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The Effects of Internalising a Narrative Text Structure on the Comprehension and Recall of Narrative Texts

by

## Julie M. Bayly Diploma of Teaching

Thesis submitted to the Post Graduate Studies Committee in partial fulfilment of the requirements for the Degree of Bachelor of Education (Honours).

3 July, 1990

Date of Submission

"I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text."

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#### ABSTRACT

This study was an analysis of an aspect of oral language comprehension. The major purpose was to evaluate the impact of the facilitating effect of a knowledge of a narrative text framework, upon listeners' comprehension of narratives.

One research question was addressed: In the immediate recall of a simple, unfamiliar narrative text, presented orally, once only, will year six listeners who have been taught the schematic structure of narratives perform significantly better than similar year six students who have not?

A teacher-devised listening text was modified from an S.R.A. (1975) listening kit. The results of that test were used as a classifying variable to place students into groups on the basis of being "skilful" or "less-skilful" listeners.

To investigate the research question, a simple pre-test-treatmentpost-test design was used, consisting of two experimental groups and two control groups.

The testing procedure for the pre-text and post-test was identical. It consisted of Ss in both the experimental and control groups listening to a taped story, followed by each subject's immediate, free recall of the story. The data made available through the recounts, were analysed according to two quantifiable dimensions;

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1. amount of information recalled, and

2. the sequence in which the story was recalled.

The treatment given to the experimental groups involved a selection of activities and strategies. These included one focused, teaching session, an activity involving language reconstruction, and, the application of the knowledge of the narrative structure to Ss' own writing of a narrative.

The results of the pre-test and post-test were statistically analysed using a one-tailed t-test.

It was concluded that, for the restricted sample of year six listeners investigated, those students who had been taught a standard schematic structure for the writing of narratives, performed significantly better than similar students who had not. More specifically , subjects who had internalised the narrative schema were better able to comprehend and recall a specific, orally-presented, narrative text than subjects who did not possess such a schema.

Since this study was designed as a pilot study only. Further research using a larger sample is required to establish the generalizability of these findings.

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#### CHAPTER I

#### INTRODUCTION AND STATEMENT OF PROBLEM

Since research into the use of language has been first documented, from about the second half of the nineteenth century (Wundt, 1897), the question of how readers and/or listeners comprehend text, has been of major concern.

Much of this earlier work into language comprehension, although it was concerned with the analysis and manipulation of spoken and/or written text, was directed towards the investigation of the impact of fragments of language such as its sounds and individual words, upon listeners' or readers' understanding, rather than sentences, paragraphs and longer sequences of language.

This work led to the notion that language competence could be enhanced through a mastery of a set of skills, e.g., phonic skills, which needed to be practised regularly. Thus, this view of language use emphasized the text as being the major source of information. Because this view was 'text-based', the contribution to effective language comprehension by the reader or listener was largely overlooked.

After the mid-sixties, researchers such as Paul Kolers (1970), Smith and Holmes (1971), and others, turned the research thrust towards the language user him/herself. The work of Minsky (1975), Schank (1975) and Abelson (1977) furthered the emphasis on the language. They examined the working of the human brain and language processing and investigated hypothetical processing and information storage constraints. The work of Kintsch (1974) and Anderson (1977) investigated cognitive functioning in language processing in terms of schemata. This led to further work on the role of schemata in language processing by others, e.g. Pearson and Johnson (1978) and Rumelhart (1975).

A recent focus in language research has been to analyse the nature of the structure around which various types of text are written. Writers who have explored these text structures include Martin (1985), and Christie (1985).

The research of this last group of investigators has considered the empowering effect upon writers of a knowledge of a variety of text structures. Interestingly, these researchers have not seen these text genres or structures as frameworks in terms of schema theory.

The time now seems to be appropriate to base a language-processing study on text frameworks seen as schemata and their comprehensionenhancing power upon listeners and readers.

1a

#### The Problem

Although there has been a significant amount of research pertaining to the comprehension of narrative texts as a way of inquiring into language processing, much of this work has failed to acknowledge the active role of the language user.

"Schema-theory" provides a way of explaining how individuals interact with a text using a store of background information, i.e., semantic and syntactic information, in order to make comprehending possible. In this theory, schemata can be described as the organizing structures in the brain which facilitate information processing and retrieval (Moates and Schumacher, 1980).

The literature, e.g., Cohen and Graessar (1980), Moates and Schumacher (1980) and Pearson (1985) suggests that schemata, specific to language processing, are used to comprehend and retrieve stories. These stories share a common structure, e.g. setting, initiating event, complication, resolution and coda. This structure is the type which writers in Western Culture use when they create stories.

Experience in reading and/or listening to stories appears to enable children to build an unrefined schema. That is, language-users internalise the framework as an unsophisticated schema, which facilitates language processing (Applebee, 1978).

When the language-user constructs a schema in refined form, it functions as a high level, general structure, which subsumes other lower-level schemata, or sub-schemata. These sub-schemata contain guite specific information which pertain to each particular element in the framework for the processing of narratives. Thus, when is read incoming narrative information or heard, i.e., comprehended, it is processed up the schema hierarchy, from a specific to general representation of meaning. That is, the language-user makes use of both higher order and lower order information and the relationships which operate among them.

Applebee (1978) and McConaughy (1982), suggest that many children do not naturally develop a refined understanding of the narrative structure. Therefore, these children might profit from instruction which attempts to impart this knowledge. Such instruction may enable them to generate hypotheses based on these structured elements and the information which each subsumes. Thus, the possession of these structured elements as advance organisers may permit and encourage the reader/listener to formulate hypotheses about the way in which a specific narrative has been developed and, thus, should be understood.

#### The Purpose of the Study

The general purpose of the study was to investigate aspects of the comprehension of oral stories. Specifically, it evaluated the impact of the facilitating effect of a knowledge of a particular text framework, upon the subjects' comprehension of orallypresented narratives.

The study involved the theoretical discussion of the importance of schemata in information processing; the role of specific schemata in language comprehension/retrieval; a description of the structure around which can be considered as a high-level schema; and the effects of internalising this narrative schema upon the comprehension and recall of narrative texts.

The formulation of a research question, based on these discussions, was followed by the collection and analysis of data relating to the comprehension and retrieval of specific narrative texts.

#### Definition of Terms

<u>Fext</u>	any communication event.
Story-taker:	reader of or listener to stories,

i.e. narratives

Schema-theory: the theory that investigates how an individual's stored user knowledge interacts and shapes incoming information and how that knowledge must be organised to support this interaction. (Adams and Collins, 1979).
Schema: A mental structure which contains organized knowledge an individual possesses about an aspect of his/her world.

- <u>Slots</u>: the categories or general parts of a schema in which "instantiation" of information takes place.
- Instantiation: the process of filling the slots in a schema with relevant information so incoming text can be successfully understood.
- Narrative: is that text type which is used to structure folktales, fairy stories, fables and so on.
- Story elements: interrelated parts which comprise the overall structure a writer/teller of stories uses to create a successful story.
- Schematic frameworka cognitive aid involving organized schemaand schemata which aid production,comprehension and retrieval of information.Language-user:a speaker/reader/writer of and listener tolanguage.
- <u>Information retrieval</u>:the process of regaining information which has been stored in permanent memory. <u>Syntactic knowledge</u>: the knowledge an individual has about the
  - structure of language at the sentence level.

Semantic knowledge: the knowledge an individual has about the world, i.e. experiences, feelings, and so on, organized as schemata.

Story schema: a set of cognitive expectations a story-taker has about the internal structure of a story.

"<u>Sense-of-story</u>": a person's unrefined understanding about the structure of a story.

<u>Sub-schemata:</u> schemata which are subordinate to higher level schemata.

#### Derivation of Hypotheses

This section outlines how the specific purposes of the study were translated into a research question and reformulated into testable hypotheses.

The study was planned to achieve the following specific purposes:

 To determine whether year six students' knowledge of a standard schematic structure for the writing of narratives will enhance the amount of narrative text they can recall.

 To investigate the extent to which the possession by year six students of a narrative, schematic structure will affect the sequence of material they recall from an original, selected narrative text.

These purposes were translated into the following research question.

#### **Research Question**

In the immediate recall of a simple unfamiliar narrative text, presented orally, once only, will year six listeners who have been taught the schematic structure of narratives perform significantly better than similar year six students who have not?

It was considered that two quantifiable dimensions needed to be investigated in seeking the answer to the above research question. These were:

- (a) amount of information recalled; and,
- (b) the extent to which the original story sequence was retained.

To investigate this research question, the following null hypotheses were tested for statistical significance:

#### Hypothesis 1A

In the immediate recall of a narrative text, following an oral telling, year six listeners who have been taught the schematic structure of narratives will not retrieve a significantly greater amount of information than the amount retrieved by year six listeners who have not been taught the schematic structure of narratives.

#### Hypotheses 1B

In the immediate recall of a narrative text following an oral telling, year six listeners who have been taught the schematic structure of narratives will produce oral recalls of the text, the sequence of which is not significantly better than the sequence of the oral recalls produced by year six listeners who have not been taught the schematic structure of narratives.

#### Hypotheses 2A

In the immediate recall of a narrative text, following an oral telling, year six "less skilful listeners," who have been taught the schematic structure of narratives, will not retrieve a significantly greater amount of information than the amount retrieved by year six "skilful listeners" who have not been taught the schematic structure of narratives.

#### Hypotheses 2B

In the immediate recall of a narrative text, following an oral telling, year six "less-skilful listeners", who have been taught the schematic structure of narratives will produce oral recalls of the text, the sequence of which is not significantly better than the sequence of the oral recalls produced by year six "skilful listeners" who have not been taught the schematic structure of narratives.

Since this investigation was designed as a pilot study to ascertain broad trends or indications only, a probability level for the statistical tests of 0.05 was considered significant.

#### Overview of the Design of the Study

The sample evaluated in this investigation consisted of twenty year six students who were chosen on the basis of the results they attained on a teacher-devised listening test.

The research design employed was a simple pre-test-treatment-posttest design, using two experimental and two control groups. The pre-test and post-test required students of both groups to individually listen to a taped story, then to recall it as accurately as possible.

The treatment involved direct teaching of the narrative text structure, language reconstruction activities and the application of students' knowledge about the structure to the writing of their own narratives.

The data obtained from the oral recalls were assessed in terms of two quantifiable dimensions which included amount of information recalled and sequence of information recalled.

A two-tailed t-test was the statistical technique used for data analyses.

#### Significance of the Study

It is widely acknowledged that large numbers of primary school students comprehend written/spoken language so poorly that they assimilate very little of the information that is presented to them in those modes. Because a large proportion of classroom time requires the student's successful interaction with written/spoken materials, this situation requires the serious efforts of teachers and researchers to improve it.

The motivation for this research project was to investigate the degree to which students understand a type of text generally encountered in primary school language programs, i.e., narratives.

The extant research in the field indicates that a language-user's comprehension of a specific text is part dependant on the preexistence of relevant schemata and the ability of the language-user to make use of appropriate schemata (Thorndyke, 1977; Mandler and Johnson, 1977; and Stein, 1978).

With regard to a particular type of text, i.e., stories, research also suggests that comprehension is significantly influenced by a listener's/reader's possession of relevant schemata (Dooling and Lachman, 1971; Anderson and Pichert, 1978). If this study can reinforce this suggestion, one implication would be that teachers will need to assist students in gaining possession of such schemata.

Clearly, this would necessitate the possession by teachers of a basic knowledge of schema theory and its effects on comprehension. This knowledge would permit them to design instructional strategies and materials which would help maximise students' comprehension of stories.

#### Limitations of the Study

The factors discussed below should be noted as limitations upon the generalizability of the findings to be subsequently reported in the study.

#### Selection of students.

The students who took part in the study were selected from year six classes at two schools situated in a middle-class socio-economic area. Therefore, it cannot be considered that these students are truly representative of all students of this year level, and clearly, they cannot be considered to represent primary-school-aged students in general.

#### Special Treatment of Students.

Results need to be interpreted with caution because the special treatment given to students involved in the experimental groups, may have promoted a 'Hawthorne Effect'.

#### The Dependent Variable.

The dependent variable in this study was immediate recall of events and facts from a narrative text. The generalizability of the study is limited to the extent to which it can be shown that recall is a reasonable measure of comprehension. That is, studies involving comprehension of texts, as the dependent variable, that dependent variable can be no more than a correlate of the process actually being investigated. Clearly, there is a connection, but it is difficult to identify any contaminating or intervening influences which may impair the power of the correlate as a measure of comprehension.

#### **CHAPTER** 2

## REVIEW OF RELATED LITERATURE: SCHEMATA, INFORMATION PROCESSING AND THE NARRATIVE TEXT.

#### Introduction

The relationship of the story-taker to the original text, whether the story-taker be a reader of or listener to stories, is a fundamental issue in research pertaining to the comprehension and recall of stories.

One major branch of research in this area deals with the way in which stories are comprehended and organized into memory. Much of this work has its foundations in schema-theory and in the investigation of the role of schemata in the comprehension and recall of stories.

Schema-theory attempts to specify how an individual's knowledge interacts with and shapes incoming information through whatever external stimulus it is received. Thus, schema-theory is useful in explaining how readers/listeners make use of their own knowledge in comprehending incoming information. That is, language-users depend upon the schemata they possess, to capitalise on the interaction that takes place when they try to understand information that is made available to them, e.g., by reading or listening (Adams and Collins, 1979). The literature pertaining to story comprehension suggests that preexisting cognitive constructs or schemata which develop over time and become internalised, enhance the ability of the story-taker to comprehend and retrieve stories.

#### Schema

The aim of this section is to establish that the framework around which narrative texts are constructed is a high-level schema. This will be achieved by defining a schema, outlining its characteristics and describing how it functions. This analysis will permit the identification of the attributes shared by schemata and the specific framework which supports the narrative.

#### Definition of a Schema

Cognitive scientists view the brain as being organised around informational constructs called schemata (Bartlett, 1932; Rumelhart, 1975). Thus, an individual possesses schemata which represent all types of information about the world. The term schema then, refers to the mental organisation of an individual's past experience which is stored in memory. According to Pearson (1984), this organisation takes the form of abstract descriptions of events or things. It is abstract in the sense that it summarizes what is known about a variety of cases which differ in particulars only.

Kintsch (1974), suggests that a schema can be defined very simply as an organised representation of a persons' knowledge about some concept, act, event or larger unit of knowledge. The term schemata is described more extensively by Adams and Collins (1979). For them, the term schema refers to a mental structure, i.e., a unit of organised knowledge which an individual has about an aspect of his/her world. Further, a schema may be made up of a hierarchy of schemata embedded within it. In this case, the over-arching scheme at the top would fully subsume all those schemata below it and in the same class.

Adams and Collins state, as one descends in the hierarchy, the number of embedded schemata multiply, while the scope of each narrows, until, at the bottom level, schemata apply to unique perceptial events. Each schema, at the various levels in the hierarchy, is comprised of descriptions of the important components of its meaning and the interrelationships which exist among the components. Adams and Collins (1979) maintain that the power of this structure derives from the fact that the top level of any schema provides an informational frame for all the particular events which fall within its domain.

This more detailed definition of a schema described by <u>Adams and</u> <u>Collins</u>, provides greater explanatory power than the simpler descriptions proposed by Kintsch, Pearson and Bartlett. This is the definition that will be adopted for this study.

#### Characteristics of Schemata

Schemata share four common characteristics. They can be outlined in the following way:

1. Schemata have slots or variables.

2. Schemata can be embedded within other schemata.

3. Schemata can vary their level of abstractness and

 Schemata represent general knowledge of the world, rather than definitions of objects or events (Rumelhart and Ortony, 1977; Moates and Schumacher, 1980).

#### Slots or variables

A Schema is comprised of categories, as well as generalized knowledge. These categories are called <u>slots</u> or <u>variables</u> and they can be filled in a variety of ways. For example, a schema for "Giving", might include three slots -

- 1. the giver,
- 2. the gift and
- 3. the receiver.

For diagrammatic representation see figure 3.

Figure 3 Giving Schema



3 lower-level slots

Since schemata are general constructs, they can apply to many different situations. In each of these situations, the slots are filled with different types of specific information. The process of filling these slots is called the "instantiation" of the schema. This is a process that plays a fundamental role in comprehending texts. That is, comprehension is largely a matter of filling the slots of the various schemata to accommodate incoming information.

Generally, the slots in a schema are filled with information. In some situations, however, information needed for each slot, may not be provided. Under these circumstances, the slots may be filled by default or inference, i.e., using knowledge from previous experiences. This process of default-assigning or inferencing, also plays a major role in comprehension.

#### Schemata can be Embedded Within Other Schemata.

The components of a schema, may each be a schema. For example, the <u>Face</u> schema will have slots for information about the eyes, nose, ears and mouth and how these features relate to each other. For diagrammatic representation see figure 4:

Figure 4 Face Schema

FACE Nose Eves Ears Mouth

However, an individual will also have a schema for the eye which includes slots for information concerning the pupil, retina, iris, eyelids and so on. The information for the eye will be more specific than the information about the face. For diagrammatic representation see figure 5.

Figure 5 Eye Schema



The <u>FACE</u> schema itself, may be a sub-schema for a larger, more inclusive schema, such as <u>The Human Body</u> schema. For diagrammatic representation see figure 6.

Figure 6

The Human Body Schema



#### Schemata Vary in Their Level of Abstractness

The knowledge an individual has stored, based on past experience, varies dramatically in abstractness. There is concrete knowledge, for example, about the amount and types of line segments which constitute the letter <u>A</u> and more abstract knowledge, such as the notion of <u>justice</u>. Therefore, the range of knowledge an individual has, varies from a concrete level to a highly abstract level.

#### Schemata Represent General Knowledge of the World.

Schemata are not definitions of concepts which specify some particular relationship which is unchangeable. Rather, knowledge seems much more probabilistic, i.e., what normally or typically Rumelhart and Ortony (1976) make the point about the occurs. probabilistic nature of schemata succinctly. They state that schemata represent knowledge in the kind of flexible way which reflects human tolerance for vaqueness, imprecision and inconsistency! For example, a schema for students is likely to involve individuals formally enrolled in a school, those who attend class but are not enrolled, and those who have dropped out for a short period.

#### Narrative Framework as a Schema

Traditionally, the narrative has been the text type used to structure folktales, fairy stories, novels and so on. The narrative, has come down to us with two easily-discernible structures. These structures have remained constant across narratives because their original mode of transmission was through retelling.

With all stories being constructed around the same frameworks, the memory burden on the reteller is significantly lessened. Today's narratives, therefore, remain similar to the traditional type in that they both retain the same inherent structures.

#### The Two Types of Structures

Each structure alluded to here operates in different ways in the story.

The first structure is referred to as <u>problem-solution</u> (Myer, 1975), and reflects the fact that all stories describe a problem of some type and its satisfactory resolution. This is a framework which has two interrelated components, one of which is <u>problem</u>, and the other, <u>solution</u>, clearly, this basic framework is an important cognitive aid for retellers of and listeners to stories.
The second structure, which is evident in stories, is comprised of the five following interrelated elements:

- 1. setting
- 2. initiating event
- 3. complication
- 4. resolution and
- 5. coda

These elements represent smaller divisions within the <u>problem-solution</u> structure. As with the more general framework of 'problem-solution', this more detailed construct is an important cognitive aid in the retelling and understanding of stories. Viewed in this way, these frameworks are schemata in the Adams and Collins (1979) sense.

#### Uses of the More Detailed Narrative Schema

In this study, it is the more detailed framework/schema, discussed in the previous section which is of interest.

It is likely that effective language-users know this schematic framework for narratives and it is possible that numerous listening/reading experiences have caused it to be internalised as a schema. The possession of this narrative schema helps the language-user to predict incoming information about a story. It also helps him/her to understand the essential information in the story and, then, acts as a cueing device in the retrieval of the story.

## Summary

On the basis of the analysis of schemata and narrative texts provided above, it can be seen that the two frameworks operating in the production and comprehension of stories, are indeed schemata. As already stated, the framework or schema of interest in this study is the more detailed of the two described, and not the Meyer 'problem-solution' schema.

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Put more simply, this means that, to a great extent, efficient language processing is reliant on the individual's background knowledge of the world and how language works. Both of these types of knowledge are stored as schemata.

# Comprehending a Text

A fundamental assumption about the role of schemata in language processing is that incoming information is not simply passively copied or recorded into memory. A memory representation is actively constructed by processes which are strongly influenced by pre-existing schemata (Ross and Bower, 1981). This active comprehending process is a sophisticated system of storing wellorganized information. Therefore, an efficient, integrated, schematic system for language processing results in the efficient comprehension of texts.

As previously stated, text comprehension involves the co-ordinated activation of schemata. When schemata are activated in order to interpret textual input, the slots in the schemata are instantiated with particular information (Anderson et.al 1977).

#### Instantiation

The instantiation process occurs as a result of the language-user's background knowledge of the world and of language. Instantiation is used for both prediction and inference as well as the filling of redundant slots in the schemata with literal information.

When a language-user processes incoming text, he/she is required to instantiate the slots of one or more schemata with information. When instantiation is attempted, one of three outcomes is likely:-

- The language-user is able to instantiate most of the essential slots in the schema. When this occurs, the incoming information is assimilated.
- 2. The language-user is unable to instantiate a significant number of essential slots in the schema. With this situation, the incoming information cannot be assimilated. The language-user frequently effects assimilation in this situation by distorting the incoming information to achieve a better fit and thus, some level of comprehension. The expression "some level of comprehension" is used because this sort of distortion means that the original meaning that the author intended may be seriously distorted. This type of distortion accounts for the misinformation that can be easily spread from one individual to another. The first person, or a person somewhere in the line of communication, distorts the incoming information to permit his/her acquisition of it.

3. The language-user may not be able to assimilate the information either directly or by distortion. Under these conditions, it is likely that the incoming information will be accommodated by the activation of a new schema or the modification of an existing one.

An important aspect of the successful instantiation of schemata is the filling of slots by inference or default. That is, on the basis of his/her prior knowledge, the language-user is called upon to complete slots in the schema left empty by the incoming information. He/she does this on the basis of his/her general or specific knowledge of the world and of how language works.

#### The Role of Inference

As explained in the previous section, the language-user has to infer when a text does not provide enough explicit information. That is, in order adequately to instantiate the schema activated by the incoming information, he/she has to go beyond that given information. This applies so that the elements of an incoming text can be comprehended/stored as a coherent whole. This means that some texts require the language-user to employ inference to establish coherence.

# Use of a High-Level Schema

Incoming textual information is at a number of levels. Efficient processing, therefore, requires the language-user to have schemata appropriate to these different levels. Schemata of this sort will be hierarchical in nature in that the lower-level schemata are fully subsumed within those schemata which are superordinate to them.

With regard to narrative texts, as already discussed, two frequently described high-level schemata are <u>problem-solution</u> and the framework consisting of setting, initiating event, complication, resolution and coda.

The second of these high-level schemata seems to have more processing power than the first because it contains clearly identifiable, subordinate schemata which are fully subsumed within the narrative text framework.

# Retrieval/Recall

The discussion of schemata and language processing to this point has been carried out in terms of incoming textual data. This is appropriate since there are no data to be retrieved or recalled until comprehension or understanding has taken place (Smith and Holmes, 1971).

As previously stated, efficient processing of textual material relies on the ability of the language-user to employ an appropriate schema/framework. This means that the schema, as well as other appropriate schemata which process the actual content within that framework, are the two means of efficiently storing these data.

This follows because it has already been established that prior knowledge is stored in the form of schemata and that schemata may be hierarchically organised. Therefore, if the language-user utilizes an appropriate high level schema, as well as a store of background knowledge stored in the form of schemata, comprehension and recall are likely to be enhanced. As Pearson (1984) concludes, if information is comprehended in conceptually-related clusters i.e., high-level schemata and their subordinate sub-schemata, it will be recalled using the same cognitive constructs.

Successful retrieval of textual data is enhanced by the use of an appropriate high level schema because it reduces search demands on long term memory. "Appropriate" means that information is stored within and under the control of an inclusive and integrating schema at a high level. Storage of this sort, effected in this way, means efficient use of memory space and ease of retrieval.

#### Summary

From the review of literature so far, it can be claimed that schemata play an important role in processing language and retrieving information. In addition, the way in which a text is initially understood/comprehended will ultimately affect the amount and nature of recall of that text. If the language-user utilizes an appropriate high-level schema for processing incoming information, comprehension will be enhanced. That is, efficient language-users employ appropriate schemata to process incoming textual data. These same structures are the means of efficient storage and retrieval.

## **CHAPTER 4**

# REVIEW OF RELATED LITERATURE: THE DEVELOPMENT OF A CONCEPTUAL FRAMEWORK USING SCHEMATA IN NARRATIVE PROCESSING

#### Introduction

The aim of this section is to outline the role of schemata in the processing of narratives. This will be achieved by describing how language-users develop a narrative schematic structure, outlining the essential components of a narrative framework and explaining how the knowledge of a framework can facilitate comprehension and recall of narrative material.

## Development of a Narrative Schema.

Much research work in the area of narrative processing has emphasized the importance of schemata in the encoding and retrieval of narrative prose, e.g., Anderson and Pichert (1978), and Dooling and Lachman (1971). Results from this work demonstrate that the efficient <u>story-taker</u>, i.e., reader of or listener to stories, utilizes an internal framework whilst comprehending and recalling narratives. Mandler (1978), describes this framework as a <u>story</u> <u>schema</u>. In his view, a <u>story schema</u> can be thought of as a set of cognitive expectations which the efficient story-taker has about the internal structure of texts of this type.

In one aspect of this research, investigators have set out to ascertain when individuals develop such a framework and under what circumstances. Applebee (1978), suggests that children naturally develop a 'sense-of-story' or unrefined schema, by experiencing narratives. It has also been shown that children as young as four begin to understand logical relationships presented in stories and to have some knowledge of the structure around which they have been written (Brown and Murphy, 1975; Kintsch and Kozminsky, 1977).

The work of investigators such as the above, indicates that exposure to narratives over a period of time helps children internalise some form of narrative structure or <u>story schema</u>. Mandler and Johnson (1977), provide further supporting evidence which suggests that story schemata become more refined in the later stages of a child's development.

If schemata are acquired developmentally, then it is likely that the major elements in the narrative, i.e., those which form the framework of the story, will be first to be internalised. In schema-theoretic terms, these elements are the major slots in the schema for narrative texts.

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provides him/her with sufficient information to be able to follow the information presented subsequently. For example, in the story of Rapunzel, the main characters are introduced, i.e., the Wicked Witch, the Prince and Rapunzel, the time and place are described, i.e., "Once", "in a tower near a woods" and the general situation is outlined, i.e., the Wicked Witch is keeping Rapunzel imprisoned in the tower and preventing anyone from seeing her.

The initiating event. This contains information about the initial action in the story, which "gets the ball rolling". This will include data about the characters involved and their motivation for initiating or being involved in an event. Thus, the slots in the schema are filled with general information about something that happens in the story after the <u>setting</u> has been described. For example, in the story of Rapunzel, the <u>initiating event</u> is the Prince's attempt to visit Rapunzel. The motivation behind his action is that Rapunzel is a beautiful girl.

The complication. This contains information about a conflict of some sort which follows sequentially from the <u>initiating event</u>. That is, as a result of the initial action, an opposition of forces is set in motion. The <u>complication</u> is the main part of the narrative and contains all the main events and incidents for the successful development of the plot. Therefore, the slots in the

schema will be filled with information about a conflict which has evolved from an <u>initiating event</u>. For example, in the story of Rapunzel, the <u>complication</u> develops as a direct result of the Wicked Witch hearing about the Prince's visit to see the girl. Further conflicts arise in the plot as the Wicked Witch attempts to capture the Prince whilst he visits Rapunzel again.

<u>The resolution</u>. This contains information about how the <u>complication</u> in the story is settled. That is, how all aspects of the problem generated in the conflict upon which the story depends for its appeal, are successfully solved. Thus, the slots in the schema will be filled with information about the solving of a <u>complication</u>. For example, in "Rapunzel", the problem of the Prince being captured by the Wicked Witch is resolved when he escapes, with Rapunzel, leaving the witch imprisoned in the tower.

The coda. This contains information which often makes the resolution more emotionally acceptable to the story-taker. That is, it provides the "polished" conclusion to the narrative. The coda may also encapsulate the moral of the story. The slots or sub-schemata, therefore, will contain information about the refined conclusion to a story. In the story of Rapunzel, the coda involves the two main characters, who, as we are told, get married and live happily ever after.

Comprehension and Retrieval of Narrative Text Information

The elements or sub-schemata mentioned above, function as essential parts of a high-level schema around which the narrative is constructed. If the story-taker knows them, they help him/her to attend to the most important aspects of the incoming information and to evaluate them in terms of their effect on the overall story.

The knowledge of the slots or sub-schemata which comprise the narrative schema, permits the story-taker to seek to fill or instantiate them with appropriate data. This instantiating process enhances comprehension.

Comprehension is at least partly dependent on the ability of the language-user to engage the relevant schema for an incoming text (Thorndyke, 1980; Mandler and Johnson, 1977;) As explained, in the case of the narrative, this is a high-level framework such as that already described. Successful comprehension also depends on the story-taker's ability to instantiate the slots of this high-level schema. That is, he/she must be able to assign the incoming data to the appropriate sub-schemata such as setting, initiating event, complication, and so on.

The same high-level schema also serves as the necessary framework around which narrative information is retrieved. That is, the story-taker uses the same framework for the successful retrieval of narrative information as was used for the initial comprehending of that narrative text (Dooling and Christiaansen, 1971).

Although many students naturally appear to develop and use a framework for processing narratives, there is evidence which suggests that some students do not (National Assessment of Educational Progress, 1972).

On the evidence and discussion provided to this point, it is clear that narrative text processing is enhanced by a knowledge of an appropriate high-level schema and the ability to instantiate the slots which comprise it. Clearly, then, those students who do not possess such a schema will be seriously impeded in their attempts to process narrative texts. As suggested by Spiegel and Fitzgerald (1986), it is important to establish whether the narrative processing of such students can be enhanced by instruction designed to help them internalise an appropriate narrative schema. This study is designed to explore this question.

Summary

With extensive experience with marratives through reading and/or listening to them, many students develop a schema of some sort which helps them in the processing of such texts.

A competent story-taker probably uses a refined, internalised highlevel schema to comprehend and retrieve narrative information. This schema is likely to be of the type used by all writers/story tellers in Western Culture for their successful writing/telling. One such high-level structure is comprised of five interrelated elements. These include setting, initiating event, complication, resolution and coda. The elements are sub-schemata of the highlevel schema. They contain information which is peculiar to that sub-schemata and is essential to the overall development of the story.

When narratives are listened to or read, the competent story-taker probably calls upon this high-level schema to aid comprehension and retrieval. There is evidence, however, to suggest that some students do not naturally develop such a narrative schema, so the potentially facilitating effect on narrative processing of direct instruction in the narrative framework, needs to be investigated.

#### CHAPTER 5

#### EXPERIMENTAL ASSERTION

# Assertion to be Tested

On the basis of the material already presented on schemata, schemata and language processing, and schemata and narrative processing, the following assertion will be tested:

Children's comprehension and recall of narrative texts are significantly enhanced when they have internalised the schematic framework around which narratives of Western Culture are written.

#### Derivation of Assertion

The above assertion has been derived from the related literature reviewed in the previous sections.

#### Schemata Are Cognitive Frameworks

Schemata are cognitive structures or frameworks i.e. units of organized information which an individual has about aspects of his/her world.

#### Schemata May Be Hierarchically Organised

A schema may be organised hierarchically, i.e., a high-level schema may have lower-level or sub-schemata within it. As the information in the sub-schemata is interrelated in terms of the structural elements of the high-level schema, it is likely that possession of this over-arching schema enhances comprehension.

# Schemata Facilitate Language Use

There are schemata which facilitate language use. These schemata drawn from both syntactic are and semantic domains. Notwithstanding this, it is the case that schemata can never be considered to be content free. That is, language processing involves the active interaction of schemata on syntactic and semantic levels, and the information contained in a text. Therefore, to a great extent, comprehension of the content/text depends upon the language-user's store of semantic and syntactic knowledge.

## The Narrative Framework is a Schema.

In this study, the framework around which the typical narrative is written, is considered to be a high-level schema. It draws on both the syntactic and semantic domains, in as much as the sub-schemata contain semantic slots, while the writing or telling of narratives is generated within quite specific, syntactic constraints.

Recall

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One reasonable way of measuring whether students have internalised and are using this narrative framework or high-level structure to process narratives, is through recall. That is, how individuals organise a retelling and what they recall from the stories they listen to, are linked (Kalbach, 1986). The retelling procedure provides the means for measuring the way in which individuals comprehend and retrieve narrative text information.

#### **CHAPTER 6**

#### THE EXPERIMENTAL DESIGN

#### Introduction

The research design was a simple pre-test-treatment-post-test design, using two experimental groups and two control groups. The sample evaluated in this investigation was selected from two classes of year six students who attended schools located in similar socio-economic areas.

#### Design

A teacher-devised listening test (modified from an <u>S.R.A. Listening</u> <u>Kit</u>, 1963) was administered to each student in the two year six classes. The test involved listening to a taped story of approximately fifteen minutes duration, followed by the answering of eighteen literal questions pertaining to the story (see appendices 1 & 2). The results of the test permitted the designation of subjects into groups on the basis of being "skilful" and "less-skilful" listeners. The five students in each class who attained the lowest percentage on the test became the "lessskilful" listeners and the five students in each class who attained the highest results, became the 'skilful' listeners.

At each school there was one experimental group and one control group. The experimental group at School B was the "less-skilful" listening group and their control counterpart was the "lessskilful" listening group at School A. The same organisation applied to the "skilful listening" groups. The experimental group was comprised of the five students at School A and their control counterpart was comprised of the five students at School B. See figure 1 below.

Figure 1

#### Assignment of Subjects into Groups

Key:	S.L.	skilful listeners
	L.S.L.	less-skilful listeners
	(5)	five students in each group

<u>Control Groups</u>		<u>Experimenta</u>	l Groups
School A	School B	School A	<u>School B</u>
(5)	(5)	(5)	(5)
L.S.L.	S.L.	S.L	L.S.L.

Following the designation of students into groups, the study was undertaken in the following way.

Pre-test

**Story and immediate free recall.** The pre-test consisted of a taped story entitled "The One-eyed Man" taken from a New Zealand School Journal (1978), see appendix 3.

To ensure similarity between the stories selected for the pre-test and post-test, an assessment was made on them in the following way:

- 1. According the Fry Readability Graph (see appendix 4a);
- A manageable concept load, as determined by concensus between colleagues and through informal discussions with a number of year six students;

- 3. A story length of approximately five hundred words, to enable each story to be listened to within a ten minute period.
- 4. A theme which was similar in both stories, and common to texts of this type, i.e., "Crime doesn't pay";
- A structure which conforms to narratives of Western Culture, i.e. setting, initiating event, complication, resolution and coda;
- 6. A simple vocabulary.

Commencing with the students at School B, each individual listened to the simple piece of taped narrative prose. Each student was then asked to recall orally, as accurately as possible, the story that he/she had listened to. Each response was recorded on to tape. The same procedure was repeated with the students at school A.

The data collected from the recounts were then transcribed into written protocols. The recall protocols were assessed in terms of two quantifiable dimensions. These included

- 1. amount of information recalled; and;
- 2. sequence of information recalled.

#### Quantifying the Data

Amount of information. In order to quantify the data recalled by the subjects, the narrative was analysed into the facts and events which comprised it. The recall protocols generated by the subjects in the experimental groups and those in the control groups, were compared with the <u>facts</u> and the <u>events</u> in the original story (see appendix 5). From this, it was possible to calculate the <u>amount of information</u> recalled. Facts and events were allotted one mark each. The total score for each subject was derived by adding the number of <u>facts</u> and <u>events</u> recalled. The total score for each subject was expressed as a percentage of the total possible score.

<u>Sequence of information recalled.</u> In order to quantify the data generated on the <u>sequence</u> dimension, the subjects' recall protocols were compared with the events in the original story (see appendix 6). Marks were deducted from the total possible, for deviations from the original sequence. The mark attained by each subject was then calculated as a percentage of the total score.

#### Treatment

Following the collection and categorising of data from the pretest, each experimental group received three instructional sessions in the narrative, schematic structure.

The teaching strategies and activities included language reconstruction, expository teaching of the structure, semantic grids and the application of students' knowledge about the schematic structure to the writing of a narrative. A more detailed description of the strategies and activities is set out below:

Language reconstruction. The written paragraphs of a narrative text were presented in jumbled order. Subjects were required to reconstruct this jumbled text on the basis of the narrative structure which they had already been taught. The story title was "Rapunzel" (see appendix 7).

The nursery rhyme of "Little Miss Muffet" was represented pictorially. That is, each major event in the nursery rhyme was presented as a picture. Subjects had to label each picture using the names of the elements of the narrative structure, e.g., setting, iniating event, complication, and so on, which they had been taught.

<u>Semantic grids</u>. The semantic grids required subjects to match segments of the narrative text with elements of the text, as listed above. The story used was entitled "Alberts' Bad Day", see appendices 6 & 8.

See figure 2 for a diagram of the semantic grid used.

# Figure 2

# Semantic Grid for Narrative Text Segments

e.g. "Albert's Bad Day"

	Setting	I.Event	Comp.	Res.	Coda
Text Bits				(1)	
(1)					*****
"					
(4)	(4)				
"					
(3)			(3)		
"					
(5)		(5)			
(2)					(2)

## Post-test

Story and immediate free recall. The procedure used for the posttest was identical to that used for the pre-test. See pages (54 & 55) of this chapter. The story chosen for the post-test was entitled "The Policeman's Daughter". see appendices 9.

Quantifying the data. The data collected from the post-test were assessed in the same way as the data collected from the pre-test, see appendix 10-11. **Data analysis**. The data obtained from the post-test were analysed by comparing the results of the experimental groups, on the two dimensions of <u>amount</u> and <u>sequence</u> of information with those obtained by the control groups.

For the statistical testing of Hypotheses 1A and 1B, the two experimental groups, i.e., five <u>skilful</u> listeners and five <u>less</u> <u>skilful</u> listeners were combined to form one larger experimental group (N=10). Likewise, the two control groups comprised of five <u>skilful</u> and five <u>less skilful</u> listeners combined to form one larger control group (N=10). The statistical analyses used were twotailed t-tests.

#### **CHAPTER 7**

#### FINDINGS

# THE IMPACT ON RECALL FOR YEAR 6 LISTENERS OF A KNOWLEDGE

### OF THE SCHEMATIC STRUCTURE FOR NARRATIVES.

The theoretical discussion in this study has emphasized the importance of the possession of appropriate schemata for the successful comprehension and recall of language.

The purpose of this section is to examine the impact of the teaching of a standard schematic structure for the writing of a narrative to a small group of year six students on their ability to recall an orally presented narrative. These analyses address the Research Question presented earlier and the hypotheses generated from it.

#### Question 1

In the immediate recall of a simple; unfamiliar narrative text, presented orally, once only, will year six listeners who have been taught the schematic structure of narratives perform significantly better than similar year six students who have not?

#### Hypotheses 1A

In the immediate recall of a narrative text, following an oral telling, year six listeners who have been taught the schematic structure of narratives will not retrieve a significantly greater <u>amount</u> of information than the <u>amount</u> retrieved by year six listeners who have not been taught the schematic structure of narratives.

This hypothesis was tested by comparing the post-test results of the experimental group with those obtained by the control group on the <u>amount</u> of information recalled.

#### Pre-test Results on Amount of Information Recalled.

It first had to be established that there was no significant difference between the abilities of the control and experimental groups on the <u>amount</u> of narrative text they were able to recall. This was done through the administration of a pre-test which consisted of an oral retelling.

The results of the pre-test for the control group and experimental groups are presented in Table 1.

TABLE 1

# Pre-test results for Amount of Information Recalled

Contro 1Group		Experimental Group		
Subject	Raw score <sup>1</sup>	Subject	Raw Score <sup>1</sup>	
<b>S</b> 1	14	\$1	9	
<b>S</b> 2	8	<b>\$</b> 2	12	
\$3	14	\$3	4	
S4	11	S4	14	
<b>S</b> 5	23	\$5	11	
S6	20	S6	10	
S7	23	S7	20	
<b>S</b> 8	30	<b>S</b> 8	29	
S9	10	S9	30	
S10	18	<b>S</b> 10	16	
Mean Score	= 17.10	Mean Score	= 15.50	

1 Maximum possible score = 44

The statistical analysis of these results revealed that there was no significant difference between the control group ( $\underline{M} = 17.10$ ) and the experimental group ( $\underline{M} = 15.50$ ),  $\underline{t}(18) = 0.4603$ ,  $\underline{p} = .3254$ , twotailed, on this test of the amount of information recalled.

# Post-test Results on Amount of Information Recalled.

The results set out in Table 2 were achieved by the control and experimental groups on the <u>amount</u> of information recalled in the post-test.

## TABLE 2

Post-test Re	sults fo	or Amoi	unt of	Infor	nation	Recalled
				• • • • • • • • • • • • • • • • • • •		

Control Group		Experimental Group		
Subject	<u>Raw score<sup>1</sup></u>	Subject	Raw Score <sup>1</sup>	
<b>S1</b>	25	S1	13	
<b>S</b> 2	7	S 2	27	
<b>S</b> 3	· 29	<b>S</b> 3	27	
<b>S</b> 4	13	S4	35	
<b>\$</b> 5	29	<b>\$</b> 5	37	
<b>S</b> 6	20	S6	17	
<b>. S7</b>	. 22	S7	46	
S8	30	S8	45	
S9	18	S9	28	
S10	23	<u>\$10</u>	33	
Mean Score	= 21.10	Mean Score	= 30.80	

1 Maximum possible score = 67

The statistical analysis of these results revealed that the experimental group (M = 30.80) achieved significantly better results than the control group (M = 21.10), t (18) = 2.39, p = 0.014, in the post-test on the dimension of the <u>amount</u> of information recalled.

On the basis of this result, Hypothesis 1A is rejected.

In view of the above finding, it can be concluded that, for this small group of year six students, learning a standard, schematic structure for the writing of narratives, did have a facilitating effect on the amount of information they could recall from a specific narrative after one telling.

#### **Hypothesis** 1B

In the immediate recall of a narrative text following an oral telling, year six listeners who have been taught the schematic structure of narratives will produce oral recall of the text, the <u>sequence</u> of which is not significantly better than the <u>sequence</u> of the oral recalls produced by year six listeners who have not been taught the schematic structure of narratives.

The pre-test, recall protocols were analysed to establish that there was no significant difference between the experimental group and the control group on the dimension of the <u>sequence</u> of the information recalled.

# Pre-test Results for Sequence of Information Recalled

The results of the pre-test for the control group and experimental groups are presented in Table 3.

TABLE 3				
Pre-test Resu	lts for Sequence of	Information Recal	led	
Control Group		Experimental Group		
Subject	<u>Raw score<sup>1</sup></u>	Subject	<u>Raw Score<sup>1</sup></u>	
<b>S</b> 1	9	<b>S</b> 1	4	
\$2	.5	\$2	9	
<b>S</b> 3	10	\$3	3	
<b>S</b> 4	7	S4	9	
<b>\$</b> 5	10	<b>\$</b> 5	9	
<b>S</b> 6	9	S6	4	
S7	11	S7	10	
S8	11	S8	12	
S9	6	S9	13	
<u>\$10</u>	8	<u>\$10</u>	8	
Mean Scor	e = 8.6	Mean Scor	re = 8.10	

# 1 Maximum possible score = 15

The statistical analysis of these results showed that there was no significant difference between the control group ( $\underline{M} = 8.6$ ) and the experimental group ( $\underline{M} = 8.10$ ), on the pre-test for the <u>sequence</u> of information recalled.

Post-test Results for Sequence of Information Recalled

The results presented in Table 4 were achieved by the control and experimental groups on the dimension <u>sequence</u> of events recalled in the post test.

TA	BLE	4
_		 

Post-test	Results for Sequence o	<u>f Information Recall</u>	ed
Coi	ntrol Group	Experimental	Group
Subject	<u>Raw score<sup>1</sup></u>	Subject	<u>Raw Score<sup>1</sup></u>
<b>S</b> 1	8	<b>S</b> 1	4
<b>S</b> 2	2	<b>\$</b> 2	7
\$3	9	\$3	12
S4	5	S4	12
<b>S</b> 5	8	\$5	12
<b>S</b> 6	10	<b>S6</b>	7
S7	9	S7	14
S 8	9	S8	15
<b>S</b> 9	8	S9	13
S10	8	S10	12
Mean S	core = 7.60	Mean Score	= 10.80

1 Maximum possible score = 16

The statistical analysis of the above results revealed that the experimental group ( $\underline{M} = 10.80$ ) achieved significantly better results than the control group ( $\underline{M} = 7.60$ ), t (18) = 2.3706, p = .0145, two-tailed in the post-test on the dimension of sequence of events recalled.

On the basis of this result, hypothesis 1B is rejected.

In view of the above finding for these small groups of year six students, it can be concluded that learning a standard, schematic structure for the writing of narratives, did have a facilitating effect on the correctness of the <u>sequence</u> of the information they could recall from a specific narrative after one telling.

## Hypothesis 2A: Skilful and Less Skilful Listeners

In the immediate recall of a narrative text, following an oral telling, year six <u>less-skilful</u> listeners, who have been taught the schematic structure of narratives, will not retrieve a significantly greater <u>amount</u> of information than the <u>amount</u> retrieved by year six <u>skilful listeners</u> who have not been taught the schematic structure of narratives.

This hypothesis was tested by comparing the post-test results of the : <u>less-skilful</u> experimental group (n=5) with those obtained by the <u>skilful</u> control group (n=5) on the <u>amount</u> of information recalled. Post-test Results for Amount of Information Recalled

The results in Table 5 were achieved by the control and experimental groups on the dimension of amount of information recalled in the post-test.

TABLE 5

# Post-test Results for "Skilful" and "Less-Skilful" Listeners

<u>Control G</u>	<u>roup (skilful)</u>	Experimental Group	<u>(less_skilful)</u>
Sibkect	Raw score	Subject	Raw Score
	n=67	11 - 14. (1) - 11. (1) - 1	n=67
S1	13	S1	20
\$2	. 27	\$2	22
\$3	27	\$3	30
S 4	35	<b>S</b> 4	18
<u>\$5</u>	37	<u>\$5</u>	23
Mean Scor	e = 22.60	Mean Score	= 27.80

on Amount of Information Recalled.

The statistical analysis of the above results showed that there was not a significant difference between the results obtained by the control group ( $\underline{M} = 22.60$ ) and the experimental group ( $\underline{M} = 27.80$ ), t (8) = 1.1086, p = .1499, two-tailed, in the post-test on the dimension of <u>amount</u> of information recalled.

On the basis of these data hypothesis 2A is upheld.

In view of this result, it can be concluded that, for these small groups of year six listeners, the treatment had such a facilitating effect on the experimental group, i.e., the less skilful listeners, that the <u>amount</u> of information they recalled from a specific narrative after one telling, statistically equalled the performance of skilful listeners on the same test.

The following analysis tests Hypothesis 2B

#### Hypothesis 2B: Skilful and Less Skilful Listeners

In the immediate recall of a narrative text, following an oral telling, year six <u>less-skilful</u> listeners, who have been taught the schematic structure of narratives will produce oral recalls of the text, the <u>sequence</u> of which is not significantly better than the <u>sequence</u> of the oral recalls produced by year six <u>skilful</u> listeners who have not been taught the schematic structure of narratives.

The hypothesis was tested by comparing the post-test results of the <u>less skilful</u> experimental group with those obtained by the <u>skilful</u> control group on the sequence of information recalled.

# Post-test Results for Sequence of Information Recalled.

The results in Table 6 were achieved by the control and experimental groups on the dimension of <u>sequence</u> of information recalled in the post test.
TABLE 6

## Post-test Results for "Skilful and Less-Skilful" Listeners

Control Gro	oup (skilful)	Experimenta	<u>l Group (less skilful</u>
Subject	Raw score	Subject	Raw Score
	n=16		n=16
<b>S</b> 1	10	S1	4
<b>S</b> 2	9	<b>\$</b> 2	7
\$3	9	\$3	12
S 4	8	<b>S</b> 4	12
<u>\$5</u>	8	\$5	12
Mean Score	e = 8.80	Mean Sco	re = 9.40

OD	Seq	uence	of	Inf	ormat	ion	Reca]	lled.

The statistical analysis of the above results revealed that there was no significant difference between the results obtained by the control group ( $\underline{M} = 8.80$ ) and the experimental group ( $\underline{M} = 9.40$ ), t (8) = 0.3523, p = .3663, two-tailed) in the post-test on the dimension of <u>sequence</u> of information recalled. On the basis of these data, hypothesis 2B is upheld.

The above findings pertaining to the small group of year six students demonstrated that for those <u>less-skilful</u> subjects who received the treatment of learning a standard schematic structure for the writing of narratives, the <u>sequence</u> of information they could recall in one oral telling was sufficiently enhanced on this dimension, to make them equivalent to those <u>skilful</u> subjects who did not receive the treatment. As previously mentioned, recall of information should be viewed in the context of how it has been comprehended. That is, the framework or schema an individual uses to process incoming data also functions as a retrieval device fro that same information. Thus, recall is directly related to comprehension.

#### Summary

The findings reported in this chapter have shown that students who had specific instruction in the schematic structure of narratives performed significantly better on the dimensions of <u>amount</u> of information and correctness of <u>sequence</u> of information they were able to recall from one oral telling of a specific narrative than those students of similar ability who did not have such instruction.

The findings further demonstrate that <u>less-skilful</u> listeners who have specific instruction in the schematic structure of narratives performed as well on the dimensions of <u>amount</u> of information and the correctness of the <u>sequence</u> of information they were able to recall from one oral telling of a specific narrative as <u>skilful</u> listeners who had not received such instruction.

#### **CHAPTER 8**

### CONCLUSIONS AND IMPLICATIONS

#### Introduction

The chief purpose of this study was to investigate aspects of the comprehension of orally-presented narratives. Specifically, it evaluated the impact of the facilitating effect of a knowledge of a narrative text framework upon year six students' comprehension of orally-presented narratives:

## Summary of the Study

Because the study was essentially concerned with an investigation of the importance of a narrative schematic structure for the comprehension and recall of narrative texts, a review of literature relating to schema theory was initially carried out.

As an important facet of this, consideration was given to the literature dealing with the influence of an individual's schemata on the processing of incoming information (through whatever external stimulus it is received.) This, in turn, led to the review of the literature relating to schemata and language processing, with emphasis on the use of high-level schemata for language comprehension. The review was then directed towards one type of text, i.e., the narrative and the internal schematic framework which supports it. From this review of the literature a theoretical position was developed which proposed the possible facilitative effect of internalising the schematic framework around which narratives of Western Culture are written on an individual's ability to comprehend and recall narrative texts. On the basis of this theory a research question was formulated, which, in turn, was translated into a set of hypotheses susceptible to empirical testing. The study which has been reported here, however, was designed only as an exploratory study to establish whether or not a rather more sophisticated study would be in order. Because only very small groups were used, it seems prudent to draw the inferences suggested by the findings, somewhat tentatively. Certainly, the data reflect trends which need to be further investigated.

The findings of this study have provided preliminary evidence that when language-users internalise the schematic structure of narratives as a result of specific instruction, they perform significantly better in their ability to comprehend and recall a narrative text than language-users (of similar ability) who have not received the same instruction. Specifically, the findings of this study have permitted the tentative conclusion that a knowledge of a standard schematic structure for the writing of narratives will significantly enhance the amount of narrative information a language-user will recall and that the structure also enables the language-user to recall a text sequence that more closely reflects the essential stages inherent in the successful development of a narrative.

### General Conclusions

The results from this study suggest that when students are taught a narrative high-level schema they appear more able to comprehend and store greater amounts of incoming, narrative information than students who have not been taught the structure. The findings further indicate that this high-level schema also operates as a means of retrieving narrative text information.

### Implications of the Study

Even though the findings were specific to a small sample only, they still have implications for classroom teachers in general in the planning for the reading/writing of, and listening to, narrative texts. That is, the direct teaching of a standard narrative, schematic structure might benefit students' comprehension of narratives presented to them, in oral or written form.

## Suggestions for Further Research

The results of this research show positive implications for the reading of the narrative schematic structure, however they are far from definitive. This study, then, provides the basis for a larger effort which may bring generalizability to the results reported. Other, worthwhile investigations to evolve from this study might include:

#### 1. Age

The use of subjects of varying ages to help ascertain broad trends.

# 2. **Expository Texts**

The use of other text types, i.e. expository to investigate the notion of text structures seen as schemata and their facilitative effect upon language-users' comprehension and recall of them.

# 3 Prolonged Recall

The relationship between internalising a specific schematic structure and the ability of language-users who possess such a structure to recall texts (of that type) after a <u>prolonged</u> interval.

## 4. Large Sample

A study similar to the one reported, using a larger sample, to increase the generalizability of the findings.

# 5. Action Research

A more naturalistic approach, i.e., <u>action research</u>, involving classroom teachers and their students, might give more validity to the findings.

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Limitations of the Findings

The general limitations of the Study were set out in Chapter 1. These will be discussed in more detail, as well as additional reasons for caution, which became evident as the study progressed.

<u>The Sample.</u> This was not truly representative of all year six students because only two year six classes were involved.

The experimental and control groups consisted of <u>skilful</u>, i.e., top range and <u>less-skilful</u> listeners, i.e., bottom range, students. The absence of middle-range students decreased its strength as a genuine, random sample even of students drawn from a high socioeconomic area.

### Special Treatment of Students

The special treatment given to students in the experimental groups, may have promoted a <u>Hawthorne Effect</u>. Therefore, the results need to be considered accordingly.

## The Dependent Variable

The dependent variable in the Study was <u>immediate recall</u> of the orally-presented text. Recall is only a reasonable measure or correlate of the process investigated and results should be considered in the light of other contaminating influences which may have impaired the results.

#### Concluding Statement

This study was concerned with an investigation into the facilitative effects of internalising a high-level, narrative, schematic structure on language-users' abilities to comprehend and recall narrative texts.

In recent years, the analysis of textual components and structures around which successful narratives are created has interested a number of researchers. Among these are Martin (1985), Rothery (1981), Christie (1985) and others.

If the investigation has made a unique contribution, it probably lies in the demonstration of the possibilities for considering text structures in terms of being high-level schemata.

The present study appears to be the first to investigate the importance of considering the narrative structure in terms of a schema to facilitate the comprehension and recall of narratives. Therefore, the findings are tentative and characterized by a variety of restrictive limitations. In this case, the usefulness of its contribution will be measured by the definitive studies that grow out of it.

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