1984) points out, distinctions are increasingly being made between the macro structures that create global coherence and the more local connections between sentences. These sentence-level connections are commonly referred to as local coherence. Tierney and Mosenthal (1982) speak of local coherence as the linguistic mortar that hold ideas together in text. MacArthur and Pressley (1983) talk of the "implicit promise" that each sentence makes that it relates to what has preceded it and what is to follow. MacArthur and Pressly (1983) go on to suggest ineffective writers often break this implicit promise.

A number of studies have assessed coherence utilizing measures which combined both local and global coherence into one measure (Bamberg, 1984; Barenbaum, Nodine, and Newcomer, 1985; McCulley, 1985; Vallecorsa & Garris, 1990; Tindal & Hasbruk, 1991). Bamberg studied writing done by thirteen and seventeen year old students. In this study, a four point

scale was used to assess coherence. A score of one was given if no connections between sentences or no meaningful ordering of the information could be identified. A score of four was granted to writing displaying many connections between sentences and a meaningful ordering of the information could be identified. A significant developmental effect for coherence between the ages of thirteen and seventeen was noted. Specifically, twice as many of the seventeen year old students in their study were able to write coherent texts.

A consistent finding in the research is that LD writers write less coherent narratives than their NA counterparts (Nodine et al., 1985; Vallecorsa & Garris, 1990; Harris & Graham, in press). Nodine et al. (1985) studied eleven year old LD and NA students. On a measure of coherence, twenty percent of the LD compositions were classified as incoherent, while none of the NA pieces were considered incoherent (Nodine et al., 1985). In this study, a story was deemed incoherent when unrelated or inexplicable events were included that made the story difficult to follow or understand.

Vallecorsa and Garris (1990) studied the narrative writing of grade six and seven students. Using scoring criteria similar to Nodine et al. (1985) they reported most (91%) of the NA writers in their study could compose coherent stories. In contrast, only half (52%) of the LD students could compose a coherent story.

Tindal and Hasbruk (1991) presented a series of case studies which looked at both the local and global coherence of students' narrative writing. They utilized a five point scale to assess coherence. A score of one represented a piece of writing that had few story elements and sentences or events which were not well linked together. A score of five represented a story with a complete plot with sentences and events that were well linked together. They compared LD students' writing at the grade three and five level. They noted significant improvements in both global and local coherence in the older students. Specifically, they observed the contributions a complete story grammar and stylistic devices such as word repetition and transition made to the improvements noted.

Fitzgerald and Teasley (1986) studied fourth grade children chosen from two heterogeneous classrooms. Their study featured story grammar training. Fitzgerald and Teasley (1986) reasoned that improvements in coherence should be forthcoming from story grammar instruction. Along a syllogistic line of thinking, they hypothesized, since organization is considered a major aspect of coherence, and that story grammar instruction should show improvements in organization, improvements in story grammar knowledge should also yield gains in coherence. Fitzgerald and Teasley utilized a scoring criteria similar to Tindal and Hasbruk

(1991) to assess a composite of local and global coherence. In this study coherence did not improve as predicted.

Very little research could be identified which studied local coherence alone. The main research efforts have been conducted by McCutcheon and Perfetti (1982; 1983) and Cooper (1988). McCutcheon and Perfetti (1982) studied students' narrative writing at grades two, four, six and eight. They noted the older the writers were, the higher the percentage of local connections they observed. In a follow-up study, McCutcheon and Perfetti (1983) observed the revising behavior of grade four and six LD and NA writers. The single case studies they reported indicated attention to sentence level connectedness significantly improved local coherence. McCutcheon and Perfetti have concluded from their studies that local coherence is a key constituent to early writing success for children. As well, they believe judging and revising for local coherence to be aspects of the writing process which children can become quite accomplished if they are provided with appropriate instruction.

In an effort to identify an effective means of teaching college age writers to attend to local coherence, Cooper (1988) demonstrated the positive effects of breaking the complex task of writing into more manageable pieces. By teaching the students to apply a strategy whereby each successive sentence pair was assessed for connectedness, it was possible for them to identify and revise incoherent text they had written.



A potential pitfall concerning the use of a sentence comparing strategy to improve local coherence relates to a prerequisite for revision: the writer must comprehend that a problem exists before it can be revised (Gagne, 1985). LD writers do not appear to revise for clarity as more effective writers do (Graham et al., 1991a; Graham et al., 1987). Rather, for the LD writer, revising means attending to cosmetic, pro forma aspects of their text (Schwartz, 1982), including handwriting, spelling and punctuation (Wong et al., 1989). MacArthur, Graham, and Swartz (1991) investigated the revising behavior of grade seven and eight LD students. When asked about the type of revisions they performed in their writing, seventy-six percent of the respondents indicated mechanical revisions.

#### Comparison Processing

Reading comprehension research may provide an effective strategy to facilitate revising for local coherence. Elliot-Faust and Pressley (1986) noted the grade three children in their study often accepted direct contradictions in simple stories without question. They hypothesized, since children tend not to spontaneously identify contradictions in text, some form of prompt or strategy may prove useful in directing them through this form of comprehension monitoring. In their study, the children were taught a strategy for improving comprehension whereby consecutive

sentences were compared against one another, then to the rest of the story to detect inconsistencies. The data they collected indicated students taught this strategy did significantly better in identifying inconsistencies in the stories they heard. Since identifying a problem is an essential step to being able to correct it (Gagne, 1985), perhaps training students in a strategy of comparison processing would improve local coherence in narrative writing.

### Strategy Maintenance

Despite a lack of improvement in coherence, Fitzgerald and Teasley (1986) did report encouraging results in terms of increasing the students' knowledge of story grammar and a general improvement in writing quality. While they did not address the durability (i.e. maintenance) of their findings over time, others (Gordon, 1988; Harris & Graham, in press; Sawyer, et al., 1991) have addressed this issue in the context of story grammar instruction. The results of this research have been equivocal (Gordon, 1988; Harris & Graham, in press; Sawyer, et al., 1991 ).

Sawyer et al. (1991) and Harris and Graham (in press) conducted extensive studies assessing story grammar instruction embedded with self-instructional routines (including self-regulation which will be discussed in a subsequent section) for both NA students and LD students. In

sum, their results relating to maintenance look encouraging. Maintenance of two to four weeks was documented for most students in both studies cited. However, in both cases they caution that longer term maintenance remains a challenge to be fully researched.

Less optimistic was a lengthy study conducted by Christine Gordon (1988). In this study a group of grade six students was instructed in the use of story grammar as an aid to both reading and writing. Her interest was not in how effective story grammar was in improving either reading or writing, but rather, how well students used and maintained the knowledge once they had learned it. As well, she addressed specific places in the reading/writing process where students used story grammar knowledge. During the instructional phase of the study almost all (99%) of the students reported using story grammar in their writing at least some of the time. Sixty-five percent said they used it all the time. By the end of the nine month study (which coincided with the end of the school year) only fifty-six percent of the students reported using knowledge of story grammar in their writing. Of those who reported using story grammar knowledge in their writing, only one suggested he used this knowledge to guide decisions to revise his work. Gordon assessed retention of story grammar knowledge to determine if those who didn't use it had the requisite declarative knowledge to put the strategy to use. Her conclusion was that most students could recall the story

grammar components they had been taught, but they may have lacked the procedural knowledge to put this information to use.

In summary, while improving story grammar knowledge appears to be valuable in writing strategy instruction, the maintenance of this value over time remains suspect.

There are two components of effective strategy instruction that research supports as contributing to, among other things, strategy maintenance: self-instruction and self-regulation of strategy use (Graham & Harris, 1989a, Graham & Harris, 1989b). The first of these two will be addressed now.

### Self-Instruction

Self-instruction training was initially utilized to help impulsive children to gain control over their behavior (Graham et al., 1987). In its most refined form, self-instruction strategy training has become a hybrid, combining aspects of Michenbaum's (1977) cognitive behavior modification and Brown, Campione, and Day's (1981) self-control research. While researchers have operationalized the construct of self-instruction differently, the most salient characteristic of self-instruction is consistently preserved: the gradual shifting of the responsibility for strategy use from the teacher to the student. Graham and

Harris (1989b) have conceptualized the construct of self-instruction succinctly:

- \*strong external support is provided by the teacher initially, including modelling, guided practice, and corrective feedback.
- \*interaction between teacher and student is emphasized.
- \*students are active collaborators in their learning.
- \*scaffolded instruction through graduated task difficulty, and conjoint strategy use.
- \*increasingly, responsibility is relinquished to the student for recruiting and applying the strategy.
- \*explicit benefits of strategy use are made clear.

There is considerable support for the effectiveness of self-instruction routines with respect to strategy maintenance (Elliot-Faust & Pressley, 1986; Graham & Harris, 1989b; Harris & Graham, 1985; Idol & Croll, 1987).

### Self-Regulation

Self-regulated learning is seen as an important component to effective strategy instruction. Harris and Graham (in press) cite the large amount of support self-regulation enjoys. Of particular interest in this study is the contribution self-regulation can make to maintenance of strategy use. Emerging research is supportive of the

important role self-regulation can play in encouraging strategy maintenance (Doyle, 1983; Groteluschen, Borkowski, & Hale, 1990; Englert, 1990; Harris, 1982; Harris & Graham, 1985).

Self-regulation refers to any one of a number of combinations of the following components (Harris & Graham, in press): goal setting, self-monitoring, self-recording, self-assessment, and self-reinforcement. To operationalize self-regulation in the context of story grammar instruction, Sawyer et al. (1991) had students assess current levels of story grammar use, set goals, and graph improvements in story grammar use over time. This study did not conclusively factor out the contribution self-regulation made to the improvements realized by the students. However, companion studies that included self-regulation training conducted by Graham and Harris (in press) show consistent maintenance over four to six week periods. While much of the research Graham and Harris have published has focused on the LD population, the results of the research cited, and work done by others (Harris & Graham, in press), have held for the NA population as well.

To conclude, instruction emphasizing the direct teaching of specific strategies seems to hold promise for improving narrative writing. While a small empirical base exists supporting the efficacy of including story grammar in writing strategy instruction, the specific means to foster and maintain its use remain unclear. While preliminary

research suggests the value of encouraging comparison processing, the value this may have for narrative writing coherence is as yet unestablished. Multicomponent strategy interventions like the one posited here have proven efficacious in improving writing performance. Additional research is required to add to the growing body of data describing effective strategy instruction. From this research can come the empirical support needed to encourage practitioners to update instructional interventions to more adequately meet the needs of the learning disabled and low-achieving writer.

## Chapter III

### Method

#### Subjects and Setting

This study was conducted in a large elementary school in the suburban school district of Delta, British Columbia. The school enrolls students from middle to upper-middle class families.

Prior to beginning the research, procedures established for conducting research involving human subjects by both the Delta School District and the University Ethics Committee were followed. These comprised obtaining parental consent and approval from the University Ethics Committee.

The initial step in selecting students for this study involved speaking to teachers of grades five and six from the target school. All the teachers contacted were enthusiastic about the study and eager to nominate potential candidates. They were requested to recommend low-achieving students, which could include students with learning disabilities, whom they felt might benefit from additional writing instruction. Teachers were further advised to consider in particular, students who have had a history of writing difficulty. From this initial request, eighteen students were identified as potential candidates for the study.



A meeting was held with the students so that they fully understood the nature of the study, the nature of their involvement, and the expectations of the researcher. Subsequently, students who wished to be included in the study were asked to take a consent letter home to their parent or guardian. This letter was to be returned to the school. Sixteen of the students returned a consent form granting permission for them to participate in the study. Two of the students moved and one student was transferred to a District Resource room for the Severely Learning Disabled prior to the beginning of the intervention.

Of the thirteen remaining candidates seven had been formally identified as LD by School District personnel. The School District diagnostic criteria involved: (1) adequate intelligence (i.e. I.Q. scores between 90 and 110) as measured by a norm-referenced intelligence test. (2) at least a two year delay in achievement despite adequate intelligence. (3) absence of emotional, behavioral, physical or sensory handicapping conditions. Inspection of the school's cumulative files for each student confirmed these criteria had been met. Because information of students' measured intelligence is deemed confidential by the School District it can not be reported here.

The remaining six subjects had been identified by their teachers as low-achieving students. A review of all the subjects' files confirmed a history of low achievement in both reading and writing on previous report cards.

To provide data-based support for the teachers' selections, two assessments were conducted. First, all subjects completed the vocabulary and comprehension sub-tests of the Gates MacGinitie Reading Test (MacGinitie, 1980). A composite score for the two sub-tests was compiled. The scores ranged from the twelfth to the twenty-fourth percentile, with a mean score of seventeen. The reading assessment was chosen because previous studies of narrative writing indicate low-achievers in reading have similar difficulties to LD when it comes to story writing (Nodine, Barebaum, & Newcomer, 1985). The following day the subjects completed one of the sub-tests of the Test of Written Language-2 (Hammill & Larsen, 1988): the Thematic Maturity sub-test. This writing sub-test was included because it measures skills and strategies which closely match the focus of this study (i.e. the ability to write a short story in a coherent and organized manner). Students' scores on the Thematic Maturity sub-test ranged from the first through the ninth percentile, with a mean of four. These formal assessments concur with the teachers' observations: all subjects were low-achievers in both reading and writing.

Of the thirteen participants six were male and seven were female. Three of the females and four of the males were LD. Six of the subjects were in grade six and the remaining seven were in grade five. The subjects ranged in age from 9.11 to 11.6 years, with a mean age of 10.6 (SD .71). Most of the students were of European-Canadian background,

however, two were of Asian heritage, specifically, Indo-Canadian. English was the first language of all the subjects.

### Experimental Design

A one-group, pretest-posttest experimental design was used in this study.

### Procedures

All instruction and assessment in this study was conducted by the researcher. Instruction was conducted in the Learning Assistance Center in the target school. This provided a quiet environment that would be the least distracting for both the students in the study as well as other students in the school. Due to the size constraints of the room, and to accommodate timetable concerns of the students' classroom teachers, the students were organized into two groups. Each group met for approximately fifty minutes three times per week. Scripted lesson plans (see APPENDIX A) were developed to maintain consistency of instruction between both groups. Instruction was criterion based and instruction did not proceed until all members of the group had mastered the objectives of each lesson. Objectives had to be mastered at one hundred percent criterion. For example, for the story grammar pretraining

(see APPENDIX A), each student was expected to be able to write the story grammar mnemonic from memory with one hundred percent accuracy.

The study began the second week of October, 1993, and continued through the second week in December, 1993, for a total of ten weeks. During this time the students met for fifteen instructional sessions. There were two instructional phases to the study with each focussing on a different writing process strategy. The first phase focussed on story grammar instruction. Ten of the fifteen sessions were concerned with story grammar instruction, while the remaining five instructional sessions concerned instruction on coherence. Each of these instructional phases will be discussed in detail in subsequent sections. As well, scripted lesson plans are included in the appendix.

### Assessment Procedures

Assessment data was collected at three points in each phase of the study: Pretest, posttest and maintenance. At pretest and posttest two samples of writing were assessed for each subject. However, time constraints permitted only one sample of writing to be collected from each student as a maintenance probe.

Prior to the beginning of story grammar instruction each student composed two short stories to serve as pretest data. All students were asked to compose the best short

story they could. They were given the opportunity to select any subject for their story that they desired. This was to insure that each student was free to choose a topic within their interest and knowledge base (Montague & Leavell, 1994; Lloyd-Jones, 1977). As well, twelve black and white photos were on display in the room to serve as story starters for students who could not generate story ideas on their own. Each of the twelve pictures displayed a simple setting and one or more characters in some form of action. For example, one of the pictures showed a man flying an airplane over a mountainous area. Another picture showed a young boy clinging to the side of an overturned boat. The pictures had been used in a pilot study and were judged as interesting by students at this age. Some of the students utilized the pictures while others chose to generate their own story ideas. The students wrote each of the stories on separate days and no time limits were imposed. The completed stories were later typed by the researcher. Simple spelling and punctuation omissions which did not change the story in any significant way but increased readability were corrected by the researcher. Typing the students' stories served several purposes. Many of the students' handwriting was very difficult to read. Previous experience from the pilot study indicated that this made scoring very tedious. As well, since students had difficulty reading their own writing because of illegibility, it was felt that eliminating this problem would lead to clearer assessments of their writing

skills. The format just outlined was followed for each writing sample collected at pretest, posttest and maintenance points in the study.

### Story Grammar Assessment

To assess the quality of the students' stories at each phase of the story grammar instruction, a modified assessment scale developed by Graham and Harris (1989) was utilized. Graham and Harris' scale was chosen because it is widely used (Graves & Montague, 1991) and is a validated assessment measure which correlates highly with story quality (MacArthur & Graham, 1987). Their scale assesses the inclusion and quality of eight story elements. The more highly developed a particular story element is the higher the score that is granted. For each story element a score of zero was given if the element was not found in the story, and a score of one was granted if the element was included in a basic sense. For the goal story element, a score of three was awarded if two or more goals were included by the author. Scores of three or four were awarded if the action element contained events organized in a logical manner, or there was more than one well-defined episode. A maximum score of nineteen could be achieved.

For the present study a six part scale was used. A modified scale was adopted for several reasons. First, by using six categories of story elements instead of eight, the

story schema would be easier for the students to remember. Second, language was adopted for the story elements that was familiar to the students making it easier for the students to understand, thus making it more likely to be remembered (Graves & Hauge, 1993). The six story elements used were: setting, problem, rising action, climax, falling action, and ending. Table 1 shows Graham and Harris' story grammar as it compares to the one used in this study.

Table 1

A Comparison of Graham and Harris' Eight Part Story Grammar To The Six Part Story Grammar Used In This Study

Graham and Harris	The Present Study
1. Main character	1. Setting
2. Locale	
3. Time	
4. Starter Event	2. Problem
5. Goal	3. Rising action
6. Action	4. Climax
7. Ending	5. Falling action
8. Reaction	6. Ending

### Story Grammar Scoring

For each story element a score of zero was assigned if the element was not present in the story, a score of one if the element was present in a simple form, two if the element was partly developed, and three if the story element was well developed. The best possible story grammar score a student could attain was eighteen. Two stories were scored for each student at pretest and posttest. The two scores were then averaged.

### Coherence Assessment

As Bamberg (1984) pointed out, "distinctions are increasingly being made between the connections between sentences and the structures that create discourse level or global coherence" (p.306). Assessment tools observed in the literature to score coherence have generally not reflected this distinction. Rather, both local and global coherence have typically been compounded into one score (e.g. National Assessment of Educational Progress, 1980; Fitzgerald & Spiegel, 1986; Tindal & Hasbrouck, 1991).

An assessment measure which rated local coherence separately from global coherence was utilized by Norris and Bruning (1988). In their study, a student's writing was first scored on the number of cohesive ties observed between sentences. A ratio of local coherence was then derived by dividing the number of cohesive ties by the number of sentences in the story.



The term "cohesive tie" is a term coined by two prominent researchers in the field of linguistic studies, Halliday and Hassan. They define a tie as a single instance of cohesion (Halliday & Hassan, 1976, p.3). Halliday and Hassan go on to describe the connections between adjacent sentences as the simplest, or "paradigm form" (p.328), of cohesive tie. Cohesive ties take many forms: repeated words, pronoun substitutions, conjunctions, synonyms, etc. The sentence pairs below illustrate examples of several types of cohesive ties.

#### Repetition

The boat was nearly brand new. A boat was something he had wanted for many years.

#### Pronoun Substitution

My father is a hard worker. He never quits until he has given it his best effort.

#### Conjunctions

A friend of mine went off to college. Before he left, we had a farewell party for him.

#### Coherence Scoring

For the purpose of this study, the local coherence measure used by Norris and Bruning was adapted (Norris & Bruning, 1988). In scoring the students' stories, each

sentence was compared to the sentence which immediately followed. If an unambiguous connection (Norris & Bruning, 1988) between the sentences was observed, a point was granted. This procedure continued until each sequential sentence pairing had been rated. As the last sentence had nothing to be compared to, the best possible score a student could achieve would be one less than the total number of sentences present in the story.

The subjects in the study wrote stories of varying lengths. Because manuscript length has been highly correlated with coherence quality (McCulley, 1985), it was necessary to control for story length differences. To control for such differences, the coherence raw score obtained from sentence comparisons was divided by the total number of sentences in the story (Norris & Bruning, 1988). The resulting quotient was then multiplied by one hundred to generate a percentage of local coherence. Two writing samples for each subject were scored using this procedure. The two scores were then averaged.

The procedure just outlined was completed for writing samples collected at pretest, posttest, and maintenance.

#### Reliability Procedures

Initial scoring of the writing samples was completed by the researcher. A colleague of similar experience and training (Cooper, 1977) but unfamiliar with the purpose and design of the study also scored a random sample of forty

percent of the students' stories. All identifying information as to the author and the point in the study the sample was taken from were removed. Interrater reliability coefficients were .83 for story grammar and .92 for coherence.

### Instructional Procedures

While each instructional phase focused on a different writing process strategy, there was a commonality in design. For both phases, the seven part self-regulation strategy regime developed by Graham and Harris (1989a) was followed. The regime consisted of the following components: (1) Pretraining (2) Review of current performance level (3) Description of the composition strategy (4) Modelling of the strategy (5) Mastery of the strategy steps (6) Guided practice and (7) Independent performance.

A detailed account of the story grammar phase will be presented. Due to the instructional similarity between the phases of the intervention, a less detailed overview of the coherence phase will be presented.

### Story Grammar Instruction

Initial instruction focussed on learning the six story elements of setting, problem, rising action, climax, falling action, and ending. A wall chart was used to introduce the

six parts and their meanings to the students. A copy of the information on the wall chart was given to each student to be kept in a folder (see APPENDIX B). Students who had participated in the pilot study had developed a mnemonic to help them remember the six part story grammar: Some People Read Comics For Entertainment. They found this mnemonic very effective. The mnemonic was included as part of the story grammar instruction in this study. As in the case of the pilot study, the mnemonic became almost like a credo for the study participants. A section of the comics became a permanent fixture on the wall in the study room. The students rehearsed the mnemonic until they had it memorized. Following this, they practiced identifying each of the six parts in stories provided by the researcher. The first two stories were examples of complete stories (See APPENDIX G). As each part was identified the researcher checked-off the corresponding part on the wall chart. Three other short stories used had story elements deliberately removed and the students identified which ones were missing and offered potential revisions. The story grammar elements and their meanings were rehearsed by the students in a variety of ways (eg., with the wall chart in view, without the wall chart, with a partner, as a group).

Once the students had mastered the six story parts and their meanings, a review of the students' current performance followed. The students analyzed their pretest stories for the presence or absence of story parts. The

students then identified common story parts which were omitted and ways in which story elements could be improved upon (e.g. describing the setting in more detail, adding additional actions leading to the climax, an unusual ending, etc.). The students reviewed the goals of this phase of the instruction (e.g. to write better stories, to plan before writing, and to include six good story parts) at the beginning and end of each session. The researcher demonstrated procedures for goal setting and self-recording of the students' story grammar scores.

The next step involved the researcher modelling the planning and composing strategies skillful writers use when composing a short story. The researcher demonstrated the use of a cue sheet to help plan each of the six parts and to check them off as they were fulfilled (see APPENDIX C). To make the thinking involved in the planning process explicit, the researcher spoke aloud as the planning process unfolded. To initiate the transfer of responsibility for using the strategy to the students, the researcher began to solicit student contributions in using the planning guide. The researcher encouraged dialogue between himself and the students, and among the students themselves, as they completed the planning guide collectively. To encourage the students to take further control of the writing process, the researcher instructed the students to use the group planned story outline to guide them in writing a complete story.

When the students completed their stories, the researcher and the students reviewed the stories to provide immediate feedback as to their success in including all six parts in their story. The results of this review and a future goal were then established on each of the students' graphs.

The final stage involved the students planning and composing a story without assistance from the researcher or the other students. All students demonstrated use of the planning cue card and composed short stories which contained all six parts. Based on the students' independent performance, it was deemed the students were prepared to complete the two story grammar posttests. Each student planned and composed two short stories, signalling the end of the first phase of the intervention.

#### Comparison Processing Instruction

As mentioned earlier, the instructional procedures for the second phase followed the same format as the story grammar phase (i.e. utilizing the Graham and Harris self-regulation strategy training regime). Students' knowledge of the concept of local coherence was developed through discussion, group and peer rehearsal, the use of exemplary and poor examples, and peer sharing of previously written stories. Current performance levels were reviewed with the students. As the performance data did not lend itself to

graphing as easily as the story grammar data had done, the students did not graph this information.

The students established goals for themselves of one hundred percent coherence for each piece they revised. Because the stories tended to be quite short this was not an unrealistic goal for them to set. The researcher modelled the use of the cue card to aid in the identification and revision of contrived stories exhibiting incoherent sentences (see APPENDIX D). As before, the thinking processes were made explicit by the researcher. Next, collaborative revising of a story was completed by the group using the cue card format read from a wall chart. The responsibility of using the cue card was gradually transferred to the students as they revised their own stories. To complete the guided practice, the students revised stories they had composed during the story grammar phase. Individual feedback and discussion took place as before. Finally, when sufficient facility with the revising strategy was noted in the students, posttest assessments were given. Posttest assessments involved revising the two stories the students had composed for their story grammar posttests. These revisions were completed without aid from the researcher or the students' peers. Students' revisions concluded the coherence phase of the study.

## Maintenance Assessment

Three weeks following the completion of the story grammar phase and one week following completion of the comparison processing phase, a maintenance probe was administered. The students were asked to plan and write the most complete, coherent story they were capable of to serve as the maintenance assessment. Only one sample was collected due to time constraints imposed by the pending Christmas Vacation. This deadline may have been timely for another reason: the students were beginning to lose enthusiasm towards composing stories. It should be noted that for all of the students, they had completed more stories in ten weeks than they had completed in the past several years. The final story sample was completed over three sessions. Most of the students completed the task in two sessions, while two of the students required all three.

## Post-Intervention Debriefing

The researcher met with each student following the Christmas Vacation to share the results of the study with them. The success of the group was shared as well as the growth demonstrated by the individual student. A summary report was sent to each parent or guardian outlining the success of the group and the specific improvements noted for their child.



## Chapter IV

## Results and Discussion

In this chapter results pertaining to each of the four research questions will be presented and discussed. For each of the questions descriptive as well as inferential statistics will be reported.

**1. Do trained students demonstrate significant pretest to posttest improvements in story grammar scores?**

Table 2 shows the story grammar mean scores at the pretest, posttest and, maintenance probes. Visual inspection of the statistics suggest that students improved on the story grammar scale from pretest to posttest.

Table 2: Means, Standard Deviations, and Effect Size for Story Grammar Data

---

Probe	Mean	(SD)	N
Pretest	3.46	(1.48)	13
Posttest	8.73	(1.48)	13
Maintenance	8.85	(1.86)	13

---

Effect size for Pre-post Gains \*

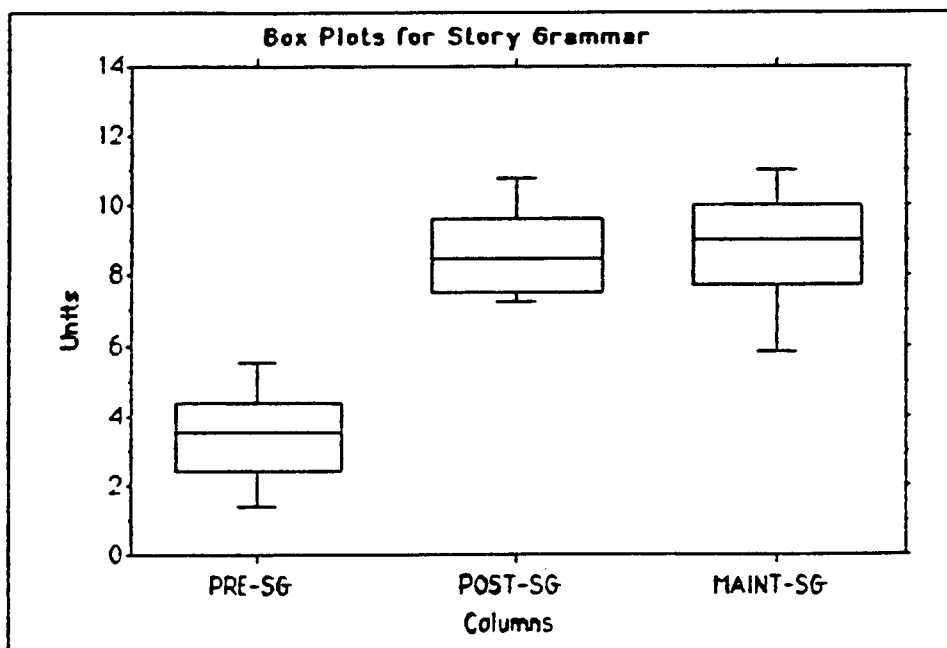
Pre-post effect size= 3.6

\* Effect size calculated using the pretest SD:  
Mean at Posttest minus Mean at Pretest divided by  
SD at Pretest (adapted from Glass, McGraw & Smith,  
1981).

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To determine if this change represents a statistically significant change, a correlated t-test was calculated. The t-test revealed the pretest-posttest differences for story grammar were statistically significant [ $t=12.95$ ,  $df=12$ ,  $p < 0.001$ ]. The effect size for this difference was calculated. The effect size, plus the formula used to calculate it, are shown in Table 2. The obtained effect size supports the observation that the students demonstrated significant improvement on the story grammar scale following the intervention. To supplement this analysis, boxplots are presented in Figure 1.

Figure 1: Boxplots of Students' Pretest, Posttest, and Maintenance Scores for Story Grammar.



In Figure 1 the rectangular box in each plot represents the middle fifty percent of the distribution. The line drawn horizontally across each box denotes the median. The box

extends from data points representing the first and third quartile, separating the interquartile range from the lowest to the highest twenty-five percent of the distribution. The whiskers extend to points in the data which are closest to one and one-half times the interquartile range above or below the hinges on each box (Howell, 1987).

The overall pattern of the boxplots summarizes the information just presented. The effect of the story grammar intervention is clearly demonstrated by the higher median value at posttest.

**2. Are improvements in story grammar quality maintained following the completion of the story grammar phase of the intervention?**

The means reported in Table 2 indicate the improvements noted from pretest to posttest were robust through the maintenance probe. Only a small variation between the means is observed. Comparing the median values on posttest and maintenance boxplots support this observation.

**3. Do trained students demonstrate significant pretest to posttest improvements in coherence ratings?**

Comparing the mean values at pretest and posttest for coherence presented in Table 3 indicate the students wrote more coherent narratives following the intervention. Box

plots presented in Figure 2 represent this improvement graphically. The effect of the story grammar intervention is clearly demonstrated by the higher median value at posttest.

Table 3: Means, Standard Deviations and Effect size for Coherence Data

---

Probe	Mean	(SD)	N
Pretest	30.85	(7.56)	13
Posttest	64.46	(13.45)	13
Maintenance	73.69	(16.13)	13

---

Effect size for Pre-Post Gains \*

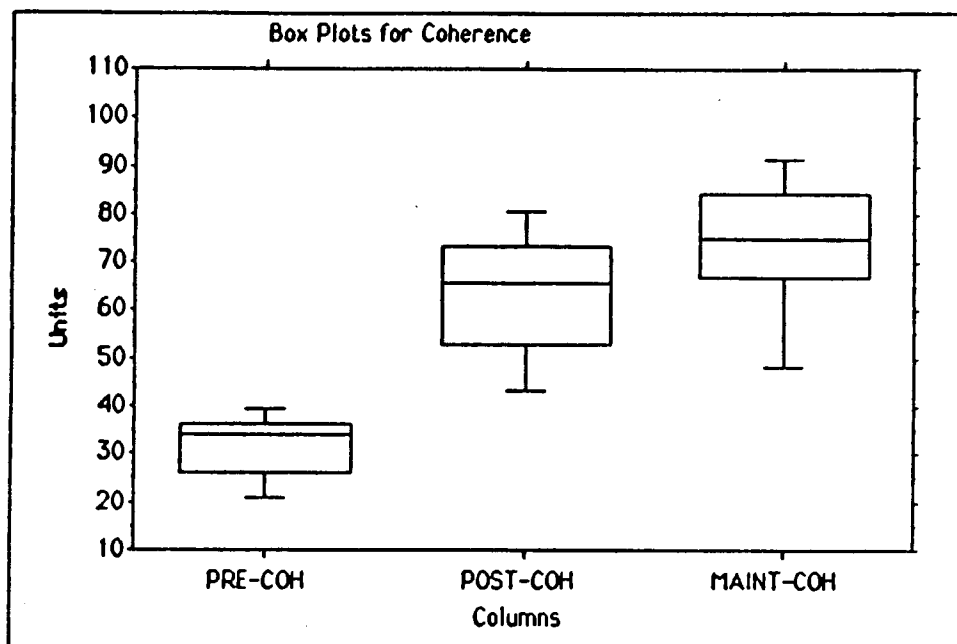
Pre-Post effect size= 4.4

\*Effect size calculated using the pretest SD: Mean at Posttest minus Mean at Pretest divided by SD at Pretest (adapted from Glass et al., 1981).

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To verify the statistical reliability of this observation, a t-test was calculated. The t-test revealed the pretest-posttest differences for coherence were statistically significant [ $t=8.17$ ,  $df=12$ ,  $p < 0.001$ ]. The effect size for this difference was calculated and reported in Table 3. The reported effect size underscores the results of the t-test. A comparison of the boxplots in Figure 2 allow a visual summary of the results just described. Differences in the median values from pretest to posttest clearly indicate improvements in coherence.

Figure 2: Boxplots of Students' Pretest, Posttest, and Maintenance Scores for Coherence.



4. Are the improvements in coherence quality maintained following the completion of the coherence phase of the intervention?

An inspection of the mean values in Table 3 indicate the improvements noted from pretest to posttest were robust through the maintenance probe. Comparing the median values on posttest and maintenance boxplots in Figure 2 support this observation. Observations of both the mean and the median coherence values had, in fact, shown a slight increase from posttest to maintenance. To factor out the potential explanation that a "practice effect" (Graham & Harris, 1989a) may have contributed to the improvements

observed, a t-test was run to test the significance, if any, of this change. The t-test did not support a statistically detectable difference between the posttest and maintenance probes.

In summary, the overall pattern of the data indicates the students improved significantly from pretest to posttest in both the completeness and coherence of the narratives they composed. Equally important, these improvements were maintained following completion of the intervention.

## Chapter V

### Conclusions

The purpose of this study was to investigate the effectiveness of a multi-component writing intervention. The intervention was intended to improve the narrative writing quality for learning disabled and low-achieving writers. Specifically, students were trained to use strategies designed to improve both the completeness and the coherence of short stories. As well, the maintenance of these improvements was investigated. The results of the study are very encouraging, and accrue to the extant research which show that teaching strategic writing skills to learning disabled and low-achieving writers can enhance their writing skills.

### Story Grammar

Concerning story grammar, students demonstrated significant improvement in the completeness of their stories. This result replicates the findings of a number of research efforts (Graham & Harris, 1989b, Sawyer et al., 1991, Montague & Leavell, 1994). Story grammar instruction thus appears to promote effective writing in developing writers.

There are a number of possible explanations for the success of the given story grammar intervention. First,

efforts were made to insure all of the students learned the six story elements to a mastery level. Throughout the intervention students were exposed to many examples of complete stories. As well, they analyzed their own stories and the stories of their peers. This multifaceted instruction may, as Nodine, Barebaum and Newcomer (1985) suggest, have helped to encode firmly the story grammar scheme for the students in the study. Moreover, the students had many opportunities to discuss their stories with both the researcher and their peers. This interactive dialogue and the resultant encoding and decoding of story grammar terminology may have contributed further to the students' ability to retrieve the story grammar scheme efficiently. Additionally, the students were taught a mnemonic to aid them in remembering the six story elements and their relative positions within a story.

Second, this study emphasized the importance of planning prior to writing a story. A common finding in the research literature is that poor writers, in contrast to effective writers, spend very little time planning before they write (McArthur & Graham, 1987). Students in this study were taught to use a story grammar checklist as they planned and drafted their stories. These planning sheets were provided for the students throughout much of the study. For the posttests and maintenance probe the students were not provided with planning sheets. However, all the students generated some form of planning sheet for themselves and



used it to plan their story. Some of the students simply listed the mnemonic down the side of a blank page while others reproduced the original planning sheet in detail. Despite stylistic differences, it is important to note that all students planned the six elements of their story before beginning to write it. Perhaps the internalized scheme for story grammar, plus the mnemonic, acted as covert prompts for the students to plan before they wrote.

Third, the students' self-efficacy for writing may have been enhanced by the intervention. As the students discovered over the course of the study, quality story writing was hard work. Because these students had generally not received positive results in their previous writing endeavors, they may have been reluctant, initially, to expend the necessary effort to compose good stories. Perhaps the positive feedback the students received early in the intervention (i.e. graphing their results and achieving their self-determined goals) positively impacted their self-efficacy towards story writing. Unfortunately, only subjective observations concerning self-efficacy were made throughout the study. Clearly, additional objective data to reinforce these observations could have proven valuable.

Finally, the students may have recognized the relevancy of the story grammar training to their classroom writing program. Informal comments from the students indicated they were transferring the story grammar training successfully to their classrooms. On several occasions students described

how they had been able to use the story planning sheet for class assignments. Since students were being asked to write stories in their regular classrooms, and they clearly understood the scheme for a complete story, this may have lead to increased motivation to use the strategies they were learning.

### Coherence

Turning to the coherence aspect of the intervention study, it is observed there has been little research directed at enhancing coherence in children's narrative writing (Cooper, 1988). Studies that have been done concluded with requests for more research identifying practical strategies for helping students judge and revise the coherence of their writing (McCutcheon & Perfetti, 1983, Graham et al., 1991). This study begins to address these concerns.

In this study, students were taught a sentence-level comparison strategy for assessing and revising to build coherence. The results suggest this form of training was efficacious in enhancing the coherence of students' narrative writing. These results support and extend the findings of McCutcheon and Perfetti (1983). Their preliminary research at the grade four level indicated a potential for gains arising from a sentence-level analysis of coherence. Similar research done more recently with

college students (Cooper, 1988) also supports such a strategy.

There are several explanations which may account for the success of comparison processing as a strategy to enhance coherence. First, it was taught following extensive instruction in composing complete stories. Since poor writers often omit necessary components of a good story, the difficulty of maintaining local coherence is greatly increased (McCutcheon & Perfetti, 1983). For the developing writer, closing this gap may be too large to be surmounted. More complete stories however, would narrow this gap significantly. It may be, as McCutcheon and Perfetti (1983) suggest, stories which are complete in terms of story elements may make the task of connecting ideas across sentences less daunting.

Second, comparison processing is undertaken at the sentence-to-sentence level. As McCutcheon and Perfetti (1983) noted, less able writers spontaneously tend to work at the local level. Scardemalia and Bereiter (1986), speak of less able writers composing at the "what's next level". Perhaps this propensity to focus at a local level aids developing writers when it comes to assessing and revising for coherence. Simply comparing two consecutive sentences, rather than trying to relate a sentence to many sentences in a story, may lighten cognitive load sufficiently to facilitate coherence analysis and subsequent revision. Perhaps, as Graham, Harris, McArthur and Swartz (1991a)

suggest, "treating a problem as several related sub-problems makes a task less overwhelming" (p.100) and thus contributes to more substantive, meaningful revisions.

### Strategy Training Instruction

This study lends further evidence to the value of strategy training which features self-instruction and components of self-regulation. The improvements reported from pretest to posttest demonstrate that both target strategies were effective in improving students' writing. These improvements were maintained following completion of the training. While the maintenance of short-term gains associated with strategy training is well supported empirically, the maintenance of strategy use over time is less clearly established. In the study conducted by Sawyer et al. (1991), strategy use had declined from one hundred percent to seventy-one percent in the two weeks between posttest and maintenance. Graham and Harris (1989a) reported an increase from ninety-one percent to one hundred percent in strategy use from posttest to the two week maintenance probe. In the present study, while not formally reported, informal observations and anecdotal comments indicate all the students used the story grammar strategy at posttest and at a maintenance probe given three weeks after training ended.

There are several possible explanations for the consistently high use of the story grammar strategy among the students in this study. First, the modified story grammar was simpler than those used in the other studies, containing only six elements instead of eight. As well, language more familiar to the students was used for each of the elements. Finally, the mnemonic used in this study, which formed a meaningful statement, may have been more easily remembered than the aid used by Graham and Harris. Mastropieri and Fulk (1990) attest to the contribution "meaningfulness" makes to the effectiveness of mnemonic aids. Any of these differences, or some combination of the three, may have made the story grammar used in this study more easily retrieved from memory.

In summary, the two strategies included in this intervention produced significant improvements in the narratives for grade five and six students included in this study. The improvements noted were maintained through the maintenance probes administered. Collectively, the positive results support prior intervention research which utilized self-instruction and self-regulation in their intervention design. This design appears to hold promising potential as a heuristic framework for writing intervention research and practice.

## Limitations and Suggestions for Future Research

There were several limitations to this study. First and foremost is the small sample size included in the study. Hence, generalizations drawn from the results must be tempered. Additional research with a larger group of subjects is warranted.

Second, the design of this study did not include a control group. Without a control group it is impossible to say if the strategies chosen or the instructional protocol utilized are any better than other approaches to writing instruction. Studies comparing the instructional regime included in this study to other successful instructional programs could be undertaken. Palinscar and Brown's (1981) "Reciprocal Teaching" or Englerts' (1990) "Cognitive Strategy Instruction in Writing" are programs worthy of consideration.

Finally, only short-term maintenance was assessed in this study. Maintenance probes were conducted at one and three weeks for comparison processing and story grammar training, respectively. While the improvements following training were well maintained over these durations, in other studies strategy use has been observed to decline sharply over time. Clearly, assessing comparison processing and story grammar strategy maintenance over longer intervals remains an area requiring further study.

There is an additional aspect of the current study which may be worthy of future research considerations. Students appear to have gained in self-efficacy through the course of the study. While no formal data were collected to substantiate these observations, anecdotal comments and informal observations suggest the students were gaining confidence in their ability to write stories. Students frequently made comments about how they now knew what a story was supposed to be, and how well they felt they did on particular stories they wrote. Research suggests the more capable a student feels about using a strategy successfully, the more likely they will be to use that strategy (Pintrich & De Groot, 1990). Since less able writers have, in some cases, shown a reluctance to use strategies they have learned (Graham, Harris, McArthur & Swartz, 1991), research assessing the effect this intervention had on self-efficacy could yield information important to strategy use and generalization. A follow-up study could include questionnaires designed to reflect changes in self-efficacy given prior to, during, and following the intervention. The data collected would permit changes in self-efficacy for story writing to be documented over the course of the intervention.

## Instructional Implications

Several implications can be drawn from this study which pertain to writing instruction. First, when adequate time is provided for the direct teaching of effective writing strategies, poor writers can make significant improvements in their writing. Story grammar and comparison processing appear to be two strategies worthy of inclusion in writing instruction. They were effective and were efficiently learned.

Second, both strategies can easily be integrated across existing curricula. Story writing is already a common request in classrooms, and coherence impacts the clarity of written expression regardless of subject or genre. Thus, including writing strategy instruction does not need to be viewed as an addition to an already crowded curriculum.

Third, story writing may be an accessible genre for less effective writers to gain self-efficacy in their writing ability. If students believe that writing an effective story is within their capability, they may expend the necessary effort required to complete this task. For students who have had a history of writing failure, they need to be shown that their efforts pay off in improved quality. Strategy instruction, like the one described in this study, may accommodate this goal for these students.



Finally, practicing teachers and teachers-in-training will need to learn how to teach these strategies effectively. Despite being commonly recommended in the instructional literature, strategy instruction is not commonly observed in either special or regular education classes (Kauffman & Trent, 1991). Part of the reason for this may be that this type of instruction is different from that with which most practicing educators are familiar. Writing instruction which employs scaffolding, think aloud, self-regulation, etc., is new for many of them. School districts will need to provide staff development for these changes to be embraced. For teachers-in-training, universities will need to prepare beginning teachers not only in the strategies themselves, but to be the "flag bearers" for this type of instruction. By so doing, current and future practice may evolve in such a way as to more adequately meet the needs of the developing writer.

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APPENDIX A  
SCRIPTED LESSON PLANS

## APPENDIX A

Self-Regulation Strategy Training InstructionPhase I- Story Grammar InstructionSection A-1

DATE \_\_\_\_\_

I. Pretraining

1. [Today you are going to begin to learn some strategies that will help you to be a better story writer. All good stories have six parts. Good writers think about these six parts before they begin to write their stories.]
2. Identify story parts and memorize mnemonic aid.  
Have students look at the story parts chart on the wall. Cover the chart so only one story part is visible at a time. Explain each story part's meaning. Ask students to tell you what the story part means. Have the students explain the meaning to his/her neighbour. Repeat this procedure for each story part.
3. Introduce Mnemonic. Explain that a student suggested a good helper for remembering all the story parts. Give out a copy of the mnemonic and story parts chart (see APPENDIX B). Rehearse the mnemonic several times, teacher-students, student-student.
4. [Now we are going to read a story to see if the writer used all the story parts in their story]. Using a practice story on a wall chart (see "Roscoe's Story" in APPENDIX G), the story is read through once completely to the students. [Now, let's practice identifying each of the parts in this writer's story. Follow along as I read it again. When you can point out a story part raise your hand.] As students identify a story part underline it with a piece of colored chalk. Continue through the story until the end is reached checking off each story part on the wall chart as it is found. If all the parts are not identified by the students, return to the story and guide their discovery as required until all six story parts are checked off. Provide further practice with short stories where elements have been deliberately removed. Have the students identify the missing elements and offer possible revisions.
5. Practice story parts mnemonic until all students can repeat it when called upon. Buddy the students for practice. Criterion is for all students to be able to

write the mnemonic from memory. Practice until criterion is reached.

6. Practice all the story parts until all students can explain each of the story parts when called upon. Mention that they will be testing themselves at the beginning of the next session to see if they can remember the mnemonic and what each part means.
7. Practice identifying story parts with practice story two. Follow the same procedure as with practice story one.

## II. Review of current performance

1. [Do you remember the story you wrote on \_\_\_\_\_? Let's have a look at those stories to see which of the story parts you included in your story.] Hand out the pretest stories to each student.
2. [At the bottom of your story page write the story parts memory helper. Read your story to yourself and put a check mark below each of the letters as you find that story part in your story.]
3. Show students a wall chart with a picture of a story parts graph on it. Explain what the graph shows.
4. Give each student their graph and instruct them in procedures for recording scores and goal setting.
5. As a group, briefly note common story parts left out. Note also, that even if a story part is present that part may be improved upon. Suggest improvements such as:
  - tell more about how the characters looked or felt
  - tell more about when and where the story took place
  - give more actions which lead to the exciting part
  - give the story an unusual ending
6. Reiterate the goal of writing better stories. Remind the students that good stories have six parts and that good writers think about each story part before they begin writing.
7. Set a goal for the next story they compose (i.e. to include all six story parts, and make sure each part is well done. Have them put an asterisk on their graph paper to identify their goal)

### III. Wrap-up and review

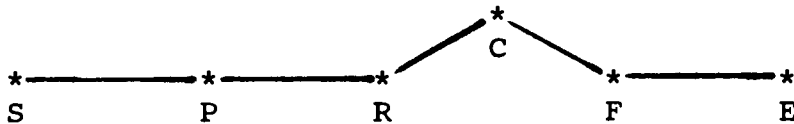
1. Give each student a folder to keep their graph, stories and mnemonics in. Keep the folders in the Learning Assistance Center.
2. Remind students to think about the six parts needed to make a good story. As well, remind them they will write out the mnemonic and the meaning of each story part at the start of the next session.

#### Section A-2

DATE \_\_\_\_\_

#### I. Review

1. Test to see if the students remember the story parts mnemonic.
2. Ask the students to write down what each letter in the mnemonic means. (Since it is essential that each student know the six parts to mastery, spend a few minutes practicing it. As well, an alternative presentation of the story parts, a more visual rendition, may prove worthwhile:



#### II. Story Writing Strategy Instruction

1. Model the use of the strategy.
2. [Today I am going to write a story. What should my goal be?] Make sure to get a response similar to "to have six good story parts". [ When I am finished the story we can all count the parts to see if I met my goal.]
3. [If I want to write a good story I need to make sure I have all the parts and that each is well done. First, I will write down my memory aid to help me plan my story.] Write down SPRCFE mnemonic down the side of a piece of chart paper. Go through each letter of the mnemonic talking out loud as ideas for the composition are brainstormed. Model the reciprocal nature of story planning rather than the sequential, linear, nature implied by the mnemonic.  
[Let's see... a good setting is needed for my story....I think maybe a school ground... at lunchtime, no let's make it before school. I have my setting planned so I will put a check beside setting under the "planning" title]. Continue to brainstorm all six story parts. [ Now that I have planned the six parts of

my story I am ready to begin writing my composition....] As each of the six sections is composed, check off that part on the mnemonic under the word "Writing". [Now that I have planned and written my story with the use of the memory aid let's read the story identifying each part as we go....]

### III. Wrap-up and review

1. [By using the memory aid to plan my story, it helped me to make sure I included all six parts. Using the memory aid can help you too, to plan and compose better stories.]

#### Section A-3

DATE \_\_\_\_\_

#### I. Review

1. Test to see if students remember mnemonic and story parts meanings.

#### II. Goal setting

1. Ask students to take out their graph paper sheets. Explain that today we will be planning a story together and then writing a story using those ideas. [After the stories have been written we will mark the number of story parts included in the story on graph paper....] [What should our goal be when we write a story?] (ie. include all six parts.....[Let's record our goal on our graph paper...])

#### III. Guided practice

1. Explain that for this story we are going to do the planning together as a group. After planning the six parts together the students will compose their story individually.
2. [What is the first step in planning our story? (Writing our memory aid down to help us plan) Write the mnemonic down the side of the chart paper. As a group, brainstorm each of the six parts of a story outline. Check each one off as it is completed under the word "planning".
3. [Now that we have a story planned we can use this plan to write a complete story. For the remainder of today's session I would like you to compose a good story. What is our goal when we write a story?] (To use.....) [If

you finish before the end of the session you may read from the books of short stories I have put in the box on the table. See if you can identify the six story parts the author's used in these stories.]

4. Monitor story production and interact with students as requested or simply with encouragement.
5. Prior to the end of the session review story progress. Each student is to check to see which story parts have been included so far in their story.

#### IV. Wrap-up and review

1. Review mnemonic and goal for the story they have worked on. Tell the students they will need to continue with these stories to have them finished for next session. [At the beginning of the next session we will count and graph the number of story parts you included in your story.]

### Section A-4

DATE \_\_\_\_\_

#### I. Review

1. Ask students to take out the completed story from last session from their folders. [What was the goal? Count the number of story parts you have included in this story and mark your graph. Did you meet your goal?]

#### II. Independent Practice

1. [Today you are going to plan, then write your own story. I have made a copy of the "story parts cue card" (see APPENDIX C) for you to use. As you plan your story check off each part, then as you write each part check off the part you have written...]
2. Tell the students they may begin to plan their story. When they have a completed plan they can begin to compose their story. When they planned, composed and proofread their story they may read from the short stories provided.
3. Monitor students' writing behavior. Acknowledge good use of the skills learned (ie. using memory aid, brainstorming ideas to include in their compositions, checking off story parts.) Provide aid only if requested.

### III. Review stories

1. Review stories for inclusion of story parts. Have willing students share their story for the group while the group listens to the story.
2. Have each student count and graph story parts for their story if it was completed. Ask if any had met their goal. Students who did not complete their composition are asked to finish it for the next session.

### IV. Wrap-up and Review

1. Remind students of their goal when writing stories.
2. Tell students that next day they will be having a chance to show how they can plan and compose a good story completely on their own.

## Section A-5

DATE \_\_\_\_\_

### I. Review

1. Test mnemonic and meaning of story parts orally.
2. Review goal of using all six story parts in their story and that each part should be of good quality.

### II. Independent Performance-1

1. [Today you are going to show how you can plan, then write your own story without any help. Your story can be about anything you would like to write about. You may begin planning your story now. Begin writing your story once you have finished your planning.]
2. Monitor the students as they write offering assistance only if requested.

3. As students finish, review their stories with them for the inclusion of all story parts. Have the students graph their results.

### III. Wrap-up and review

1. Review the story writing goal (discontinue if it seems unnecessary).
2. Announce that next day will be like a writing test. They will again compose a good story all on their own to show how well they have learned to write stories.

### Section A-6: Immediate Posttest A (also to serve as Pretest Coherence-B

DATE \_\_\_\_\_

1. [I would like you to compose a story today that is an example of your best quality work. I would like you to plan and write the story without the use of any information from your folder. This story is to come completely from your head. You can of course write down any memory aids or cues which you feel may help you in planning and writing your story. You may start now.] As the students plan and write their stories, monitor their use of the mnemonic or any cues for themselves.

(end of Phase one)

### Phase 2- Comparison Processing Strategy Instruction

#### Section B-1

DATE \_\_\_\_\_

#### I. Pre-training

1. [Now that we use our knowledge of the six parts of a story to help us plan and write better stories its time to look at another strategy that will make your stories even better. An important quality of a story is that it is easy for the reader to understand. When the idea in one sentence is connected in some way to the idea in the next sentence the story is easier to understand. Let's look at an example to show you what I mean.] On charts display two paragraphs (see APPENDIX D), one highly connected sentence to sentence and one less well connected. Ask the students to follow as you read them aloud. Ask the students to pick the paragraph they think shows the best sentence to sentence connections.



Ask them to use specific examples to explain their choice.

[When we are drafting our story we can be thinking about making good connections between sentences. As well, after we have drafted our story we can compare sentences in our story to see if they are connected. We can revise sentences to make the connections better and therefore easier to understand for the reader. By choosing to compare only two sentences at a time we have a task that is very easy to do successfully. Let's look at the paragraph you felt was not as well connected and I'll see if I can revise the writing to make it better connected.]

## II. Model Comparison Processing Strategy

1. Place "Sentence Comparison Cue Card" (see APPENDIX E) next to the paragraph to be revised. Follow the cue card reading each item aloud as it is completed.

## III. Wrap-up and review

1. [Why is it better that each sentence of our story be connected to the sentence before or after it?] (to make it easier for the reader to understand).

## Session B-2

### I. Review

1. (see B-1 review)

### II. Model strategy use.

1. Give the students the handout containing the beginning of three short stories (see APPENDIX F). Ask the students to read each one to see how good the sentence to sentence connections are. Have them identify the best and worst of the three paragraphs.
2. Model use of the "Sentence comparison cue card" to revise example three. (i.e. the poorest example of coherence.) Follow the script on the cue card reading each item aloud as it is done.

### III. Guided practice

1. As a group read the teacher's story from session A-2, compare sentences using the cue card, and revise. Place a copy of the cue card alongside the chart of

the teacher's story. Initiate the process of sentence comparing but encourage and facilitate interactive dialogue student to teacher and student to student.

#### IV. Wrap-up and review

1. (see B-1 review)
2. [Who can remember the steps on the sentence comparison cue card? The first thing.....] Solicit steps, encourage and prompt as necessary.

#### Section B-3

DATE \_\_\_\_\_

##### I. Review (see B-2 review)

1. Return copies of the group planned stories the students composed during session A-4. [Let's have a look at some story writing you did recently and check to see how well connected your sentences were. Spend a couple of minutes comparing your first few sentences. Could they be revised to make them better connected and easier for a reader to understand?] (If some say "no", plan to have an interactive dialogue with them at the beginning of the guided practice section and assess their understanding of the comparison processing concept. [During the remainder of today's session I want you to practice using the sentence comparison cue card with this story. I will be talking with each of you today to see how you are making out with this writing strategy. Try to have at least one example of a pair of sentences which you revised, and one example where you felt the sentences were nicely connected already.]

##### II. Wrap-up and review

1. (see B-2 review)

#### Section B-4

DATE \_\_\_\_\_

##### I. Review

1. (see B-2 review)
2. If insufficient time was available to dialogue with each student during last session, meet with these students first during today's session.

## II. Independent Practice with feedback

1. [Today, I would like you to complete your sentence comparison revising on the story you worked on last day or the other story you planned and composed completely on your own. While you are working I will again be discussing a section of your story with you. You may choose a section you found harder to revise as well as some areas where good connections were made between sentences when you drafted them.]

## III. Review

1. (see B-2 review)

## Section B-5

DATE \_\_\_\_\_

### I. Review

1. (see B-2 review)

### II. Independent Performance

1. [Today, I would like to give you an opportunity to show what you have learned about sentence comparison and revising. I am handing back to you a copy of the story you wrote as a form of test when we finished the section about the six parts of a good story. I printed your stories with lots of revising room between the lines. Today, I would like you to sentence compare and revise without any aid from the cue card, a classmate, or me. By doing this activity totally on your own you will know whether you have learned to use this strategy on your own. You may begin now. When you have finished, bring your story to me so we can look at the sections you revised.]

### II. Wrap-up and review

1. (see B-2 review)
2. [Today, you have had a very valuable practice with a strategy for helping you to revise your writing to make it easier for your reader to understand. I am looking forward to reading your revised stories. Place your stories in your folder. Next session I am going to ask you to compose a new story completely from the beginning. This story will be marked for story parts

and also sentence connections. We are now trying to put the two strategies you have learned together.]

## APPENDIX B

## STORY ELEMENTS CHART AND MNEMONIC

## APPENDIX B

The Six Parts of a Good Story

**Setting** -this is the first part and tells where and when the story takes place and who the main characters are.

**Problem** -the main character(s) have to deal with a problem of some kind. Early in the story we learn about this problem.

**Rising Actions** -events which add interest to the story and lead up to the main character dealing with the problem.

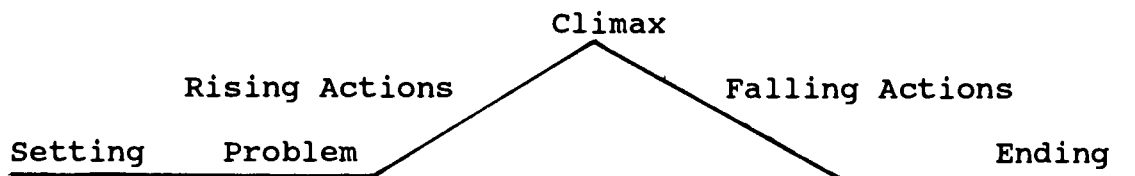
**Climax** -the main character meets the problem and deals with it.

**Falling Actions** -this is where the excitement of the climax is gradually brought back to normal.

**Ending** -here the author "ties up any loose ends". It seems like it must be the end.

Some People Read Comics For Entertainment

(a memory aid to help you remember  
the 6 parts of a good story)



## APPENDIX C

## STORY GRAMMAR CUE CARD

## APPENDIX C

Story Parts' Cue Card	Check (✓) after each part is done	
	Planning	Writing
S	( )	( )
P	( )	( )
R	( )	( )
C	( )	( )
F	( )	( )
E	( )	( )



## APPENDIX D

## COMPARISON PROCESSING PRACTICE STORIES

## APPENDIX D

## Example #1

Bob's leg is very sore. Yesterday he injured it while practicing high jump for the track meet. He is hoping his leg will feel better soon. If it doesn't mend quickly he will have to miss going to the track meet.

## Example #2

Bob has a sore leg. Today at school is the try-out for the high jump team. Bob did well in the high jump last year. Bob hopes his leg will not be too sore to jump.

## APPENDIX E

## SENTENCE COMPARISON CUE CARD

Sentence Comparison Cue Card
------------------------------

1. Choose a sentence in the story.
2. Read it carefully so you understand it.
3. Read the next sentence. Is there any connection between these two sentences?
4. If there is a connection, go on to the next sentence and compare it to the sentence that follows it.  
If two sentences are not connected in some way, change one or both of them to make a connection between them.

Some possible connectors:

After a short while.....	Next, .....
Finally, .....	At last, ...
In front of .....	Across the street.....
Soon after.....	Nearby, .....
For this reason.....	Before long....
Compared to.....	Meanwhile,.....
As a result, .....	Along with.....
Later that day.....	Shortly after that, .....

• or by repeating a word from the previous sentence

APPENDIX F  
COMPARISON PROCESSING PRACTICE STORIES

**Example #1**

John and Bill had been friends since they both moved to Delta when they were five. Having been friends for ten years now, they often knew what each other was going to say even before they said it. Even for such close friends, there was no way for either of them to know what was about to happen to them on their weekend camping trip.....

**Example #2**

Karen and Leanne were going to summer camp during the summer holidays. The weather was supposed to be nice for the first two weeks of July. All the camping gear was packed in the car for the trip to Cultus Lake. The girls had no idea of the trouble they would have getting to the campground...

**Example #3**

Bob and Paul are next door neighbours. Bob used to live in Victoria. Paul and Bob were good friends. Paul liked to play hockey and they both liked basketball. Paul and Bob go to the same school.....

## APPENDIX G

## STORY GRAMMAR PRACTICE STORIES

### Roscoe's Story

Rudy could feel the eyes of the other kids watching from across the school yard. He didn't want to fight, but it didn't look like he had any choice. For a whole week, his first week at this school, Roscoe, the school bully, had picked on him. Now he was alone, cut off from any escape, separated from Mrs. Campbell, the school yard supervisor.

"I'm coming to get you!" Roscoe called from across the school yard, "so you better start saying your prayers."

The sweat formed on Rudy's face and an empty feeling grew in his stomach as Roscoe started after him, picking up speed as he came. Rudy turned in three directions looking for an exit, but his back was up against the school fence. If it was true that Roscoe could bite the heads off chickens, Rudy could just imagine what he was going to do to him.

Roscoe closed in with the speed of a charging locomotive. His eyes looked red with anger. Rudy timed Roscoe's charge and at the last possible second he stepped aside. Roscoe slammed into the fence like a cannonball and fell backwards onto the grass.

"Man, I didn't even see you hit me," he said, rubbing his chin and offering Rudy the other hand to shake.

The crowd cheered as the recess bell rang and they began to make their way back into the school. Behind them followed Rudy and Roscoe. Roscoe's arm was over Rudy's shoulder. What started out as a fight had turned into the beginning of a friendship.



### Guide Camp Weekend

Karen and Sarah were at Girl Guide camp for the weekend. They had been looking forward to camp all summer. The first night they were there they heard a scratching on the wall outside their cabin. The scratching grew louder and seemed to be moving towards the door. Neither Sarah or Karen moved because they were afraid they would attract the attention of the thing outside the cabin. Finally, Karen got up to see what was out there. Just as she got out of bed the door burst open. There in front of the door stood their guide leader. "Surprise", she said, "its just me giving you a little excitement! Lights out time. You have a big day ahead of you tomorrow. See you in the morning." It took a while, but the girls hearts finally stopped pounding. Once they had calmed down they chatted for a few minutes about a couple of pranks they could pull on their leader. Afterall, they felt they owed her one. It wasn't long though before two tired girl guides both fell off to sleep.

### A Canoe Trip to Remember

Allan and Billy had been waiting all summer to go on their canoe trip. As they paddled across the lake they could hear the wind whistling in the trees. About half way across the lake the wind began to grow stronger and changed direction. Before long, large waves made it impossible to go across or back to shore. They were now getting blown down the lake towards the waterfall.

The falls were now only a short distance in front of them. As they neared the falls Allan and Billy paddled as hard as they could. The harder they paddled the closer to shore they got. About ten meters from the falls they were able to reach shore. They had made it to safety. They were very frightened but at least they hadn't gone over the falls to their deaths. Once they had rested on shore for a few minutes Allan and Billy pulled their canoe along the shore back to the place they had started their canoe trip. It had been quite a canoe adventure. They won't forget this experience for a long time.