SCHEMA THEORY AND

LEARNING TO READ IN A SECOND LANGUAGE

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to my parents

JAMIL and LILY
"Ask and you will receive,
Seek and you will find,
Knock and the door will be opened to you"

Matthew 7:7
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ABSTRACT

The aim of this research is to investigate the possible effects of text experiences on story retelling with young children. The subjects are 210 Lebanese children, whose native language is Arabic, learning to read in English through using foreign culture books, mainly American. It is the belief that, while learning to read in a second language, children are also introduced to a new culture. Therefore, a key question is how are we going to make this process easier and more enjoyable to children who are a) learning to read, b) in a foreign language, and c) about a distant culture? Based on previous work with schema theory, two storybooks are used in this study to detect any differences in comprehension levels between stories of varied cultural backgrounds. One story is based on the Spanish concept of bull-fighting which is assumed to be foreign to the children and the other is with a familiar Lebanese background. Subjects were divided into four groups: the first group worked with pictures and had a discussion prior to reading to build the target-culture schema; the second had the schema activities after reading the story; the third discussed the cultural topic both before and after reading; and the last was a control group which did not have schema activities. Results show that familiarity with a topic before reading the text promotes comprehension, retention, and retelling of a text. Proficiency in the foreign language seems to have a great effect on text understanding when information about the topic is made available. Implications are drawn and suggestions given for practical approaches to developing children’s reading through tasks in Lebanese classrooms.
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INTRODUCTION

This study aims at studying the effects of introducing the cultural theme of a book to children as a supplementary reading activity. As the researcher taught first graders for three years in Beirut - Lebanon- she noticed the difficulties the children had in learning to read in a second language. A need was felt to investigate into making reading easier and more enjoyable for young Lebanese children who are learning to read in a second language using foreign culture books.

The psycholinguistic contribution to the learning of reading through schema theory offers a lot to beginning learners of reading who are learning about the target culture besides learning the second language and the reading skill. Thus, this research adopts the views of Schema Theory in providing textual activities to participating children.

The language variable (i.e. foreign language proficiency) of the participants cannot be manipulated and therefore seven Lebanese schools with different emphasis on the active use of the foreign language in the classroom or in the school atmosphere as a whole were chosen to take part in this research. Moreover, the participating schools differed in their medium of instruction -Arabic or English- and in the number of hours they allocate for the teaching of English per week.

Since either English or French is the medium of instruction in all private schools in Beirut, the materials used to teach these languages are mainly imported from the United States of America or from Britain for the
English-medium schools and from France for French-oriented schools. The two terms 'second language' and 'foreign language' are used interchangeably in this study, though a distinction is usually made between the two concepts. "A second language is spoken by the community outside the classroom and has social functions within that community" while a "foreign language ... is limited to classroom study and used for contact outside the community" (Yazigy 1991, p.11). This sharp division is not very clear with children participating in this study. They are young learners who begin their encounters with the other language at an early age and thus it becomes part of their daily life, at least at school where they spend a big portion of their school days. These children are learning English at school but do not use it in other contexts. Yet, the medium of instruction in most schools is a foreign one: either English or French; thus, children have to learn it for other subject areas besides for pure linguistic reasons. Moreover, more material is nowadays available to children in Lebanon in English such as television programs and video tapes, story books, and written advertisements.

Three factors are hypothesized to interfere in the smooth and enjoyable process of learning to read, especially at the primary level where children first attempt to share stories and books with many other children of their age and a teacher. The first element that contributes to the difficulty the children in Lebanon face in their first school year is the demand of learning a new skill: reading. It was fairly common in Lebanon to believe that 'proper instruction' (formal instruction) of reading is taught at school by the teacher. Thus, parents usually limited their contribution to this field by providing their children with story books and encouraging them to 'enjoy' the stories. However, parents did not commonly read to and with their children helping to relate the print to what is outside published books such as road-signs, road advertisements, or writings found on cereal cartons or chocolate bars.

A second component that adds to the complication of
learning the new skill is that the children are doing it in a foreign language that they are not very familiar with. In some cases, children attending certain schools even come to the classroom without any prior exposure to another language besides their native one. The mother-tongue of most, if not all, children in Lebanon nowadays is Arabic. Recently, parents have recognized the importance of getting their children ready to understand and use the English language before school age and thus they introduce it at home. However, this is a very recent phenomenon and its effects are not clear at the time of this research. Therefore, the first grade children at the age of six are not only learning a new skill, but also learning it in a new 'language'.

The third factor that is believed to interfere in children's process of learning to read in a second language is the cultural familiarity/unfamiliarity of texts. This factor is based on schema theories and is the focus of this research. Using books that are culturally unfamiliar to the children is a common element in schools that use foreign books to teach reading. The hypothesis is that besides being introduced to a fairly unfamiliar skill, the children are learning this skill alongside learning the foreign language and the foreign culture that is native of the country in which the story was written and published. Therefore, in the case of such children in Lebanon and possibly in other countries where the educational system is similar, the child of six years is burdened with learning three skills at one time: learning a second language; learning to read in the second language; and learning about the culture of the second language. Moreover, the teachers and school coordinators and administrators are not aware of this heavy duty the child has to cope with in order to be a successful reader. The teachers usually consider these three components to be one and thus teach them under the banner of 'reading'.

Two stories are used in this study: one is presumed to be culturally unfamiliar to the children since it is of a Spanish background and the other is believed to be culturally familiar as it is a translation of a Lebanese
story. These two stories were chosen to detect the differences in understanding an unfamiliar versus a familiar topic. The method employed to check comprehension is retelling: children are asked to recall the story they have just read with the researcher. The activities done with the children varied according to the three experimental groups. In addition, there was one control group which brings the number of the groups to four.

The children's social and academic background are taken into consideration in this study. Their attitudes towards reading are also of interest and they are used to check their effect on the general level of achievement in reading. Factors such as transfer of reading skills or manipulating the type of activities employed are not investigated in the present study.

The first chapter introduces general concepts in linguistics and the relation of linguistics to other fields. It later proceeds into tracing the historical development of the concept of teaching reading presenting the main methods used. The last part looks at developments in the concept of reading readiness from a purely physical perspective to a more cognitive approach. This trend of thought can also be detected in the development of teaching reading approaches from phonic analysis to recognizing the importance of the readers' individual characteristics in contributing to the learning process. These culminated in the interactive approaches which are the focus of the second chapter.

The background review of the literature relevant to the focus of this research is presented in chapter two. This chapter deals with the types of text processing showing the evolution of the concept from bottom-up models to top-down and then interactive models. The second part presents the introduction of schema theory to the field of education and more specifically its employment in the teaching of reading. That section also introduces the variety of schema theories which subsequently developed. Cultural schemata are allocated a special section for their discussion since they
are of main interest in this study. A critical evaluation of schema theory comprises the last part of chapter two alongside suggested alternative theories.

Stories and narratives are basic components of this research. Their meaning and differences in their usage are discussed in chapter three. This is an essential consideration since the field-work study is based on two cultural stories and the analysis of the data is also based on the children's stories as retellings of the original texts. The following part of chapter three deals with story grammars that are used to divide the stories into hierarchical tree structures for analytic purposes. This chapter again concludes with a commentary on story grammars and their possible limitations in such fields.

Chapter four is a description of the field-work in Beirut. It starts by setting the grounds for the understanding of the social and educational background of Lebanon and the circumstances under which the research is carried. The chapter proceeds into reporting the procedure of the actual work in schools and the sample and materials used to collect the data.

The results of the data gathered in Lebanon were statistically analyzed using the Statistical Package for Social Sciences program. The main findings are reported in chapter five which also gives an account of possible explanations of the results.

Twenty one children of the total population are considered as special cases because they had schema activities about the story used in this study out of the research setting. Based on these children, general conclusions are drawn in chapter six about the type of possible activities that promote reading comprehension. Some implications about the general language proficiency and attitudes towards reading and their effect on reading success are drawn.
Chapter seven reflects on the available information in the field about the use of schema theory in teaching reading and the results gathered in this study. The interest is to see the contribution of this study in using schema theory with children who are learning to read in a foreign language. Suggestions are given in chapter seven about possible approaches and/or activities to use with primary school children in Lebanon learning this skill in a second language, besides drawing general conclusions about the teaching of reading in a foreign language mainly at the primary level.
Chapter One

READING: ITS DEVELOPMENT

and TEACHING APPROACHES

I. Introduction

The objective of this research is to investigate the effect of background knowledge on the quality and amount of story retelling in a second language. The hypothesis is that if readers have a sufficient knowledge about the topic, history, and/or structure of the text prior to reading, they have a better chance of recalling its content. Other issues that may influence recalling story events may be the level of language proficiency and the type of activities or discussion held before the reading session.

This chapter presents definitions about basic and frequently used terms that are likely to come out in research about the teaching of reading to children in a second language. It also gives a brief history of the development of teaching reading methods with the intention of giving the historical background to get to a more recent concept in the teaching of reading—use of Schema theories—which is the main area of interest of this study.

II. Linguistics And Related Fields

Since the study of linguistics is limited in the sense that it only investigates "the strictly observable, audible and measurable" (Whitehead 1990, p.7), branches emerged to study a variety of aspects of language. Some concentrate on
language in relation to human thinking and learning while others deal with language as a social, cultural phenomenon. Two main related fields are briefly presented in this section: psycholinguistics and sociolinguistics.

A. Psycholinguistics

Psycholinguistics is the study of language from the mental, psychological perspective, i.e. the research into how language is acquired, produced, and understood (Harris and Hodges, 1981 and Garnham, 1985). The emphasis of psycholinguistic theories lies on the process of language understanding and speech production more than on the end linguistic product. Psycholinguistics is not limited to what people say; it is interested in manipulating conditions to see the effect on processing. According to psycholinguists, comprehension, analysis and production share most of the mechanisms and therefore studying comprehension processes sheds light on production.

Garnham (1985, p.1) identifies psycholinguistics as "a scientific discipline whose goal is a coherent theory of the way in which language is produced and understood" in the hope that the scientific language description researchers reach matches the users' stored linguistic structure. In order to reach that objective, Garnham adds, psycholinguists have to understand the following subprocesses (Ibid, p.5):

* word recognition which is a low level process but remains the first step of perception towards comprehension;
* parsing, or appropriate grouping of words to determine sentence structures and understand their meaning. Garnham gives the following sentence as an example:

The little old man walked in the park.

A reader, or listener, should collect the words "little old man" to refer to one 'person' and cluster "in the
park" to describe a 'place';
* computation of meaning or semantic interpretation not only of words and groups of words like phrases and sentences. The aim is towards interpretation of meaning of larger units, e.g. discourse;
* construction of internal, mental representation of the situation through the integration of meaning with what preceded or with something already known; and,
* the way the intended meaning is conveyed, e.g. through a straight forward comment, a question, a request, or an ironic expression (meaning one thing but saying the opposite to give a greater effect of meaning).

The field of psycholinguistics therefore takes into account the mental processes involved in the comprehension and production of language, whether oral or written. The focus of this study is children's comprehension of written a text that is socially unfamiliar to them. Another field in linguistics which is related to this social aspect is sociolinguistics.

B. Sociolinguistics

Language has increasingly been considered as a social developmental skill. Infants start acquiring social norms and linguistic meanings at their early encounters with the adults around them. Children learn to understand language and its "cultural meanings" only through the parents' and other adults' reaction to their behavior (Wells, 1986). Gradually, children learn to associate meaning with the sounds they hear and to internalize representations about the world through interacting with the social environment. Wells summarizes this notion in the following way (Ibid, p.39): "A lot of children's learning... is dependent on making connections between what they know and what they are able to understand in the speech that they hear". Jenny Cook-Gumperz (1986) emphasizes the fact that "literacy is constructed in everyday life, through interactional exchanges and the negotiation of meaning in many different contexts".
The fact that language is tied to the social functions is also manifested by Chapman (1987). He says that reading— one of the developmental language skills that is to be acquired— is highly affected by both interpersonal and intrapersonal contexts. Chapman adds that the teachers' attempts to provide context for reading is a reflection of the effect of socialization with the settings and the language itself. To understand 'language', it is essential to have more than mere grasp of its history and development, the mode in which its rules function, etc.. Part of linguistics is the appreciation of the social context in which an infant acquires the language. This is important because language reflects the community— and at a larger scale, the culture. At an advanced stage, language becomes a highly personal matter which reflects the individual's way of thinking.

In simple terms, Downes (1984) shows the common use and need of 'language' in various social settings and fields. The range of the ways 'language' is used is diverse: from the basic concept of 'language' teaching to the 'language' of courts and newspapers, 'languages' of music, painting, or dance, and 'body language'. Downes defines sociolinguistics as "that branch of linguistics which studies just those properties of language and languages which require reference to social, including contextual, factors in their explanation" (Ibid, p.15).

As mentioned earlier, language comprehension is not merely a product of awareness of its historical development nor is it knowledge of the grammatical rules. To fully understand language, the social ambience of the language user and of the topic/text should be considered. There is where schema theories come into effect in the process of learning to read. Schema theorists study the effects of cultural knowledge on the comprehension and reproduction of texts based on unfamiliar concepts and topics.
C. Other Related Fields

Linguistics, therefore, is more than pure understanding of the mechanics of language. Besides including psychological and sociological factors, linguistics is also linked with anthropological studies on "remote and unknown languages and cultures" (Whitehead 1990, p.8). More recently, it has been closely studied to develop artificial languages that could be shared by several communities for better communication (e.g. Creole and Esperanto), and for machines' language (e.g. talking computers and robots). Finally, linguistics received more attention in its practical side and the field of applied linguistics flourished in the fields of, for example, education, teaching the mother-tongue in schools and teaching foreign languages; and medicine that deals with language disorders.

III. The Nature of the Reading Process

Reading has always been recognized as an important language skill; yet, theorists have not been able to agree on one precise definition especially that reading is a process that occurs in the head and cannot be seen. They tend to define reading as working with the printed language where the end product of the interaction with the language coded into print is comprehension.

The difference between different approaches to reading lie primarily in the emphasis upon 'decoding' versus more cognitive aspects of reading; i.e. attempts to define reading range from explaining it through its mechanics to relating it mainly to thought and personal experiences. The historical development of 'reading' and concepts related to it trace a significant shift from basing the discussion of the reading process on materials and skills needed to succeed in reading, e.g. phonic approaches and the Look-and-Say approach. The shift was towards emphasizing the importance of the readers and of the knowledge they bring to the text such as what was introduced by schema theory approaches. Hence, the advances made in the field of reading
resulted in recommended changes mainly by researchers dealing with the schema theory in the concepts of reading, instruction, comprehension, and teacher's role and in the fields of teaching methods and materials used.

Traditionally, reading was considered, and accordingly taught, as a skill-based process that urged the teaching of decoding skills. In conjunction with this, readers were to "understand the precise meaning someone else has communicated... [i.e.] transfer other people's meaning into their heads" (Cairney 1990, p.x). Therefore, learners who could correctly decode the print and quote the exact words from text to answer the 'interrogative', comprehension-checking questions were credited to be "good readers".

Eventually, concentration was put on the constructive aspect of reading. The process is now primarily dealt with as transactions between the reader, the text, and the context (Ibid, p.3). Thus, the shift of emphasis of the teachers' role was from teaching skills and planning activities that help readers to extract meaning from texts to guiding readers and encouraging them to construct the meaning of texts by sharing ideas. As for the material used to enhance reading efficiency, the tendency is to use 'real-world' material instead of reading scheme books written specifically for the teaching of reading (e.g. scheme books). Moreover, a wide variety of story books is to be available for children to choose from according to their own interests and level of reading proficiency.

In summary, and before going into a brief description of the evolution of teaching reading methods and materials, recent reading theories emphasize the reader as the center of the process of learning to read; the teacher as a facilitator of the learning process and a provider of an enjoyable, open social context within the classroom instead of as the chief source of providing basic reading skills such as decoding; and, the material to be authentic texts that are treated as 'wholes' to manifest the easy transfer of skills learned to any other published text (i.e. to prove
that reading is not only a school-subject).

Reading as decoding is the identification of printed words as a prerequisite for any successful reading. Staats (1968), among other linguists, emphasizes the importance of sounds rather than meaning. He views reading more as a discrimination process than a thinking process involving translation of symbols into sounds. Reed (cited in Harris and Sipay 1975, p.5) distinguishes between 'reading' and 'understanding'. To him, one can read by simply producing the spoken form of the printed words whose meaning may be completely unknown. Such linguists consider reading as the "recognition or identification of the words represented by the printed symbols, regardless of whether or not meaning is achieved" (Harris and Sipay 1975, p.4). As a result of such beliefs, recognition skills are to be well developed before proceeding to comprehension. Some advocates of reading as a decoding process attend to reading as the accumulation of meaning: after words are identified, each "is [then] associated with its equivalent in the spoken language and the meaning of the word is understood" (Quandt 1977, p.11). Eventually, meaning of words will build up the overall meaning of whole paragraphs and passages. Quandt (Idim) summarizes this reading process in diagram 1.1.

Diagram 1.1 Quandt's (1977) Model of the Reading Process

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Diagram 1.1 Quandt's (1977) Model of the Reading Process

- decoding -> spoken words
- printed message
- accumulation of word meanings
- sentence and paragraph meaning
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However, decoding does not ensure comprehension. Chapman (1983) draws a comparison between the variation of meaning of words between adults and children on one hand and print and its sounding on the other. He gives the word
'tree' as an example to show that with experience, an adult's concept of a tree is more mature than that of a child. Similarly, the ability to sound out print correctly does not necessarily imply that the child has comprehended the text as the teacher or any other adult may understand it.

More recent reading theories put greater emphasis on the extraction of meaning from texts "both explicit and implicit; [reading] depends on the intricate coordination of our visual, linguistic, and conceptual information-processing systems" (Adams and Collins cited in Freedle 1979, p.1). Adams and Collins regard reading as a hierarchical process where the attainment of any level depends on the successful accomplishment of the previous ones. However, they add that the interactions between words and their context make word recognition easier and the identification of letters becomes more perceivable; as individual letters are processed more easily in words, so words are identified more easily in sentences and stories especially those stories that are familiar to the reader. Thus, processing at each level is influenced by higher as well as lower order information, where the latter—i.e. identification of individual letters and individual words—becomes necessary only for checking higher order hypotheses.

Cairney (1990) emphasizes the importance of meaning search during reading as opposed to the traditional concept of meaning extraction. He rejected the idea that texts carry one single meaning that readers have to derive from print. Alternatively, he postulates that different individuals may and do react differently to the same text. Not only do groups of varied social backgrounds or cultures reflect differently on a passage, people from the same background may slightly differ in reflecting upon a text. Meaning is relative and the proof is that even the same individual never comprehends a text exactly the same when it is reread. This definitely leads to instructional implications mainly in the role of the teacher as a 'supporter' to the student reader and in the strategies used to aid the child in
Rumelhart (1977b, p.573) defines reading as a 'perceptual' and a 'cognitive' process which starts "with a flutter of patterns on the retina" and then proceeds to form "a definite idea about the author's intended message". Reading according to Rumelhart is a process where the reader has to draw on different sources simultaneously in order to be successful. This interaction between the various different level sources is an important distinction of Rumelhart's theory and previous theories that assume a "bottom-up, serial, stage-by-stage" information processing or "a set of independent parallel processing units" (Ibid, p.574).

Perceiving the importance of the interaction between the printed material and familiarity with the context led psycholinguists to revive Bartlett's (1932) long-standing notion of 'schema' as a basis for defining reading. They view reading as an active and ongoing process that is directly affected by the reader's interaction with his environment. The main implication of this view is that familiarity with a topic helps the reader to comprehend a passage written in that domain. The schema theories attempt to explain how knowledge is presented and "how that representation facilitates the use of the [background] knowledge in particular ways" (Rumelhart 1981, p.4). Schema theories may be described as an offshoot of Goodman's "Psycholinguistic Guessing Game" (1967) and the elaboration of Coady (1979) on Goodman's classic by drawing a model where background knowledge interacts with conceptual abilities and process strategies. Carrell and Eisterhold (1983, p.555) represent this notion in diagram 1.2.

In brief, schema theory sees reading as neither a bottom-up or top-down skill exclusively. Reading is an interactive skill drawing on both perceptual and cognitive processes interchangeably. Schema theory affirms the role of background knowledge in language comprehension; a skilled
Diagram 1.2  Coady’s Model of the Interaction between Background Knowledge and Conceptual Abilities (adapted from Carrell and Eisterhold 1983, p.75)

Conceptual Abilities ←→ Background Knowledge

Process Strategies

reader is the one who is able to make predictions first and then search the print to fit into the previous knowledge. A more detailed presentation of this theory is presented in the second chapter.

IV. Types of Teaching Reading Methods

Until the present time, there has not been a single commonly recognized method for the teaching of reading. Most British schools nowadays use mixed methods. This lack of recognition is the basis of much of the current controversy about teaching/learning methods. The numerous number of available teaching reading methods can be basically divided into two categories: synthetic methods and analytic methods.

A. Synthetic methods stress the recognition of alphabets and sounds of letters before proceeding to reading words and comprehension. These methods are based on what Cairney (1990, p.13) calls Information Transfer theories of teaching reading. They view reading as a letter-by-letter and a word-by-word process where meaning is transferred "in a linear way" from print to the readers' minds. Synthetic reading methods are basically bottom-up approaches to teaching reading where the mechanics of reading are considered essential prerequisites to extract meaning.

B. Analytic methods, on the other hand, start teaching the reading of words, sentences, or even stories and from there go back to the identification of separate letters.
They are more categorized as top-down approaches where comprehension is the first aim of interaction with print. The identification of separate words or letters becomes a secondary skill.

No one approach is believed to be the 'best' for all settings or even for one specific situation. Learning environments differ and so do teachers' proficiency and, most important, children's abilities. That is, even within the same group, different methodologies need to be implemented with different individuals; and even a combination of several teaching strategies might be beneficial for each beginning reader. It is clear that older methods to the teaching of reading were code-based and newer ones are meaning-oriented. None is said to be good or better than another; it is seen best to be eclectic and choose what is appropriate from each to use in various settings. A suitable method stresses meaning with an attempt to develop the child's awareness of the language. Oakhill and Garnham (1988) trace the historical evaluation of which teaching method seems to be 'the best'. They cite that while some research concludes that phonic approaches show better reading results than whole-word method for example (e.g. Chall, 1967 and Jeffery and Samuels, 1967 cited in Oakhill and Garnham 1988, pp.88-89), others (Onmacht, 1969 and Samuels, 1972) claim this is so only through the first few years of schooling and in oral reading. However, as comprehension, interest, and involvement in reading are concerned, there is no direct proof that one approach is exclusively better than others especially that many variables cannot be controlled. Hence, the general interest in the teaching of reading has shifted its focus from the question of 'what' approach to use to 'where' is each approach is introduced in the learning process.

V. Methods of Teaching Reading

As reading theories have evolved from regarding reading as "identifying the symbols and obtaining meaning from the
identified symbol" (Russell and Fea 1963, p.865) to reading as primarily affected by prior knowledge, so teaching methods have developed accordingly and commercial materials published. A brief presentation of the major current approaches to the teaching of reading follows: look-and-say, phonic approaches, the language experience approach, and the individualized reading approach.

Harris and Sipay (1975, p.58) list three main areas where most approaches to the teaching of reading differ:

"1. how a child is first taught to read words;
2. the initial emphasis placed on comprehension versus decoding; and
3. the preplanned structure."

A. Phonic Approaches

The phonic approaches are the main synthetic methods to the teaching of reading. A German teacher first introduced this method in the sixteenth century when he suggested that the consonants should be called by their sounds rather than names, for example /b/ and /d/ not /bi/ and /di/ (Brooks and Pugh 1984, p.65). One problem is that the only (untrained) way of saying these is to add a vowel, usually schwa /ə/. If the teacher does this, so does the child, thus in effect learning an unnecessary phonetic 'sounding out' of words.

After learning the particular sounds of the alphabets, teaching will advance to introducing rhyming patterns, such as man-ran-van, then to sentences with minimal sound-symbol contrast, e.g. "Ned has hit his leg"; and syllabic division, such as 'la-zy', 'ha-zy', and 'dai-sy' (/lei-zi/, /hei-zi/, and /dei-zi/), and so on. However, the use of phonics in reading creates problems particularly in languages of sound-symbol irregularities, such as English, where lot of exceptions to the rules exist.

Since English is a non-fit language, i.e. there is no
one-to-one match between the letters and phonemes, various approaches were designed to overcome the inconsistencies of the number of alphabets and sounds. Whereas there are twenty-six letters in the English language, there are forty-four sounds represented by these same letters or a combination of them. Some letters correspond to more than one sound, such as 'g' could be a soft 'g', /dʒ/, as in 'giraffe' and a hard 'g', /g/, as in 'gorilla'; and some sounds are represented by more than one symbol e.g. /k/ can be matched with either 'c' or 'k' as in 'cat' and 'kitten'. In English, "spelling-to-sound correspondences are not one-to-one, but many-to-many" (Smith 1985, p.51). So a "modified alphabet" was presented for initial stages of teaching reading in two forms: the Initial Teaching Alphabet (I.T.A.) and the UNIFON, to compensate for the mismatch between the letter-sound relationships. "Each one reforms the writing system in some way, so that the grapheme-phoneme correspondences are completely regular" (Oakhill and Garnham 1988, p.89). Whereas the UNIFON consists of forty symbols, the I.T.A. contains forty-four "letters, 24 are taken directly from the traditional alphabet (q and x are omitted). Fourteen are combinations of traditional letters, and six are unique l.T.A." (Smith and Johnson 1976, p.114). A sample of each type of the proposed alphabets is: 'f' as in 'feel'; 'ue' as in 'use'; and 'h' as in 'shop'. Other proposed approaches are the gatherings system and the diacritical marking system. In the first one, letters that have only one sound in all situations is color-coded. The diacritical marking system adds marks to letters to indicate their pronunciation, e.g. i= /i/ as in 'chick' and i= /ɪ/ as in 'five'.

This method has been criticized for fear that word and sentence methods make children dependent on rote learning in an authoritarian context where children take the teachers' word for what the print represents (Beard, 1987).
The teaching of phonics is definitely not of immediate concern to schema theories. Not merely because it is one of the earlier approaches (as we have seen recent work is still done on the teaching of phonics in a more 'modern' fashion), but because schema theories emphasize the comprehension aspect of reading more than decoding. They see the reading process as a collaborative work between available personal knowledge of the world and print. However, reliance on print is peripheral and is needed only to confirm or reject the reader's expectations and anticipations.

B. Look-and-Say Approach

Gradually, phonics lost its place in reading instruction as the primary means for word identification in reading. As reading came to be understood more as a means of comprehension rather than as a process of decoding, there was an increasing shift to teach phonics as supplementary material only. Phonics was then used in conjunction with basal reader programs in the United States and with reading schemes in the United Kingdom. Basal readers are "preplanned, sequentially organized, detailed materials and methods used to teach and to learn the skills of developmental reading" (Harris and Sipay 1975, p.58). The notion of developmental reading skills that basal reader materials offer is rooted in the concept of developmental growth in reading. These programs are based on introducing controlled vocabulary of high frequency; as the levels of books advance, more new words are introduced and repeated less often (Smith and Johnson 1976, p.95). Other factors that contribute to the level of difficulty of basal reader series are the length and complexity of sentences. All aspects of instruction are presented in a logical sequence and each receives its share of emphasis.

Basal reader materials include textbooks (Preprimers, Primers, and Readers), supplementary books, teachers' manuals, as well as audio-visual aids and wall charts. Pre- and post-tests are also available for the assessment
and diagnosis of skills. It is not the materials but the students' achievement and rate of growth that determine the instructional programs. Basal reader series emphasize both comprehension and decoding. Transfer and application of the reading skills are attended to by the teacher. Their focus is on teaching children to associate the written form with the spoken counterpart of words. This notion is linked with the "whole-word" or "look-and-say" method which is discussed next.

Based on the assumption that "an excessive number of unknown or difficult words will prevent the young learner from acquiring any fluency in reading" (Spache and Spache 1977, p.43), the look-and-say method considerably restricts the number of new words introduced in a page and ensures the ongoing identification of previously used words. Words are introduced through flash cards and the labelling of objects in the classrooms. Teachers and children discuss those words that are considered basic and most frequently used in the first reading books. Children get to recognize these words quickly when they see them printed and hence the pool of recognized words is called 'sight vocabulary' (Oakhill and Garnham, 1988). The basic argument of the whole-word approach is to save children decoding words by analyzing their component letters especially when some words are considered to have no 'fit' between written and oral forms. The significance of identifying previously learned words was a result of studies on first grade children which showed that a limited vocabulary helped the readers to progress faster than those who are given more vocabulary at the same time (Spache and Spache 1977, p.44). However, it is not clear how many repetitions of a certain word are needed to ensure it has been learned or how many repetitions are necessary to keep a given word within a sight vocabulary during the early stages of learning to read. Durkin (1976) talks about two kinds of words taught by the word-method:

1. Deliberately selected words that are either used in
commercial materials prepared for teaching reading to "children-in-general ... rather than individuals" (p.256); or words selected by the teacher according to the children's interest or those words that are already in the children's listening vocabularies, i.e. "whose meanings are already familiar" (p.257).

2. Exposure words that are used by the teacher and a child asks about their meanings. At that point, the teacher writes the word/s on the chalkboard and exemplifies it.

One main emphasis of reading schemes is that the carefully selected words used in the stories are "to be already known to the children in listening or speaking situations" (Olson and Diher 1982, p.154). However, this does not make it sufficient of a condition to schema theories. Schema theories promote the use of authentic story books to concentrate on comprehension rather than the gradual acquisition of the 'reading skills' of decoding and word recognition. Schema theorists do not believe in controlling the vocabulary or sentence length and complexity. Their aim is to encourage reading of real material and the transfer of reading skills easily among the different fields of study.

In summary, basal readers or reading schemes that apply the look-and-say approach, or word method, to the teaching of reading are developmental materials basing their choice of words on children's already existing oral and listening vocabulary, and introducing them in a highly controlled fashion, limiting the number of new words on each page. This emphasis is on the importance of mastering the words that are most frequently used to be quickly identified at sight (Southgate and Roberts 1970, p.120). That is why this method can also be referred to as the sight method (Durkin 1976, p.255): the ability to identify words without any processes of analysis.

This approach was criticized for some of its basic concepts which led to the development of new approaches
to be discussed later. At this point, it is necessary to highlight these shortcomings. First, not all children can equally grasp the relationship between seeing and saying; they may learn to repeat what they hear from their peers. Moreover, some words are difficult, especially those that do not represent concrete nouns, and learning a number of them may overburden the child's memory. To ensure such words are thoroughly learned, some texts which repeat these words are used. However, these texts bear little relation to reality and are thus of no interest to the children. Another drawback of the Look-and-Say approach is that it does not provide the reader with strategies to help them read words they have not encountered nor does it give meaning a value as a way for word recognition (Wray and Medwell, 1991).

In time, the conception of reading evolved to stress programs that encourage the creation of 'independent readers' who are well equipped with a variety of skills to cope with new words without the teacher's, or dictionary's, help. As a consequence, two approaches to the teaching of reading developed: the Language Experience Approach and Individualized Reading Approach.

C. Language Experience Approach

This method of teaching beginners to read is basically to show them the connection of spoken language to the written form. The four language skills are highly integrated and "the emphasis is on total communication" (Olson and Diher 1982, p.175). Since learning to read is "part of the process of language development" (Spache and Spache 1977, p.123), its progress is closely connected to and determined by the progress in the other language domains. It is equally important to note that "a child can not be expected to deal with ideas or language in reading that are much farther advanced than those he can speak or write" (Id&m).

Teaching reading, according to this method, starts at the level of each child's individual experiences,
thinking development, ability to express his/her thought, language growth, etc. Therefore, it is not crucial that each child attains a predetermined, standardized level of development -social or linguistic- prior to beginning reading. The child is trained to notice that the written form of the language is just another form of what people 'say'. To put this into practice, the teacher, during individual conferences with the children, starts the teaching process by writing what the 'beginner reader' has to tell about his experiences. The teacher transcribes what the child dictates in Standard English, with correct spelling, grammar, and punctuation. Meanwhile, the child is watching how written language proceeds from left-to-right and from top-to-bottom. He/she is also observing formation of letters, writing separate 'words' with more space between them than between 'letters', use of punctuation marks, and other mechanics of writing. Then the child 'reads' his thoughts that he has put into oral language and the teacher transcribed into the written form. But most remarkable, as Spache and Spache (1977, p.126) say, is "its tendency to strengthen association between word forms and meanings and to promote familiarity with sentence patterns". They cite Allens' summary of this approach (Ibid, p.125) in these words:

What I can think about, I can talk about.
What I can say, I can write.
What I can write, I can read.
I can read what I write and what other people can write for me to read.

The materials used by the Language Experience Approach advocates to teach reading to children are, therefore, not published books written for all children; rather, the reading material for each child is prepared by him/herself with the help of the teacher. This does not mean that commercial books are not to be used; on the contrary, such available material could be a supporting tool for the teaching of reading "as resource materials for ideas, for vocabulary, for enrichment, for spelling,
and for other purposes" (Spache and Spache 1977, p.128). Language Experience Approach is a highly motivating method for beginners since they are reading about their own experiences, interests, concerns, and thoughts. It reinforces the idea of how meaningful written language is; besides, this approach teaches children that the written form is to keep "permanent records" (Durkin 1977, p.244) of topics, subjects, and probably questions and answers, of personal interest and concern. The teacher could help in strengthening these notions by reading to the children books that are carefully selected according to their interests and level of thinking.

Olson and Diher (1982, pp.176-188) propose four procedures a teacher should follow when using the Language Experience Approach:

1. Talk to the child to identify the topics he/she converses about and the ability to express him/herself with language, i.e. to identify the child's background experiences and knowledge.

2. Once the children's background is identified, the teacher plans the instructional procedure accordingly using audiovisual resources, experiments, and fieldtrips as experiences to trigger the children's imagination and stretch their knowledge. Other activities that may be used to supply the children with more interesting topics to 'write' about are their own lives, their families, and major current events in the area or, more specifically, in the school itself. The teacher can make use of these activities and discussions by encouraging the children to 'dictate' to her their version as individuals or in groups that are categorized according to 'interests' and not 'levels'.

3. Since each child is proceeding according to his/her own interest and ability, accurate records should be kept for every one. All the stories of each child are
to be 'written' or 'dictated' sequentially in a notebook and dated. Teachers' transcriptions are illustrated by the children on the opposite page of the notebook; and children's writings are separated from teachers' transcriptions for ease of reference to the children's progress.

4. Working with one child at a time almost certainly disturbs the class as a whole if the instructional plan is not well-organized. The teacher, in addition to scheduling regular individual conferences with each child, has to develop a management system where it is clear what other children are to be doing and in what area: reading, writing, listening, speaking, drama, games, or publishing area. A properly set instructional system helps the teacher to keep a detailed record of each skill taught to the child, or for that matter needed to be learned.

By now it is obvious that the language skills are not directly taught in a sequence according to a preset plan; rather, the teacher introduces each skill as the need arises. The same procedure applies to spelling; the desired words are introduced as needed and kept in a "word bank" that children can refer to at any time.

The language Experience Approach is especially beneficial in multi-cultural classrooms where different children come to school with varied experiences and language facility. For them, recognizing words in familiar sentence patterns and reading their own stories make the reading process more enjoyable and thus easier (Olson and Diher, 1982).

In brief, the Language Experience Approach integrates the four language skills and views the process of teaching reading to beginners as closely connected to the growth of the child in the other areas. The basic reading material is the teacher's transcription of the children's oral stories. "The young child's experiential background,
his language development, and his understanding of spoken language" (Spache and Spache 1977, p.125) are the basis of this approach; the reading stories are derived from and dependent upon the children's background. It has the advantage of promoting the teacher's as well as pupils' enthusiasm and confidence (Beard, 1987). However, one disadvantage is the limitation of creativity in children's story structure. Children tend to use similar structures in writing new stories with limited change of characters and places. Another negative point is that children, when writing new stories, primarily copy what they had dictated to the teacher. On the part of the teacher, it makes heavy demands on classroom organisation, recording of children's progress and diagnosis of children's strengths and weaknesses (Goodacre cited in Beard 1987, p.82). Moreover, the Language Experience Approach has the dangers of being ad hoc and unsystematic.

Though schema theories -the subject of this study- emphasize the link between the readers' background and the text, advocates of schema theory take a different approach in introducing the material. Instead of using children's stories as basis for the reading material, those who apply schema theories make use of published books to teach reading. This seems a more practical way in the sense that the teacher has a more flexible time to work with children as groups rather than having to worry about other individuals working on different jobs. More important is that the teacher and children can enjoy a collective discussion of the topic and of the new information. They can together discuss the topic and 'investigate' what each person can bring forth to share.

A second angle of the natural implication of schema theories by using published stories is the following: people encounter reading material everywhere be it in the form of newspapers, fiction, advertisements on sides of roads, or on consumer products. Having been introduced to reading through printed material may make it easier for beginners to transfer their enjoyment and reading skills
D. Story Method

The story method of teaching reading emerged as an attempt to interpret the language experience approach and its usage. The story method approach stresses the similarities between learning to read and learning to speak. A number of carefully graded schemes—books and support materials such as classroom displays, posters, art and craft activities—are provided. Children are introduced to the story line of each series of books in the scheme by the teacher reading a story aloud until the children are able to take up the themes (Beard, 1987). Certain features of the stories would be concentrated upon so that children can develop knowledge to generalize to other stories (Wray and Medwell, 1991). However, the story content of special schemes has been recently criticized, leading to the concept of individualized reading where the level of difficulty of a text is matched with the child’s reading ability. However, more recently the concept of story method developed from using reading schemes to using real-books. These are discussed under ‘real books method’ in section F of this chapter.

E. Individualized Reading Approach

The Individualized Approach to teaching reading to young children has one aspect in common with the Language Experience Approach and that is the consideration of the needs and experiences of individual learners as the basis for introducing the skill of reading. The emphasis is on "the development of the individual pupil rather than the importance of the materials, their sequence, and their absolute essentiality" (Spache and Spache 1977, p.77). With the Individualized Reading Approach, each child selects his/her own story, and thus every learner is reading a different book. The purpose of this self-selection of reading books is to secure the attainment of the child’s interest in the reading material which is the key to reading success. The
children are trained to choose the books independently according to their right level: the 'guided' level or the 'independent' one. Since children reading at the frustration level are discouraged from reading, Veatch (cited in Quandt 1977, p.166) suggests teaching children the use of a "rule of thumb" before attempting to read the whole book. When a book is picked up, the child opens it to any page and reads. Every time a new or unfamiliar word is encountered, the reader puts a finger on it; when more than five new words are pinned down, the child is to abandon that book and choose another. Having the advantage of choosing their reading books, children should be provided with a wide variety and a great number of books and other materials. Books and magazines may be borrowed from the class library, school library, or public library. Smith and Johnson (1976, p.51) even mention "several complete sets of basal series" to be available in the classroom "as well as skill- development books, games, flash-cards, audio tapes, ditto masters, and multilevel skill-development kits."

References on the Individualized Reading Approach (e.g. Olson and Diher, 1982; Spache and Spache, 1977; and Quandt, 1977) tend to describe it according to five of its basic characteristics: organization, individual conferences, follow-up activities, skills development, and record keeping.

1. Organization includes the teacher's encouragement to children through putting up bulletin boards and reading stories to them, and by providing them with a variety of books on a wide range of topics that may interest different children across levels of difficulty including "information, reference, and recreational materials" (Spache and Spache 1977, p.79). It is also a part of organization to plan the instruction in a way to keep all children actively busy when the teacher is having individual conferences. The presence of work centers in the classroom provides constructive learning activities...
for children to work either individually or in groups. Some examples of activity centers are the reading center or the library, a picture file, an exercises and worksheets center, a puppet theater, filmstrips and records. The teacher plans a weekly schedule for children to rotate between the different centers and group activities maintaining a variety of work for each individual.

2. Individual conferences in this approach to teaching reading replaces group instruction in the previously mentioned methods. During the individual conferences with the children, the teacher indulges in many tasks concerning provision of help in comprehension, the assessment of the child, and planning further readings and activities to follow-up. Most important in these conferences is the positive attitude that children develop towards reading and towards the teacher: "When a teacher gives an individual child full attention and displays enthusiasm for his/her interests, it is not surprising to find growth in positive relationships and attitudes" (Quandt 1977, p.168).

During oral reading, the teacher diagnoses the child’s reading interests and skills and analyzes past records checking for academic strengths and weaknesses (Olson and Diher, 1982); accordingly, the teacher recommends certain activities or worksheets for the child. Meanwhile, the teacher poses open-ended questions, not to check if the children have read the book, but rather to guide them in comprehension and assist them in evaluating the book. An important final step in individual conferences is the assignment of activities related to the book read and a date for the next conference.

3. Skills development: according to the teacher’s observation of the children during reading, he/she provides some instruction in the skills that need to be developed in the child. This instruction is given
in the individual conferences or, more commonly, to a
group of children who share the same skills needs. The
children are given worksheets and exercises to work on
either individually or shared with a small group, thus
increasing the responsibility of the child to work
independently or with a child helper. Teachers could
make use of activities prepared for basal reader books
or prepare their own worksheets.

4. Independent activities are intended to be "a way of
applying reading skills and relating them to language
development in its many facets" (Spache and Spache
1977, p.82). The children work independently from the
teacher, but most often in groups, on these follow-up
activities. Children write letters to authors,
dramatize stories, prepare newspapers or magazines,
and so on. Children will be sharing their experiences
by reporting or talking to their classmates about a
book they have read or a project they have prepared.
The system works on what is termed a "contract system"
where both the teacher and the child agree on a
certain amount of work to be done as a basis for
acceptable achievement. This contract includes the
learning objectives, the choice of activities, the
criteria to be met for a particular grade, and the
method of evaluating successful completion of
objectives.

In addition to the practice in language skills,
children develop the sense of working together, of
independent work with minimal guidance from the
teacher, and of "persistence in these follow-up
activities" (Quandt 1977, p.82). On top of that, the
children maintain high motivation through working on
projects that are of interest to them, through working
in teams, and sharing ideas with friends.

5. Record keeping: as the children work individually and
select books each according to his/her interests, a
careful system of record keeping seems essential. An
easy, but detailed, form is advised about what and how each book is read. A list of the new words is kept as well as the skills already mastered by the child so that they are not taught the same skills again. Clear records are also useful for teachers of the coming year. The teacher may devise a duplicating checklist which the child may assist in filling out by writing the author and the title of the book, the date the book is read, a summary or description of that book, and some evaluation.

In brief, the Individualized Reading Approach accounts for the individual differences in children; children, according to this method, are given the choice in selecting books that interest them and are convenient to their level, and equally important, they proceed according to their own pace irrespective of their classmates' progress. Thus, the element of frustration for not being able to compete with the others is eliminated; rather, a positive attitude towards reading, towards the teacher, and towards other children sharing the pleasure of working on certain projects are promoted. Above all, the Individualized Reading Approach trains children to grow as independent readers in the hope that they will choose reading as an interesting activity to do in their leisure time.

However, none of this attractiveness of the Individualized Approach is considered sufficient for schema theories. Schema theorists still ask for greater emphasis on the comprehension aspect. They do not ask children to check for the difficulty of the text as a starting point to reading a text. Schema theories are concerned with the association of background knowledge to the topic of the print. Everything else, e.g. decoding or new words, become elementary if and when the readers can make sense of the general gist of print by relating it to their previous information. Moreover, as is the case with the Language Experience Approach, the Individualized Approach is more time consuming and is less practical for
teachers and for the children’s transfer of skills than that proposed by schema theories.

F. 'Real Books’ Method

The Real Books method questions the need for artificial scheme texts and places emphasis on meaning as found in real texts. This explains the wealth of children’s literature found nowadays from which children can develop generalized understanding about print and story. The idea behind using authentic storybooks is that they present/use the 'real' language and the 'real' world (Ellis and Brewster, 1991). Moreover, real books give a pleasant sense of achievement to young children for working with 'real books'.

This approach is parallel to the 'Apprenticeship Approach' to reading proposed by Liz Waterland (1985). She believes that since "essentially reading cannot be taught in a formal way any more than speech can be" (Ibid, pp.10-11), adults, both parents and teachers, are to provide a wide variety of books for the children rather than the graded books. Moreover, Waterland adds, adults are to share the books the child chooses with enjoyment. Each book is read with an adult until the child takes over. Children read by reading rather than by performing the necessary component skills. However, a general fear concerning such approaches is that children fail to explicitly develop concepts about the features of language (Wray and Medwell, 1991).

E. Garvie (1990) discusses the importance of stories in the general development of children: linguistically and cognitively. She sees that language, thought, and experience are closely interrelated and development in one yields maturation in the other areas as well. The role of stories in this maturation process is directly linked to language development in its receptive and productive components (reading, listening, writing, and speaking) by reflecting on children’s experiences triggering their thoughts and stimulating their feelings.
Garvie in her book *Story As Vehicle* adds that the use of stories with children should be extended from practice in the four basic language skills to awareness in different communities and, on a larger scale, a variety of cultures. She extends this suggestion from the fact that a "story is universal as a mode of human experience... [and] that various societies and cultures in the world will have their own specifics, including their story grammars" (Ibid, p.31). The educator's role, according to Garvie, is to offer a resource of stories from different cultures to enrich the children's experiences and cognitive development in an attempt to show that though there is a wide variety of life-styles and customs, stories and their reflected cultures share common things.

Ellis and Brewster (1991) in their handbook on the use and selection of storybooks with young children learning to read emphasize the enjoyment children should get out of listening to stories. They give special reference to children learning a foreign language. Ellis and Brewster believe that the use of real books with such children is helpful in the sense that it introduces reading to them in a context which is familiar to them and uses language which is found in the real world surrounding them. Similar to Garvie's position on using real books for teaching children to read, Ellis and Brewster acknowledge the varied areas in which the child develops through listening to real stories. Storytelling widens the children's imagination and at the same time helps them bridge fantasies with the real world. Moreover, storytelling helps the children to mature socially, linguistically, and educationally. Since listening to stories in a classroom is a group activity, children learn to think and to share ideas and feelings in a social context. Linguistically, children learn the language and its structure and build up their vocabulary through listening to stories, perhaps to the same story again and again. Ellis and Brewster add that since stories can be chosen to compliment certain areas in the curriculum, they become a chance for both enjoying a
Care, however, must be taken and research and planning must be made in choosing storybooks for use in the classroom. The teacher should study each text against several criteria that are discussed by Ellis and Brewster (1991, pp.12-13) before deciding to use them with the children. Some of the points that should be taken into consideration include the text's level of readability; content and its attractiveness; potential to arouse motivation, thinking, sharing ideas, and reflecting on personal experiences, and developing positive attitudes toward reading in general; language and its authenticity and representation of the culture the text reflects.

To summarize, as the understanding of the reading process has been changing, so its definition, theories of teaching, and materials used in the teaching-learning process have evolved. Earlier schools in the field of teaching reading emphasized the oral aspect and thus based their instruction programs on phonics and decoding skills. This conception was later rejected by advocates of readers as active participants in the reading comprehension process who contribute to the text by bringing forth their existing knowledge to interact with the print. This idea progressively developed into several theories that stressed the role of the readers' prior knowledge in varying degrees. These theories are discussed in detail in the next chapter, then focus is put on one of them, Schema Theory, which is the basis of this study. However, prior to this, a presentation of the development of the concept of 'reading readiness' is appropriate to chase the development of thought in reading research which is parallel to that of teaching theories and material.

VI. Reading Readiness

Educators have long been concerned with the issues of reading readiness, reading difficulties or disabilities, their causes, and possible remedies. Since these topics have
been considered in reading research and since reading readiness is still believed to be 'alive' and important (Downing and Thackray, 1982), a brief history of how each of these fields developed is sketched below.

The concept of reading readiness has been used since educational institutions were founded. First, the term was used in the simple sense that a layman uses. For example, in describing a person not efficient in work, one says: "He is not ready for the job". This would mean that success in a task depends upon prior qualifications, potentialities, or attainments. The concept of readiness has developed from concentration on physical fitness of visual and hearing acuity, for example, to intellectual factors such as mental age and memory span until it reached its interest in educational factors such as word recognition. More recently, research has been interested in personal development. The latter concept is the most emphasized one nowadays and its effect is believed to be the most important determinant of reading readiness. With the introduction of psychological and sociological ideas into reading theories, social and cultural factors have become recognized as important variables in affecting children's readiness to read. The rest of this chapter traces the development of this idea of reading readiness.

A. How Is It Measured?

At the beginning of the twentieth century, the concept of reading readiness was the concern of many educational reports and research studies. It was also a part of the nature versus nurture debate in the process of learning. The age of entrance to school (six years) was considered the appropriate age to start teaching reading. Then, in 1908, Edmond Huey (quoting Dewey) suggested the age of eight as the appropriate time to begin reading. Thus, the question of when is the best time to start teaching reading arises.

Among the early views in the concept of reading readiness was that of G. Stanley Hall (1907). He
suggested that nature—or heredity—and maturation are the important factors that determine the time of reading readiness. He also accepted the theory of recapitulation which he refers to as "the individual, in his development, passes through stages similar to those which the race has passed, and in the same order" (Hall 1907, p.65). This view which stressed a predetermined nature of man that unfolds in stages was further carried by Hall’s students. As Chapman (1987, p.11) summarizes this notion, the teaching of reading and writing was considered a "waste of time, even detrimental, before the children are mentally mature enough to go to school."

Doloris Durkin (1976) gives the following reasoning behind such an explanation. In brief, Durkin (1977, p.150) suggests that maturation is an automatic process that develops with time. Reading is one of those skills that are to be learnt in due time, i.e. when the child is naturally ready for that. If failure in learning to read is noticed in first graders, reading instruction should be postponed.

Implied in Durkin’s explanation of developmental maturity is the perceptual ability that Chapman (1987) points to. In contrast to the more recent conception that literacy grows with children starting at infancy, it was thought that reading was a byproduct of subskills that had to be rather ‘mastered’ before success in reading is achieved or even the attempt to initiate it. Hence, traditionally children were given training games and puzzles to learn to recognize similarities and differences before they were ‘instructed’ how to read.

This issue of maturation and reading readiness begs the question of when children are ready to start learning reading. The answer was given by studying the correlation between the child’s intelligence and his/her achievement in reading. Different reports were given; the most accepted at the time was that of Morphet and Washburns (1931) in which they described the reading achievement of
first grade children when a particular method was used in Winnetka, Illinois school system. The conclusion was based on the children's achievement in relation to mental age as follows: "It seems safe to state that, by postponing the teaching of reading until children reach a mental age of six and a half years, teachers can greatly decrease the chances of failure and discouragement and can correspondingly increase their efficiency" (Ibid, p.503).

Another method to find when a child is ready to read was to use reading readiness tests. These included vocabulary development, visual discrimination, and phonics. In vocabulary tests, the children were usually asked to circle or underline a picture that went with a given word.

In visual discrimination tests, children would be asked to look at the first figure in a row and then underline all the others that were the same (or different). The assumption here was that if a child notices similarities and differences in pictures, or geometrical figures, he has the ability to see similarities and differences in letters and words.

In phonetic tests, children were asked to circle or underline all the pictures of words which rhymed with a word given by the administrator of the test. Another form dealt with the initial sounds of words: children were asked to circle or underline pictures whose names begin with the sound of the word given by the administrator.

Reading readiness programs were then developed accordingly. They were composed on the same principle of the reading readiness tests.

In the middle of the century, new interpretations of 'reading readiness' appeared. Among them was the emphasis on the 'instruct of a discipline' in teaching that discipline to others. This may be summarized by the
following quotation from Bruner (1990, p.72): "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development."

Another approach emphasized the importance of early stimulation. This concept was highlighted with the studies about the importance of the environmental factors and the disadvantage of children from lowest socio-economic levels in schools. In this respect, reading readiness can be seen as a product of the interaction of both nature and nurture. Here, the definition of David Ausubel (1959, p.246) of readiness is useful: "Readiness is the adequacy of existing capacity in relation to the demands of a given learning task." In this definition, the term 'existing capacity' may include more than hereditary capacities; and the term 'demands of the learning task' may include many factors among which is the teaching method and what the teacher does with that method; i.e. social or environmental factors.

At the time, there was a debate about 'linguistically disadvantaged' children, so research was initiated and Well's (1985) results show that all children pass through the same developmental pattern but at varying rates. It was also shown that the quality of conversation the child has with people around him/her is an important factor in explaining differences in language development between children. However, an even more significant factor in these linguistic differences is the children's awareness of literacy. This knowledge arises mainly not by learning the mechanics of language such as sounds of letters and left-to-right, top-to-bottom layout of books, but by "understanding the essential characteristics of written language" (Ibid, p.133), i.e. its relationship with 'experiences' that are found in stories.

B. Factors Influencing Reading Readiness

The factors that influence reading readiness are many and of different natures. Some are observed and measured,
others depend on the level of development, and yet others are fostered by training. Although these factors are interrelated, we could classify them into four categories: physical, intellectual, educational, and personal development. Each in its own domain contributes to the general development of the children and to their experiences. These consequently affect the knowledge and mental representations the children build in their minds and memories, i.e. the schema formation, and their employment in due time.

1. Physical Development:

The physical factors that were believed to indicate whether a child is ready to start learning how to read include such items as chronological age, general maturity, sex differences, and hearing/speech impairment. These factors were amongst the earliest thought in reading readiness but have lost their fame nowadays especially when we are dealing with 'normal' children attending regular classrooms in average schools.

In general, the physiological factors are relatively unimportant factors in reading readiness for classroom practices; provided that children are examined for any visual, hearing, or speech defects prior to starting learning how to read. Thus, a shift in reading readiness research was made towards investigating intellectual factors that may contribute to readiness to read.

2. Intellectual Development:

The awareness of the intellectual variables in reading readiness studies was a big advancement on the physical causes of reading retardation. It took into consideration more 'intellectual' factors that go on in the mind of a child reader. A list of those factors include: mental age, the ability to see likenesses and differences, memory span of ideas, and reversal tendencies.
Though the intellectual factors were considered a major step forward in the area of reading readiness, they were still found insufficient in explaining why some children are ready to start reading at an earlier age than others. Research was thus carried on and it investigated educational factors.

3. Educational Factors

The next step in reading readiness research was to consider that, with proper skills to be taught by the teacher, all children will be able to proceed in reading. This sounds as if the child is more actively involved now in the learning process. Children are not tested to check their chronological age or hearing acuity or even their memory efficiency in order to judge whether they are ready to embark on reading or 'not yet'. On the contrary, advocates of the educational causes theory in reading readiness believe that with properly taught skills reading can be made easy and attainable.

The educational causes include two main branches: the lack or inappropriateness of word recognition skills and the failure in comprehension due to the reader's unfamiliarity with the comprehension 'units' (words, phrases, sentences, paragraphs, and whole 'skeletons') and levels of comprehension (literal, interpretive, critical, and creative). In brief, research on the educational factors affecting success in reading concentrated on word recognition skills and on comprehension skills.

Comprehension skills planned to promote success in learning to read at this point acknowledge that the readers' familiarity with the language patterns and with the objects and concepts used by the writer facilitate their understanding of the written material. Hence, teachers are to plan pre-reading experiences for children to provide them with the readiness to understand a text. It should be noted
that though background information about the text was taken into consideration at this stage, the basic argument remained that the students should be made aware of the 'units' they must comprehend and of the levels of comprehension they should achieve.

To enhance children's ability to recognize narrative organization and structure characteristics, and to help them learn "to pay attention to the linguistic message as the major source of reading, even when the book is illustrated" (Wells 1985, p.134), parents and teachers are encouraged to read to children allowing them to discuss, reflect upon, bring their own experiences into, and imagine real situations of the story. These could be achieved by actually talking with the child about the events in general terms and not checking his/her ability to recall facts and details. During this discussion children are encouraged to relate the events with their personal experiences and to give their own interpretations rather than imposing on them 'correct' ones. Such activities promote the ultimate goal of reading (any literature, not just stories) which is "to come to grips with the symbolic potential of language—its power to represent experience in symbols which are independent of the objects, events, and relationships which are symbolized, and which can be interpreted in contexts other than those in which the experience originally occurred" (Idem).

Wells (1985) concludes that though schools emphasize phonics and vocabulary, which encourages parents to prepare their children for school by training them to match letters and sounds and by naming objects in pictures, he considers this knowledge a short-lived advantage. Children are to be helped to become "good readers" in the long run where they are able to answer questions beyond merely the details stated, to question facts, to recognize causes, and to predict consequences taking into consideration the affective
part as well, i.e. the motives and emotions that are tied up with the story's events and actions.

With the introduction of psychology and sociology into the field of teaching reading, social, emotional, and environmental factors and their impact on reading readiness were researched. The effects of the social environment were considered to have a direct relationship with the attitudes and experiences that set a child ready to begin reading. The next section briefly mentions possible variables that contribute to the personal development necessary for triggering readiness, interest, and success in reading comprehension.

4. Personal Development:
The theory of the effects of personal development on children's readiness to read is concerned with the environmental factors that indirectly set the child ready. They include factors related to the general development of the child socially and mentally. Personal development variables include: environmental factors, such as home background; cultural factors, including social classes; emotional factors; and, motivation.

To conclude this part, the concept of reading readiness has made several advances in the field of reading. This is not to say that earlier theories are invalid. On the contrary, as in every field of research, early hypotheses lead the way to newer, more favorable ones that suit the present situation of the world more satisfactorily. The earlier work in reading readiness, i.e. the importance of physical and intellectual factors may still prove helpful when teachers are working with physically or mentally disabled children. However, this is limited to special institutions and they do not apply to the general schooling that physically and mentally normal children get.

C. Developing Readiness for Reading
Developing readiness for reading requires helping the child to be a good listener and speaker. The assumption according to the Language Experience Approach is that what one can hear or say, he/she can read and write or, at least, will want to read and write. Listening develops auditory discrimination which is the basis of phonetic analyses and reading. Listening and speaking provide the vocabulary, sentence structure, and grammar rules which are beneficial in reading. Listening skills may be developed in school. The teacher may help by being herself a good listener. These skills could also be taught through story-telling, giving instructions or directions, making demonstrations and asking children to do likewise etc.

More recently, Wells (1985) in an attempt to identify preschool experiences with language that best attain good achievement levels in school, found that amongst looking at books, writing or "pretending to write" (p.133), drawing and coloring, and listening to stories read, the latter proved to be the most beneficial. Besides introducing the mechanics of reading to children and familiarizing them with the "language of books and with the characteristic narrative structures" (Ibid, p.139), most important was listening to stories which trains children to understand and reflect upon language presented independently of context, i.e. "to 'create' the context to understand the meanings of which the text consists" (Ibid, p.134). Whereas in conversation participants use the context and shared knowledge to understand, comment, and form expectations, readers have to 'create' the context to understand the writer's intentions.

Developing the reading readiness concerning the phonological system of language and language structure, children may be helped to overcome speech defects; e.g. saying /tʃimani/ for /tʃimni/; delayed speech; and lisping, i.e. substituting /s/ for /ʒ/ must be dealt with by practice and tongue twisters like "Peter piper picked
a peck of pickled peppers". Disorders of rhythm and stuttering are other errors to be dealt with by patience, practice, and encouragement.

Among the earliest works in reading readiness, it was believed that there are nine major readiness skills that have to be developed through classroom instruction. The list of such activities includes concept formation, auditory and visual discrimination, knowledge of the alphabet, left-to-right progression, how to handle a book, associating meaning with printed symbols, and independence in working out the pronunciation of words.

The previous part is a presentation of some of the approaches on the study of readiness from the points of view of maturation factors, experiences, and practice. In spite of much research carried in this field, it seems that the field is still in controversy and invites more research especially in questions such as: Does reading readiness have a special age? Is environment an important factor in determining readiness level? Could readiness be enhanced? Is readiness age common to native speakers earlier than to speakers of other languages?

A critical feature which is largely absent from reading readiness schedules is meaning related to experience, which is the focus of schema theories. One reason for this absence is that reading readiness seems to be largely associated with bottom-up approaches to reading.

In brief, schools should concentrate more on developing in children "the ability to deal with disembedded language" (Wells 1985, p.139) giving them the chance to look beyond the visually seen material and encouraging them to rely less on the immediate context to understand the message. As Margaret Donaldson (1978) puts it: a child "must become capable of manipulating symbols" (cited in Wells 1985, p.140).

This concept comes hand in hand with the modern ideas
in linguistics that Chapman (1987) mentions. The first is that language is to be learnt holistically. The four language skills are not 'developmental' in the sense that one is a prerequisite for and leads to the others. Rather, language skills are integrated and have to grow and develop simultaneously. A second recent concept is that literacy starts much earlier than formal instruction at school. Our surroundings are full of educational opportunities that set the children ready before they go to school. A much appreciated point nowadays is that language is meaningful because it is needed and is used in everyday life and real settings. This pursues the development of language purposefully and meaningfully. Finally, and in contrast to the earlier thinking that reading readiness should be monitored in the early years of schooling for physical, developmental, and intellectual hindrances through testing and recognition exercises, Chapman (1987) points to the fact that cognitive development starts at birth and goes on until and beyond the time the child goes to school. Therefore, it is misleading to assume that normal children have to have 'orientation' programs, exercises, and activities about language before they can actually manipulate it freely, personally, and for everyday uses.

The social environment of adults and of print allows the children to explore language, spoken and written, long before the age of six -the age when formal teaching starts. With more emphasis on the cultural/attitudinal aspect of language learning, the concept of reading readiness lost its original stand. When teachers are dealing with normal children in regular classrooms, the physical, intellectual, and educational factors mentioned in this chapter become minor determiners of reading readiness and proficiency. Social surroundings of the child including parents, home, and experiences have a more influential effect on the child's ability to recognize print and relate to topics.
Chapter Two

THE READING PROCESS ACCORDING TO
THE SCHEMA THEORY

Reading comprehension is increasingly seen as an interactive process between the reader and the reading text rather than as a passive act of decoding. More emphasis is directed towards the reader who relates the material taken from the text—which "alone does not carry meaning" (Carrell 1983b, p.27)—to his own background knowledge in an attempt to construct meaning. Therefore, the reader draws on his/her own background knowledge, the linguistic cues provided by the author, and the situational context to interpret the message of the text. To elaborate on the background knowledge aspect, this chapter is composed of five main parts. The first starts with a general view of how reading texts are processed. This will mainly draw on Goodman's 'psycholinguistic guessing game' and Clarke's theory of 'language ceiling'. The second part gives a definition of a 'schema' and describes how schemata function. The next part presents the different views of schemata mainly frames and scripts. The fourth section of this chapter describes how schemata affect reading comprehension at three stages: before, during, and after reading. The chapter concludes with whether the formation of schemata is universal or whether it is affected by different cultures. If schemata are culturally determined, how does this notion affect reading comprehension?

I. Text Processing
To place the development of the concept of reading in a framework, different approaches have been grouped according to their emphasis on the required skills for successful reading into four categories. These are: 'Bottom-Up', 'Top-Down', Interactive and Transactive Processing models.

A. 'Bottom-Up' Processing

Early cognitive theories believed that information processing passes through encoding stages. Each level transforms some of the material and passes it to the next, higher-level stage. This type of information processing has been termed bottom-up model since information is passed from the input to higher-level encodings. Many models of reading developed later based on this model. More research demonstrates that bottom-up processes give some problems; they do not permit the effect of higher-level processes on lower-level processes.

'Bottom-up' processing emphasizes textual cues as a means of getting to the content area of the text. This data-processing model is considered a lower-level process where linguistic knowledge is the primary factor that determines reading comprehension. 'Bottom-up' models have been also known as 'outside-in' models as the reading process is considered to begin outside the reader who transfers the writer's meaning into his consciousness (Wray and Medwell, 1991). Two models have been presented by Rumelhart (1977b) as examples of bottom-up approaches:

1. Gough's Model (1972) presents in detail the whole information-processing procedure during reading. This model is a data-driven one which starts with the sensory input of print and proceeds sequentially into higher-order levels: phonemic, lexical and finally deep structural. Gough's model of the reading process is a bottom-up model where each level affects only the level one stage above it. Thus, no interaction between low and high-level processes is accounted for.
2. LaBerge-Samuels' Model is also a bottom-up model of information processing where only under very limited circumstances do higher-order stages influence lower-level stages "to speed up weak bottom-up paths" (Rumelhart 1977b, p.578). Information passes from low to higher-processing levels, from the Visual Memory System to the Phonologic Memory System and finally to the Semantic Memory System. However, LaBerge and Samuel's Model was developed from a serial bottom-up model to what became known as the automatic-processing interactive model. The elaborated model allows for a two-way processing of higher and lower levels rather than a simply serial one starting from low level processing.

Linguistic input, according to advocates of bottom-up approaches, activates appropriate schemata which in turn activate the dominating schema. The reverse is true in top-down processing where the general schema activates its subschemata. Thus the concept of 'linguistic threshold level' (Cummins and Swain, 1986) or 'language ceiling' (Clarke 1988, p.221) emerges where a minimum level of language proficiency is a prerequisite for the reader to interact with the text to activate appropriate background knowledge. In general, if second language learners have not crossed the threshold, they will not reap the potential cognitive benefits of learning in a second language. Thus, the threshold concept applies both to reading specific texts and to more general cognitive development.

Cummins (1978) develops this notion of threshold theory and extends it to second language learners. He suggests that the higher the first language competence level is, the better the proficiency will be in the second language. Cummins' theory is known as the developmental interdependence hypothesis and it distinguishes between surface communication skills and deep cognitive and academic demands required for schooling. This idea implies a universal competence which
is shared across different languages and which can be transferred from one to the learning of a second. This notion was further developed to make a distinction between basic interpersonal communication skills -BICS- and cognitive academic language proficiency -CALP (Cummins, 1980).

Baker (1988) supports the notion of the effect of first language proficiency on the acquisition of a new language and certainly on the general cognitive development of the learner. Baker (Ibid, p.174) believes that "where one or both of a person's languages are less well developed, alternative cognitive consequences may ensue".

Suzanne Romaine (1989) agrees with the idea that, while learning in a new language, though fluent communicative skills may develop within two years, proficiency in other areas may take up to seven years to develop to the level of monolingual learners. As an explanation to the delay in cognitive areas' development, Romaine suggests that communicative fluency through language matures at a quicker pace because it is put and used in a context. Thus, Romaine emphasizes the importance of the social-context in learning and developing a new language.

There has been no direct research done on the minimum level required for story comprehension or more specifically cultural story comprehension. In other words it is an interesting issue to study whether there is a "story threshold" or a "schema threshold" when reading texts about a foreign culture. By "story threshold" is meant that a certain level of story structures is required for the understanding of a given story book. The "schema threshold" concept applies more to the present study as the main concern is to investigate the effect of foreign culture stories on the comprehension of such texts. The question of whether a certain amount of cultural or topical knowledge as a prerequisite to
reading is essential for a minimal understanding of a text is considered in more detail after the results of this research are discussed (i.e., in chapter seven).

'Bottom-up' processing has been criticized (e.g. by Goodman, 1967; and Rumelhart and Ortony, 1977) for its inability to explain adults' fast reading without fixing their eyes on texts to decode it word by word. Wray and Medwell (1991, p.98) use the following sentence to illustrate that good readers can encode meaning from "code-cracking" sentences because they concentrate on meaning extraction rather than symbol decoding: "If you aer a fluent reader you will have on PRblme reOdng ths sNtnce".

Rumelhart (1977b) has also criticized bottom-up methods by mainly drawing on Gough's and LaBerge-Samuels' bottom-up Models. He believes that during reading, higher-level processes "partially determine" low-level processes and he thus rejects previously mentioned bottom-up models by presenting how orthographic structure, syntax, semantics, and general pragmatic factors affect the reading process, i.e. perception of meanings.

As a first step towards rejecting pure bottom-up models of reading, Rumelhart (1977b) argues that readers make use of the context in order to be able to guess letters, especially cursive handwriting. He explains saying "that we appear to have 'word-level' or 'phrase-level' perceptions determining our perceptions at the letter level, a higher-level perception affecting a lower-level one" (Ibid, p.579). Moreover, when a string of letters is presented, a reader can recall it better when the sequence of letters is perceived as a 'word' or when the string of letters confirms to the general rules of spelling rather than when they are irregularly presented. Rumelhart adds that though bottom-up models can account for such ambiguous situations, they do so by passing several alternatives for higher-levels to make
final decisions about the character and so "word and letter perception occur simultaneously" (Ibid, p.519).

The second basis on which Rumelhart chooses to attack bottom-up models is their unaccountability of the reader's use of syntax during reading. Citing several studies carried out on children as well as adults, Rumelhart summarizes the results as follows: based on readers' errors, it is evident that readers' errors are mostly correct grammatical substitutions of the originals. Thus, the substitution of the original words by the same parts of speech proves our reliance on grammatical knowledge, rather than visual similarity in determining the word read. Therefore, this is a second support for Rumelhart's argument that "higher-level... processing [determine] the perceptibility of units at a lower level" (Ibid, p.582). In this case, Gough's Model does not apply syntactic processing until late in the process where it acts upon information in short-term memory. With respect to LaBerge-Samuels' original model, it does not clarify where syntactic processing gets into function; and thus neither of the two models is able to account for this kind of syntactic errors in the reading process.

The third grounds Rumelhart takes to show that higher-level processes do affect lower-levels is the semantic effect on the reading process. "Semantic processing can either make our processing more efficient... or it can interfere with our processing" (Ibid, p.585). Summarizing the results of several experiments, Rumelhart says that "processing at the semantic level [modifies] our processing at the word level" (Ibid, p.583).

B. 'Top-Down' Processing

Whereas stimulus processing is the starting point in bottom-up analyses, hypothesizing is the beginning of top-down processes, the counterpart of bottom-up models. Readers according to top-down model form their hypotheses
and then proceed into testing them through mapping the stimulus, the textual information. Such models have been termed top-down analyses since higher-level processes interact with the lower-level process (and direct the flow of information).

'Top-Down' processing is explained by Goodman (1967, p.126) who rejects the view of reading as "a precise process [which] involves exact, detailed, sequential perception and identification of letters, words, spelling patterns and larger language units". He believes that reading is an "interaction between thought and language" (Ibid, p.127). It involves the selection of minimal linguistic cues to produce tentative expectations and in turn, these guesses affect the selection of the perceptual input. As the reader reads on, he/she confirms, refines, or rejects the tentative expectations in a "psycholinguistic guessing game". As a result of his speculations, Goodman believes that as the reader draws on "the sum total of his experience and his language and thought development", he tries to make more precise guesses "based on better sampling techniques, greater control over the language structure, broadened experiences and increased conceptual level" (Ibid, p.132).

Goodman distinguishes 'errors' from 'miscues'; whereas 'error' means a reader does not know how to read something - for example, he reads 'train' as 'toy' - a 'miscue' implies that a word has been substituted by another to "make sense of the print" and usually the substituted word is semantically and grammatically acceptable. Goodman views text processing as conceptually-driven where the reader searches his "prior syntactic and semantic knowledge" (Williams 1989, p.217) to fit in new information. Likewise, Hudson (1988) argues that it is the activation of appropriate background knowledge that offsets low language proficiency. As Rumelhart and Ortony (1977, p.128) propose "these processes are called 'top-down' because they lead from
conceptual expectations towards the data in the input where the satisfaction of these expectations might be found".

Rumelhart (1977b) goes further than the effect of syntax and semantics on the letter-level and word-level to show the effect of higher levels -especially the semantic context- on the syntax level. He does so by providing sentences that could have two deep-level alternatives, for example, "They are eating apples". Rumelhart says that 'semantics' play the determining role as to which surface structure we apprehend.

Finally, Rumelhart ends his argument against bottom-up models by proving how the general context determines the reader's interpretation of words in sentences, or for that matter, the meaning of sentences in paragraphs.

In brief, Rumelhart views the reading process as often dependent on high-level analysis in order to apprehend information at a lower-level. However, it is not implied here that we "first perceive the meaning of what we read and only later discover what the sentences, words or letters were that mediated the meaning" (Rumelhart 1977b, p.587). This would only imply a linear top-down processing. Rather, Rumelhart presumes that "all of these knowledge sources apply simultaneously and that our perceptions are the product of the simultaneous interactions among all of them" (Ibid, p.588). Based on this notion, Rumelhart introduces his interactive model to explain the reading process.

Cairney (1990) emphasizes the context in which reading occurs. He talks about three main things that set this context:

* the social/cultural context that draws the reflections of its people upon the text closer and more similar as compared to those built-stories of readers of other cultures;
* the social/cultural effect upon the text itself; and,
* the context in which reading is going on or, in other words, the purpose of reading a certain passage.

However, these top-down models as well have been recognized as insufficiently explaining the processes the fluent readers pass through. They do not explain how good readers quickly process the input of words. Both top-down and bottom-up models show that good readers, who are efficient in low-level processes, rely more on higher-level ones.

C. Interactive Approaches

Models that involve both bottom-up and top-down processes are the interactive models. Rivers (1987) discusses the importance of the interaction concept in language learning in general. She stresses the fact that language learners should feel the need for interacting and communication with others/material authentically for better achievement. The interaction process involves the sender, writer or speaker; the receiver, reader or listener; and the context. Language users are to be participating actively in receiving information, in conveying thoughts, and in "negotiating meaning" by making use of the context.

Advocates of the interactive approaches towards learning to read assume that people synthesize incoming information based on several knowledge sources at one time, i.e. various reading subskills operate in a compensatory manner. Papalia (1987) points to the three contextual information sources that a reader interactively depends on to draw meaning from print: syntactic knowledge, which is based on the syntactic rules of the language; semantic knowledge, that is drawn from "relationships of words within a specific language and culture" (Ibid, p.70); and, discourse, or pragmatic knowledge, which is provided by the topic of the selection and its development. For example, the semantic processes are considered high-level processes directing
lower levels in top-down models. They, according to interactive models, restrict the alternatives of lower levels but at the same time are themselves constrained by lower-level analyses. In other words, interactive processing is not a serial stage model where each level passes its contents to a higher or lower one. It rather synthesizes the stimulus, based on its own analysis and the constraints of higher and lower-level processes. Interactive models disregard as a fact of bottom-up models that all lower level processes have to be completed before higher ones are initiated. On the other hand, they see that top-down processes do not allow poor readers to rely on higher-order levels to compensate for difficulties in low level processes such as word recognition. Researchers favoring interactive models postulate that the reader with incomplete knowledge at a given level relies more on other knowledge sources regardless of their level. This is what the researchers call the compensatory hypotheses where "a process at any level can compensate for deficiencies at any other level" (Stanovich 1980, p.36). William Grabe (in Carrell et al. 1988, chapter four) talks about five basic interactive models to reading some of which are discussed in detail in the following section: interactive-compensatory model by Stanovich, 1980; interactive-activation model by McClelland and Rumelhart, 1981; automatic processing model by LaBerge and Samuels, 1974; bilateral cooperative model by Taylor and Taylor, 1983; and, verbal efficiency model by Perfetti, 1986.

The compensatory assumption was researched with respect to individual differences in the use of orthographic structure and sentence context. It did that at different developmental levels and compared skilled and less-skilled readers at the same age. There is evidence that, beyond the initial stage of acquiring the reading skill, good and poor readers cannot be distinguished based on their use of orthographic structure to speed word recognition. Moreover, research indicates that sometimes poor readers rely on their knowledge of
orthographic structure more than good readers do. Stanovich (1980) considers this a flaw of top-down processing models which claim that good readers are efficient at all levels. However, interactive-compensatory models explain these findings since they imply that a reader deficient in letter-analysis skills would be more likely to use other knowledge sources (intraword redundancy, semantic context, etc.)" (Ibid, p.42). With respect to how readers process contextual information, Stanovich distinguishes between two types of contextual processes: those that make use of the text to construct a knowledge structure and those that use previously understood material to facilitate ongoing word recognition, i.e. contextual hypothesis testing. Readers predict upcoming new words and then map a few visual features to confirm the 'identity' of a word. Some available research confirms and others contradict the idea that better readers use context to facilitate word recognition more than poor readers and that contextual facilitation increases as reading fluency develops. This situation where poor readers sometimes rely on context more than good readers do presents another problem to top-down processing models "which hypothesize that reading becomes more conceptually driven as fluency develops" (Ibid, p.47). Stanovich adds that such a finding does not present any difficulty for the interactive-compensatory model where knowledge sources at different levels contribute simultaneously to pattern synthesis. Moreover, a lower-level deficit may result in a greater contribution from higher-level knowledge sources.

In a study on first-graders, Biemiller (1970) found that students of that class pass through three stages in their reading development. In the first stage, first-grade students rely on contextual information; next, children rely on graphic information; and finally, the children's errors show their reliance on both contextual and graphic information. Perfetti and Roth (1981) argued that better readers did not rely on
contextual information, but rather both good and poorer readers could trade-off visual for contextual information. Among several studies on oral reading latency, Doehring (1976) found that students asked to read a coherent text, did so faster than they did when asked to read passages of random words. Thus, there is a greater shift in research towards the idea that "virtually all readers, regardless of achievement, employ semantic and syntactic cues and that other factors must account for achievement differences" (Allington and Strange 1978, cited in Stanovich 1980, p.52). Stanovich (1980) suggests a system which differentiates between the skilled and less-skilled readers. He says that if attentional cognitive capacity is needed to make hypotheses to facilitate word recognition, then the reader is left with "fewer resources for higher-level comprehension processes such as drawing implications or integrating new information with old" (Ibid, p.52).

In an attempt to study the automatic and attentional context effects, West and Stanovich (1978, cited in Stanovich, 1980) came up with results that fit within the framework proposed by Posner and Snyder (1975) two-process theory. The Posner-Snyder theory (cited in Stanovich 1980, p.53) states that "semantic context affects recognition via two processes that act independently and that have different properties": the automatic-activation process and the conscious-attention mechanism. The automatic spreading-activation is a quick process where semantically related information besides the memory location directly activated by stimulus information is activated as well. However, this process does not inhibit the processing of a word incongruous with the preceding context. The conscious-attention mechanism, on the other hand, directs the limited-capacity processor only to the expected memory location. Thus, this slow mechanism inhibits information retrieval from unexpected locations and has to shift its limited capacity to other areas to read other information. West and Stanovich (1978, cited in Stanovich 1980, p.54)
indicate that "word recognition in adults is so fast that the target word can be named before the slow-acting conscious-attention mechanism can have an inhibitory effect." Thus, automatic activation explains how context is used by skilled ('fluent') readers to speed word recognition. In other words, "the rapid word recognition of fluent readers simply short-circuits the conscious-attention mechanism" (Ibid, p.55). This gives the compensatory model an extra support since "higher-level processes of conscious contextual prediction become implicated in performance when the bottom-up word-recognition processes are slowed" (Ibid).

Stanovich distinguishes between two types of compensatory processing which are obligatory and optional trade-off. Obligatory compensatory trade-off is inherent in the structure of the processing system. For example, when word recognition is slowed down, automatic spreading activation takes place to facilitate processing since it is a function of the structure of the semantic memory system" (Ibid, p.56). However, since conscious expectancies used to facilitate word recognition are under the control of the reader, they need not be invoked to speed up word recognition. This is an example of the second type of compensatory processing: the optional trade-off. In the case of fluent readers, prior context facilitates word recognition primarily through an automatic semantically-based spreading-activation process. According to the compensatory hypothesis in general, and the Posner-Snyder one in particular, good readers recognize (context-free) words quickly which makes their capacity free for comprehension processes. Whereas this theory is similar to LaBerge and Samuels automaticity model (1974) where they both assume that fast and automatic word recognition processes can free up capacity for higher-level processes, they differ with the type of processing that occurs at the word-recognition level and with what happens when word recognition is slow and inefficient. The compensatory hypothesis involves interactive-compensatory processing at the word level
while LaBerge and Samuels automatic processing model does not allow for contextual information compensation (as with Lesgold and Perfetti's limited-capacity model, 1978).

In brief, it has been found that individual differences in reading ability are not determined by whether the reader can or cannot use context to facilitate word recognition. Rather, "it may be that good readers use context more efficiently to monitor comprehension, whereas poor readers use it to aid word recognition" (Stanovich 1980, p.59). Stanovich suggests three abilities upon which individual differences in reading skill can be differentiated. They are the ability to recognize words automatically, the ability to recognize words rapidly, and the ability to "recode print items into phonological form" (Ibid, p.60). Studies show that high frequency words reach the automatized level of adults by third grade. At advanced stages of reading development, the speed rather than the automaticity becomes the major factor in "skill development".

In summary, Stanovich (1980) argues that though top-down and bottom-up models of reading declare that better readers make use of higher-level conceptual processes, he presents the interactive-compensatory model as a better alternative to account for individual differences in reading performance. According to Stanovich's compensatory model, a reader relies on higher- or lower-level processes to make up for the deficit in any knowledge source.

Word recognition is facilitated by expectancies done according to prior sentence context. The theory of Posner and Snyder explains that "fast-acting spreading-activation process is responsible for contextual-facilitation effects" (cited in Stanovich 1980, p.64). However, when word recognition is slow, the reader uses conscious-attention expectancy processes which leave the reader with less cognitive resources for comprehension
processing to integrate larger text units. The slow processing at the word-level which consumes the cognitive capacity to integrate the semantic wholes of texts is a characteristic of less-skilled readers. Thus, good and poor readers cannot be distinguished based on the ability to use prior context to facilitate word recognition.

Stanovich concludes that good and poor readers differ on two bases. First, good readers seem to have superior strategies in understanding and remembering large units of text. Second, good readers can automatically recognize words and thus are better at word recognition in context-free situations. Moreover, good readers' phonetic segmentation and recoding ability is superior to that of poor readers. The automatic and rapid word recognition skills of good readers set them at an advantage in relying less on conscious expectancies and therefore sparing more attentional capacity for integrative comprehension processes.

The interactive approach—suggested by Rumelhart (1977b)—is an intermediate model of processing which considers reading as a perceptual and cognitive process where the reader uses previous experience and the code features of a text to create meaning and where different levels of linguistic knowledge—orthographic, lexical, syntactic, and semantic—interact. The basis of this model is a "message centre" that deals with input from the senses and is constantly scanned by "knowledge sources" about structure of stories, linguistic patterns, sound-symbol relationship... "Each knowledge source scans the message centre for hypotheses relevant to that source, evaluates them and confirms or rejects them" (Wray and Medwell 1991, p.101). Rumelhart (1977b) postulates that processing which starts with concepts does not have to go back to reach input, but rather the two processes might meet at any point on the continuum. Stanovich (1980) adds that deficiencies at one level—higher or lower—yield to the reliance on the other. This approach has the advantage of being flexible in focusing
on either top-down or bottom-up strategies.

Rumelhart (1977b) draws on three major models to establish his own system, mainly Kaplan's (1973) General Syntactic Processor, Reddy's and his associates' (1974) HEARSAY II model, and Rumelhart's and Siple's (1974) model of word recognition. The interactive model Rumelhart proposes for information processing involves both sensory and nonsensory sources of knowledge to be functioning concurrently contributing to the success of the reading process. The sensory source is the graphemic information. The sensory elements of information that interact with each other and with the visual input consist of orthographic, lexical, syntactic, semantic, and contextual knowledge. Each of these specialized knowledge sources scans the "pattern synthesizer" or "message center" that has already extracted the critical features of the graphemic input, and forms or confirms hypotheses—about letters, words, and syntax—until a final decision is made. Hypotheses at any level may depend on higher or lower level hypotheses, and each hypothesis—based on direct as well as contextual evidence—has its own probability of being correct. The knowledge sources operate and interact in similar manners (except for the featural-level knowledge). They function in both manners: bottom-up and top-down. Each knowledge level scans the hypotheses available and consequently offers its possible hypotheses, probably adding alternatives at other knowledge levels as well. However, the featural knowledge is considered as "the basic level of processing" where "all decisions must be made with respect to the set of features extracted during and shortly after the exposure" (Ibid, p.597). Finally, Rumelhart divides the "dependency relationships among hypotheses" into four kinds: "parent" hypotheses, related directly to lower-level hypotheses; "daughter" hypotheses, related directly to higher-level hypotheses; "right sister" hypotheses, follow a particular hypothesis at the same level; and, "left sister" hypotheses, precede a particular hypothesis at the same level.
In summarizing the interactive approaches to learning reading, it will be interesting to briefly cite the results of a research done by Papalia (in Rivers, 1987) on learners of a foreign language. Papalia lists a few suggestions that he drew from his work with American students learning French and Spanish in New York. His subjects reported that it is helpful to know the topic of the text, to predict meaning and make inferences as they read, guess word meanings from context and skip unfamiliar words, and to "expect the text to make sense and be sequential" (Ibid, p.72). Moreover, Papalia's subjects felt they could interact more with a text when its topic is of interest to them which facilitates making inferences and predictions.

D. Transactive Approaches

Advocates of the transactive theory of reading (Rosenblatt, 1978 and Shanklin, 1982) claim that reading is more than an 'interaction' between the knowledge the reader brings into the text from prior experiences and the message intended by the writer. Transactivists propose that meaning is 'created'; i.e. it is different from the reader's prior knowledge and different from the printed linguistic message. Meaning to them is the new 'text' that is produced when interaction between the reader and the text is achieved to proceed into a more advanced level of merely reproducing the summation of both sources' input.

In brief, research in the field of reading has developed from bottom-up processing into top-down, interactive, and then transactive processing. The former concentrated on pure reliance on print for understanding and thus were known as text-based approaches. This steered a counter reaction in the conception of reading which resulted in another extreme position. Theorists, consequently, proposed that reading is primarily a top-down process. Their aim was to emphasize the readers' prior knowledge as the main determiner of understanding a given text. In practice, the consequences of adopting a
bottom-up view are that reading teachers rely on phonics, word recognition, and word-by-word decoding, i.e. an inductive approach, whereas teachers favoring a top-down approach will tend to encourage children to use their existing knowledge of topics, stories and meanings, i.e. a deductive approach. There was then a shift towards a more moderate, intermediate stand: the interactive approaches. Advocates of interactive approaches claimed the existence of an interaction between the knowledge-based and text-based processes that results in comprehension. An extension to that was the transactive theories proposing that meaning extraction is not simply the summation of the readers’ prior knowledge and the text. Meaning is rather the creation of a new text as a result of the interaction of print and the readers’ previous information (Cairney 1990, p.14).

Since the aim of this research is to check how the interactive theories—schema theories—work in teaching reading to children in a second language, what the general Schema Theory is, how it fits in this presentation of text processing, and what types of processes it involves, these issues are discussed in the following section.

II. Schema Theory

A. Origin

The use of the word 'schema' dates back to the Eighteenth Century when Immanuel Kant (1781) suggested that human memory categorizes and stores experiences based on common features, forming a high-order abstract representation of that category. Such an abstract knowledge becomes understandable in itself, i.e. without reference to the component elements that led to its building up. Moreover, this abstract knowledge structure becomes the identifying basis for the experiences within it. Kant adds that the meaning of concepts is attained only when the individual succeeds in relating it to knowledge he/she already possesses (Carrell, 1983b). The
concept of schema developed later as it was adopted by several researchers in different fields: neurology, psychology, linguistics, cognitive psychology, psycholinguistics, artificial intelligence... Thorndyke and Yekovich (1980, p.26) regard schema theories as belonging to one of two major groups: those focusing on input processes and others on output processes. The former concentrate on the comprehension process looking into how the schemata are activated, how they are used in organizing incoming information, and how that information is represented in memory (e.g. Minsky, 1975; Rumelhart and Ortony, 1977; Schank and Abelson, 1977; Thorndyke and Hayes-Roth, 1979). Conversely, a second approach towards investigating the comprehension-oriented aspect of schema theory concentrates on the effects of people’s perspectives on comprehension rather than what the available schema imposes on the situation (e.g. Anderson, 1978 and Anderson et al., 1977). The second major group of schema theory models deals with how memory schemata affect the recall of the stored information and the summarization of texts from memory (e.g. Rumelhart 1975, 1977; Mandler and Johnson, 1977; Kintsch and Greene, 1978). However, Thorndyke and Yekovich (1980) add, all schema theories share the five basic characteristics of the schemata conception (which are discussed in some detail later in the chapter). The shared assumptions about schema theory include concept formation, hierarchical organization, instantiation, prediction, and induction.

Thorndyke and Hayes-Roth (1979, p.82) define a memory schema as "a cluster of knowledge (a set of concepts and associations among the concepts) that defines a more complex and frequently encountered concept". This knowledge represents a high-order concept built from shared characteristics of specific instances and that is influenced by one’s culture. The general schema is acquired and retained in memory through experiences the individual encounters.
The term schema entered the vocabulary of Psychology in 1932 when Sir Frederick Bartlett (1932, p.201) defined it as "an organization of past reactions, or of past experiences". He originated the application of schemata to story structure and recall proposing that these abstract knowledge structures actively organize past experiences to help an individual make sense of the story events. Moreover, he proposed that schemata actively organize later recall and production of stories. Bartlett also demonstrated that recall involves both reconstructive and reproductive memory processes. His subjects in the well known experiments using the American Indian story "War of the Ghosts" used few prose details to reconstruct the story; in addition, they made use of an abstract cognitive schema to produce elaborations on the original text.

Bruner (1990, p.56) looks at 'schematizing' or 'framing' as "a means of 'constructing' a world, of characterizing its flow, of segmenting events within the world, and so on". Without such framing, experiences are muddled in chaos and people are lost in constructing meaningful experiences to share with their social group or 'culture'. In other words, humans lose the unifying basis that renders them as a 'species'. The act of schematizing drives experiences into memory and keeps them available to make sense of and relate new experiences to those previously encountered. Shotter (1932, cited in Bruner 1990, p.59) regards framing as social, "designed for the sharing of memory within a culture rather than simply to endure individual storage."

As Downes (1984) discusses the importance of knowledge of words and of the world to make sense of language, he identifies three kinds of contextual information: 'background knowledge' which includes knowledge of the language and what he calls 'the encyclopedia'. Downes' (Ibid, p.271) encyclopedia consists of people; knowledge of conversational rules, interpreting social actions (linguistic and otherwise), and the "participants' biographies and social characteristics". The second
contextual knowledge Downes talks about is 'mutual knowledge, i.e. the knowledge shared by the participants—either in an oral conversation or between a writer and a reader. Finally, Downes considers the 'context of utterance' to give meaning for language. It could either be the immediate physical context of the utterance or a previous encounter of the utterance in a similar situation.

More recently, the concept of schemata was revived in the fields of Artificial Intelligence and in psychological studies on memory for prose. In the area of artificial intelligence, the intention of exploring memory schemata is to explain how complex information is encoded in memory. The results of such studies are presented in the form of typical occurrences of the concept they represent. In other words, results of artificial intelligence studies show that encoding of knowledge occurs in clusters such as Minsky's 'frames' (1975) and Schank's 'scripts' (1975), and other forms of schemata which will be discussed in part III of this chapter.

The second area that revived schema studies is directly drawn from Bartlett's earlier works. Researchers such as Rumelhart, Ortony, Kintsch, van Dijk, Torndyke, Mandler, Johnson, Stein, and Glenn focussed on the importance of well-learned memory schemata in prose comprehension, encoding, and recall. According to researchers in this field, schemata are the structures responsible for providing information about the structure of events, the synthesis of event sequences to form episodes, and the sequencing of episodes to construct entire stories. In brief, they propose that these abstract knowledge structures—schemata that organize human experiences—are the basis for understanding stories and their events and episodes components.

Prior knowledge is manifested in both listening and reading. In listening, direct feedback is given whether
the message has been comprehended or not. This immediate feedback could be one of two forms: verbal or nonverbal. On the other hand, in reading, the author assumes that the readers share a certain prior concept about the topic and thus writes accordingly. This is evident through the fact that some readers can answer a few comprehension questions before reading the passage (Tuinman 1974, cited in Chapman, 1983) and readers choose books according to the knowledge they learn either about the content or the author. However, Tuinman, in his study that focuses entirely on reading, adds that the author does not get any feedback (Chapman, 1983).

Since humans make use of prior events to comprehend new material whether written or spoken and since this background knowledge is massive, it is essential to understand how this information is taken in, stored, and retrieved when needed. This might best be done through the presentation of the characteristics of schemata and how they incorporate new, incoming material. Special reference is made to the reader and how background knowledge is used in comprehending stories.

B. Definition

Schemata are the abstract structures or concepts that organize the background knowledge in memory and that exist in varying degrees of complexity. Theorists believe that a knowledge structure built in one context can represent the same information passing in different contexts. The reader draws on these schemata or representations of past experiences during reading to fit the incoming linguistic information into a previously acquired schema which makes understanding and recall of the new information easier. In brief, "schemata are collections of related facts about the world... which have been built up over a long period and stored in memory" (Chapman 1983, p.17).

Two main types of studies have been carried out to illustrate this process of building up representations in
memory over time. One of these research kinds capitalizes on provision or absence of a title for a selection that can be interpreted in one of two alternative possibilities (e.g. Anderson et al., 1977). The second type of studies emphasizes the positive effect of pictures in the comprehension and retention of written texts (e.g. Bransford and Johnson, 1973).

Anderson and his co-workers (1977) carried out an experiment which interestingly explains this notion. The material they used as a basis for their experiment was a passage that could be interpreted in one of two ways, depending on the reader's background or on the given text title. The theme of the passage could either be a wrestling interpretation or a prison break, with the possible titles "A Wrestler in a Tight Corner" or "A Prisoner Plans His Escape" respectively. (See Appendix A.1 for the full text.) When given this passage without a title, subjects interpreted the content according to their own background knowledge. Readers within the Physical Education Program interpreted the material as a wrestler planning his next move, while readers studying Music understood it to be an instance of a prisoner trying to escape from jail. Anderson and his co-workers even reported that over eighty percent of their subjects did not notice a possible alternative interpretation of the passage while replications showed a greater percentage of readers being aware of another perspective of the story. Sjogren and Timpson (1979) carried out a similar study to that of Anderson et al. (1977) with two modifications: introducing the sex factor into choosing their subjects and providing a title for some of the participants. The general results of title-effect on comprehension were consistent with those of the 1977 study. The major difference in results was that in Sjogren and Timpson's study, fifty seven percent of the subjects were aware of a possible second interpretation. This may be due to the modifications of this research especially the more heterogeneous sample it chose to work with.
A similar paragraph was used in such studies of texts with two possible titles: one version could be interpreted as a trip to space and the other version describes a scene from the roof of a high building. The suggested titles are "A Space Trip to an Inhabited Planet" and "Watching a Peace-March from the Fortieth Floor". A full copy of each of the texts is found in Appendix A.2.

The study done by Bransford and Johnson (1973) to illustrate the effect of pictures on reading comprehension was based on a selection that they wrote to be especially ambiguous for those readers who read it without looking at the accompanying picture. The theme of Bransford and Johnson's story was "washing clothes". For a copy of this text the reader may refer to Appendix B.1. After reading the selection, refer to Appendix C.1 to see the picture. The text did not include terms that cue the reader's schema of the "washing clothes process". Bransford and Johnson also worked with another story that they entitled "Balloon Serenade". In this case as well, the researchers were interested in checking the effect of having the schema about the topic through illustrative pictures on text understanding and retelling. The text can be found in Appendix B.2 and the picture in Appendix C.2. Bransford and Johnson (1973) have concluded that both the ability to access the background knowledge of the content area and the linguistic knowledge of the reader—besides the rhetorical structure of the selection—determine text comprehension.

Bransford and Johnson's study was replicated by Carrell (1983a). She was interested in pinpointing the difference between what she termed "opaque version" and "transparent version". The opaque version does not include concrete lexical terms that provide textual cues to the topic while the reverse is true for the transparent version. Carrell's (1983a) results show that readers differ in text-processing depending on whether they are native or nonnative speakers. Native readers are found to be more
efficient top-down processors making textual predictions as they read. Nonnative readers seem to be less efficient in both top-down and bottom-up processing.

A schema includes "default values" that are representations of a typical incidence in a certain situation. Such default values may include concepts such as "perceptual features, semantic primitives, events or situations in the world" (Thorndyke and Hayes-Roth 1979, p.83). "The prior knowledge is organized into information networks ... providing a structure for the millions of bits of information we possess" (Langer 1981, p.125). The basis of schemata, i.e. their construction from common-features of similar events, together with Langer's 'networks', explain how ample information is stored in memory; these common aspects are organized in memory in a systematic, interrelated way through grouping them into common categories and attributes, connecting them by association, and storing them accordingly. Yet, these structures are flexible enough to "conform to any number of specific situations" (Beers 1987, p.371). Thus, schemata are "generic concepts of memory" (Ibid, p.370) whose function is to "guide comprehension of new instances of the concept by providing expectations for and restrictions on the set of related properties associated with that concept" (Thorndyke 1984, p.167). The expectations a person sets up are shaped by the activated schema in order to process the incoming information more efficiently. This is attained by filling in the slots of that instantiated schema by the default values of the instantiated schema. To illustrate such slots, Palmer (1975) talks about the Face schema which includes a slot for each of its constituents: a mouth, a nose, two eyes, two ears ... . These expectations of the individual are greatly influenced by the prototypical nature of schemata. As Beers (1987, p.371) puts it, "our understanding is in terms of the typical or normal situations or events corresponding to that concept". For example, the prototypical story has elements of a schema including: characters, setting, time: plot and conflict;
C. Organization

Schemata are hierarchically organized: each general-schema embeds more and more specific schemata—termed 'subschemata'—at the bottom. Rumelhart and Ortony (1977, p.106) explain that there must be a limit where subschemata stop depending on lower level schemata and these they call 'atomic'. Norman, Rumelhart, and LNR (1975) also talked about these low level schemata and called them 'primitives'. The atomic or primitive schemata represent sensory-motor procedures or conceptual components that can not be analyzed any further. Rumelhart and Ortony (1977) explain that since most knowledge is common to a number of schemata, subschemata appear within the 'dominating schema' not by structures but rather by names. This supports the economical way in which massive information or knowledge is stored in memory. Referring again to Palmer's Face schema, we can specify the constituents of a face which make up the subschemata: eyes, ears, nose, and mouth. In turn, each of these become schemata for yet other subschemata. An Eye schema, for example, has its pupil, iris, and eyelid subschemata.

Thorndyke and Hayes-Roth (1979, p.83) summarize the common properties of schemata between various memory models into four points:

1. A schema represents a prototypical abstraction of the complex concept it represents;
2. Schemata are induced from past experience with numerous exemplars of the concept it represents;
3. A schema can guide the organization of incoming information into clusters of knowledge that are "instantiations of the schema".
4. When one of the constituent concepts of a schema is missing in the input, its features can be inferred
from "default values in the schema".

As to the organization of schemata in memory that Thorndyke and Hayes-Roth do not include in their summary, Thorndyke and Yekovich (1980) present their view in two forms, both dealing with the hierarchical property of schema organization. The first type concerns itself with general, broad concepts (e.g. Party schema vs. Birthday Party schema). The second type deals with schemata that are made up of several constituents. Thorndyke and Yekovich take the example of an Episode schema that constitutes the elements of a protagonist, a goal, and an attempt.

III. Different Views of Schemata

Psycholinguists- based on artificial intelligence experiments- proposed "structures of expectations" other than 'schemas' which facilitate the reading comprehension process. They differ slightly in their definition of what a schema is precisely, its structure, and the way it is processed when needed. Minsky's (1975) 'frames' and Schank and Abelson's (1977) theory of 'plans, scripts, and goals', like Bartlett's 'schema theory', are based on the idea that such structures organize the readers' knowledge about the world- that is "based on [their] experience of the world in a given culture" (Tannen 1979, p.138). The reader makes use of these organizing structures of expectations "to predict interpretations and relationships regarding new information, events, and experiences" (Ibid, p.139). However, as Thorndyke (1977 in Greene, 1986) claims, changing the order of story instances or leaving out essential parts of a reading selection, like themes, make stories harder to understand and remember.

A. Frames

Minsky (1975) suggested that a frame is a structure of knowledge in long-term memory that represents a stereotyped situation. "A frame acts as an organizational structure for data" (Bobrow and Collins 1975, p.152).
While reading, certain words alert a certain frame according to which passage information will be understood and/or interpreted. This certainly enhances what is called skilled or fluent reading in the sense that readers, when they activate the proper frame, are able to anticipate the semantic intention of the writer. "It is capable of predicting unobserved features and of using previous observations to refine its predictions. When an expectation is made and the observation turns out to be inconsistent with that frame, a new frame replaces it and "much of the partially constructed description can be incorporated into the new frame which continues the process" (Ibid, p.140). Greene (1986, p.37) discriminates between two kinds of slots: those that are filled in with compulsory values and others that are variable slots "that are filled with optional values to represent particular situations". Garnham (1985) exemplifies the second type by saying that slots are filled differently in frames representing different instances of the same category. The variable slots are said to have default values for their fillers. "A default value is a typical value, which may be assumed if there is no evidence to the contrary" (Ibid, p.120). Minsky's default values in his theory of frames are particularly useful; they fill in specific, missing information about slots to make predictions possible during reading. The default values select the most commonly expected value for a slot. For example, when an individual reads the phrase "pounding a nail", he/she assumes the default value for the tool used to pound it is a 'hammer' (Greene 1986, p.37).

B. Scripts

Another stereotypical knowledge structure to interpret stories- scripts- was introduced by Schank (1975) and is an elaboration of Minsky's frames. Scripts are very much like Minsky's frames "except that [they are] specialized to deal with event sequences" (Schank and Abelson 1975, p.55). A script is a memory structure that holds people's knowledge of routine activities and describes how that knowledge is organized and used to understand and
remember texts with stereotypic actions (Bower et al., 1979). This knowledge store is formed through organizing direct experiences and their idiosyncratic variations into structures of cultural stereotypes. It encodes a person's general knowledge of a specific "situation-action routine". Scripts list the default values for actions likely to occur in routine events that are of a "causally connected sequence of intentional (goal-oriented) events" (Tannen 1979, p.141). For example, making coffee, playing football, attending a lecture, and riding a bus are stereotypic situations where routine action activities are temporarily connected. Schank first proposed that there is a separate script for each sequence. However, later, the belief became that there are specific scripts for particular sequences of events and at the same time there are "general superordinate scripts with events common to all" the specific events in that category (Greene 1986, p.42). For example, there is a specific script for visiting dentists, another for visiting doctors, and some other script for visiting a hair-dresser .... But also, there is a general script "with events common to all visits to professionals" (Bower et al. 1979, p.97). Thus each script is a hierarchy of event structures, and whole scripts themselves cohere into larger hierarchies.

For further research on Schank and Abelson's Script Theory, Bower et al. (1979) carried out several experiments in which they defined 'script' as, not a linear chain of activities, but rather divided into a hierarchical structure constituting major elements, or scenes, within which there are subordinate events. They give the example of the Restaurant script: the major chunks are "entering, ordering, eating, paying, and leaving" (p.184). The subactions with the Ordering script are "being seated, getting and reading a menu, having a waitress come to take your order, and so on." This incorporation of actions common to many events into a general script is an additional support for how the schema theory helps us internalize huge amounts of
information and organize that information for retrieval at the appropriate time.

Before listing and explaining the benefits of using scripts in learning and remembering texts, it is essential to understand how scripts are brought from memory into practical usage. It is not yet resolved exactly what type of and how much detailed information is stored within script structures and how scripts contribute to the understanding of a script-based text. On the one hand, these memory structures are believed to be activated as successive clues from the text are encountered. This sensory input is filtered in "through a discrimination net to retrieve the most detailed script available in memory to encode the current text or situation" (Ibid, p.182).

The alternative view of the comprehension process states that the reader builds up a model of the text while reading the initial sentences leaving important connections unspecified; and as the readers proceed, they try to fill in the slots of their self-constructed model of that text or, if that seems too difficult or impossible, they dramatically revise their model to match the reading text. However, this second explanation of information processing portrays scripts as static structures where each situation has its unique structure thus traversing the belief that scripts are "generic memory structures" that help readers in comprehending texts.

To pursue the first viewpoint, Bower et al. (1979) present two alternative models of how script actions are activated. In the first hypothesis, it is believed that the general activation of the script—through the activation of its individual memory nodes that accumulate activation from both prior context and incoming information—leads to the activation of the script action. The second model, however, sees the activation as moving in a forward direction rather than from,
script-to-subactions activation. This Local Spread Hypothesis states that once a script action is read, it acts as a "priming statement" to the neighboring script actions thus causing them to be more easily and quickly read and understood. Results show that faster comprehension was achieved with step one-primes than step-two and step-three primes; i.e. the more distance there is between the prime and the target sentence, the slower it would be to comprehend the target script action. This outcome gives further support for the "accumulation of activation across script lines" and shows the absence of graded effect of activation. This is not to consider only temporal distance between two events: there might be a causal or contingent connection that relates two temporally distant events; or there might be two temporally distant events but close in node space involving same props and actions or, vice versa, temporally close events but distant in node distance.

Scripts are used to help in planning the selection of a memory script that matches the entering conditions, the sequence of conventional scenes or actions, and the normal outcomes. Moreover, scripts are needed to understand instances of a stereotypic activity performed by someone but not in exactly the typical manner of the instance (e.g. acting a Restaurant script or having a Doll House). This is the reason behind Bower's definition of a script as a "generic memory structure in a person's head". Once a script-based text or story is read, the script schema is instantiated and thus becomes "an episodic memory structure set up in the reader's head to encode and remember [that] particular script-based text; it is the 'memory trace' of reading the story ..." (Bower et al. 1979, p.177).

Readers also use scripts to elaborate on and make connections between the idea units presented in a text and to understand subsequent parts of the story. Written material does not usually include all details about the topic and thus readers- having the full script activated-
use their organized knowledge store to expand on the topic. This elaboration is based upon the standard sequence of the scenes and actions in that script besides the subactions and other details to fill in the various slots. Whenever a "script-header", or the title, is read, the memory script is instantiated and the slots are filled in as more details are encountered. However, each variable has a set of alternative features where some are obligatory features, others are optional, and yet other features "with weakly bound ranges" (Ibid, p.178), i.e. "they have a range of permissible values with a prototypical value, and others have a range without a clear prototype". Thus, information about each of these standard scenes or actions is said to be stored in the memory at varying levels of abstraction. To exemplify this aspect, Bower and his co-workers use the Server role in a Restaurant script; obligatory feature: should be alive; optional features: male or female; and features with weakly-bound ranges: age and style of dress. However, it is not sure yet whether all these features are stored or whether the script refers to a "mental dictionary" which holds general, context-free information about the concepts and their prototypes whose features are loosely bound.

As Garnham (1985, p.166) comments, scripts are "knowledge structures used in a top-down manner to understand texts". Once the readers recognize a script as relevant to a certain reading passage, they impose that script which facilitates comprehension. Accessing an appropriate schema greatly facilitates reading. Yet, if the 'wrong' schema is used, it will act as a filter, leading the comprehension process in the wrong direction; what is helpful can also be misleading. For example, having the canonical order of a script in memory acts as a negative influence on the comprehension and recall of texts based on the same script but with a different sequence of actions; therefore, an established script may have a negative transfer effect and an interference against learning and recalling the reordered version.
Bower and his co-workers (1979) found that when subjects were given a passage to recall, they did so in the stereotypical, most likely order in which the events and actions are expected to occur, even if that canonical order was not so represented in the original text, i.e. subjects transfer gap-fillers of one version into another. Their study statistics show that, within ordered scripts, 50% of the canonically presented actions are remembered at exactly the same location while only 18% of the actions presented away from their canonical order were remembered at their given location, moving "about 48% of the distance towards their normal location in the underlying script" (Ibid, p.215). When subjects are given two versions of the same script, they tend to retell each story by annexing script actions unmentioned in that story but stated in the other version. However, this priming effect does not increase with the increase in the number of script instances. Interference seems to prevail when many instances of the same script are read. Though subjects confused whether actions were directly stated in the script or they were implied, results show that stated actions were more recognized to have been read in a script-based text than unstated script fillers. The least recognized statements to have been part of the script are the novel statements.

With respect to recalling deviations from scripts, Schank and Abelson (1977) classify three types of inferences and distractions that interrupt the predictable flow of normal, typical scripts: obstacles are those situations where an enabling condition of an action has been eliminated and therefore a corrective action is needed; errors are those unexpected or inappropriate outcomes; and distractions are the unexpected events which set up new goals. Results show the best remembered instances are those script actions which block or temporarily suspend employment of the script goal. More specifically, the percentages of recalled obstacles, distractions and errors are 60, 56, and 42 respectively. This is what is termed the
script-based von Restorf effect where memory is better for surprising effects. Moreover, statements conforming with the script schema at one-step distance were read faster than those more distant. Experiments also showed that people remembered goal relevant deviations from a script better than script actions. Garnham (1985, p.166) adds that the "imposition of structures on a text can bypass the need for full syntactic analysis of its sentences". This notion may have serious implications for the teaching of reading in a second or foreign language. If it is proven to be feasible, then familiarizing second language learners with the use and application of such knowledge structures will greatly enhance their reading comprehension even before mastering the language.

After showing that people describe events in basically the same way, researchers further developed the analysis to conclude that subjects- because they share the basic events- use "action-summary terms or 'basic-level' terms. to describe a continuum of events" (Bower et al. 1979, p.183). People do not tell all the details of an action (e.g. eating) but rather use an "action-summary" term which includes all the detailed subactions (e.g. picking up the spoon, dipping it into the bowl ...).

C. Goals

In an attempt to check whether lower-level action sequences follow a "natural-segmentation", Bower et al. (1979) asked their subjects to divide paragraphs according to their judgments of major chunks of scripts. It was found that the hierarchy of describing actions starts with goals at the top which are decomposed into subgoals. Furthermore, the subgoals are decomposed into events. The tree in diagram 2.1 illustrates this hierarchy with examples in parentheses.

This hierarchy of goals helps answering questions concerning specific actions or events. Bower et al. (1979) classify these questions into:
Figure 2.1 The Hierarchy of Goals and Subgoals as illustrated by Bower et al. (1979) with the example of a Restaurant Script

Goal (eating)

SG1  SG2  SG3  SG4  SG5  SG6

E1  E2  E3  E4

Key:  SG= subgoal
      E = event

SG1= (getting inside a restaurant)
SG2= (sitting down)
SG3= (ordering)
SG4= (eating the food received)
SG5= (paying the bill)
SG6= (leaving)

E1= (getting a menu)
E2= (reading it)
E3= (getting the waiter to your table)
E4= (telling him what food you want)

a. Why-questions which elicit answers one level ahead and stating the goal;
b. How-questions which elicit answers one level down and listing the subordinate actions; and
c. When-questions which elicit answers "by referring to the goal-activity one-level up and using 'while' or by referring to preceding and succeeding actions at the same level" (Ibid, p.187).

Recognizing the availability and importance of schemata leads us to making use of them while learning to read. Teachers of young children can simplify the learning reading process by discussing key-concepts in the text by relating them directly to the children's existing knowledge and by discussing difficult vocabulary in relation to prior experience and to the content of the passage (Chapman, 1983).
IV. Memory and the Effects of Schemata on Comprehension

To summarize how schemata, frames, and scripts operate to assist the comprehension procedure, it would be helpful to categorize the process into three stages: effects of schemata on comprehension before, during, and after reading. These stages will draw on Spiro's (1980) taxonomy of the comprehension process to illustrate the state and development of a schema during the reading process. The discussion is linked to memory studies and findings where current research on memory attempts to specify the mental operations occurring at each stage in different situations and how these can go wrong and cause memory failure. First, a brief review of the physical basis of memory is given.

A. The physical basis of memory

Several studies have been carried out in search for the physical basis of memory (the following ones mentioned in this paragraph are cited in Atkinson et al., 1987). So far, a definite answer to the question of where memories are stored has not been found. It was proved that there are no specific locations where memories reside (Karl Lashley, 1950); memories "are not rooted in the brain's ongoing electrical activity (Ralph Gerard, 1953), nor do memories reside in RNA molecule". These studies led to the belief that memories "begin as electrical activity, but are then somehow consolidated into a permanent physical change". However, if a blow strikes the brain, the preceding few moments are forgotten. Consequently, researchers looked for an explanation of how memories become permanent. It is believed that through experience, the brain establishes neural networks that keep on modifying with more experiences. The neuro-transmitters that transfer experiences into memory storage may be affected either by drugs, diseases, depressants, or stimulants that consequently affect memory storage; they either impede memory formation or boost learning and retention.

B. The Role of Memory in Information Processing
Human memory is generally described as a system that processes information through three stages: encoding, storage and retrieval (which are discussed in detail in the next section of this chapter). The first involves encoding incoming information by transforming it into a special form to fit it into the system. Then, the human brain stores the information to retain it over time. The final step in information processing is to find a system to locate the information and retrieve it when needed (Atkinson et al., 1987 and Myers, 1986). Artificial intelligence operates in the same way, i.e. processes information in three stages. Incoming information is transformed into electronic signals to fit the memory of the computer. Then the computer disk stores the information to be retrieved later. The computer system is usually more exact than that of the human brain in getting out the retained information.

Formerly, memory studies made a distinction between two types of memory storage: short-term memory—with a limited capacity and which depends on phonemic coding—or working memory; and long-term memory—with a greater capacity. (The concept of 'short-term' memory will be referred to in this study as subjects were required to recall the story minutes after reading it as opposed to hours or even days). More recently, the distinction is being made in memory processing rather than memory storage and that is evident in the development of teaching reading methods from look-and-say approaches for example to the use of the schema concept in teaching young children how to read and enjoy reading. This may correspond to what is called 'working memory' identified by Baddeley (1976). He believes that the "short term storage system is assumed to function as a working memory, playing a central role in reasoning, comprehension of language, and long-term memory" (Ibid, p.162). 'Working memory' allows listeners and readers to make connections between sentences to grasp the overall meaning of spoken discussion or written material.
In his model of "the components of language processing", Garman (1990, pp.181-182) shows working memory as the mediator between the 'signal' and the 'message' for linguistic communication - alongside the articulatory/manual system and auditory/visual systems at the lower level of processing and the lexicon and the syntax routes at higher levels. Oakhill and Garnham (1988) briefly discuss the role of working memory in efficient reading. They propose that the capacity of working memory is restricted to small amounts of information. Yet, efficient readers make best use of it to understand relationships between sentences before sending the processed information to infiltrate into existing similar schemata to store. Research in working memory for language processing is incomplete and so it is not sure whether 'poor' readers have a more limited capacity of working memory than more proficient readers do and to what extent that predicts success in reading. Beech and Colley (1987) ascertain that inefficient processing of information reduces the capacity of working memory to hold important information temporarily. This reflects a direct relationship between the demands of information processing and the ability of working memory to hold information.

Working memory is believed to be an important determinant in the overall cognitive development and functioning of individuals. Consequently, an individual with a limited capacity short-term memory may face more problems in higher cognitive functioning than another person with a wider capacity. Engle, Carullo, and Collins (1991) studied this aspect of memory capacity as related to the specific cognitive skills of reading and following directions. They claim that "comprehension of language seems to rely on our ability to hold particular labels and concepts in memory and to process incoming information so that we might integrate that information over time" (Ibid, p.254). Engle and his co-workers cite earlier studies (Daneman and Carpenter, 1980 cited in Engle et al., 1991) testing this possible correlation
through tests of memory span that incorporate tasks similar to those required by reading. Such tasks include processing and storage tasks, making sure to use memory span processing that contain a reading component. With more recent research (Turner and Engle), it was found that a complex span test could predict reading comprehension irrespective of whether the processing task also includes reading or not (e.g. an arithmetic problem). The essential component is to give a task that measures the number of items that could be kept active in memory in order to see the correlation between that task and reading comprehension and to check to what extent a complex memory span task could predict performance on higher level cognitive tasks. The results of Engle et al.’s (1991) study show that both word span and sentence span results equally correlate with scores on listening/reading comprehension across the age range they studied, i.e. subjects between first and sixth grades.

Humans have photographic and sound memories, iconic and echoic memories respectively, that register the sensory material for a short while. Later, the information enters the memory through visual encoding, acoustic encoding, and/or semantic encoding. Traditional teaching reading methods such as the phonic approaches based their instruction on this conception: children learn to read by learning the particular sounds of the alphabet first, registering these symbol-sound correspondences in memory for future success in reading. However, with more recent approaches, the emphasis is on encoded knowledge structures formulated from previous experiences rather than on phonetic or photographic memory of separate words or letters (bearing in mind the importance of cues that activate and bring forth prior knowledge to ensure a successful reading session). How is the sensory information encoded, stored and retrieved?

C. Stages in Memory Processes

Psychological studies on memory and how it functions (e.g. Baddeley, 1976 and Stein and Nezworski, 1978) have
led to a clearer idea of how physical stimulation, whether heard or seen, is processed and made meaningful. The following section presents results of memory studies in general and studies on memory for print and reading comprehension. It is helpful to divide the process into three active stages: encoding, storage, and retrieval.

1. Encoding

Incoming information has to be attended to and selected to be stored in memory to be available for later retrieval. The first stage in memory processing, encoding, involves transforming a physical input into a code or representation to be accepted by and placed in memory. The code could be meaningful units that the human memory can process. According to psycholinguistic research on memory (e.g. Rumelhart, 1975), this aspect corresponds to the building process of schemata through encounter with several analogous experiences. Memory studies (e.g. Myers, 1986 and Atkinson et al., 1987) speak of two encoding processes: 'automatic' and 'effortful'. Automatic processing is an effortless, unconscious, 'difficult to shut-off' type of processing. It is the processing of routine everyday life, like the memory of the previous day's meal and the recreation of a "sequence of the day's events in order to guess where you left your coat" (Myers 1986, p.247). It is through this type of experience processing that the human memory builds different schemata about different topics. Automatic processing is either an 'innate' type, like encoding space, time, and frequency, or a 'learned' type, such as the encoding of word meanings. Originally, learned processing starts as an effortful one that, through training, becomes an effortless process.

Effortful processing is when the person consciously repeats the novel problems to encode and retain them. Without such rehearsal, the information will soon be forgotten. A typical example of such a situation is telephone numbers. Hermann Ebbinghaus, in an attempt
to study memory scientifically, found that "the amount remembered depends on the time spent learning" (Myers 1986, p.248). The more times the material is rehearsed, the more of the information is retained. Moreover, the more times the material is rehearsed at a certain point, the less the repetitions are required later on. Any extra rehearsal or 'overlearning' after that increases retention. However, repetition alone does not ensure that the rehearsed information gets into memory storage; it must be somehow processed. "Nothing processed, nothing stored" (Ibid, p.249).

This type of effortful processing of information affects the quality and quantity of text recalled. However, this point is beyond the interest of this study. The research at hand investigates the retelling of a story after reading it only once (with or without pre-discussion), with no chance to have another look at or read the text a second time before the recall—with the exception of one experimental group that discusses the story events after reading the story by looking at the book pictures. What is relevant to this research is the type of encoding memory studies carried by Stein and Nezworski (1978). Their interest is memory for stories and its relation to the general concept of story grammars and actual story structures. They found that instructions given prior to listening to a story influence the material processing. If listeners are told before listening to the story that they are to retell the story in the exact order of its presented form, or that they have to retell it in its best format that corresponds to a proper story structure irrespective of the presented form, this will greatly affect the processing of the incoming information. These orders affect both the type and time of processing. With respect to the former, subjects instructed to recall a 'good' story are aware they are going to be presented with an unorganized story and so they immediately employ a strategy to encode the information in an ordered manner according to the story schema. Furthermore, if the story
structure conforms to the general rules of story construction, then it takes less time to process it and encode it.

When readers look at print, they try to encode each word phonetically and semantically. If the word is already known, then processing it in the working memory is easy and quick and the child carries on with reading. If the reader has difficulty in decoding words, it becomes a burden to comprehend the message since most of the child’s effort is put into encoding. Accordingly, one of the proposed explanations of ‘poor’ or inefficient reading is the inability to quickly process print in order to relate it to preceding chunks of information in the working memory (Baddeley, 1976). As previously mentioned, working memory has a limited capacity to hold information before it is either lost or sent to long term memory. While sentences are read, they pass through the working memory. As the reader goes on to the following sentences, relations are made and a mental image of the meaning is then transferred to long term memory. Information already present in the long term memory has, then, a dual function. One is to contribute to the comprehending of the new material and the other is to receive the new information and integrate it into the preexisting knowledge.

Bruner (1990) looks at the matter of encoding from a different perspective. He believes that what does not get structured narratively, or in other words does not get ‘schematized’ or framed according to prior concepts, suffers loss in memory. Events are systematically altered to fit the representations of the world we perceive to be socially-correct. If these events cannot be altered to fit existing representations, they are either forgotten or highlighted for their exceptionality.

When information is encoded into memory, it is
deposited in a certain code which can be either visual (mental picture of words), acoustic (sound of words), or semantic (based on meaning). Depending on the information to be encoded, a verbal or a visual representation is used. If the material could be verbally coded, such as numbers or addresses, the acoustic code of that element is stored in memory. However, if the information is of the nonverbal type, for example pictures or concrete words of higher imagery potential, visual coding becomes more helpful. Based on this information, it is hypothesized that if children are exposed to pictures about the topic of the story to be read as part of building and/or instantiating the necessary schema to understand and recall the text, this exposure will help the children encode the print easily, quickly, and more efficiently. Accordingly, part of the activities developed for this study are based on this assumption. The nonverbal item is stored in the 'short-term' visual memory which can be retrieved in details. Studies of visual memory were held on children who, after looking at a picture, were able to hold images of the visual material before their eyes for minutes, scan it, and provide details about it (Atkinson et al. 1987). As to concrete words that have higher imagery potential, they are better remembered than low-imagery words. Many devices could be taught as mnemonic aids\(^1\). To remember a list of unrelated words for example, people could invent a story including the words that are not likely to be recalled when encoded separately. Another efficient way of encoding lists of words is to make use of both acoustic and visual codes. Mnemonic devices were developed by ancient Greek scholars and actors as aids to remembering lengthy passages and speeches, imagined themselves moving through a familiar series of locations, associating each place

\(^1\)Mnemonic devices are "memory aids, especially those techniques that employ vivid imagery and devices for organization" (Myers, p.654).
with a visual representation of the to-be-arranged topic. At time of retrieval, the person would 'revisit' each location and retrieve the associated image. The 'peg-word' system is one efficient example of the mnemonic devices and is used to associate each word of the list to be learned to the image of the peg words (bun, shoe, tree...) (Myers, 1986). Another example of mnemonic devices is visualizing vivid stories to organize words to be memorized, or the use of rhymes and poetry. The most relevant mnemonic device relevant to this research is the use of story-telling as an aid to remembering things. This can be traced historically since cultural narratives were, and still are, used to keep traditions alive and to carry them on to future generations.

The third way of processing information is to encode its meaning. Rather than remembering the information as it is presented, we recall its meaning. For example, students remember the notes they take for a lecture and not the lecture itself. In an experiment to check if meaningful processing yields better memory, Craik and Endel Tulving (1975 in Myers 1986) found that semantic encoding yields better memory than visual and acoustic encoding. This finding is a supporting basis for the assumption that when given enough information about a situation before reading a related text, readers are more able to retain the text in memory since they can semantically integrate it with their preexisting knowledge. Schema theories are based on similar beliefs and thus try to make use of the time prior to reading in an attempt to familiarize readers with the topic. Such orientation is believed to help the readers in relating and encoding the print into pre-existing memory knowledge structure making the reading process more meaningful and more accurately recalled. However, what type of activities help in semantic encoding is not yet clear: should they be general? specific? to what extent? Repeated several times or only once? Just prior to reading the
prose or much earlier? Based on the research done in Lebanon, some suggestions are drawn in the last chapter about pre-reading activities with children.

Therefore, in the first stage of information processing, working memory or short-term memory plays an important role. Though its capacity in holding information is limited in quantity, working memory facilitates the transformation of print into meaningful material. More basically, the function of short-term memory is to parse or make connections between words and sentences more meaningful in order to pass them to the long-term memory to integrate them with the available information.

2. Storage

There is a debate about information is precisely stored and can be retrieved under certain conditions, e.g. providing proper cues or under hypnosis (Freud), or whether memories are not of the recorded-type but rather recollections of experiences where most often they could be proven not to have occurred (Loftus and Loftus 1980, cited in Myers 1986 p.254). However, what is known, since Piaget (1928) at least, is that short-term memory has a limited capacity for processing new information (7±2 active elements depending on the information and age according to Miller, 1956) and that this capacity is developmental. Pascual-Leone's (1970, cited in Engle et al., 1991) continuation of Piaget's work proposed that working memory capacity increases significantly in the early years of childhood. Their theory states that memory can hold one more 'chunk' or knowledge structure active every two years during the period of childhood. This developmental aspect could be the explanation of Engle and his colleagues' results concerning the following directions section; they found that following directions correlated with word span, sentence span, and with both for first, third, and sixth graders respectively. Chi's (1977) study
concluded that the "memory span for digits doubles from age 5 to adulthood" (cited in Engle et al. 1991, p.253) which might prove the developmental aspect of the capacity of working memory. On the contrary, Engle and his co-workers (1991) cite, other theorists propose that this increase in digits' recall, or more generally in memory span, might be the result of an increase in strategy usage (Chi, 1976; Dempster, 1978) or in information processing efficiency (Case, Kurland, and Coldberg, 1982). The latter theory claims that as the capacity remains constant over time, the processes used during encoding and retrieval develop to become faster and more efficient. Consequently, this leads to the concentration of the attention on storing the information and maintaining it. This trade-off between processing and storage was also handled by Daneman and Carpenter (1982). They propose that an individual with more efficient reading processes could give more attention to the information to be stored. As was found by Engle et al. (1991), scores of third-grade subjects on both simple word span test and sentence span test were significantly lower than those of first and sixth graders, each at their own level. The reason may be that the reading task of third graders is sufficiently effortful even though they were tested on grade-appropriate materials; whereas first graders had the material read to them and sixth graders were already at a well-established level of reading, third graders had to attend to both demanding tasks: reading and answering questions from information they have stored.

Going back to Miller's (1956) 7±2 active elements in working memory at one time, Engle et al. (1991) propose that the capacity is even more limited to 3 or 4 knowledge structures or propositions. Therefore, to hold more elements in working memory, grouping the information into chunks helps in retaining 3 or 4 'chunks' with multiple pieces of information in each. Since the learning of grouping strategies has not been
found to be generalized by children and applied to novel tasks, teachers are recommended to expand the chunk size by building upon materials that the learner already knows. In other words, the amount of information in working memory can be increased by using existing knowledge and building upon it, incorporating the new knowledge into the existing chunk. "Thus, reading materials on topics known by the child should lead to larger chunks in working memory at one time" (Ibid, p.262).

*Before* actually getting the reading text and looking at the print, each reader would have formed an understanding of multiple topics through living in and interacting with a community. The integration with a social group helps each individual perceive events in a special perspective unique to that cultural group. That is to say, each reader brings to the reading text a pre-existing image of the text in his/her mind, either in the form of a frame schema or a script schema. This memory structure has slots with different features that are most typical to be present or to occur in those circumstances specific to that schema. Spiro (1980) names this level "schema acquisition" and explains that if a schema is not acquired sufficiently developed or if the schema is built just around personal experiences and thus insufficiently general to be applied to various situations, then, Spiro continues, the availability of that schema as such will not assist the constructive comprehension process but rather will cause obstacles towards the process.

For a prior schema to be helpful in understanding future stimuli, then, it has to be stored in a sufficiently elaborated and general state. However, if both of these conditions are well satisfied by a certain schema but the available information is not well organized in memory, this schema will then prove unhelpful when needed. Some research (e.g. Engle et al., 1991) suggests how information can be stored in
an organized manner.

* Organization

A helpful way of remembering information is to organize it at the time of encoding. People can take in the material as meaningful units or 'chunks'. To illustrate this point at a low level, an example is taken from pure memory studies; we can better recall a given list of alphabets not as letters as such, but rather in 'chunks', in this case 'words'. The greatest probability of recalling more words, and thus more letters, is when these groups of words make up meaningful sentences. Another example is presented by Engle et al. (1991) from spelling classes. Children are able to hold more letters when presented in spelling patterns than when given individually. A second way of organizing information is to form 'acronyms' out of the initial letters of a series of words to be remembered. A third helpful way to organize information for better recall is to encode the material in a hierarchical manner. This is best achieved by writing outlines, starting from the very general concept and going down to subconcepts until one gets to the specific ones. This general concept of hierarchical organization of information is related to the story grammar approach towards comprehension. Stein and Nezworski (1978) propose that the higher order structures in story grammars regulate the organization and retrieval of incoming story information.

As the readers start examining the print, they "implement strategies and filter the input through background knowledge and prior experience to gain meaning" (Pritchard 1990, p.276). The new incoming information instantiates the schema most closely related to the text events. However, Spiro (1980) claims that this stage of "schema selection" could be a hindrance if the required schema is not readily
accessible; i.e. the schema is to be effortlessly accessible in order for the comprehension process to proceed smoothly.

As the reading of discourse proceeds, the reader makes predictions about subsequent events according to the activated schema. Meanwhile, the slots within the memory structure are filled in as more details are taken in from the text. However, any slots that are left out are filled in by the individual with the prototypical features of the situation according to the reader's own background experiences. Spiro's third level in the taxonomy, "schema instantiation and refinement", fits here: slots in the generic structure are progressively instantiated as reading goes on. At the same time, these variables get refined to fit the situation in hand.

However, if no schema is found in memory that directly relates to the printed information, a schema that closely matches the topic is instantiated. Consequently, the schema will be accommodated with respect to the available text; therefore, the slots are filled according to the text. If the incoming information keeps on demanding changes in the schema, the need will rise to either radically reform the available schema or to quit it and search for a more adequate one. Spiro (1980) presents this in a similar manner where he says that as reading goes on, the initially instantiated schema may continue to be relevant, or new schemata need to be employed, or even a combination of schemata need to bear when parts of one knowledge structure are not enough. Spiro terms these two levels "schema change and maintenance" and "schema combination".

3. Retrieval

Whereas memory is usually associated with 'recall' or with "the ability to retrieve information that is not present" (Myers 1986, p.256), psychologists make a
distinction and equate 'memory' to 'retention' of information that could be evident either by being able to 'recognize' the information or to 'relearn' it quickly. To retrieve the information stored in memory, people need "retrieval cues" to reinstantiate the memory "web strands" that hold the specific information needed. "Our capacity for storing long-term memories is essentially limitless... the better we organize and form meaningful associations with new information, the easier it often is both to learn and remember" (Myers 1986, p.253). With respect to recalling personal experiences —or narrating— Whitehead (1990) believes that selective memory operates to evaluate and judge prior events according to general moral issues acquired through contact with one's social context or community. Moreover, since it is known that the stronger the retrieval cues are the more accessible the memory is, interest in studying what type of clues are best to help in information retrieval developed. It was found that pictures, words, events, places, and emotional states could all be helpful cues under different circumstances. For example, going back to an earlier living-place, seeing pictures of old friends, and re-living a special emotional experience all bring back memories associated with them in a manner more similar to the original experience than when these same states are cued to be retrieved under conditions different from that of the original. Accordingly, besides talking about the background of the story used for this research purpose, an attempt is made to build a relation between story events and whatever experiences the children might have had with bulls and bull-fighting. However, as results of the data analysis are discussed, it is interesting to see how the instantiation of pre-existing personal information affects the understanding and retelling of the story. A detailed discussion of this issue is presented in the last chapter. Yet, at this point, the mention of the following memory studies and results clarifies and
gives the background for the argument.

Retrieval is not simply (verbally) replicating facts; as has already been discussed, encoding as well as retrieval are constructive processes where the individual uses already existing knowledge structures to filter incoming information and to fill in missing informational gaps. In this aspect, Myers (1986) makes special reference to Hyde’s (1986) work on schema theory. When given a paragraph to read about a visit to a restaurant, subjects answered questions whose answers were not directly stated in the paragraph but were rather constructed from their schema for restaurants.

In brief, these are some reasons why recall is usually not a genuine copy of what originally occurred and that includes recollections of conversations, recalls under hypnosis and drugs, and eyewitness recalls. According to pure memory studies (e.g. Miller 1956), forgetting occurs either because the items are displaced by newer ones or because items decay with time. The first holds true if the theory of the fixed capacity of short-term memory is proved. The second happens because information simply decays with time or that short-term memory space holds fewer words when the words take longer to say. In both cases, rehearsing information may protect it from displacement –by preventing the encoding of new items– or decay –by bringing information to full strength again even if it has partly faded (Atkinson et al., 1987). In their experiment about what subjects could recall after watching a car accident, Loftus and Palmer (1973) concluded that “subjects had unwittingly reconstructed their memories... After being questioned, the subjects were like computer programmers who call up a file, edit it, then store only the revised file” (Myers 1986, p.258).

After reading the text, therefore, the degree of
conformity of the written text to the available schema against which the print has been mapped determines how accurate the recall of the text will be; if both the text and the preexisting schema closely match, the recall will be easier and more correct. However, if the invoked schema and the text do not conform (e.g. the text actions are 'misordered' according to the script schema), then recall will tend to be more like the established schema than the 'changed' text.

TABLE 2.1 Summary of The Three Stages of Information Processing in Memory with Their Respective Characteristics and/or Functions

<table>
<thead>
<tr>
<th>STAGES</th>
<th>CHARACTERISTICS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>ENCODING</td>
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<td>types of coding</td>
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<td>organization</td>
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<td>STORAGE</td>
<td>capacity</td>
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<td></td>
<td>forgetting</td>
<td>displacement</td>
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<tr>
<td>RETRIEVAL</td>
<td>cues</td>
<td>reinstantiate</td>
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<td></td>
<td>constructive</td>
<td></td>
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</tbody>
</table>

Corcoran (cited in Cairney 1990, p.39) does not talk about the processing of text by memory per se but rather about four types of mental activity in reading: picturing and imagining, anticipating and retrospecting, engagement and construction, and valuing and evaluating. These responses to reading are not set in a strict developmental fashion. They occur concurrently in different intensities depending on the reading purpose, context of the text, immediate context of reading, reader’s relevant prior experiences... .
At this point, it is essential to speculate on how and whether culture affects the reading process and its relation to language proficiency.

V. Cultural Schemata

Schemata that influence the comprehension process and the memory for stories are found to be culturally specific (Johnson 1981; Kintsch, Walter, and Greene 1978; Steffensen, Joag-dev, and Anderson 1979). It is helpful to start with an understanding of what culture is and what it involves before examining how cultural schemata operate in the system of prose processing.

A. Definition of 'Culture'

The term 'culture' embodies several concepts. It encompasses ideas, feelings, habitual activities, and customary practices. As Finnociano and Bonono (1973) put it:

"Culture is that complex whole which includes knowledge, beliefs, morals, art, customs, and any other capacities and habits acquired by man as a member of society. It is all those historically created designs for living, explicit, implicit, rational, irrational, and non-rational."

Culture refers to all the accepted and patterned ways of behavior of a given group of people. Often, the habits of a culture are praised by people of that background while looked upon with suspicion or disapproval by people from other cultures. Usually this is the result of little understanding of what those habitual practices really are and what they mean. Cultures must be studied as wholes since no custom, belief, or behavior can be understood out of its social or cultural context.

"Any item of behavior, any tradition, any pattern, can be evaluated correctly in the light of its meaning to the people who practice it, its relation to other elements of the culture, and the part it
plays in the adaptation of the people to their environment or to one another. No custom is 'odd' to the people who practice it." (Brown, 1963)

Bruner (1990) also talks about culture from the individual's side. He says that humans cannot be recognized and are incomplete without their relation to or link with their culture. Human beings are "expressions of a culture" (Ibid, p.12): though they have their individual characters, they function and think as a whole and as part of a larger community or 'culture'. Hence, he talks about 'folk psychology' when dealing with "making-meaning" out of the belief that culture shapes how individuals perceive things. Folk psychology is a cognitive system built around accepted expectations and mental management of deviations from such expectations. "It is a system by which people organize their experience in, knowledge about, and transactions with the social world" (Bruner 1990, p.35). Bruner (Ibid, p.14) adds that folk psychology "deals with the nature, causes, and consequences of those intentional states- beliefs, desires, intentions, commitments". In brief, Bruner argues that there is an interaction between mind and culture that is reflected in narratives, even children's narratives.

b. The Relation between Culture and Literature

As a by-product of the society's influence on the way of thinking of people living in that community, authors seem to reflect their own beliefs and cultural inclinations in their writings. Therefore, literature is perhaps the best bridge to understand a foreign country or culture. The context, the characters' adjustment to the environment, and their thoughts, ideas, values, and habits are all reflected in the literary work. "Literature is a means through which human motivations and actions may be better understood" (Karlin, 1975). Moreover, literature makes possible participation in experiences that we might not be otherwise able to enjoy or understand. Few of us can take journeys to distant
lands and meet their peoples. Literature makes all these somehow real. The reader can be 'transported' to other times and places and relive the past through the words and deeds of ordinary people, heroes, and leaders.

Cultural diversity is even evident in children's narratives. As infants grow up in a certain community, they acquire its mode of presenting their daily experiences to hearers. For example, they learn to narrate experiences either according to their chronological order in time or by listing morals or personal qualities and achievements of 'heroes'. Moreover, children internalize their society's way of reflecting on, judging, and evaluating events and they build values, beliefs and concerns (Whitehead, 1990). In other words, just as culture manifests itself in the linguistic forms of children's narratives and adults' literature, so it affects the abstract presentations that people form about the world and its events. Bruner (1990) manifests the idea that humans evaluate themselves, other people, and their 'worthwhileness' through folk psychology.

Lado (1964) believes that knowledge about a specific culture is an important component of the process of understanding literature. He says (Ibid, p.27): "One cannot jump from the structure of a language into its literature without passing through the basic cultural content of the language." Simone (1987) adds that "language is culture": language teaching is not simply the teaching of words and how they are connected to each other. Rather, it is the teaching of a way of thinking. This includes not merely how people perceive the world, but their attitudes, preferences, and way of life as well. Further, while language is the major medium for cultural transmission, and itself also a key part of culture, it also symbolizes culture (Halliday, 1978). This happens in two ways, Halliday maintains. First, accents and dialects are seen in a social hierarchy so that language comes to symbolize society. Second, the
pattern of registers learned, for example in school subjects, comes to symbolize socially approved knowledge. Thus language is a cultural construct encoding a speech community's ideas about itself and its structures of knowledge. This argument can be extended to stories: children's stories symbolize a society's values, attitudes, beliefs, and ways of saying and thinking.

Auten (1984) states that through literature students achieve four basic objectives. They are:

1. to learn to recognize the interaction between one's own life, one's society, and major global concerns such as population, environment, and resources;
2. to learn to understand basic human commonalities while recognizing the importance of individual and cultural differences;
3. to develop an awareness of how perceptions, values, and priorities differ among individuals, groups, and cultures; and
4. to develop the skills to respond creatively to local, national, and international events, and to participate effectively at those levels.

According to sociologists, (e.g. Bilton et al., 1981) culture is viewed as the social inheritance or the learned behavior that is transmitted from one generation to the other. It is "the collection of ideas and habits which [members of a society] learn, share, and transmit" (Haralambos and Holborn 1990, p.3). Thus, culture determines to a large extent how members of the same society think, feel, react to things, and view life. Pritchard (1990, p.276) adds:

"Culture can be viewed as integrated patterns of learned behavior, unique to a particular social group, which serve as guidelines for selecting and ordering the information with which one is confronted."

Consequently, integration into the community sets the
background knowledge which guides the creation and instantiation of schemata to process new information when reading a text. That is, each person is influenced by the culture he/she is living in and this integration into the society is reflected in the way readers analyze texts against their background knowledge, beliefs, and values. Pritchard (Idem) even says that "any act of cognition... must involve the person, the idea, and the thought collective within which the person is operating". This happens in accordance with the community the person is living in and interacting with. Thus, culture links the thoughts and acts of an individual to the common patterns acceptable to the group (Brooks 1975, cited in Pritchard 1990, p.276). Reynolds et al. (1982, p.354) state that "personal knowledge ... is conditioned by age, sex, race, religion, nationality, occupation— in short, by a person's culture". As Read and Rossen (1981) show in their study, readers, while recalling a passage several days after they read it, distort the text according to their own beliefs rather than recalling it as they read it.

C. Relevance to the Present Study

As it would be more comprehensible after reading chapter three, English-teaching schools in Lebanon mainly use American books to teach reading to children. Therefore, as Lado says, we are teaching a whole culture with and through the language. This can be considered a burden on the children if teachers are not aware of it (since children are to read in a language other than their native one besides reading about new experiences). However, when teachers take this point into consideration and provide the necessary help, using such books might turn to enjoyable, beneficial experiences. Therefore, as Rivers (1968) says:

"A program which seeks to develop systematic progress in cultural understanding side by side with growing mastery of the language will ensure that
the student ... will learn to recognize what people of different cultures have in common beneath surface variations, while appreciating that their deeply rooted differences of outlook are related to a whole life-pattern which is an essential development from their experiences as a group in a particular environment."

D. Definition of Cultural Story Schemata

A story schema differs from one culture to another. Readers with European cultural background perceive a story as consisting of a hero, of events that are causally and temporally related, of episodes consisting of expositions, complications, and resolutions, and that each of these serves a particular function (Kintsch and Greene 1978, p.1). On the other hand, causal-temporal relations between episodes are not important for American-Indian cultures but rather the 'principle of fours' concerning episodes is a main factor in the story schema specific to that culture. The stereotyping effect of cultural schemata shows in the reader's recall when elaborations on the original text or distortions of the passage content are made so that the linguistic input matches the reader's own culture and its influence on his/her expectations. Consequently, users of a three-part schema reading a four-part story may recall it in three parts. Users of a four-part schema, coming from a different cultural background, may read and recall the three-part story as having four parts, or as being somehow incomplete.

E. Types of Cultural Schemata

An illustration of how the organization of past experiences is greatly influenced by the reader's culture will now be presented through the two types of schemata: content and formal.

1. Content Schemata

Content Schemata are, in general terms, the prior knowledge of the world, or, more specifically, knowledge of the topic or subject matter in hand. Studies (e.g. Reynolds et al., 1982; and Steffensen
et al., 1980) show that the more the reader knows about the content of the text before reading, the better he/she understands and remembers the text. Of course, if a reader already knows everything in a text, there is little interest in reading it. Existing knowledge needs to be balanced with the need for new information. In a cross-cultural study carried by Steffensen, Joag-dev, and Anderson (1980), two groups of subjects from different cultural backgrounds (American and Indian) were asked to read and recall two letters about a wedding; one representing a traditional American wedding, the second an Indian one. The findings show that both groups read the culturally familiar material faster, recalled more idea units of that same text, and made more culturally based elaborations (while more distortions were common in remembering the culturally unfamiliar text). Important elements of both texts were better recalled by both groups. These results indicate, with syntactic complexity controlled, that preexisting knowledge concerning the topic greatly influence the processing of a text—both at the time of reading and later during recall—and that some of this preexisting knowledge is culture-specific. This is important in situations where readers are using a second language.

In their experiment, Reynolds et al. (1982) gave their subjects a letter to read about a school incident which could be interpreted in one of two ways according to the reader's social background. They chose their sample to be white native Americans and members of the minority black community. Results show that cultural schemata influence how readers process texts and see them in their own personal perspective. It was found that theme-revealing intrusions—i.e. those sentences that were mentioned in the subjects' recalls but were not directly related to a proposition in the letter—were consistent with the subjects' "culturally-based knowledge and belief" (Ibid, p.362). Disambiguations—paraphrases of propositions to fit
the individual's underlying interpretations—were common in recalls of both groups where each group tended to disambiguate ideas relevant to its own understanding of the incident.

The belief that minority children, referring mainly to Blacks living in the U.S., were inferior in Reading and reading comprehension was widespread. With advances in research, this issue has been explained as a mismatch between the reading material and the children's social and cultural background and not as a weakness in text-processing (or 'thick-mindedness' in prose-comprehension). Consequently, more effort was put into writing books which have less cultural bias and that included Reading books, Social Studies books... . Reynolds et al.'s research was designed to show this effect of culturally loaded texts on readers but this time reversing the roles: giving white people a passage with a Black cultural theme and showing the misinterpretations these readers will bring into the text. However, while the purpose of Reynolds and his co-workers is to show the difference in the way people from the same country but different subcultures interpret prose, the aim of this study is to explain how children from a distant country process stories written about a foreign culture.

2. Formal Schemata

Formal Schemata, on the other hand, are representations of the rhetorical organization of texts. For example, stories have different representations of structures that vary according to the culture. They affect "the overall organization of the story and [do] not lie at the level of single sentences" (Kintsch and Greene 1976, p.1). An American story schema is "characterized as a hierarchy of interrelated components that are organized into a series of episodes" (Rice 1980, p.157). Other cultures have different story structures; these schematic differences in the structure of story schemata are
reflected in the comprehension and recall of foreign materials. In her study, Rice (1980) compares the recall of American subjects of two versions of an Eskimo story: an original Eskimo version and an 'Americanized' one. The results show that the effects of the story schema on recall of the familiar version tends to include less importations than the Eskimo unfamiliar structure which is usually modified to fit the familiar American story schema. As these studies show, cultural background plays a significant role in text comprehension.

VI. Critique of Schema Theory

On the other hand, schema theory has recently been criticized on the grounds that, to start with, it is not appropriately nor precisely defined (Sadoski et al., 1991). As more sub-theories of the general schema theory developed, the term became more vaguely specified yet too general to encompass the various views of scripts, goals, frames... However, this may not be a shortcoming since schema theories developed their slightly varied structures to account for a variety of situations. For example, some need the understanding of procedures, processes, or actions (such as scripts for washing clothes) others require the organization of texts into plan and/or goals. Sadoski and his colleagues (1991) also criticize the separation of schema theories of a knowledge structure (i.e. schemata) from examples and concrete experiences that give rise to it. Yet, it is worth clarifying that though schemata are 'abstract' structures, they are directly based on and withdraw their structures from concrete prior experiences and that they heavily and primarily rely on examples from these previous experiences to grasp and reflect on new encounters.

The second main area where schema theory is liable to criticism is, according to Sadoski et al. (1991), the scientific research done to prove the views of schema theories. It is considered that neither the material used nor results concluded from such research give empirical
proof of schema theory. Sadoski and his co-workers (1991) doubt the generalizability of results based on bizarre texts, ambiguous texts, and different-perspective texts. They claim that not only does different material elicit different results, but also results vary with different presentation modalities, different instructions, and different testing conditions and procedures. Roller (1990) deals with schema theory propositions in relation to types of texts. Though she does not offer a completely new perspective into the research in the sense of presenting a new theory, Roller suggests that considering the interaction between prior knowledge and text type gives a better understanding of the reading comprehension process. The following section presents the opinions of Roller (1990), Sadoski et al. (1991), and Carver (1992) on Schema Theory and their beliefs in a better explanation of the comprehension process.

VII. Alternative Theories to Schema Theory

Interaction between Prior Knowledge and Text Type

Roller (1990) reviews research done on reading comprehension and points to the inconsistency in results. She highlights the shortcoming of the research in neglecting the interactive functions of what the readers bring into the text of knowledge about the topic and/or about text structure and the actual structure of the reading passage. Roller surveys work in each of the two fields independently and then proceeds to point out the direct and indirect evidence of the interaction of text type and prior knowledge concluded from the limited research done in the area.

To start with, Roller tries to define each of the two concepts concerned: world knowledge and text structure. She points to the difficulty in providing specific definitions since part of the knowledge that readers possess when reading is knowledge about the text structure, not merely topic information. Roller ends up by defining text structure according to explicit features that are directly presented by the text.
World knowledge studies, according to Roller (1990), seem to be insufficient in the field. Though they show "the importance of the reader's knowledge in constructing meaning from text" (Roller 1990, p.83), they neither explain how world knowledge is acquired nor do they show how new knowledge is acquired from texts. However, several researchers have dealt with specific instances of how knowledge is acquired and built into mental constructs ready to be used when activated by the proper cues (e.g. Minsky's 'frames' (1975) and Schank's 'scripts' (1975), discussed in part III of this chapter). Roller's point is to emphasize the importance of text structure in relation to prior knowledge in reading comprehension.

Text structure studies, on the other hand, have yielded inconsistent results. Roller (1990, p.82) divides text structure research into five main categories:

* those experiments that manipulate texts by rearranging sentences or paragraphs;
* those investigations with texts created for the sake of experimenting: some include structural material such as superordinate references and pointers while others are controlled for not including structures;
* those studies substituting pseudowords for content words;
* those researches done by measuring structural awareness or by teaching text structure strategies; and,
* those examining the effect of text hierarchy on performance.

As such text structure studies have come up with mixed findings, Roller suggests that the interaction of these different structures with prior knowledge explains the diversity. She quotes two research studies by Birkmire (1985) and Taylor and Beach (1984) that manipulated both variables, world knowledge and text structure, and gave direct evidence of the effective interaction of these two variables. Roller concludes that structural features are most useful in relatively unfamiliar texts where readers need to construct relations between text ideas to learn the
information presented. However, text features become less useful when dealing with relatively familiar and also unfamiliar passages. This is the case with relatively familiar texts because the reader already knows the relations between ideas. With very unfamiliar texts, "the task is so difficult that readers cannot use context to aid them in word recognition" (Roller 1990, p.86).

Some of the indirect indications of the interactive role of text structure and prior knowledge in comprehension are those studies related to time. Several studies cited by Roller (1990) show that given extra time to reread scrambled passages, readers performed better in establishing relations between ideas. Studies working with structural variables, awareness of text structure, and structural training all provide indirect evidence to support Roller's view of the structure/knowledge interaction.

A. Dual Coding

As an alternative to schema theory, Sadoski et al. (1991) propose a cognition theory that not only explains all results of schema theory research but also accounts for those that fail to be explained based on schema theory understanding. Dual coding theory, as the name suggests, posits two mental sub-systems that coordinate to process information: a verbal system and an imagery one. These systems have some neurological basis which depend on sensory systems to activate their mental representations (logogens and imagens respectively). The internal organization of each of the two sub-systems differs. The imagery, nonverbal system organizes information in a holistic, nested form while the verbal system sorts the information sequentially. Sadoski et al. (1991, p.473) add that "organization can work within a system or between the systems": intra-system and inter-system organizations. The former associates a verbal cue (e.g. a word) with other words or phrases and an image evokes related images drawn from prior experiences. Hence such intra-system are termed associative structure. Inter-system relations, on the
other hand, account for the flexibility observed in human cognition by promoting imagery from language and vice versa. These relations between the two sub-systems are called referential connections.

The improvement in dual coding over schema theory is mainly in the following areas. According to the dual coding theory of cognition, language can either be interpreted in relation to other linguistic representations or to non-linguistic ones such as images of objects and events and affects or feelings. Moreover, dual coding accounts for both external and internal variables that bear upon information processing. Thus, as the external conditions of context, instruction, etc. interact with the individual’s two subsystems, activation of verbal and/or linguistic representation occurs. This processing suggested by dual coding theory accounts better for the flexibility and variety of details encoded in memory. Schema theory could not explain the availability of certain details recalled by subjects upon retesting under different conditions and instructions. The intra-activities and interactive processes between imagery and verbal representations of dual coding allows the holistic nature of imagery to encode "much test information not salient to the assigned perspective" (Sadoski et al. 1991, p.476), whereas schema theory limits the processing of information to only those consistent with the activated instantiated schema.

Besides emphasizing the role of imagery in comprehension for children and adults, dual coding theory proposes that affect plays an important role in the recall of information. This conclusion is based on perspective-texts where subjects were familiar with the two possible perspectives of a text (home-buyer/burglar perspective). Sadoski et al. believe that the burglar perspective arouses more affect and that may be a possible explanation of why this perspective is usually better recalled.
Whereas the contribution of the dual coding theory is obvious in introducing the affective aspect into retellings, it adopts an interactive approach to comprehension and retention of linguistic input which depend on other linguistic cues and on non-linguistic representations that are called 'schemata' according to the schema theory while they are termed simply 'images' by dual coding theorists. Though Sadoski and his co-workers emphasize the effect of both internal and external factors on comprehension as schema theory does, they go one step further to make a distinction between two internal systems rather than one: the person's prior knowledge system -of topic, text structure, and linguistic relationships for example- according to schema theory. However, while Sadoski et al. claim that, unlike schema theory, dual coding theory with its active information processing between and within the two systems can explain differences in retelling results, it is worth recalling that transactive theories in reading research can fully explain this issue. According to transactivists, retellings are the 'construction' of new texts. Thus, texts are recalled differently by different people and under different circumstances. Even schema theories explain this point by saying that children encounter a specific text differently each according to his/her store of knowledge on the topic. Therefore, while the dual coding theory contributes to the field of information processing by positing two separate internal systems -a verbal and an imagery one- and by emphasizing affect in reading comprehension, it is a clear extension of the previous interactive and transactive theories. The insight dual coding theory offers can usefully be used to compliment or extend schema theory.

B. Rauding Theory

Another recent critique of schema theory came about as Carver (1990) reviewed some empirical work on reading. He supports the notion that reading is basically divided into five kinds depending on the purpose of reading a specific selection. These processes are skimming,
scanning, rauding, learning, and memorizing. Using any of
the five basic processes can be predicted from "the
instructions, reading rate, objective consequences, and
the relative difficulty of the material" (Carver 1992,
p.165). Carver (1992) proposes that the most common
process of reading is that of rauding- and hence the name
of this theory- where readers proceed at a normal,
constant pace and read with no intention of learning or
studying. This is definitely the case with primary and
secondary school children and therefore, Carver adds, it
should have the priority of investigation since it has
the most beneficial and generalizable results.

Unlike dual coding theory, rauding theory does not
offer a model for information processing nor does it
posit a new structure for text processing. Carver merely
tries to explain the reading process according to the
purpose of reading. He postulates that the most common
and 'normal' type of reading is rauding and therefore
that should be the focus of researchers. Carver (1992)
believes that it is a waste of time to concentrate all
the efforts of reading research into one aspect of
reading which is "irrelevant to normal reading
situations" (p.173) by which he means the schema theory.

Rauding theory differentiates between what is known as
the general reading ability and "the traditional concept
of percent comprehension for a passage" (Carver 1992,
p.171). Carver calls the first rauding efficiency level
($E_L$) and the latter accuracy of comprehension ($A$). In his
initial work on rauding theory (1990, cited in 1992)
Carver worked out mathematical formulas to calculate $A$
independent of schema theory proposals of prediction,
previous topical knowledge, or type of text. It should be
recalled that Carver is dealing with what he considers
the most typical and normal reading situations and hence
bases his mathematical formulas on: (Carver 1992, p.171)

* the rauding accuracy level of the individual ($A_L$),
* the rauding difficulty level of the material ($D_L$),
* the reading rate of the individual \( (R_r) \), and

* the average rate at which the material was read \( (R) \).

Carver's (1992) main argument against the generalizability of schema theory research is that its results concern only the reading process involved in 'learning' and 'recall'. He concludes this by criticizing two research studies done by Valencia and Stallman (1989) and by Johnston (1984) in support of schema theory. Carver (1992) mainly attacks the three variables that affect reading comprehension according to schema theory: prediction activities, prior knowledge, and text type. Actually, the Valencia and Stallman study concludes that prediction activities that activate prior knowledge and undertaking prior knowledge tasks do not facilitate comprehension. That briefly accounts for the first two variables of schema theory beliefs. With respect to the type of text, Carver (1992) rationalizes the results of Valencia and Stallman that prior knowledge effect is more common for expository texts than narrative texts as that, on the whole, narrative texts are easier. When dealing with the same grade level, Carver classifies narrative texts at the independent level\(^2\) of reading while expository texts at the instructional level. This, again, supports his belief that schema theory best fits reading comprehension of material that is 'difficult'. Otherwise, when a text is relatively easy, prior knowledge, type of text, and other schema aspects seem irrelevant since—Carver quotes from Roller (1990, p.86)—"readers already understand the relationships between concepts". Though this concept sounds plausible, it is not fully

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\(^2\) Educators dealing with reading issues categorize reading material according to three levels: independent level, when children can read on their own since the vocabulary and content are familiar; instructional level where the child needs the teacher's assistance using material that is neither too easy nor too difficult; and, frustration level, where readers are encouraged to discontinue reading because, even with support of a teacher, the material will still cause frustration and anxiety (Durkin, 1976 and Beard, 1987).
comprehensible. Referring back to the original work of Roller (1990), it becomes obvious that Carver chooses to quote Roller's concept out of context. Roller emphasizes the interaction between familiarity of the reader with the topic of the text and the structure of the text. She deals with text structure only as a dependent part on prior knowledge. She postulates that readers make use of structural cues to isolate ideas and to understand relations between them when reading relatively easy and moderately familiar texts (Roller 1990, p.86).

As discussed earlier, Carver believes that "reading for learning" is done mainly at higher levels of education where the material is at the frustration level of the reader. Reading at college is for learning new information; students read and reread a passage to study the text and do well on exams. In this case, schema theory proves to be valuable in providing the prior knowledge specific to a certain passage. Otherwise, reading is most often done at the rauding level and therefore schema theory studies have limited application. Rauding theory posits that the relative difficulty of material has a main effect on the amount of passage comprehended.

In brief, rauding theory postulates that the schema concept in reading is helpful only in limited, very special-case situations. Carver (1992) claims that accessing and making use of prior representations is confined to higher levels of education where the material is specialized. He adds that the most common type of reading is that type of leisure activity where the aim is to enjoy reading rather than to 'learn. However, advocates of the rauding theory fail to recognize the importance of building or activating mental structures for comprehension. This is the case especially with young children at the early stages of learning to read. They have to 'learn' the skill at one point specifically children who are reading in a second language. They need help in constructing contexts in which to encode the
'new' language and the foreign culture the print reflects; otherwise, reading will be effortful for these children and thus enjoyable.

Up to date, schema theory offers the most suitable account for young beginning readers in a second language. While the dual coding theory introduces the affective aspect of comprehension and retention, schema theory also does that, though indirectly, through activities which promote children's/readers' motivation and involvement in the text and that encourage the children to look for similarities between their prior experiences and the new, proposed ones. On the other hand, rauding theory does not offer much for those young readers who need a lot of support to become efficient readers especially in a second language.

With this presentation of schema theory and related issues of text processing and memory processing of incoming information this chapter is concluded. The next chapter deals with more directly related topics to this research including definitions of 'stories', 'narratives', and 'story grammars'.
Chapter Three

TYPICAL STORY STRUCTURES

So far this work has dealt with, in chapter one, the general development of reading theories and material. The second chapter discussed one of the more recent approaches to reading comprehension, the notion of schema theory, that is the focal point of this research. The primary aim is to investigate the effects of schema theories on the comprehension and retention of stories by children learning to read in English as a second/foreign language. Part of recent reading research, besides schema studies, is the influence of metacognition and text structure on success in reading comprehension. Metacognition deals with the relations between cognitive structures (i.e. knowledge) and language. It studies the awareness of people of their own thinking and mental processes. Researchers (e.g. Chapman 1987, p.90) believe that language processing "has psychological implications which are extended... to include text processing and metacognition".

The effect of text structure is believed to help us predict what information is more likely to be retained and the amount of time spent to understand different parts of a text. This notion led reading researchers (e.g. Rumelhart, 1975) to study text frameworks and so the notion of Chomsky's (1965) generative grammar rules was adopted to draw 'trees' or hierarchical structures for discourse to formulate phrase structure rules to generate stories.

Since this study concentrates on children's recall of
stories, this chapter starts with a presentation of what is meant by a 'story'. A definition of 'narratives' follows to point out the differences between 'stories' and 'narratives'. For our purposes, a 'narrative' is a 'story' orally told by a teller. A 'story' is a written, and probably published, text. The children's retellings of the two research stories may be considered 'narratives' in the sense that, though they are recalling what they have read, the children are reflecting on the original passage and retelling the events. They are adding, deleting, and/or changing bits of the original information according to their own understanding of the story events. This is what is meant by advocates of the transactive approach to reading mentioned in the first chapter. Having clarified what is meant by the two terms, 'stories' and 'narratives' in the first part, this chapter proceeds into defining 'story grammars' and discussing some of the proposed text structures.

I. What is a Story?

Several definitions have been recently put forward in an attempt to define 'stories' (e.g. Cohon and Shires, 1988; Bal, 1985; and Polanyi, 1989). They agree that a story is a sequence of logically related events that depict a change in time and/or a transformation in a physical and a mental state. Stories reflect personal feelings about and reactions to instances that occurred in the past. Cohon and Shires (1988, p.1) summarize what stories are and give the slight distinction between 'stories' and 'narratives' clearly:

"Stories structure the meanings by which a culture lives. Our culture depends on numerous types of narratives... Narratives give expression to feelings, but within the framework of a story and its telling".

Nowadays children's stories originated as oral accounts of cultural tradition. They follow a conventional way of narration which includes a title or a formal opening phrase, for example "Once upon a time"; an ending for a formal
closing, such as "happily ever after"; and a consistent use of the past tense (Applebee 1978, pp.38-39). Stories are narrations of either real or imagined instances. They are built around a theme that is introduced through a setting and the characters involved in the plot. The understanding and production of stories is developmental. Children progress in reporting stories as they encounter more experiences with story books.

"Stories are perhaps one of the oldest literary forms known to mankind. Through stories, the history and cultural heritage of many societies has been preserved. By analyzing the content and structure of stories, we have been able to enrich our knowledge of many cultures, as well as our understanding of cross-cultural differences in the values and ethics of social interaction" (Stein and Trabasso 1982, p.487).

Recent research studying 'a story' is aimed at describing the cognitive structures used to understand and remember stories. It was thought that understanding the comprehension process would deepen if the types of knowledge people acquire about stories and the way this knowledge is used are described in detail. It follows then that the content and organizational structure of story texts is critical in determining how much a text is comprehended. This trend of thought has created some controversy over various issues related to story comprehension as well as to its nature and definition. Some scholars argued against goal-based definitions derived from a Story-Grammar Approach to comprehension mainly because of incapability to discriminate between the class of 'stories' and non-stories (Black and Wilensky, 1979; and Black and Bower, 1980 in Stein and Trabasso, 1982).

However, one certain issue is that even children have a conception of story structure. This was studied through children's narratives and story-telling based on a series of pictures given to them (Poulsen et al., 1979 cited in Oakhill and Garnham 1988, p.107). Though this activity is
more of a descriptive rather than a personal, creative one, findings are still interesting to document here. Children, both young and old, tend to add details to what is seen in the pictures from their own understanding of the context if the pictures, to start with, told a story. However, younger readers tend to restrict their 'story-telling' to naming characters and objects when the pictures are presented in a random order. The same situation applies to retelling or recalling previously read texts as discussed in chapter two where the 'normal' order of events is restored during retelling and additions are made so that the recalled story corresponds to what is expected to be. Specifically the point that young children tend to name persons and objects in photos rather than build relations and make connections between events might be of special interest for this study later on where one group of children participating in this research tend to do the same.

II. Why are Narratives Special?

Before going into details of how stories are studied and analyzed it would be interesting to point out how sociolinguists look at narratives as opposed to stories. While a 'story' is considered "a set of events, real or imaginary"- says Whitehead (1990, p.109), a 'narrative' is "the spoken or written account that tells about the story's events". Bruner (1990) looks at narratives as the outcome of the interaction between mind and culture. Narratives follow the canonical order and talk about things that are 'exceptional'. Narratives deal with those things that are not typical of the social behavior the narrator belongs to. Narratives "relate to what is morally valued, morally appropriate, or morally uncertain" (Bruner 1990, p.50). This statement manifests the importance of transmitted cultures and ways of expression through spoken language. This definitely influences and is influenced by written language that children directly or indirectly acquire.

Whitehead (1990) presents narratives as cultural, meaningful, personal, and developmental activities.
Narratives involve the use and effect of society, history, feelings, and affect towards experiences encountered in the social context. According to Whitehead, a narrative is the ordering of events of daily activities whose content and form mirror the impact of one’s culture on the individual’s perceptions of events. Moreover, a narrative includes judgemental implications of the individual on the events and on persons involved in the situation.

Narrating or ‘storying’ is developmental in the sense that story structure becomes more obvious and the use of certain connecting words more distinct as children grow older and more familiar with oral encounters of adults such as parents and teachers and with greater familiarity with written presentation of events. This phenomenon changes according to different cultures in that different cultures have different formats of presenting their experiences. Some follow the progressive time-order of events to talk about them while others narrate occurrences possibly according to whether they are under the ‘vice’ or ‘virtue’ categories. Narratives are also developmental in the sense that the child ‘narrators’ become more dependent on themselves as the listeners to their own stories as they progress in age. The initial interest to share one’s own stories with others is directed towards shaping "the inner speech functions of controlling, planning, recalling, and predicting" (Whitehead 1990, p.106).

Narratives are of social-cultural significance because, as discussed in chapter two, culture is the summation of the shared habits and attitudes of a group of people that is transmitted and kept alive through generations. Similarly, narratives are one important form of culture since through them habitual ways of seeing and telling about events, and affects are preserved as ‘tradition’. At the same time, narratives are considered ‘personal’ because they are

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1‘Narrating’ and ‘storying’ can be used interchangeably when considering that all stories originate as narratives, i.e. with the need to express a meaningful experience and comment on it.
stories of individuals in a certain society. They are expressions of occurrences and reactions to those events of individual persons yet making use of the inherited form of presentation, passions and evaluation of the social surroundings.

The practical importance of narrating lies in the educational aspect. Narrating is the link between the formal learning done at schools and the informal social life that is full of experiences waiting to be noticed and evaluated according to the structures acquired in classrooms. "Young children use narrative as a means of putting the abstract and highly organized knowledge of schooling into the context of their everyday understandings" (Whitehead 1990, p.108). Narratives are the "bridges between experience and school learning".

III. Alternative Methods of Story Analysis

Besides the effect of personal prior experiences and knowledge about topics of texts and relevant vocabulary, recent research (e.g. Mandler and Johnson, 1977 and Rumelhart, 1975a) investigate the effect of story structure on comprehension. Story grammars were thus written to present stories and narratives in hierarchical categories showing the semantic relationships or connections between the different categories. The reader's sensitivity to the hierarchical structure of texts and his/her understanding of the logical structure and relations between proposals or story events made researchers more interested in studying story structures, readers' knowledge of their existence, their effect on comprehension and recall.

This section presents a general understanding of how research looks at stories as having an internal structure that could be pictured in a hierarchical network of logically related categories. This is what Greene (1986) calls story schema where all stories are structured and all conform to a typical structure that people get to know through reading several stories. A definition of what is
used as the basic unit of story analysis is followed by a discussion of different models of story grammars namely those of Rumelhart (1975a), Glenn and Stein (1979), Labov (1972a), Deese (1981), and any adaptation done based on these story grammars. It is worth noting here that while most of those types of story analysis are based on written texts, Labov's analysis is based on narratives, i.e. on stories told about personal experiences rather than the type of stories found in story books. However, this is still useful for drawing upon and adapting for the purpose of this research where retellings of seven-year-old children are to be analyzed.

Since stories, fables, folktales, and myths are significant as cultural representations, they have been the concern of various fields such as Anthropology, Linguistics, and Psychology. Each domain has tried to investigate the common features of stories and the basis on which they are organized. Psychologists speculate that the different surface kinds of stories, e.g. children's stories, novels, and newspaper stories, have a universal deep structure defined by a set of rules called story grammars. Different proposals investigating the common features of stories have been put forth (Peterson and McCabe 1983, p.2): some research studies look at stories as having common themes around which different stories are built. They could be either common functions of characters in folktales as Propp (1968) suggested in his work on Russian folktales, or common characteristics of stories as structured around some motivation for an action and a resolution that lead to primary plot units in stories (Botvin and Sutton-Smith, 1977, and Sutton-Smith, Botvin, and Mahoney, 1976, in Peterson and McCabe 1983, p.2). Applebee (1978) proposed that story events are structured either according to their temporal sequence or causal relationship or to their embeddedness under a certain aspect which could be a common character or a common theme. Thus, those investigators would be looking at the overall coherence of stories. Yet others (e.g. Colby, 1966) preferred to look for semantic categories of words occurring at different stages in the story, e.g. at
the beginning, middle, or ending.

As the thematic approaches are considered too general and the word frequency approach to be too specific, researchers preferred the compromise of studying propositions or clauses and relationships existing between them. (A definition of a 'proposition' and a 'clause' is discussed in the next part of this chapter.) The next section presents the different propositions of story grammars by Rumelhart (1975), Stein and Glenn (1979), Labov (1972a), and Deese (1981).

IV. Story Grammars

As mentioned earlier, since stories and narratives are an integral part of culture and tradition, and since Bartlett (1932) suggested a common underlying pattern for stories, these two factors motivated a number of research to discover the presumed stories' underlying structure. One way of looking at and analyzing story structure is story grammar. The idea of story grammars is a product of the generalization of Noam Chomsky's assumption that grammars are mentally represented. Chapman (1987) strongly believes that, as an extension to schema theory, there are language schemata associated with knowledge schemata. Chapman even suggests that knowledge schemata may have a language element built in them.

On the other hand, psycholinguists are interested in aspects of supposed cognitive processing of the phrase structure grammars, rewrite rules, and story tree structures. They aim at discovering whether there are mental structures which language users employ to understand written or spoken language.

However, the debate remains "whether a linguist's formulation is a reliable representation of a person's system" (Aitchison 1992, p.46). This is what Aitchison calls "psychological reality problem". Psycholinguistic research is trying to resolve the issue of whether the apparatuses
developed for story analysis, i.e. story grammars, correspond to mental representations. If studies prove that story grammars define the structure of stories in relation to strategies readers use to comprehend stories and to story memory, the implication will be to arouse readers’ awareness of the similarities between their own mental representations of stories and the respective linguistic input form for more efficient and successful reading. The unresolved issue of whether story grammars are parallel in structure to the internal organizational strategies of language processors calls for further research in the field. The interest is to see whether story grammars are ‘schemata’, prototypical abstractions of ‘stories’ that deal with stories’ constituents as hierarchically organized.

Research with story grammar was based on Chomsky’s (1965) notion of Universal Grammar. Chomsky proposes that some grammatical structures are genetically inbuilt in the human mind. Psycholinguists’ interest is to check whether story grammar structures are amongst the ‘inherited’ structures people are born with.

A. Definition

Story grammars have been developed to define how stories can be broken down into units according to the internal organizational strategies of processors of material. That is, story grammars define the structures of stories in relation to strategies readers use to comprehend stories and to story memory. The Dictionary of Reading (1981) defines a story grammar in terms of text analysis as "a grammar designed to specify relations among episodes in a story and to formulate rules for generating other stories" (p.311). According to Rumelhart (1980, p.315), "the real purpose of a grammar is to allow the systematic assignment of constituent structure". Greene (1986) considers the rules as rewrite rules; using this special kind of rules, stories could be written into their component parts through drawing tree structures. Story tree structures are composed of
branches and nodes that originate from a single node, STORY, and could go on being rewritten until they become terminal nodes, i.e. actual phrases in the story. Such rules are not always complete in the sense that sometimes they do not have any corresponding 'surface' element. Yet, the 'deep' structure of a story cannot be understood unless the missing informational nodes, that are not explicitly stated, are inferred. These rules specify the types of information of the material as well as define the relations that exist between the units in the prose. The types of informational units differ according to the type of prose, e.g. story or folktale, narratives, reports, or anecdotes.

The second part story grammars deal with— the interrelations between units— requires a definition of what is meant by a unit of analysis. Earlier studies on story analysis (Colby, 1966) took the 'word' as the basic unit for analysis. Subsequent research like that of Labov's (1972a) considered the phrase structure as the unit for language analysis. Later, the shift was towards a more comprehensive view which was beyond the word and the sentence structure leading psycholinguists to look at discourse, or the text, for their analysis. This view is dealt with by Deese and is presented later in this chapter.

Stein and Glenn (1979) consider a unit as a relative concept that depends on the investigator’s purpose. The assumptions made when an investigator chooses a unit of analysis are: (Ibid, p.55)

"1. The unit is assumed to correspond to the types of categories processors use in structuring and remembering information.
2. The unit can often be described in terms of lower level units and the relations between these units.
3. The unit can be joined to other units of the same level by specified relations in order to form higher order units."
Therefore, a unit can be as small as a word or, as more widely used, a proposition which "roughly corresponds to a simple sentence. ...A proposition is defined as a predicator or relational word, usually the verb, and one or more arguments which stand in some specific relation to the predicator, e.g., the actor of a verb" (Idem). Johnson (1985) summarizes the variety of ways to divide texts into units in two main categories: metalinguistic judgements and rule-based systems. The first depends on judgements of individuals about boundaries of idea units. Rule-based systems divide a given text according to either propositions -i.e. a predicate and and its argument/s- or according to the higher-order structure of a text. The latter is based on the structural representation of text constituents such as Setting and Episode as the terminal elements.

However, we should not forget that dividing prose into units is only the first step towards its analysis. Further analysis is required to "provide information concerning the relative importance of individual propositions within the passage... [and to] indicate how these units are logically related to each other" (Stein and Glenn 1979, p.55)

In his work with narratives, Labov (1972a) defines clauses as narrative, restricted or free in time; i.e. narrative clauses are temporally ordered; restricted clauses "can be displaced over a large part of the narrative without altering the temporal sequence of the original semantic interpretation, but not over the entire narrative" (Ibid, p.362). Restricted clauses are bound in the sense that they happen in a specific point of time whereas free narrative clauses are general and thus remain true throughout the narrative and consequently they can change place in the narrative.

Before going on to the discussion of the different
propositions of story grammars by Rumelhart (1975), Stein and Glenn (1979), Labov (1972a), and Deese (1981), it should be pointed out that the story grammar approach towards understanding stories- like any other theory- has been evaluated. Black and Wilensky (1979), for example, criticize these approaches as inadequate basis both in form and content. They prefer a content-oriented approach based on the readers knowledge rather than a structural grammar based on phrases or sentences. This criticism will be presented after the discussion of the theory.

1. Rumelhart's Story Grammar

Based on the assumption that stories have an internal structure just as sentences do and that they consist of hierarchical categories bound by logical categories, Rumelhart (1975) was the first to develop a general story grammar that applies to a wide range of stories. Rumelhart initiated his work on story grammar with the observation that several stories have a problem solving structure. He proposes that the structure begins with events happening to a protagonist leading him to set up a goal. The second part of story structures unfolds the protagonist's attempts to attain the goal.

Rumelhart's grammar for stories consists of two types of rules: "syntactical rules which generate the constituent structure of stories and a corresponding set of semantic interpretation rules which determine the semantic representation of the story" (Rumelhart in Bobrow and Collins 1975, p.213). He derived these rules from analyzing narratives of the type of folktales, fables and myths, which are usually orally transmitted and their "frequency of transmission is extremely high" (Stein and Glenn 1979, p.56). Though there might be slight alteration in the details added or deleted in the reproduction of these narratives, the 'logical' sequence of the retellings would still
have a common organization. Rumelhart's basic unit of analysis is the informational node or category. Categories are either primary categories which are made up of one or more elements sharing similar features but which cannot be defined into further categories, or higher order categories which are divided into a primary category and another higher order category. For example, in the hierarchical schematic network, figure 3.1: (Stein and Glenn 1979, p.56)

**Figure 3.1 Stein and Glenn's (1979) Hierarchical Schematic Network**

![Diagram](image.png)

B', C', and D' are primary categories that may contain multiple propositions while B, C, and D are high order categories further defined by two categories: a primary category and a higher order one, all of which are causally related in a specific logical sequence.

According to Rumelhart, a Story is made up of two categories: the Setting which introduces the main characters in a context of time and place; and an Episode which is composed of an Event and the hero's Reaction to that Event. An Event is a primary category, the most general category in this grammar, and the higher order category, Reaction, constitutes the Internal Response and its Overt Response. The tree in Figure 3.2 illustrates Rumelhart's internal structure for stories showing the complete hierarchical network of his story grammar.

Though Rumelhart's model (1975) is considered as
FIGURE 3.2  Rumelhart’s Story Grammar (Adapted from Rumelhart’s work, 1975, on Story Structure)

Key:
- - - - : Syntactical Rules
---- : Semantic Interpretation
/ / / : Mutually Exclusive Alternatives
(BOLD UPPER CASE) : Primary Categories
(UPPER CASE) : Propositions
incomplete in the sense that it does not handle "more complex multi-protagonist stories", it was a good basis for further experimentation and generalization of the rules.

2. Stein and Glenn's Story Grammar

In their attempt to modify Rumelhart's story grammar, Stein and Glenn (1979) based their analysis on children's stories and fables whereas Rumelhart's research was based on simple stories and folktales. Before describing Stein and Glenn's model of story processing, it is worth mentioning that the categories were defined based on a wide range of stories. However, one of the limitations of their model is that those categories may change as more data is analyzed and that they may considerably vary "between cultures in the types of distinctions read by processors" (Ibid, p.58). They tried to develop Rumelhart's model by interweaving the semantic and syntactic relations rather than treating them as separate entities, and by specifying the relations between episodes, the intracategory relations, and the structural variations within a single episode. In other words, they tried to change the categorization of story information where categories in Rumelhart's grammar were either too restrictive or unable to encompass the variety of information that different folktales provide.

Stein and Glenn (1979, p.71) give a description and a definition of what they mean by an Episode. They do this because "in almost all folktales, one or two of the postulated categories are missing from each episode in the story structure," and therefore it is essential to define what is worth considering an Episode. They do this by providing a list of what a behavioral sequence must contain, and consequently what an Episode must contain. If any of the Episode criteria is missing, then the
Episode is considered to be incomplete. Table 3.1 illustrates Stein and Glenn's model of a simple story grammar as presented in Stein and Glenn 1979, p.61.

<table>
<thead>
<tr>
<th>Behavioral Sequence</th>
<th>Episode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. the purpose of the behavioral sequence</td>
<td>1. an initiating event or internal response</td>
</tr>
<tr>
<td>2. overt goal-directed behavior</td>
<td>2. an action</td>
</tr>
<tr>
<td>3. the attainment or nonattainment of the character’s goal</td>
<td>3. a direct consequence</td>
</tr>
</tbody>
</table>

With respect to the first point—merging the syntactic with the semantic rules—Stein and Glenn present their model of story grammar in the form of describing each category by the semantic relation that connects its components. For example, whereas a Story according to both models, Rumelhart’s and Stein and Glenn’s, consists of a Setting and an Episode, Rumelhart (1975, p.213-14) defines it as:

Rule 1 : Story $\rightarrow$ Setting+Episode  
Rule 1' : Allow (Setting,Episode)

while Stein and Glenn (1979, p.59) present it as:

Rule 1 : Story $\rightarrow$ Allow (Setting,Episode system)

To express the link between the base level statements within the same category, Glenn and Stein introduce AND, THEN, and CAUSE relations, which do not imply a hierarchy at that stage. To exemplify this linear relationship within the Internal Response category, Goal(s), Affect(s), and Cognition(s) are related either in that they occur at the same time and are thus linked by the AND relation; or in that one statement happens before
another in time, and so they are connected by the THEN link; or in that one instance directly influences the occurrence of the second statement, and therefore a CAUSE relationship links the two. Similar intercategory relations occur within the elements of the categories of Initiating Event, Internal Plan, Direct Consequence, and Reaction.

The third issue Stein and Glenn dealt with was the accountability for more-than-one-episode stories and the way episodes are related. Here again the connection does not show a hierarchical structure of Episodes but rather a logical one. Episodes of a story are linked by an AND relation or more commonly by a THEN or a CAUSE connection. Usually, when two episodes occur simultaneously, and thus connected by an AND link, they can be easily detected since words and phrases such as 'while', 'meanwhile', and 'at the same time' are found in the text. However, THEN and CAUSE connections between episodes are more difficult to detect especially for younger children (Stein and Glenn 1979, p.69).

In addition to these three episodic relations, there is a fourth type where one or more episodes are embedded in one; i.e. when an Episode starts before and ends after or with another Episode, it is to be nesting or embedding the other episode. This is usually the case when the attainment of a goal of one character involves or depends on the behavior of another character.

As to relations within the same category, Stein and Glenn talk about two major kinds of variations that may take place. The first type of intra-episodic variation is where an Episode contains two or more higher order categories, e.g. two responses or two plan sequences. However, in this case where a higher order category contains two or more
primary categories and a higher order one, the binary relation of the descending hierarchy changes.

In brief, Glenn and Stein proposed that stories are composed of a setting and of "problem-solving episodes" (Rumelhart, 1977a) with information nodes that categorize the story statements; they include goals, actions, attempt... . These information categories present an initiating event which probes the protagonist to react to it and plan for the attainment of a goal by attempting a resolution. However, they found that, though some young children's stories were organized into episodes, most were general descriptions or mere chronological sequence of actions.

Peterson and McCabe (1983) draw on three models of story grammars to analyze children's narratives. They build their work partly on Glenn and Stein's work calling it Episodic Analysis. They describe this method as looking at stories as basically built around episodes with peripheral constituents such as the settings and reactions. This basic, ideal structure of stories— the complete episode— applies to even complex stories which in that case would be elaborations of the basic story grammar. Therefore, sentences in a story would have specific functions within the Episode: "as precipitating events or internal motivating states, as aims or as consequences" (Ibid, p.67). These purposive, goal-directed constituents are causally related and thus figure 3.3 illustrates the basic story constituents and their relationship.

According to Glenn and Stein's model, Episodic Analysis considers each sentence to be made up of one or more statements. It defines a statement as "a unit that conveys important distinctions" (Ibid, p.69). Statements in stories are classified into
one of two categories: the functional category and the content category. The former includes events, motivating states, attempts, consequences, reactions, and settings while the latter consists of actions, external states, internal states, and natural occurrences. Functional categories are more basic and essential since one content category (e.g., an action) may serve multiple functions (Ibid, p.68).

Moreover, Glenn and Stein organized story statements into seven main story structures. They hierarchically ordered them from least complex to most complex; that is, each lower level with all its characteristics is included in the next higher one in addition to one more characteristic. The first five structures, in order, are: descriptive sequence, action sequence, reactive sequence, abbreviated episode, and complete episode. The final two patterns are not logically ordered; they are complex episode and interactive episode. Any story can be comprised of more than one of these structures and hence called a multiple structure story. A tree structure summarizing Stein and Glenn's work is presented in figure 3.4.

Peterson and McCabe added two categories to Glenn and Stein's functional and content categories. These are judgments—where the narrator comments on the story events—and appendages—which are attached to the story in order to give a summary of the story or to get the attention of the listener.
FIGURE 3.4 Stein and Glenn's Story Grammar of a Simple Story (Adapted from Stein and Glenn’s work, 1979, on Story Structure)

Key:
(BOLD UPPER CASE): Higher Order Category
(UPPER CASE): Informational Content
-----: Divisions of Higher Order Categories
-----: Intercategory Relations
3. Labov’s Pattern of Narratives

Labov (1972a) had done research on narratives of personal experiences with preadolescents (9-13 years old), adolescents (14-19), and adults. His aim was to study the structure, function, and development of the language used by Blacks in south-central Harlem talking about a "Danger of Death" experience which is within the black English vernacular culture. Labov defines a narrative as "one method of recapitulating past experience by matching a verbal sequence of clauses to the sequence of events which actually occurred" (Ibid, p.360). Whereas Glenn and Stein consider stories as logical sequences of informational statements, Peterson and McCabe regard Labov’s narratives as "organized around one or more key points which are stressed by the narrator" (Peterson and McCabe, p.3). Subsequently, a narrative is a build-up of a sequence of events that lead to the highlighting of the "high points"—the key points towards which the events are built. High points are identified both structurally—through action suspension—and semantically. Hence, the way Labov describes stories is called "High Point Analysis" of narratives by Peterson and McCabe. Following up on his definition of narrative clauses—as restricted or free, Labov considers that for a sequence of clauses to be accepted as a "narrative" or as narrative clauses, it ought to be a temporally ordered sequence of at least two restricted clauses (Labov 1972a, p.360). In other words, a "minimal narrative" is composed of two restricted, independent, temporally ordered clauses whose semantic interpretation would change with an alteration in their order. To illustrate what he means by a minimal narrative, restricted clauses, and free clauses, Labov gives the following narrative as an example: (Ibid, p.361)

a. I know a boy named Harry.
b. Another boy threw a bottle at him
right in the head
c. and he had to get seven stitches.

This narrative is composed of one free clause (a)
and two narrative clauses (b) and (c) (whereas a
full narrative would consist all six types of
narrative clauses.)

Narrative clauses could be one of six types:
abstract, orientation, complicating actions,
resolutions, evaluation, or coda. Table 3.2
summarizes the narrative clauses in their typical
order as identified by Labov with a brief
description of the characteristic of each.

Table 3.2 Labov's (1972a) Narrative Clauses in Their
Typical Order

<table>
<thead>
<tr>
<th>Narrative Clause</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>to summarize the whole story</td>
</tr>
<tr>
<td>Orientation</td>
<td>to identify time, place, persons, and situation</td>
</tr>
<tr>
<td>Complicating Action</td>
<td>to state events describing what actually happened</td>
</tr>
<tr>
<td>Evaluation</td>
<td>to indicate the point (significance) of the narrative</td>
</tr>
<tr>
<td>Result or Resolution</td>
<td>to terminate the series of complicating actions</td>
</tr>
<tr>
<td>Coda</td>
<td>to show time gap between narrative and present to show effect of events on narrator, and/or to signal the end of one narrative clause</td>
</tr>
</tbody>
</table>

Whereas a minimal narrative contains "one single
temporal juncture" (Labov 1972a, p.361), a
"complete narrative" according to Labov "begins
with an orientation, proceeds to the complicating
action, is suspended at the focus of evaluation
before the resolution, concludes with the
resolution, and returns the listener to the present
time with the coda" (Ibid, p.369). These major
types of narrative clauses with their subcategories could either be independent or dependent (which according to Peterson and McCabe's work turned out to always be orientation or evaluation). Most often, narratives follow a single grammatical pattern (which is usually connected with speech); i.e. narratives have a common surface structure which directly "corresponds to an equally simple deep structure" (Labov 1972a, p.375).

Labov points out to the importance of Evaluation as the worthwhile point of the narrative; i.e. Evaluation explains why the narrative is significant and worth reporting. The narrator could give the listener an external evaluation of the experience, e.g. "But it was really quite terrific" (Idem); embed the evaluation within the narrative by expressing how the narrator feels paradigmatically (e.g. "I don't think I'm bad, you understand?"); by quoting or addressing another person (e.g. "I say: 'Calvin, I'm bust your head for that!'"), or by quoting another person's evaluation of the events (e.g. "But that night the manager ... said, 'You better pack up and get out because...'"); describe 'actions' that took place (vs. what people say) e.g. "Well, the boys came up and they got me. I couldn't touch nuttin'. I was shakin' like a leaf."; and/or stop the actions and express the feelings separately thus conveying them and the resolution with a greater effect. It is in this part of narratives, Evaluation, where the basic syntax of narratives might be changed. A change from the simple, basic straightforward syntax of narratives marks an "evaluative force" (Ibid, p.378) that may or may not complicate the basic narrative structure. Such evaluative elements include four major types each with its subheadings: intensifiers, comparators, correlatives, and explications. Other units may also be named; however, these are the elements that involve the
internal structure and the syntactic complexity of narrative units. Table 3.3 defines the four major types and names some examples in each. (For more details that Labov describes about each element and its subtypes, the reader is to refer to the original work pages.)

Peterson and McCabe point out to Labov’s structure of narratives as the "classic" narrative pattern since it is found to be the typical form of adults’ narratives— and is also one form of organization in children’s narratives. They (Ibid, p.37) define it as: "The narrative builds up to a high point, evaluatively dwells on it, and then resolves it". This is achieved by telling the events in a well-ordered way leading up to the climax. These complicating actions are then resolved "and loose ends are tied together" (Peterson and McCabe 1983, p.xvi). However, based on their study of children’s narratives, they have developed several other patterns which basically are: ending-at-the-high-point pattern, leapfrogging pattern, chronological pattern, impoverished pattern, disoriented pattern, and miscellaneous patterns. (If interested in more elaboration on these patterns of narratives, the reader may refer to Peterson and McCabe 1983, pp.36-47.)

4. Deese’s Dependency Analysis

Unlike the previous modes of story and narrative analysis, Deese developed an analysis system of discourse in general founded on syntactic basis— as opposed to the previous semantic models. He bases his definition of a proposition on Chomsky’s (1965) syntactic definition. Based on the assumption that all languages have the "creative" element in them, Chomsky proposed that a language system is made up of a set of definite rules which generate an indefinite number of various structures of
<table>
<thead>
<tr>
<th>Type</th>
<th>Function</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensifiers</td>
<td>to select one event out of the linear series and strengthen it</td>
<td>gestures, ritual utterances, repetitions, quantifiers</td>
</tr>
<tr>
<td>Comparators</td>
<td>to compare the events which did occur to those which did not occur</td>
<td>negatives, auxiliaries, futures, modals, questions, imperative</td>
</tr>
<tr>
<td>Correlatives</td>
<td>to &quot;bring together two events that actually occurred so that they are conjoined in a single independent clause&quot; (p.387)</td>
<td>progressives in be, appended participles, double appositive, double attributive</td>
</tr>
<tr>
<td>Explications</td>
<td>to transfer listener's attention backward or forward in time, &quot;or into a realm of abstract speculation wholly related to the narrative&quot; (p.392)</td>
<td></td>
</tr>
</tbody>
</table>
sentences; and hence the term 'generative grammar' was used. Thus, Deese's model identifies the relations among syntactic propositions in a particular discourse to specify the way the narrative is told—irrespective of the knowledge it conveys. Based on the semantic content of propositions, the syntactic dependencies (when contrast or subordination are found in one proposition) are established and therefore the outlining of the propositions is drawn. One example to illustrate Deese's dependency model is provided by Peterson and McCabe (1983, p.113):

"That big, ugly dog from next door bit me."
X. The dog bit me.
X.1 (dog was) big.
X.2 (dog was) ugly.
X.3 (dog was) from next door.

The contrasts 'big', 'ugly', and "from next door" have been de-transformed and subordinated to the basic sentence "That dog bit me". That is to say that dependency analysis involves "the de-transformation of certain propositions, or the breaking down of surface discourse into its component syntactic propositions according to certain rules.

According to dependency analysis, in any given discourse there is one proposition that organizes the whole of the discourse and thus dominates all the other propositions. Consequently, dependency analysis allows for a hierarchy of propositions in any discourse and at the same time displays parallel contrasts or adjectives within one single subordinate clause.

An ideal structure of discourse in dependency analysis is termed the ideal hierarchy. Deese's basic suppositions of an ideal discourse are
comparable to those of Chomsky (1965, p.13). Ideal hierarchy does not allow for recursive repetition especially the duplication of a given proposition at a subordinate level. Moreover, a proposition can be a subordinate to one and only one proposition. Finally, an ideal hierarchy is that which does not require too many inferences, i.e. that which is fully explicit.

Peterson and McCabe (1983) drew on Deese’s and Christensen and Christensen’s (1976) work to suggest six structures "which successively approximate ideal hierarchy" based on children’s narratives. They warn that these structures may differ with different structures of discourse, e.g. adults’ written discourse. These structures are: simple coordinate sequence, simple subordinate sequence, combination of a simple coordinate sequence with a simple subordinate sequence, mixed coordinate sequence, mixed subordinate sequence, and finally getting to the ideal hierarchy of— that specific type of discourse— "which resembles a fully branched tree" (Peterson and McCabe, p.136).

V. Commentary on the Story Grammar Approach

As research develops, available theories are questioned and new hypotheses proposed. While story grammars are considered a big step in psycholinguistics towards understanding stories, proceeding theorists proclaim that a more comprehensive way should be investigated to study story comprehension. Even on a foundational level, Black and Wilensky (1979) question the proposals of story grammars. They believe that story grammars do not tackle important issues in story-understanding.

Black and Wilensky (1979) argue that story grammars:

* do not allow for embeddedness in stories;
* are not equipped to account for "discontinuous
constituents" that may be found in natural stories;
* do not allow the generation of all possible story
texts; and,
* allow the generation of non-stories.

They argue that story grammars need rewrite rules that include deletion and movement transformations. Though one story grammar model proposed by Mandler and Johnson (1977) does propose these two transformational rules, Black and Wilensky add, it is still not complete. For example, the transformational rule of deletion does not take into account the issue of what statements are inferrable because they conform to a stereotypical situation (i.e. "on knowledge about possible semantic relationships among events", Black and Wilensky 1979, p.227) and thus can be deleted. As to the movement transformation rule, Black and Wilensky claim that they are limited in function because they are based on syntactic criteria rather than semantic ones which are essential for understanding any text. They summarize their attack on story grammars in that syntactic rules "cannot be defined independently of the semantic relationship between the sentences" (Ibid, p.225). Hence they propose a semantic-based model for story understanding to replace the syntactic model of story grammars. They postulate that the initial stage is to understand a story as a prerequisite to determining its constituent parts. When that is done, it renders the break down of the story into its constituents as unnecessary.

In response to Black and Wilensky's (1979) evaluation of story grammars, Rumelhart (1980) writes that this criticism is based on a misunderstanding or lack of comprehensive understanding of story grammars. He prefers the use of the term "story schemata" as a substitute for story grammars. This might be to make obvious the interest in relating story understanding through story schemata to knowledge and awareness of readers of these structures in their minds.

The researcher finds story grammars a promising start
for this study and so bases the analysis on story grammar models. However, the shortcomings in such models are examined and alterations and/or modifications are adopted to fit the stories in use. The following section is a presentation of the approach towards doing that.

VI. Story Grammar for This Study

This research makes use of the story grammar approach to get to an understanding of how children make use of prior knowledge—of topic and/or of story structure—to comprehend, retain, and retell stories. More essential is the application of story grammars to analyze the constituents of the research story. This is needed as a basis to study the quantitative and qualitative retellings of the children as mirrored by what is originally read. The intention is also to weigh the importance of the hierarchical construction on remembering and retelling episodes and other story constituents.

For this research, story grammars have been written for each of the two stories used. The final structures are given in tree-formats as presented in Appendix D for The Story of Ferdinand and in Appendix E for A Winter Evening. These tree structures are based on the previously discussed works in this field. In addition to the selective combination from the different story grammars, an extension of certain rules is adapted for allowance of recursiveness of syntactic and semantic rules within the structure. This is essential for the following reason: previous studies on the adequacy of story grammars have been conducted with 'artificial' stories written specifically for a 'laboratory' research. The story events are written to fit the available grammar and research and are in a conventional fashion conducted on college students enrolled on a Psychology course. However, since the material used in this research is authentic—published stories for children—it is inevitably longer with recurring events and 'insertions' or additions to the typical story structure and to the main, basic theme to allow for better comprehension and retention of events by readers. To
illustrate the crucial nature of the recursiveness rule, *The Story of Ferdinand* is taken as an example. A quick glimpse at the general structure of the story (figure 3.5) shows that seven episodes of three different types have to be accounted for besides the Setting and Coda. An Episode System had to be set to encompass all of the story episodes. At other times, rules within an Episode structure had to be modified to fit the story phrases into it. For example, whereas the setting of a story appears at the beginning of an episode in a typical story grammar, a Setting node is needed within Narrative Episode Seven rather than at its beginning. The results, then, are based on the count of 'units' recalled as compared to the 99 'phrases' drawn from the text by the story's grammar. A more detailed presentation of the actual count is given in the results chapter (chapter five).

The breaking up of the stories into units is based on the following system:

* The basic determinant of text division is meaning. The attainment of semantically complete (i.e. independent) units is the primary aim.
* Each 'new' sentence in the original text is started as a separate unit, but does not necessarily end as one unit. For example, "It was his favorite tree and he would sit in its shade all day and smell the flowers." is one long sentence in *The Story of Ferdinand* which is divided into three segments for the story grammar.
* Definitely, this takes into account the problem of under which story grammar node each unit fits. For illustration, the sentence "All the other bulls who had grown up with him in the same pasture..." is divided immediately after 'him' because the next phrase is a Setting while the first comes under the Initiating Event node.
* However, even if one sentence serves the same purpose in the structure, it is segmented after the third meaningful sub-unit. This is chosen to be done this way to allow for a reasonably long portion of information to be processed and remembered. Let us look at the
The Story Grammar for The Story Of Ferdinand

The Story Of Ferdinand

Setting -------- ALLOW ---------- Episode System -------- THEN ---------- Coda
95-99

State -- AND -- State -- AND -- State
1 2 3

State Episodes ------ THEN ------ Narrative Episodes

SE1 - CAUSE - SE2 - THEN - SE3 ------ THEN ------ NE4 - THEN - AAE5 - ALLOW - NE6 - CAUSE - NE7
4-10 11-21 22-32 33-44 45-48 49-57 58-94

Key: SE = State Episode
NE = Narrative Episode
AAE = Audience Address

-------- = Syntactic Relationships
-------- = Semantic Relationships
following sentence as an example: "The five men saw him and they all shouted with joy." Though this satisfies the second point (i.e. one complete sentence) and the third rule (it all comes under the Reaction node), it is preferred to have it in two separate units. The reason is that "the five men saw him" already has three bits of meaningful information to be processed and recalled by memory: 'five' 'men' 'saw Ferdinand'. The rest of the sentence—"and they all shouted with joy"—also has three parts: 'they all' 'shouted' 'with joy'. Even with this decision, the first point is still satisfied and the division end up with two meaningful units.
Chapter Four

RESEARCH STUDY

A brief background to Lebanon, the effects of Western cultures on its people, way of living, education, and language help the reader understand the background of the field-work carried out in Beirut October 1990- January 1991. The openness of Lebanon to the Western World, which is well reflected in the educational syllabi of different schools and universities in Lebanon, initiated the interest in this research. As a result of this cultural openness, more Lebanese became interested in and felt the need to learn a second language.

The war that lasted from 1975 till 1990 in Lebanon explains why the selected schools were included in the sample and not others, and what type of students attend these different schools, i.e. their socio-economic and type of educational background. The following map shows the geographical location of Lebanon on the Mediterranean Sea and some of its big cities.
I. Background: Lebanon

Lebanon, until 1975, was generally recognized as a relatively prosperous and modern country, a pleasant place to live and work in. Its society is a contrast of modern and traditional features which at the same time form a unity. An illustration of the contrast is the existence of religious conservatism and cosmopolitan openness; the unity is exemplified in the symbiosis between villages and cities. While cities, such as Beirut, Tripoli, Tyre, and Sidon, were the heart of life, villages and towns of the mountain played important economic and social roles as centers of local trade, voting for parliamentary elections, and relaxation. Villages were not isolated; there has always been easy access to cities. "Yet because Beirut had become so predominant in the national economy, and because banking and medical facilities were attracted to it, the rest of the country was at a disadvantage" (Gordon 1983, p.43). As a result, internal migration to the cities became popular, helping in the expansion of cities.

A. Modernization and Society

In Lebanon, as is the case in the Middle East in general, identifications and loyalties are first to kinship and then to religion. Despite the impact of this century, extended family ties dominate Lebanese people's life socially, economically and even politically. Kinship is still prevalent as the basis for socialization; leisure time for example is mainly spent within the extended family. It also provides many services such as provision of investment capital, support for education, medium for employment, etc. (Gordon, 1983 and McDowall, 1983). Even politics is an issue of family loyalty where voting is for the person who represents family interests. This can be considered a positive feature on the part of the individual to obtain a sense of belonging, but at the same time, can be negatively regarded from the point of view of the state where loyalties are not to the more inclusive unity. The significance of the extended family over class and nation has developed a self-promoting
sense rather than a co-operative one "hindering the demands of polity and state" (Gordon, 1980).

Next to kinship, religion provides a second sense of loyalty. Like kinship, it has been a bond of loyalty for centuries. It was under the Ottoman Empire that religion was institutionalized and strengthened. Ottoman citizens were formally represented through their religious leaders in Istanbul, thus reinforced religious identities. Religious bonds have been present in the Lebanese legal and political systems (McDowall, 1983). Barakat (cited in Gordon 1980, p.115) concluded that "vertical loyalties (to family, or to religious community) were stronger than horizontal loyalties (to class): '...family ties constitute the most basic network of social relations as well as the most basic source of value orientations'".

Traditional values have survived despite modernization and urbanization, though probably with less intensity that developed with the advance in education and exposure to modernity. 'Modernization' involves the movement from the extended to the nuclear family, the increasing chance of women’s employment and education, and an increasing possibility for women to divorce as easily as men, for example. "One might expect that one feature of the process of modernization would be a decline in sectarian identification - certainly it has not happened in the case of Lebanon" (Gordon 1983, pp.36-7). However, some important professional associations existed which contributed to transcend sectarianism; examples include the Lebanese Association of Architects and Engineers and the Lebanese Medical Association. This "has been more important than class consciousness and has served to blunt class identification" (cited in Gordon 1983, p.37).

Class divisions exist and are locally recognized, but they tend to be based more upon factors of family status and prestige than upon income" (Ibid, p.37). Owning any business, for example, is of higher status than being employed- despite the income. The inhabitants of a
northern town called Amyun, as reported by Khuri (cited in Gordon, 1983), perceived the class structure to be of four levels:

1. families who have been country leaders for a minimum of three generations,
2. the affluent,
3. the notable poor (taxi driver owing his own car), and
4. the needy (working peasants).

Another more traditionalist and less noble society would divide the population into the 'learned families' and the peasants (Idem). A parallel feature of these two types of class division is the geographical representation where Beirut and the surrounding mountain societies represent the prosperous life and the remote areas- the North, South and Bekaa- represent the poor one.

Another characteristic of Lebanese society is emigration which began in the mid-nineteenth century. Many migrants and their descendents keep in touch with the native country by paying visits, sending financial help to family members, returning for retirement... and thus bring back with them different life styles. While abroad, many get involved in cultural activities to maintain their identities through social and literary clubs (Gordon, 1980). This common practice- mainly for economic reasons- resulted in remittances which constituted about 41% of Lebanon's foreign earnings by 1910's. It is worth noting that Christians have the highest rate of migration from Lebanon (207,055 Christians versus 36,865 Muslims by 1932).

B. Beirut and Intellectual Life

Until 1975, Lebanon was a cultural center. The milieu was attractive for many reasons, the most important of which are the people's hospitality, humor, and liberality. This has helped in attracting intellectuals through local and international press (journals,
newspapers, or reviews), theatre (in numerous languages),
folkloric festivals, music (e.g. Lebanese and other
Arabic varieties, French, and English), etc.. Beirut "was
the West's main gateway to the Arab world beyond, not
merely politically but in trade" (McDowall 1983, p.12).
Furthermore, it was the center of banking and
international service companies of the Arab world.

Among all cities, Beirut has played a crucial role in
Lebanon's life. By 1906, it had already been an important
cultural center with two universities, fifteen printing
houses, and twelve Arabic language newspapers. It became
the capital in 1920 when the Sunnites comprised 40% of
its population, the Maronites 25%, the Greek Orthodox
20%, and the Greek Catholic 4%. The rest included
Armenian refugees and Shi'ites from the South. "In 1970,
70% of all industrial laborers and 60% of those engaged
in services worked there, and by 1975 the city included
at least 40% of the population" (Gordon 1983, p.39). The
number of expatriates increased with the establishment of
foreign schools and international companies. In 1975,
there were 30,000 French, 15,000 Americans, and 14,000
British in Beirut; these were nearly half the population.

Before 1975, Beirut was considered by some Arab
nationalists to be a repudiation of Arab culture and to
others a delightful place to enjoy the 'West' in an Arab
ambience, and still to others a haven where they could
keep in touch with their people. Beirut was the base of
many international companies because "of its freedom, the
availability of talented personnel... and the relative
efficiency of its infrastructure" (Ibid, p.41). There
also existed efficient Lebanese companies, few of which
continued to operate after 1975.

C. Education

The educational system in Lebanon is advanced compared
with other Arab countries; this plays a part in its
modernity and its diversity, which is reflected in its
lack of cohesion, culturally or politically. After the
Christian Maronite sect began mass education in the eighteenth century, the French and American missionaries of the nineteenth century extended it, but still with the majority of attendants were Christian.

Lebanese people value education highly. It is reported that between 1959 and 1963, the number of public schools quadrupled and by the end of the 60's, new universities were established (The Lebanese University, Beirut Arab University, and University of Kaslik) besides those already existing: The American University of Beirut and St. Joseph's. In 1950, 115 students were in primary schools per 1000 inhabitants; in 1965, there were 160. In 1959, there were 6,822 university students; by 1963, there were 15,978; in 1975, there were 45000; and in 1978, 55,000 as more branches of the Lebanese University were established in various cities of Lebanon (16 branches) (Gordon, 1980). This high recognition of education causes a problem where more and more students receive their degrees with high expectations for a higher status and income, yet the country's economy cannot provide appropriate employment opportunities for all graduates. This leads to alienation from the system, or to migration.

Most Lebanese become bilingual through education. To some, knowing a foreign language is a reflection of their modernity and dissociation from Arab culture; to others, it is a sign of education. The merits and disadvantages of bilingualism and even trilingualism in Lebanon have long been discussed.

One view is that multilingualism is a beneficial cultural asset. Advocates of such a view believe that French and English are languages of modernity in Lebanon—the first that of culture and the second of commerce. Arabic—being "the language of dreams and rhetoric" (Gordon 1983, p.51)—lacks standardized scientific vocabulary and is thus for everyday communication only. Some even argued for the replacement of classical Arabic
by the colloquial form for the use of literature and education. To many Christians, French is a Lebanese language, as is Arabic, and part of their identity; any threat to the French linguistic and cultural presence is a threat to their identity.

The other view is that the learning of more than the native language is a threat to the child's sense of identity. Furthermore, for Muslims, Arabic— the native language— is a sacred language through which God delivered his message to man. Thus the language as presented in the Koran should be preserved.

These conflicts were accompanied by and reflected in other problems in the educational system. Private education, which is sponsored by local or foreign organizations, has always been considered superior to public education sponsored by the government. Even private schools themselves differed from one another: they were either sectarian, non-sectarian, or foreign. The medium of instruction in these schools is English, French, German, or Italian.

In 1964, 42% of primary and secondary school children were in public schools, in 1970 84% primary schools were private (Gordon, 1983). This, plus the fact that schools are generally left "to their own devices"— except for the teaching of a minimum level of Arabic for the governmental baccalaureate exams— helped in deepening differences among various communities. This was reflected in two cultural and ideological features: history and language. The teaching of the former has focused on one of two parts of Lebanon: Phoenician— to support links with the West, or Arabic— denying Lebanon's uniqueness and sovereignty. This is naturally reflected in the view of the value and role of foreign languages discussed earlier.

D. Conflicts and the Civil War

The liberal, modern, intellect phase has been
accompanied with underlying tensions concerning Lebanon’s identification, whether pure nationalist or Arab nationalist; culture, western or eastern; and language, bilingual or monolingual. Some believe in the existence of the country as separate from Arab nationalism, values, and goals and others in the influence of Arab ideology. Some believe in Lebanon’s special identity and thus in complete independence, and others in reliance on other nations, whether Western countries, especially France, or Arab ones. Some take pride in Arabic culture and language, and others in the western value of the Lebanese culture.

Many attempts were undertaken for consolidation where each group is expected to compromise to meet the other, but all was in vain: a civil war broke out in 1975. Gordon (1980, p. 124) writes:

> It has been argued that the heart of the war was not religious but a result of the frustration of the lower classes, most of whom happened to be Muslims. That the social class-war factor played an important role is undeniable, but in explaining the depth of violence, the religious-cultural factor seems to me to be at least as important...

As this quotation suggests, the factors that led to the war were many and they could be divided into two main categories: the inner conflicts and the external influences.

1. Inner Conflicts:

Lebanon was geographically divided into economic societies where the most prosperous lived in Greater Beirut and the surrounding mountains, and the less wealthy population lived in other parts of the country like A’kar in the north, Jabal A’mil in the south, and the Biqa’ in the east (Gordon, 1980 and McDowall, 1983). In search for a better standard of living, population from these impoverished areas came to join
the non-Lebanese inhabitants of camps in the suburbs of Beirut—mainly Palestinians, Syrians, and Kurds. Since most of these citizens were Muslims, and since their birth rate was the highest amongst others and thus their population percentage increased, they "felt alienated from the traditional political processes of Lebanon and also from their own confessional representations, who on the whole had represented them so poorly" (McDowall 1983, p.13). As they felt socially and politically disadvantaged, the Lebanese Muslim citizens felt it inevitable "to clamour for a fairer slice of the cake" (Ibid, p.12).

2. External Influences:

Though there was some inner tension, the outbreak of the war was between Lebanese and non-Lebanese (Palestinian) groups. However, the conflict did not remain so; several other nations intervened, both Arab and Western, each trying to keep any possible trouble away from its land besides gaining its national interests. As Gordon (1980, p.139) puts it:

_But Lebanon’s viability hardly depended upon herself alone. She did not choose the Palestinian presence, certainly not when this presence became so heavily armed, and she did not choose border confrontations with Israel, nor the millions of dollars that have been poured in from interested parties to bribe her press and to arm private militias._

Gordon (1980) and McDowall (1983) agree that Lebanon was evidently a unique country in its democratic regime and liberal economic system in a region which could not afford any of the two in its countries. Moreover, its neighboring countries were glad to 'exploit' it but failed to appreciate its centrality of intellectual and commercial services and contribution to the whole region.

To add to "the nature and history of Lebanese society [that] made it extremely susceptible to external
influence and pressure" (McDowall 1983, p.13), and to the welcoming of different Arab left wing ideologies by inhabitants of camps, there were the Palestinian residents in Lebanon who wanted to have Lebanon as their base to fight Israel (because of the geographical proximity of the two countries). This led to several Israeli invasions to Lebanon, exerting tension between different religions, mainly Christians and Druze. And since Syria "was determined to keep Lebanon within its sphere of influence" (Ibid, p.15), it sent its army to the Lebanese grounds to maintain a balance between the different fighting groups. Consequently, the US and USSR had their share in directing the political and military situations in Lebanon.

The most distressing outcome of this war was the sharp religious geographical division that occurred within Lebanon, and mainly Beirut. Members of the 'opposite' religion and/or political affiliation were kidnapped and massacred by the 'ruling' party of that region, where most often the victims were non-fighters. Consequently, Beirut was divided into east (Christian) Beirut and west (Muslim) Beirut by what was called the "green line". Almost all throughout the war, it was very difficult and time-consuming if not impossible to cross from one area to the other. There was usually only one crossing road between these two sections of Beirut and it was sometimes completely blocked and at other times dangerous to cross because of shelling or kidnapping. Moreover, citizens had to have a permission, either from the Lebanese army, Syrian army, or political groups, to pass that line after waiting for hours.

Both schools and universities were negatively affected by the war. Some academic years passed when the average number of teaching days could not be achieved because of shelling. Such years were compensated for by starting the next academic year earlier than usual and condensing the previous year's syllabus into two or three months before beginning the next syllabus. However, even those
intensive years had their share of non-working days, again because of bombing or because of strikes. All these factors led to an unstable educational life in all Lebanese schools and universities all over the country; sometimes at different periods and at other times the non-working days were national.

The research was carried in the west part of Beirut and more specifically in the area of Ras-Beirut. The map on the next page shows the area of Beirut in which the research was carried and the seven schools are marked.

Figure 4.1 The West Part of Beirut Where This Research Was Carried

Key: 1 = American Community School
2 = Al-Ahliah School
3 = National Protestant College
4 = Ataya New School
5 = Makasid School
6 = Independence School
7 = Ras-Beirut School
Therefore, the sample schools, and thus the background of the students attending these schools, were limited in that sense. However, the seven schools included in this study vary in their syllabi, teaching staff, and tuition fees which is the main determinant of who attends which school. The chosen schools give a general representation of the type of schools found in Lebanon and a comprehensive idea of the different qualities and amount of time dedicated to teaching English as a second language. The following section presents more detailed information about each of the seven schools with which the researcher worked.

II. Sample

The sample is drawn from second graders who have an average age of seven. It is comprised of 210 pupils of six private schools and one charity school in the area of Ras-Beirut and nearby regions.

A. Subjects

The total sample of the research is 123 boys and 87 girls whose mean age is seven years two months. Some children have English as their first language and others are bilingual. Most of the sample pupils learn English as a foreign language during the English language classes.

Because of the nature of the educational system in Lebanon (i.e. private vs. public schools, and specifically the differences within the private sector) it is noticed that the children’s type and level of education differ peculiarly. A detailed description of the sample is presented in chapter five. A brief account of the background of the sample follows. There is a spread of population on each of the variables measured which indicates a variety in the personal, educational and affective domains the children bring at the time of the study. It is interesting to see how these diverse characteristics relate to the major interest of this research: the effect of having a schema before/after
The schools were chosen on two bases; the first depends on the foreign language taught; schools using English as a second language were picked. The other factor taken into account was easy access; the area of Ras-Beirut at the time of research was secure and the schools were functioning 'normally'. State schools were not included in the sample for one main reason. The English section schools— as opposed to the section that teaches French as a second language— have restricted opening hours which are in the afternoon. It was difficult for the researcher to be in these schools at those hours. Moreover, the location of the state schools in certain areas made it impossible for the researcher to go there under the conditions prevailing at the time.

The seven schools differ in their type, size, buildings, medium of instruction, and hours of teaching English per week; consequently, it is natural to expect the background of the students attending these schools to differ, linguistically and economically. The seven sample schools are American Community School (A.C.S.), Al-Ahliah School, Ras-Beirut School, National Protestant College (N.P.C.), Ataya New School, Independence School, and Makasid (Khalil Chehab Elementary) School. A description of each of the schools follows.

1. A.C.S. is supervised by a board in the United States. Until 1985 this school was open only for non-Lebanese students, those whose parents worked at embassies, foreign cultural centers, and the like. However, with the deterioration of the political situation and the risk Westerners faced of being kidnapped or killed, foreigners left the country with their families. Consequently, after great negotiations, it was decided to keep A.C.S. running for Lebanese students provided they have another nationality as well. This was soon changed to
Besides having the American Freshman system, the school was registered as a Lebanese school in 1989 and thus had to include more Arabic language hours in its curriculum to qualify students to sit for the Lebanese Baccalaureate examinations. The principal is an American lady and the Elementary school director is a Norwegian. The history of the school makes it a rather unique one since English is considered to be the first language of the school. Administrators, teachers, and students communicate in English at all levels.

The curriculum at A.C.S. includes seven and a half hours of Arabic and all other subject areas are taught in English. A.C.S. is the only sample school that uses the "classroom teacher" system. One teacher is responsible for a class (or a group of children) and teaches all subject areas to that group, i.e. all English Language Skills, Natural Sciences, Social Sciences, and Mathematics. Classrooms are spacious and they include different learning centres: a reading corner, a writing area, a science centre, etc. The pupils come from wealthy families and usually both parents are well educated and professional. Students of A.C.S. start listening to teachers speaking English as soon as they get into Nursery at the age of three. Some start school as bilinguals and so they are usually well prepared to communicate with their teachers fluently. Grade II children— the subjects of this research study— seem to be good in oral reading and comprehension when compared with pupils in the other six schools. They understand questions asked in English and can easily reply in the same language. The researcher had the clear impression that the children's level of English proficiency at this school, in both receptive and productive skills, is higher than that of any other sample school. This impression was
supported by talking with the staff in the schools, particularly the class teachers and teachers specializing in English as a second language. Individual talks with the teachers in different schools revealed the teachers' understanding of the children's ability to use the English language, especially orally, and their expectations of how much the pupils are able to achieve in learning a second language. Obviously, the teaching system at A.C.S. provides the children with greater opportunities to put their language learning into practice.

2. Al-Ahliyah is another school that is supervised by a board, but a local one. The teaching system in this school and the remaining five schools is as follows: subject teachers rotate between different sections of the same grade level and between different levels teaching the same subject area to all their groups. Attending this school are children of a rather poor background who seldom have any books at home.

A notable phenomenon noticed while collecting the background information about children attending this school is the chronological age category. Eleven children were registered to have been born in a certain year with no specification of the month. Moreover, one child's school record mentioned that he was born in 1985 (which means this child was only five years old at the time of data collection). Such inaccurate registration might be due to the fact that these children come from rather large and poor families where parents do not recognize the importance of registering the children at time of birth but rather register their child together with the next born child. Thus, the chronological age of these children was estimated to be closest to seven years six months in the data analysis. For example children born in 1983 and the one child in '1985' were coded as being seven and a half years at the
time of research; those registered to have been born in 1982 were estimated to be eight years old; and children born in 1981 were considered to be nine year old. This estimation was done on the basis of how the educational system treats second-graders. The general tendency of schools is to consider nursery children as three-year olds, grade one children as six-year olds, intermediate children as eleven-year olds and secondary students as fifteen-year olds. Consequently, children at different levels are treated according to their grade level irrespective of their actual chronological age.

Al-Ahliah school-building is big and the classrooms are spacious. Each pupil has his/her own desk, and the primary language teachers usually have an assistant in class. The weekly schedule for elementary classes includes nine hours of English language arts and an additional three hours for extra work and activities in English. Though the official medium of instruction in Al-Ahliah is English, the teachers' translation from the native language, Arabic, is dominant even in the English language classes. Naturally then, the children are unable to orally communicate in English freely. Their oral reading, i.e. decoding, is good but comprehension is minimal. The good level of reading might be the result of the teaching system which encourages children to read 'perfectly'. i.e. to read aloud without errors. Pupils are regularly tested on their oral reading and comprehension. However, they are given grades depending more on the structure of the answer than on its content.

3. Ras-Beirut School is a private school attended by middle class children. The school building has been converted from an old housing building. Pupils are seated in groups sharing the same table. The researcher was not able to visit the classrooms or
talk to the teachers and so it is difficult to give any more details. Children seem to be average readers of English— which is the medium of instruction— but the sample from this school is too small to give further generalizations.

4. National Protestant College is a middle class school supervised by a local board. The building was originally designed as a house; the classrooms are small, crowded with students— sometimes three children share a double desk. All classes, at all times, have a teacher and an aide to help in supervision and in corrections. English is the medium of instruction. Most of the explanations in all subject areas except for the Arabic language and Social Studies are carried out in English. However, individual teacher-pupil and pupil-pupil conversations are carried in Arabic. It logically follows that these children may be good in using English in the subject areas but rather weak in oral fluency and communication in English. This might explain their preference to retell the story in the Arabic language rather than in English. These children seldom have any stories at home and if any, they would mostly be in Arabic. This is reflected in the average level of these children as readers of English as a second language.

5. Ataya New School is a private upper middle class school. Though the school building is converted from a house, classes easily accommodate twenty five pupils. There are no language or maths centres in the classrooms— as at A.C.S.— but they are comfortably spacious for the children (two students per double desk). English is the medium of instruction at Ataya New School, and an extra hour of language arts, a video session, has been introduced into the curriculum to help the children in listening-comprehension of English as a second language. Almost all of the instruction and most of
the teacher-pupil discussions are held in English. Thus, it is easier to communicate with children of this school in English, compared to children in other schools. However, most pupils find it difficult to express themselves in English. The cause may be that children are not accustomed to talk in English except with their teachers; and even these teacher-pupil conferences are minimal. Yet, since most of the talking done on the part of the teachers is in English, this may explain why children attending this school are better in the receptive skills than the productive ones.

6. Independence School is a small private school attended by low middle class students. The lower elementary grades are small classes of about ten to twelve pupils each. The medium of instruction is English but minimal usage of that language is in practice. Though English language is taught seven and a half hours per week, pupils are poor both in reading and in understanding the English language. Children in that school were unable to read the research material, i.e. The Story of Ferdinand, not even with the help of the researcher. Moreover, they could not follow the print as the story was being read to them (evidence for this will be presented in the 'results section). One main feature in the children's retelling of the story is that they recall its pictures as separate entities, with no reference to the written language of the book.

7. Makasid (Khalil Chehab Elementary) School is an Islamic charity school. The school building is rather new and the classrooms are big. In contrast to the previously mentioned schools, the medium of instruction at Makassid is Arabic; pupils get only six and a half hours of English language per week. The sample the researcher worked with was not representative of the children attending that school; the English language teachers of two second
grade sections chose the "best ten children in English" to participate in this study. This sample, however, was very cooperative and responsive. The students' comprehension of the story is superior to their oral reading: the researcher did not have the chance to observe any English sessions to ascertain direct explanation of this. However, there was an opportunity to talk to the head of that branch of the school as well as to the coordinator of the English Language program of all Makassid schools. It is evident that there is concern to update the teaching material used and the teaching methods. There is a shift from concentrating on oral reading fluency towards reading comprehension and oral fluency.

Some of the background information about the schools is summarized in table 3.1.

### TABLE 3.1 Participating Schools and Their Characteristics

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>S E S</th>
<th>M.I.</th>
<th>hr/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>private</td>
<td>big</td>
<td>high</td>
<td>English</td>
</tr>
<tr>
<td>Al-Ahliah</td>
<td>private</td>
<td>big</td>
<td>low</td>
<td>English</td>
</tr>
<tr>
<td>Ras-Beirut</td>
<td>private</td>
<td>small</td>
<td>middle</td>
<td>English</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>private</td>
<td>small</td>
<td>middle</td>
<td>English</td>
</tr>
<tr>
<td>Ataya</td>
<td>private</td>
<td>average</td>
<td>high-mid</td>
<td>English</td>
</tr>
<tr>
<td>Independence</td>
<td>private</td>
<td>small</td>
<td>low-mid</td>
<td>English</td>
</tr>
<tr>
<td>Makassid</td>
<td>charity</td>
<td>average</td>
<td>low-mid</td>
<td>Arabic</td>
</tr>
</tbody>
</table>

**Abbreviations:**
- SES = Social and Economic Status
- M.I. = Medium of Instruction
- hr/week = Number of hours Teaching English per week
- ACS = American Community School
- NPC = National Protestant College
III. Procedure

The most time consuming and frustrating stage of the field work was contacting schools. Some principals were considerate and helpful; others asked for some formalities such as registering the research in the head offices and getting an official letter certifying their approval for carrying out the study. Yet others were hesitant to have such research conducted in their school. In that case, the researcher did not have the freedom to choose the sample students nor to freely discuss some school issues with the teachers.

Once all formalities were settled with the administration, the researcher visited the classrooms and briefly explained what her interest with the pupils is: to spend some time with each child looking at and reading a story. Teachers later commented that the children enjoyed the 'working sessions'; they were happy to have an adult sitting with each of them separately and giving them the opportunity to be treated individually. The researcher felt that the children had great enthusiasm to take part in the study. They were waiting eagerly for their turn to work individually with the researcher and most of them were even volunteering to work during their break-time.

IV. Material

This research needed to collect information about the participating children before carrying on with the work. Several tools were used to get information about the children's home environment, their intelligence quotient, and language proficiency for example. The following section describes each of the material in some detail.

A. Pupil Information Sheet

General information about each child's social and educational background was taken from the school records (Appendix F). After collecting information about each child's age, religion, parents' occupation, and grades on English language skills, teachers were asked to rate
children's proficiency in reading. The main aim for collecting teachers' opinions is the interest to see how these relate to the general, more objectively measured achievement of children's reading. It is hypothesized that factors such as parent's occupation and religion, and child's general ability do affect his/her language proficiency and thus the level of reading comprehension in a second language.

Detailed questions were later posed to check each child's attitude towards reading, the number of children's books available at home, and the frequency of sharing these stories with an adult. The children were also asked to rate how important they feel reading is for children of their age and for older children and adults. Answers to these questions were coded on a five-point scale ranging from "not at all" (1) to "a lot" (5). Again, the belief is that the higher the educational level of the parents is, the more books the children have, the more positive attitudes towards reading the children have, and the better their reading comprehension is.

Moreover, the occupation of the parents, and thus their income, affect their choice of school of their child. Keeping in mind the different types of schools included in this research and the varying amount of hours, subject-matters, and methods of teaching English in these schools, it is clear that schools with the more expensive fees provide students with more English teaching hours (as the medium of instruction) because they can afford to employ better trained and more qualified teachers and updated teaching material, thus a more beneficial atmosphere as a learning context.

With respect to the parents' occupation, sociology books were consulted in search for a form to classify them into different classes. Sociologists (Wright, 1973; Bilton et al., 1981; and Haralambos and Holborn, 1990) trace stratification since the feudal and agricultural
societies, to Marx's and Weber's views about social classes, advancing up to the present day's social division and mobility. Though "it has become exceedingly difficult to define what is meant by 'social class'" (Wright 1973, p.81), sociologists tend to agree on having three main socio-economic classes which are the upper class, the middle class, and the working class (and the poor according to Bilton et.al, 1981). The minority of the people who own wealth, property, and the means of production constitute the upper class. Middle class is distinguished from the working class in the type of work: whereas both are non-owners of wealth, the first does non-manual work and the latter needs manual skills. These two classes are further divided each into three more divisions. The upper middle class consists of professionals—such as doctors and accountants—senior managers, administrators, and small business people. The intermediate middle class includes teachers, nurses, librarians, and some managers. The "routine non-manual jobs include clerical and secretarial work" (Haralambos and Holborn 1990, p.46). The working class consists of the skilled manual workers at its top, then the semi-skilled, and finally the unskilled manual workers.

Khuri (1969) argues that though class consciousness does exist in Lebanon, it is inadequate to deal with it purely on the basis of class interests or a rural/urban and ethnic/religious issue as such. As mentioned in an earlier part of this chapter, Khuri stresses the fact that "family and sect interests, not class interests, dictate the course of political rivalry" (Ibid, p.29). In other words, classes are found within each community and at the same time different classes overlap across the different communities.

However, since the aim here is purely educational, i.e. to check relations between parents' occupation and choice of school, amount of children's books at home, and attitudes towards reading, a system based on the type of occupation was chosen rather than one based on the
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socio-economic labeling. Thus, the three occupational categories used are (Yazigy 1991, p.269):

* 'professionals', i.e. doctors, lawyers, teachers, accountants, engineers, pharmacists, businessmen, landowners, etc.;
* 'skilled', i.e. electricians, blacksmiths, carpenters, bakers, butchers, repairmen, drivers, builders, etc.; and
* 'semi-skilled', i.e. farmers, workers, shopkeepers, housekeepers, cleaners, etc..

B. Raven’s Coloured Progressive Matrices

John C. Raven (1956) developed a test that measures the general ability of a wide range of children who are six years or older; those who are considered average, above average, physically disabled, or mentally impaired.

In general, the aim of using nonverbal types of tests is to get round the hindrance of language deficiency and physical problems (Jensen 1980, p.153). They do not require any reading or the overt use of language but are based on pictorial items which require subjects to classify things or generalize patterns "irrespective of previously acquired information" (Ibid, p.645). Nonverbal tests are intended for young children, illiterate persons, or persons tested not in their native language. Since this research was done with Lebanese children whose native language is Arabic but were tested in English, the Raven’s test was used to estimate the children’s general level of development irrespective of their proficiency in English as a second language. Moreover, Raven’s Progressive Matrices test was the first attempt in Psychology to implement the notion of "culture-reduced tests" and so it was widely used in research carried out in numerous parts of the world (Ibid, p.653). For these reasons, it is believed that this nonverbal test allows for a more objective assessment of the children’s general ability and thus the measure of the general ability of the sample of this research was based on it. However,
when results were studied, it was noted that this test may be culturally biased. The discussion of this point is kept for the results' chapter. Yet, Raven's Progressive Matrices remains a suitable test for our purposes at least to compare the children of this research who have the same nationality.

Raven's Progressive Matrices test consists of three forms which are the Standard Progressive Matrices, the Colored Progressive Matrices, and the Advanced Progressive Matrices. The first one consists of sixty items and is intended for a wide range of people, i.e. from six years of age to adults. The second form "is preferable for most children under about ten years of age" (Ibid, p.645). The latter part is designed for "superior youths and adults". Accordingly, the "colored progressive matrices" part only was used in this research.

Raven's Progressive Matrices test does not test except the general ability; it neither measures perceptual ability and spatial-visualization nor does it predict scholastic and vocational performance. Predictive validities of Raven Progressive Matrices generally run about .10 to .20 lower than for conventional tests of scholastic aptitude and vocational aptitudes.

In Raven's Colored Progressive Matrices, there are three alternative forms (A, AB, B) and each is composed of twelve progressive abstract patterns. Each pattern has a missing part and the child's task is to choose one of six provided alternatives to fill in the blank space. The 36 colored matrices gradually increase in complexity within each of the three sets, i.e. "the full range of difficulty is repeated in each of the several cycles comprising the test", (Jensen 1980, p.136). Figure 3.1 shows an example taken from Raven's test.

Though this test can be administered to a group, it was preferred to be given individually to allow some time
where the researcher had the opportunity to sit with and talk to each individual child before the main task (i.e. reading the story) begins.

C. Primary Reading Test

The Primary Reading Test was prepared by Dr. Norman France (1981) to measure reading comprehension of children between the age of six years four months and eleven years nine months. It is a group test and therefore it is quick and easy to administer. The test is of two levels and each is in two forms for any re-testing purposes such as checking the children's progress. Level 1 was used in this research. The test items are based on word recognition and sentence completion. (A copy of this test form is found in Appendix G).

Standard age scores and reading ages are supplied to compare children sitting for this test with British national standards. However, for the purpose of the
present study, the test scores were used to compare the reading level of children in Beirut, irrespective of the national standards in England. It was done this way based on the fact that the Primary Reading Test is designed for assessing English children's reading ability and thus includes pictures, words, and phrases that are British oriented. For example, whereas "fish and chips" (which is an item of this test) is well understood and easily recognized and used by all British children, it is not part of the vocabulary of Lebanese children. Consequently, it will not be fair to compare children on a varying basis. Thus, raw scores were converted into reading ages as suggested by the Primary Reading Test Teacher's Guide using those based on the norms of England, Wales, and Northern Ireland (p.11).

D. Two Stories with Specific Cultural Settings

Two stories were selected for use in this research. They were chosen on the basis of their reflection of two cultural backgrounds: one reflecting a Spanish background which was assumed to be new to the children; and a second story of the Lebanese culture, which was hypothesized to be familiar to the children.

1. The Story of Ferdinand

The first story is a publication of the "Puffin Books" entitled The Story of Ferdinand reflecting a Spanish background which the children were thought to be unfamiliar with. It was chosen because it reflects the Spanish cultural background of bull-fighting. The story shows how little bulls "would run and jump and butt their heads together,..." because they want to grow big and fierce in order to be picked to fight at the bull fights in Madrid. Except for Ferdinand! Ferdinand is the little bull who has a favorite cork tree in the pasture and who prefers to sit under its shade and smell the flowers instead of practicing with his friends, the other bulls.

When Ferdinand and the other bulls grew, five men
came to the pasture to choose the fiercest bull to fight at the bull fights in Madrid. 'Unfortunately', they picked Ferdinand assuming he was the strongest bull of all and took him to Madrid. When he got to the bull-fight ring, Ferdinand saw the banderilleros, picadores, and matador ready to fight, and the people sitting around the ring. Ferdinand refused to fight the men because he saw the flowers "in all the lovely ladies hair" and he just sat and smelled. Thus, he was taken back to the pasture and he went to sit back once again under his favorite tree and smell the flowers. (Refer to Appendix H for the original text.)

2. A Winter Evening

The second story was read only by the control group, Just-Read group, to check whether familiar and unfamiliar text backgrounds would affect the recall of the stories. The actual text read was a translation of the original Arabic story taken from a book used in most Lebanese elementary schools to teach Reading in Arabic. A copy of the translated story is to be found in Appendix I. The plot takes place in the Lebanese mountains during a winter evening where different families gather in the same house for entertainment. Some people are watching the television; a group is playing cards; and the children are sitting around their grandmother listening to her stories about the "good olden days".

As has been discussed in chapter three, story grammars have been written for each of the two stories used in this research for the analysis of story events retold by the sample. A full account of the constituents or 'units' used as bases for the analysis is shown in Appendix J for The Story of Ferdinand and in Appendix K for A Winter Evening. In brief, the following points are taken into account: clauses are not considered separate if they:

* indicate place; e.g. "in Spain", "in its shade";
* give adjectives; e.g. "skinny horses", "long spears";
and
* are joined by the conjunctive 'and'; e.g. "run and jump and butt...".

unless:
* there are already three semantic units in the clause;
e.g. 9. "and he would sit in its shade all day"
   10. "and smell the flowers"; and
* if the two clauses are under different terminal nodes;
e.g. 19. "and because she was an understanding mother
   20. "eventhough she was a cow".

The coding of the units retold varies according to the accuracy and completeness of the statements recalled. The retelling of each individual child was read and coded in relation to the original story. Figure 4.2 summarizes the coding system used in the analysis for the retold items.

Figure 4.2 The Coding System Used in the Analysis for the Retold Items

1= Main point + Details } adequate
2= Main Point - Details ] presentation
3= Inadequate Presentation (e.g. mispronounced name)
4= Elaboration: textual implications } compatible
5= Elaboration: cultural implications } inferences
6= Distortion : textual implications ] incompatible
7= Distortion : cultural implications ] inferences
8= Misplaced
9= Repetition
0= Deletion

Basically, the coding system employed in this research is drawn from Johnson’s (1985) model with some modifications and elaborations to fit our purposes. Johnson’s proposition (1985), derived from Mandler 1978, comprises two categories of adequately represented units, inadequately represented units, absent units, reasonable additions and distortions, and transformations.
This research makes a distinction between two kinds of elaborations and of distortions since its basic interest is in the cultural aspect of story retention. Thus, both classes of elaborations and distortions were divided into textual and cultural. Moreover, the system allows for recognition of statements that have been either misplaced or repeated in the children's recall. The following paragraphs give an explanation of what each code means in this research.

If a certain statement in the child's recall is almost a word for word recall as the original unit, it is coded as '1'. If the same idea is mentioned by the child but excluding some of the details, then the code answer is '2'. Whenever it is clear that the child did grasp the original statement but recalled it slightly different, not semantically but for example substituting the word 'Fredrick' for 'Ferdinand', it is considered as an 'inadequate presentation' and thus given a different code (3).

When elaborations on the original story are made, it is helpful to check what kind of additions they are. The analysis thus includes two separate parts for 'elaboration': one dealing with additions derived from what the text suggests and hence called 'textual elaborations' (4) and the other concerned with those additions based on the child's prior to reading knowledge about the story topic. The second type of additions is referred to as 'cultural elaborations' (5). The same principle is used for 'incompatible inferences' or 'distortions'. Both of these reflect a misunderstanding by the child of the textual information and so he/she re-tells the originally given one event/s in a different semantic representation. As part of checking whether prior topical knowledge has any effect on recall, it is helpful to examine what type of distortions - 'textual' (6) or 'cultural' (7) - are made by what group of experimental or control groups.
To account for units recalled out of their location in the original story, a different code (8) is used. This code does not specify whether the child's retelling, if recalled at its 'proper' place, would have been considered as an adequate representation or an inadequate one, an elaboration or a distortion, let alone what type of addition or distortion it is. This needed to be so due to inefficiency in the analysis if we were to go into so many details. However, for further investigation of this type of information collected, it is definitely worth going back to the original data to study the specific kind of 'errors' made by children in recall under different conditions. As this suggests, this area of research is still open to investigation that is much needed and this type of data might prove helpful for further study and in due time.

A different code (9) is again used for those units that have been included in the retelling more than once, i.e. 'repeated'. As is the case with 'misplaced' statements, repeated ones do not, in this study, represent what kind of statement the recalled one is, though it is clear that at least one of the 'repeated' statements is a 'misplaced' one while the other does not necessarily fall in its original position. However, as is the case with 'misplaced' units, the original data does cater for further investigation of specific areas of trouble in recall.

More elaborate presentation— with examples from the sample— of this method is given in Chapter Five where the results are discussed.

V. Methodology
The field work for this study started in England in 1989 with a pilot study with British children in English schools. The purpose was to check the practicality of the study with children of a similar age as those participating in the research. Another reason to initiate the work with a
different group of children was to check the adequacy of material to be used in the real study and to practice the procedure and detect possible difficulties in which help may be needed in administering certain tests. When these issues were settled, the research in Beirut, Lebanon, began with another pilot study, but of a different kind that could not be done in England. Then work proceeded on the basic study.

A. Pilot Study

A pilot study was carried out in Beirut with some of the children participating in this research to check correlations between scores on the intelligence test designed for Lebanese children and Raven's Coloured Progressive Matrices. The scores were not equal but they were proportional; a pupil who scored high on the Lebanese intelligence test scored high score on Raven's. Thus, the research was based just on Raven’s Coloured Progressive Matrices since the Lebanese intelligence test is too long and time consuming for a linguistic-educational research study such as this one. It would be more beneficial for pure psychological studies where analysis of the type of skills the child has acquired is the purpose of the research.

B. Data Collection

Since the main aim of this research is to check the effectiveness of schema tasks on reading comprehension, children participating in this study are assigned to one of two categories of groups: an experimental one and a control group. The experimental category comprises three groups in order to study the effect of a variety of schema activities on understanding written texts: those provided prior to reading, after reading, and those that are given both before and after reading the text.

Thus, based on the practicality of the situation with special reference to scores on the Raven's test, subjects were distributed and assigned to four different groups: the first group was exposed to some discussion and activities about the bull-fighting concept preceding the
reading of the story (Pre-text group); the second group of children discussed bull-fighting with the researcher after the text was read (Post-text group); the third group carried out a discussion about bull-fighting before and after reading the story (Pre- & Post-text group); and the fourth group of students was asked to read the text having no discussion about its background, neither before nor after reading it (Just-Read group).

At the end of the task, each child was asked to retell the story that had been read. The reason given was to write down the story for little children who did not have the chance to read the original. The children were told they could retell the story in Arabic if they preferred. (This issue may correspond to the 'formal' and 'informal' contexts that Labov, 1972b, used to collect oral data for his study on language usage in New York City). While formal situations cue careful and/or spontaneous style of speech, informal settings allow the flow of casual style of speech. In the case of this research, children were told they may retell the story events using the Arabic language if they preferred, thus minimizing the chance of having inaccurate recalls because of any possible linguistic hindrance.)

Meanwhile, the researcher would write the retelling of the story as recalled by the child, i.e. in the same language. Generally, in this kind of research subjects' recalls are tape-recorded so that exact transcriptions can be made for subsequent protocol analysis. In this case, it was found that the use of a tape-recorder was suspected and considered a dangerous and offensive thing to use. This attitude amongst the school administrators and teachers could have been as a result of the war and the fear it developed in people of having their words recorded, irrespective of the reason given. It was always feared their speech might be used for different, non-educational purposes.

Moreover, tape-recorders caused anxiety, hesitation,
and a reluctance to speak among the children. One reason may be that Lebanese children are not used to tape-recording their speech. Therefore, it was decided not to use the tape-recorder with all children. For every school, however, a few recalls were tape-recorded at the time of retelling, besides writing them down, to double-check the accuracy of the direct transcription of the children's retelling of the text. A full-stop (.) was used to indicate long pauses; a comma (,) was inserted to show when the child paused briefly during his/her retelling of the story; and no punctuation or other marks were used when the students retold the story continuously, even if new ideas were being told. Whenever the children said something and then decided to say something else, their words were enclosed in square brackets, [], and when the researcher helped a student in providing him/her with a vocabulary word, it was inserted in round brackets, () (refer to Appendix L for an example).

During their free recall of the story, the children were neither interrupted nor given any clues of how to proceed with the retelling, but rather they were left independent to go on according to their memory and reflections upon the story. However, when the researcher felt that a child was stuck with one word or phrase, or when the student directly asked for a word, the researcher would provide that specific piece of information.

At the end of the free recall, each child was asked for specific information that was not mentioned in the retelling. In most cases, these questions cued proper answers which children did not remember on their own. However, at other instances, the children gave answers that applied in general situations but were irrelevant to the story. For example, one of the students who did not mention the bee which stung Ferdinand answered the cued question about the bee by saying "bees give us honey", with no reference to the bee that hurt the bull.
VI. Interviews

The core of this research is the work done with the children while reading *The Story of Ferdinand*. As mentioned earlier, the aim is to check the effect of content knowledge on retention and recall at different stages in reading: before, after, and before and after. Thus, three experimental groups were designed to be given topical information at the three mentioned stages. A control group which did not get any topical knowledge was also included in the study for comparative purposes of the effect of lack of content information.

Chapman (1983) believes that the teachers' job is made clearer in introducing reading to children since it is better known nowadays what makes this skill easier. Chapman adds that teachers are to build up incomplete or non-existing topic schemata with children before reading "which will assist later reading fluency and, thereby, comprehension" (Chapman 1983, p.18). This is yet to be proved true in the case of this study. It is helpful to recall that children participating in this research are learning to read, in a second language, and using culturally unfamiliar books. This point will be further discussed after the presentation of results.

The following section describes the four groups and presents the type of work done by the researcher with each.

A. Pre-Text Group

Following the line of thought that prior knowledge in a certain topic enhances comprehension, the first group of this study, the pre-text group, was given a general orientation about the topic and vocabulary of *The Story of Ferdinand*. The Pre-text group had a general overview about bull-fighting, where it usually takes place, and its main features. The researcher started by asking the child whether he/she knew what a bull is, what it does, where it lives, and what it generally aims for. The next step was to relate the information about bulls to the concept of bull-fighting. The characters (e.g.
banderilleros, picadores, and matadors) who take part in bull-fighting were then introduced during the discussion. A list of the questions asked prior to reading the story are included in Appendix M. Pictures were used throughout the session to familiarize the children with the characters and procedure of bull-fighting.

B. Post-Text Group

Directly after reading the text—without access to its pictures, the Post-text group children were asked to draw a sketch that they feel would make a good, convenient cover for the story. This technique is termed sketch-to-stretch by Cairney (1990). Cairney uses it as an activity to encourage the meaning-making process of literary texts. As developed initially by M. Siegel, sketch-to-stretch "requires readers to use drawing to 'stretch' the meaning they have derived from the reading of a text" (Cairney 1990, p.48). However, in this study, the purpose of asking children of the post-text group to draw a picture is merely to compare their comprehension of the story before and after the post-text activities.

Afterwards, the children were given a chance to look at the book's pictures as they carried a discussion with the researcher about bull-fighting. The procedure then was very similar to the Pre-text group questions. (A copy of the procedure and questions given to the Post-text group is presented in Appendix N.) Finally, each child was asked to retell the story without referring to the story book.

C. Pre- & Post-Text Group

The Pre- & Post-text activities group started with the same Pre-text group discussion and then proceeded into reading the story. After reading the text, another round of discussion was held about bull-fighting as a revision for the concept. Children in this group had the advantage of looking at the story pictures twice; once as they were reading the book and another time when they were talking about it after they had finished reading it. As with the
two preceding groups, the children were finally asked to retell the story and any missing information was then question cued.

D. Just-Read Group

The fourth group, the Just-Read children, was not introduced to the topic of the story, its theme, nor its background. This group was just asked to read the text. A striking difference was noticed when this group is compared across the miscellaneous schools.

In one school, N.P.C., the Just-Read pupils found it very difficult to retell the story (which was fairly common for this group in all schools), but unlike children in other schools, they spent up to thirty minutes thinking of what to retell not managing to recall anything. (Generally, in Lebanese schools, children receive little training in sharing their thoughts aloud. Given large class sizes—of 30 or 40 children—this is perhaps not surprising.) One of the students in this school who was rated as "the brightest boy on Earth" by his teacher, was unable to even tell what the story was about in general. After some leading questions, the boy started naming things that he saw in the pictures of that story: 'flower' and 'tree'. Afterwards he said: "Donkey?" (taking it for the 'bull') and 'horse'. These terms were given in English but full sentences were in Arabic. Then the child went on naming 'chicken', 'pig', 'farm', 'find' (for Ferdinand), 'wind', 'crab', 'fox', and 'bear'. When asked about the relation of these words with each other and with the original story, the child said that the 'fox' is following the 'crab' to eat it and then the 'big chip' comes to eat the 'crab'; the child explains: "that is, the big fish, the 'corsh' (the Arabic word for 'shark') goes after the 'crab' to eat it." It can be concluded that the child, not knowing the background of the original story, tried to make up his own version of the story by following up on the concept of a 'donkey' on a 'farm'. The other students also made up their own stories based on one feature of the original story (e.g.
horses) and elaborating on it (e.g. Indians).

Children in another school, Independence School, were able to recall a few of the pictures in the story but neither in sequence nor in combination. They would just say: "The cow was standing with its leg twisted... and the people riding horses... and how they were holding swords." When asked to tie events together, the students either said "I don't know why they did so" or they remained silent.

Table 3.2 summarizes the number of students in each school who took part in the research, and lists the numbers in subdivisions, according to the type of text used with them.

<table>
<thead>
<tr>
<th>TABLE 3.2 Number of Students Per Group</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>A.C.S.</td>
</tr>
<tr>
<td>Al-Ahliah</td>
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<tr>
<td>Ras-Beirut</td>
</tr>
<tr>
<td>N.P.C.</td>
</tr>
<tr>
<td>Ataya</td>
</tr>
<tr>
<td>Independence</td>
</tr>
<tr>
<td>Makassid</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

With the description of the method, materials, and procedure employed for the data collection, the next chapter proceeds to present and discuss the results.
Chapter Five

RESULTS AND DISCUSSION

The data was coded on Fortran Coding Forms and then inserted into the computer where SPSS (Statistical Package for Social Sciences) was used to analyze the results. Descriptive statistics such as frequencies, means and percentages are studied first. Later, cross tabulation of data and tests of significance are used.

Though the total population of the research is 210 children, nineteen were dropped from the main story-retelling analysis for reasons to be discussed later in chapter six. However, they will be included in the general discussion about the background of children taking part in this study since they will be dealt with separately at a later stage.

The first part of this chapter presents a numerical count of and relations between the several background characteristics of the children participating in this study. In the second part, concentration is on the story analysis: most frequently recalled episodes and possible explanations for better retelling of certain parts rather than others. The former is based on the Pupil Information sheet (Appendix F) and the latter on the story grammars developed for both stories used in the research.

I. Background Information

This section presents the results of the children's
personal background such as their age and religion, their parents' occupation, and their educational profile. Results are mainly reported in frequencies and means and are summarized and presented in tables.

A. Children's Personal Information

It is necessary to know the population involved in the study and therefore we need to know its age range, the ethnic group it belongs to, and the relation of these two variables to other factors such as intelligence quotient (IQ).

The children's personal information, as well as their parents' occupation, their educational profile, and their attitudes towards reading are all based on the information supplied by the Pupil Information Sheet.

1. Age

The lowest mean age of subjects in the sample schools is that of A.C.S. children (7:00) and the highest is at the Independence School (7:07). The mean age of the total sample is seven years two months which is the norm for second-graders.

The standard IQ score of 100 is characteristic of the participating children aged six years six months. The second highest mean IQ (95) is that of six year old children where the rest of the sample have mean IQs below that score. The lowest IQ is that of a nine and a half year old child. Children of seven years and of seven years three months (7:00 and 7:03) and those with six and nine months (7:06 and 7:09; 8:06 and 8:09) have close mean IQ scores. The mean ages for each school are presented in table 5.1.

2. Religion

The majority of the children (82.5\%\footnote{All numbers are rounded to the nearest tenth for ease of reading.}) are Moslems...
while the rest are Druze (10.5%) and Christians (7%). If the research had been carried out in the east part of Beirut or in the Shouf Mountain area, it is predicted that the majority of the population would have been Christians and Druze respectively. This is based on the observation of population movement according to religion to different geographical areas over the war period (1975-1990). Table 5.1 summarizes the mean age of the sample children in years and months and gives the percentage distribution of religions in the seven schools.

Table 5.1 Distribution of Age (in years and months) and Religion (percentages) in the Seven Sample Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Age</th>
<th>Religion (%)</th>
<th></th>
<th></th>
<th></th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Christian</td>
<td>Druze</td>
<td>Moslem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.C.S.</td>
<td>7:00</td>
<td>5.7</td>
<td>17.1</td>
<td>77.1</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Ahliyah</td>
<td>7:04</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>N.P.C.</td>
<td>7:02</td>
<td>9.3</td>
<td>16.3</td>
<td>74.4</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Ataya</td>
<td>7:02</td>
<td>20.0</td>
<td>0</td>
<td>80.0</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Indep.</td>
<td>7:07</td>
<td>0</td>
<td>20.0</td>
<td>80.0</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Makasid</td>
<td>7:02</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Ras-B.</td>
<td>7:01</td>
<td>20.0</td>
<td>10.0</td>
<td>70.0</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7:02</td>
<td>7.1</td>
<td>10.5</td>
<td>82.4</td>
<td>210</td>
<td></td>
</tr>
</tbody>
</table>

B. Parents' Occupation

The majority of the fathers' occupations (44.5%) falls within the professional area and second in rank is the 'skilled' (29.5%). However, it is interesting to note that all fathers of children at A.C.S. had a professional occupation (which makes up 32% of the total professional

(continued)

presentation.
population). On the other hand, none of the Makassid children had 'professional' fathers and only one in the Independence School. Table 5.2 shows the percentage distribution of the fathers' occupation in each of the seven schools.

### Table 5.2 Percentages of Fathers' Occupation

<table>
<thead>
<tr>
<th>School</th>
<th>Prof</th>
<th>Skilled</th>
<th>Semi</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ahliyah</td>
<td>12.5</td>
<td>56.3</td>
<td>31.3</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>25.6</td>
<td>46.5</td>
<td>25.6</td>
</tr>
<tr>
<td>Ataya</td>
<td>16.0</td>
<td>32.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Indep.</td>
<td>10.0</td>
<td>40.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Makasid</td>
<td>0</td>
<td>40.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Ras—B.</td>
<td>60.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>44.4</td>
<td>29.3</td>
<td>25.9</td>
</tr>
</tbody>
</table>

Key: Prof= Professional  
Sem= Semi-skilled

An interesting observation is that, on average, children whose fathers are in the professional domain have more books than the other two categories. Those with skilled and semi-skilled fathers have almost the same mean number of books at home which is about one standard deviation below that of the highest mean. Clearly, in the sample, better educated parents are more conscious of the importance of books. Their concern about the availability of books at home is reflected in providing their children with a good number of story books to look at, read, and share.

When asked to rate reading as an interesting activity, children with professional fathers find reading more enjoyable than the other groups. However, there are fewer
points difference between the groups than when looking at the variable of 'liking' reading. With 'interest in reading', there is a slight difference between the mean rating of children with skilled and semi-skilled fathers where the latter has the lowest rating.

On the other hand, looking at mothers' occupations, 79.5% of the mothers are housewives. Out of the 11% of professional women, 9% are mothers of A.C.S. children while none of the Independence, the Makassid, or Ras-Beirut schools are professionals. Table 5.3 summarizes the distribution of percentages of mothers' occupation of children in the seven sample schools.

<table>
<thead>
<tr>
<th>School</th>
<th>prof</th>
<th>skilled</th>
<th>semi</th>
<th>unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>24.6</td>
<td>4.6</td>
<td>0</td>
<td>70.8</td>
</tr>
<tr>
<td>Ahliah</td>
<td>3.1</td>
<td>9.4</td>
<td>0</td>
<td>87.5</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>7.0</td>
<td>7.0</td>
<td>4.7</td>
<td>81.4</td>
</tr>
<tr>
<td>Ataya</td>
<td>8.0</td>
<td>12.0</td>
<td>8.0</td>
<td>72.0</td>
</tr>
<tr>
<td>Indep</td>
<td>0</td>
<td>10.0</td>
<td>0</td>
<td>90.0</td>
</tr>
<tr>
<td>Makasid</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>0</td>
<td>30.0</td>
<td>0</td>
<td>70.0</td>
</tr>
<tr>
<td>Total</td>
<td>10.7</td>
<td>7.8</td>
<td>2.0</td>
<td>79.5</td>
</tr>
</tbody>
</table>

Key: Prof= Professional
Semi= Semi-skilled

As with professional fathers, it is found that children whose mothers have a professional occupation have the highest number of books at home. However, children with non-working mothers come in the second position with minute differences compared to the rest of the population. The lowest mean number of books is one standard deviation from the highest and is reported by
children with semi-skilled mothers. The fact that semi-skilled mothers are usually less educated than professional, skilled, or non-skilled mothers may be a reason why children whose mothers have semi-skilled jobs have the lowest number of books at home. Being themselves rather illiterate, semi-skilled mothers may themselves have little interest in reading and as a result they are not enthusiastic in bringing their children books to read. Another reason for children with semi-skilled mothers to have the least number of books at home may be financial. It is socially known that only mothers in need of money would go for semi-skilled occupations when they are not highly educated. Consequently, those mothers would have priority for buying basic things for living such as food and clothing before getting books.

Considering relations between parents' occupation and attitudes of children towards reading, it is observed that professional mothers have children who value reading as more interesting than other children do. Reading is liked less and is regarded as less enjoyable by children with mothers who are housewives. The remaining two groups of sample children are spread along the continuum of the means on both: 'like reading' and finding reading 'enjoyable'. There seems to be a contradiction here: mothers who do not have a job out of their homes have children who have more books than those with skilled and semi-skilled mothers, yet they value reading as being less interesting and they grade it lower on the 'like reading' scale'. The reason may be that the mothers stay at home, either because they are not very well educated or simply to be housewives. In any case, such mothers are in less contact with the 'educational' life and consequently do not have the motive themselves to develop an interest in reading in their children.

C. Children's Educational Profile

With regard to the children's educational background, three main areas are looked at: the intelligence quotient (IQ) as measured by Raven's Coloured Progressive
Matrices; reading age (RA) calculated from the Primary Reading Test scores; and, strategies of tackling unfamiliar words.

1. Intelligence Quotient - IQ

Once again A.C.S children scored highest on the Raven's Coloured Progressive Matrices and their mean IQ is 93.5 and the lowest mean IQ is 79.5 at the Independence School. For mean IQs in all sample schools, refer to table 5.4.

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>93.3</td>
<td>12.5</td>
</tr>
<tr>
<td>Ahliah</td>
<td>83.4</td>
<td>10.2</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>89.8</td>
<td>10.6</td>
</tr>
<tr>
<td>Ataya</td>
<td>89.0</td>
<td>11.4</td>
</tr>
<tr>
<td>Indep.</td>
<td>79.5</td>
<td>8.6</td>
</tr>
<tr>
<td>Makasid</td>
<td>85.0</td>
<td>11.4</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>84.5</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>88.7</td>
<td>11.5</td>
</tr>
</tbody>
</table>

The reason behind the low IQ scores is not well known. The proposed explanations that may help understand the low achievement of those participating children on the Raven's Matrices test are the following:

* The Children

The obvious reason that first comes to mind when we read these results is that children in Lebanon in general and those participating in the research in specific have low IQs as compared to the norm which was collected in other countries. However, having
said that Lebanon was not one of those countries that were included in standardizing the Raven’s Progressive Matrices test, it is unjust to condemn the country’s children as being rather retarded compared to children with other nationalities.

* The Test Administration

A possible explanation for the observed low IQ means may be the actual administration of the test. As previously mentioned in chapter four, the researcher worked individually with the children on the Raven’s Test as an opportunity to get to know each other. It may be thought that since human nature is, unlike machines, quite flexible and creative, the researcher’s attitude, postures, and/or way of administering the test may have affected the results. However, it is interesting to note that though the same person worked throughout the study with exclusively all the children, the general results and means do differ from one school to the other. This is directly linked, as previously discussed, to the overall personal background of the children attending the seven schools. Some come from rather wealthy families who can provide their youngsters with rich and varied experiences while others can only offer limited activities both in number and quality. As is presented in chapter one, pre-school experiences have much to offer in preparing the children in general mental maturity that predict success in school.

In brief, as one researcher administered the Raven’s test to all the children, it is unlikely to correlate the low means of IQ to the administration especially since the researcher always reminded herself of the test administration regulations by reading the manual regularly. Moreover, the difference in results of average IQs according to different schools shows that the results are comparable within this sample. So what is it that
led the IQs to be so low? Could it be the social effect on the type of figures included in Raven's test?

* The Test Itself

Though it has been explained that nonverbal tests are preferred because they control for language and cross-cultural difficulties, this proposal may not be fully justifiable. Some societies, surroundings, and cultures may be richer than others with visual matrices such as the ones used by Raven. Children raised in those environments may be inclined to be more familiar with them through activities, visual representations on signs, or games for example than those children whose environment does not include much figures. Hence, if this argument is true, we can then say that the Lebanese children participating in this study have lower IQs than what is universally expected because their society does not predispose them to recognize matrices easily as children in some other countries do at their age. Moreover, Lebanese children may not only be unfamiliar with the figures per se, but also unaccustomed to doing such jobs as finishing 'wholes'. The skill of matching figures is developmental and improves with practice.

When crosstabbed with sex, IQ means for boys and girls participating in this study are very close (boys: 89; girls: 88). As for the mean raw score on the Primary Reading Test, children with IQ 105 have the highest score (21.2) with 4.1 points difference with the second highest score (17.1) for IQ 124. However, it is interesting to note that the three lowest Primary Reading Test means correspond with the three lowest IQ scores.

Children with IQ scores between 70 and 110 have more or less the same attitude towards reading when compared to those with IQ 115 and 124 that increases
by 0.5 points consecutively. However, when asked whether they find reading enjoyable, the child with IQ 105 reported 'a lot' while the ones with IQ 115 and 124 mean responses are 4.4 and 4.0 on the scale. Moreover, children whose IQ is 110 have the lowest interest mean with one point difference with the second lowest mean.

Story pictures are mostly made use of by children with IQ 105 and 115. Together with their top scores on the Primary Reading Test, these children seem to rely equally on print and supporting pictures to extract meaning from text. On the other extreme, children with IQ 75 are the second highest group that finds pictures useful while reading. This might be an attempt to compensate for their low language proficiency level where results show that children of this research with IQ 75 have the lowest mean score on the Primary Reading Test.

2. Reading Age:

Children from only four out of the seven sample schools took the Primary Reading Test: children at A.C.S. (44/70), Al-Ahliah School (29/32), N.P.C. (41/43), and Ataya New School (25/25). For two of the other schools, Makassid School and Ras-Beirut School, only a sample of the second grade children in these schools participated in the study. It was very difficult to bring out only this group from class to give it the test while the rest of the children stayed in class with their teacher. As for the seventh school, time did not permit the researcher to go into the class and administer the test. The teachers were very busy working on varied topics with the group and the researcher had to suffice with a quick evaluation from the English language teacher of each of the children's efficiency in reading.

Almost all of those children (97.8%) who sat for the Primary Reading Test scored twenty or less which, when
converted to reading age, placed the children into the reading age group below six years. Having the great majority of subjects in the "below-six" reading age group calls for looking at the distribution of scores within that category. The raw scores on the Primary Reading Test range from five points to twenty, including all possible scores in between. The mean score of the entire population (i.e. 139 children sitting for the Primary Reading Test) is 11.9. Out of the four schools, A.C.S. children have the mean average score of 13.9 which is the highest amongst available means. Ataya New School children come second in rank in mean raw scores which is about half a standard deviation less than the first score (12.2). Both of the remaining mean scores fall under the total sample mean with N.P.C. scoring 10.8 and Al-Ahliah School scoring a mean of 10.2. These results show the general tendency of the language proficiency attainment in the different participating schools.

Two children at Ataya New School scored twenty one and are placed within the six-year reading age group. Looking at the Pupil Information Sheet of these two children, it is noticed that they are both seven and a half years old (whereas the mean age of their school peers and of the total population is 7:02). The IQ of both children is much higher than the mean IQ of their group and that of the whole sample (100 and 105 vs 89). On the items of interest in reading and owning books, both children responded with "quite a lot". They see reading as a useful activity because "if people could read, they can read a newspaper and know what is going on", "they can have more information", and "they could know a lot". One of the girls mentions she reads to her friends during the break at school and the other reads to her younger sister "every night". In response to the question "Do you find reading interesting/enjoyable", one of the two respondents said "sometimes" but when it is a "new story", she enjoys it a lot. What makes these two
girls quite distinct might be explained through their background. One of them has an American mother (who is the head of the school) and the second was born and lived in the U.S.A. and went to school there (that academic year was her first in Lebanon). Presumably, the first language of both children is English and that puts them at an advantage of English language proficiency when compared to their peers in Lebanon.

One child from A.C.S. scored 23 on the Primary Reading Test and so he is the only subject with a reading age of six and a half years. Though his interest in reading is "not much", he finds reading as very useful to children and they "have fun when reading stories". However, this child seems to limit reading resources to 'stories'. He says reading is not of much use to grown ups; then he continues to say: "they need big stories". This child has quite a lot of books at home to read "both English and Arabic story books". In addition, he has an IQ of 110; excellent grades on English Reading, Arabic Reading, and on language skills in general. His parents are educated, a journalist father and a teacher mother, and he has been an A.C.S. student since nursery class (i.e. age three). This latter point is quite important. As mentioned before, children at A.C.S. are spoken to most of the time in English, especially in the nursery classes where no teaching of the Arabic language takes place. This provides the children with a good vocabulary that they build upon in the coming school years. By grade two, they would have been familiarized with the English language structure in general, and more specifically with pictures, words, and items with their corresponding meanings whether these are culturally available and familiar or 'imported' with the foreign textbooks.

3. New Word Strategies

When asked about the strategy used as they encounter a 'new' word, i.e. a printed word they have not read
before, children of A.C.S. show the widest range of answers. The mentioned ways of tackling a new word include spelling it out; asking someone to read the word for them, directly when they get to the word or after trying to pronounce it themselves; skipping the word; or even abandoning the book altogether. The highest percentage of A.C.S. population (30%) say they would ask for help without trying to read it by themselves. This might be explained by the fact that they know people around them are interested in helping them to read. The second close percentage (29%) say they would spell it out themselves and the next group (27%) mention they would try to pronounce the word then ask for help (or reassurance).

However, with all six other schools, the highest percentage of children say they would ask somebody’s help (as high as 70% at Makassid School and 64% at Ataya New School). When asked whether they would try to read the word on their own first, children answered positively confirming that they would ask for assistance afterwards. At Ras-Beirut School, the percentages of children saying they would ask for help to read a new word at the time they encounter it and after trying to spell it out on their own were equal (40%). At the Independence School, directly asking for help, trying to spell it out on their own, and skipping the word are equally common— all coming second in rank and making 20% each of the total school sample.

N.P.C. has the second widest range of responses after A.C.S. with leaving a new word without reading it as the least common strategy of dealing with print. This may be attributed to the teachers’ encouragement of ‘perfect’ reading (i.e. fluent oral reading of whole texts).

Two exceptional responses are quite interesting. One child at A.C.S. said when he is reading a text that
has a word he does not know, he would "put the book away". The same child finds that pictures in books "do not help at all". This may show that reliance on pictures to guess printed words and their meanings is a favourable strategy. The second interesting case is the response of a child at Ataya New School. Though this child neither has books at home nor has anyone reading to him, he says that he would look up the word in the dictionary. At the same time, he scored quite high on the scale on items of finding reading an interesting and useful activity for both children and adults. Moreover, he mentions that he helps his younger sister with her studies and this may give him the motive to treat reading 'professionally'.

D. Children’s Attitudes

When it comes to measuring attitudes toward reading in general, A.C.S. children are the ones who score highest (4.26) on the scale (see table 5.5 for a summary of results of these variables). It is worth mentioning that they also have the highest rates on items of "having books at home", "having people to read to them at home", and "they themselves reading to others at home". This might be an indication of an existing correlation between the quantity of books at home and sharing them, and the positive attitude towards reading the children consequently develop. This is more likely than the reverse in the present situation. The effects of parents’ occupation and what that implies of their educational attainment and their socioeconomic status come into the discussion. Results show that A.C.S. children have more professional fathers and mothers than children in any of the other sample schools. This indicates that those parents value books and reading more than others and therefore provide their children with more books and chances to enjoy them. Children’s positive attitude towards reading is not a sufficient reason to have a large number of books at home (mean of 3.6 - on the five-point scale- of having books at A.C.S. vs 1.5 at
A case at the other end of the continuum is the children of the Independence School. Whereas A.C.S. scored highest on "liking to read", "having books at home", "having books read to them", and "reading books to others", (mean scores of 4.26, 3.62, 2.12 and 2.28 respectively) Independence School had the lowest scores on three out of the four mentioned items scoring with three other schools very closely to the lowest on the fourth which is halfway between "not much" and "not at all" of the availability of a person to read to the child. Even then, when that is available, it is most often restricted to 'private teachers' rather than to friends or relatives with whom to 'enjoy' reading or listening to a story book. For detailed information about the mean scores of children in the different schools, the reader may refer to table 5.5.

As to the children's feelings of how useful pictures in books are, the Makassid School children scored highest, as they did on the item of the "usefulness of reading to children of their age". Table 5.6 lists the means children in the sample schools scored on the following items: "use of pictures", "use of reading to children", "use of reading to older children or adults", and "interest in reading". However, they marked lowest on the item of "finding reading as an interesting and enjoyable activity" with a marked difference of one point on the five-point scale with the second lowest score on the same item. The latter result may be explained on the basis that Makassid School children learn English just as a language for six and a half hours per week and so they do not have enough time to practice it. This may lead to a lack of confidence and loss of interest. An alternative explanation might be the emphasis of the school on other subject areas and lack of encouragement to children to read for enjoyment.
Table 5.5  Mean Scores of Children on the Items 'Like Reading', 'Have Books', 'Having Books Read to Them', and 'Reading to Others'

<table>
<thead>
<tr>
<th>School</th>
<th>like read</th>
<th>have book</th>
<th>read to</th>
<th>you read</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>4.26</td>
<td>3.62</td>
<td>2.12</td>
<td>2.28</td>
</tr>
<tr>
<td>Ahliah</td>
<td>4.03</td>
<td>2.15</td>
<td>1.53</td>
<td>1.65</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>3.79</td>
<td>1.86</td>
<td>1.41</td>
<td>1.55</td>
</tr>
<tr>
<td>Ataya</td>
<td>3.80</td>
<td>2.24</td>
<td>1.32</td>
<td>1.72</td>
</tr>
<tr>
<td>Indep.</td>
<td>3.60</td>
<td>1.50</td>
<td>1.40</td>
<td>1.40</td>
</tr>
<tr>
<td>Makasid</td>
<td>3.95</td>
<td>1.90</td>
<td>1.40</td>
<td>1.60</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>3.70</td>
<td>2.80</td>
<td>1.80</td>
<td>1.70</td>
</tr>
<tr>
<td>Entire</td>
<td>3.98</td>
<td>2.54</td>
<td>1.66</td>
<td>1.83</td>
</tr>
</tbody>
</table>

Key: The Five-Point Scale is as follows
5= A Lot
4= Quite a Lot
3= Average
2= Not Much
1= Not at All

The lowest mean scores on "usefulness of pictures" are reported for Independence School and A.C.S.. This might mean that children whose level of English language proficiency is average make use of text pictures more than those children who are closer to the two extremes on the continuum.

While the description and correlation of factors such as reading age, intelligence quotient, language proficiency, and attitudes towards reading are interesting, it is more useful to check how all of these variables contribute to the comprehension and retention of written texts. This latter point is the focus of the next section.
Table 5.6 Mean Scores of Children on the Items "Use of Pictures", "Use of Reading to Children", "Use of Reading to Older Children or Adults", and "Interest in Reading"

<table>
<thead>
<tr>
<th>School</th>
<th>Pictures</th>
<th>Child Use</th>
<th>Older Use</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>2.87</td>
<td>3.92</td>
<td>2.83</td>
<td>4.04</td>
</tr>
<tr>
<td>Ahliah</td>
<td>3.28</td>
<td>2.78</td>
<td>2.62</td>
<td>4.06</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>3.41</td>
<td>3.18</td>
<td>2.69</td>
<td>3.69</td>
</tr>
<tr>
<td>Ataya</td>
<td>3.36</td>
<td>3.80</td>
<td>3.60</td>
<td>3.36</td>
</tr>
<tr>
<td>Indep.</td>
<td>2.60</td>
<td>3.50</td>
<td>3.50</td>
<td>3.70</td>
</tr>
<tr>
<td>Makasid</td>
<td>3.45</td>
<td>4.00</td>
<td>3.50</td>
<td>2.45</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>3.20</td>
<td>3.30</td>
<td>3.10</td>
<td>3.90</td>
</tr>
<tr>
<td>Entire</td>
<td>3.16</td>
<td>3.53</td>
<td>2.97</td>
<td>3.71</td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.5

II. Story Retellings

The procedure used to investigate the effect of activities on reading comprehension is to analyze children's retellings of story events that have been read with the researcher. The first part of this section looks at the results of children's retellings of The Story of Ferdinand. It then proceeds to investigate the recall of A Winter Evening which was restricted to the Just-Read group in the seven cooperating schools.

A. Recall of The Story of Ferdinand

To start with, it is appropriate to briefly look at the structure of The Story of Ferdinand employed for this purpose. The story grammar written for this story book (mentioned in chapter four) has to allow for seven episodes within one single story. An Episode System is thus coined to include (generate) two main sub-categories
of episodes represented as State Episodes and Narrative Episodes. These terms are extracted from the function of the sub-episodes each of the two main categories constitute. The first three episodes are a kind of background setting to the main story events. The other four episodes tackle the topic of the story more directly and are thus termed Narrative Episodes. However, one of these episodes is direct speech with the reader and is therefore named Audience Address Episode. The story tree structure illustrating the main episodes is sketched in figure 5.1.

Figure 5.1 The Episode System of The Story of Ferdinand

![Diagram of the Episode System]

Key: SE = State Episode
NE = Narrative Episode
AAE = Audience Address Episode

As a first step towards analyzing the children’s recall of The Story of Ferdinand, it is essential to begin with the individual units or ‘phrases’ recalled before going on to the more comprehensive view of retelling whole episodes. This is attained through a count of omissions using the SPSS program. The intention is to check the quantity of units retold per each of the four research groups: Pré-, Post-, Pre- & Post-, and Just-Read groups.

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2 It is worth recalling that these abbreviations are used in chapter Four as code words to refer to the experimental groups.
This is done first to compare each group across schools and later to check the performance of each group with respect to the three other groups.

To begin with, it is essential to note that when the Scheffe multiple range test was run for the number of omissions across schools, only Independence School children were significantly different from children at A.C.S. at the 0.05 level. Yet, an analysis of the results in general is due to detect minor or unique differences across the participating schools.

Considering the whole population included in this part of results' analysis (189 children), children at A.C.S. have the lowest mean of omissions (M=76.7 and that is out of the total units which are 99 in number). Looking at the different groups across schools, results show that for all three experimental groups and for the control group, 'omissions' is by large the most frequent response in all four groups. More specifically, children in the Just-Read group, across all participating schools, register the highest mean of omissions when compared with the three experimental groups (M=91.9). Among all schools, children of Independence School register the highest number of omissions (M=91.5). The mean of omissions is 100% for the Just-read group in that school.

Comparing the three experimental groups (Pre-, Post-, and Pre- & Post-), the following results are noticed. Children in four out of the seven schools (A.C.S., Al-Ahliah School, Independence School, and Makasid School) benefit most from having activities both before and after reading the text. On the average they tend to omit fewer units than if restricting their activities to either prior to or after reading the text. On the average they tend to omit fewer units than if restricting their activities to either prior to or after reading the text. See table 5.7 for the mean of omissions in the total population of the seven schools.

As for the three other schools, each is a special case in itself. N.P.C. children, for example, make better use
Table 5.7 Mean Omissions of Story Units Across the Seven Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Pre</th>
<th>Post</th>
<th>Pre &amp; Post</th>
<th>Just</th>
<th>Sum Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>73.3</td>
<td>79.1</td>
<td>70.3</td>
<td>84.9</td>
<td>76.9</td>
</tr>
<tr>
<td>Ahliah</td>
<td>75.9</td>
<td>75.1</td>
<td>73.6</td>
<td>92.3</td>
<td>79.2</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>73.2</td>
<td>72.9</td>
<td>76.7</td>
<td>96.7</td>
<td>79.9</td>
</tr>
<tr>
<td>Ataya</td>
<td>74.9</td>
<td>79.2</td>
<td>75.5</td>
<td>89.6</td>
<td>79.8</td>
</tr>
<tr>
<td>Indep.</td>
<td>87.8</td>
<td>94.5</td>
<td>84.5</td>
<td>99.0</td>
<td>91.5</td>
</tr>
<tr>
<td>Makasid</td>
<td>82.2</td>
<td>82.0</td>
<td>71.8</td>
<td>97.0</td>
<td>83.3</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>69.0</td>
<td>78.3</td>
<td>81.0</td>
<td>93.0</td>
<td>80.3</td>
</tr>
<tr>
<td>Entire</td>
<td>75.7</td>
<td>77.9</td>
<td>74.2</td>
<td>91.9</td>
<td></td>
</tr>
</tbody>
</table>

Key: The mean scores given are with respect to the 99 available units to be recalled from The Story of Ferdinand of either Pre- or Post-text activities equally well while they skip slightly more ideas when discussing the story background and events both before and after the reading is done. Having very close means for omissions but a distinctly different mean for the Just-read group at N.P.C. may imply that children at this school do make use of any activities, exercises, or discussion provided to aid in comprehension. The slightly higher mean of omissions for the Pre- & Post-group may be due to confusion the children may have felt and thus omitted a few of those confused ideas.

Ataya New School children tend to have close means of omissions for both Pre- and Pre- & Post-reading activities groups (M=74.9 and M=75.5 respectively). Children at the same school participating in the Post-group are observed to skip a few more ideas on the average in their retelling (M=79.2). Yet, as noted for
N.P.C. children, children at Ataya New School have many more omissions when they read and retell the story without having any orientation about the topic neither before nor after the story is read. The reason behind scoring few more omissions by the Post- group may be a proof that having topical knowledge prior to reading helps in recalling more idea units.

Children at Ras-Beirut School perform best when they have pre-reading activities, i.e. retell more units. The number of omissions seems to increase with post-reading and pre- and post-reading activities consecutively (M=78.3 and M=81.0 respectively). It should be recalled though that the sample of this school cannot be said to be a representative one. The research does not include equal numbers of children in each group and the researcher does not know whether these children are considered 'good', 'average', or 'poor' readers. However, tests show that there is a significant increase in the number of omissions for the child who simply read and then retold the story.

In brief, the general trend of results show that the mean omissions is highest for the Just-Read group across the schools. Within that group and across the three experimental groups, Independence School children score the highest mean of omissions when compared to the mean of omissions by children in the other six schools. The explanation may be the low mean IQ in that school, the negative attitude the children have towards reading, the number of books at home, and/or the availability of someone to share them reading books. In the next section, a summary of results for each school’s responses is given before that of each group.

1. Schools

The analysis will include a brief account of responses in each of the nine categories identified earlier. However, for more generalizable results, some of the categories will be grouped as follows:
* Category I: adequately presented units
  - precisely retold units
  - recalls with missing details
  - inadequately represented units
* Category II: elaborations
  - textual elaborations
  - cultural elaborations
* Category III: distortions
  - textual distortions
  - cultural distortions
* Category IV: misplaced units
* Category V: repeated units

a. A.C.S.

Children in the Pre- & Post- group at A.C.S. have the highest mean score of occurrences in four out of the nine categories, including adequate and inadequate representations (M=8.3 and M=6.8 respectively) and both types of elaborations (M=0.7 and M=0.9 respectively). As for cultural distortions, the Post-group scores the highest mean of occurrences (M=1.5) which is, at the same time, higher than the elaboration means and double the textual distortions mean (M=1.7). This may be due to the children’s attempt to recall the story events according to the schema they had after they have read the story text. Textual distortions are most frequent for the Just-Read group (M=1.6) which is logically explained by the fact that children do not have a schema about the topic and thus change some units to fit into the closest schema they could instantiate. Table 5.8 summarizes the results of A.C.S. children’s recalls.

The Pre- group scores a slightly higher mean for units precisely retold as the original ones in the text (M=4.7). This indicates that having a schema about the topic, including the special vocabulary such as ‘cork tree’ and ‘banderilleros’ promote exact recall. However, when the first three types of responses are combined, the Pre- & Post- group scores
Table 5.8  Mean Occurrences of each Type of Recalled Units by the Four Different Groups at A.C.S.

<table>
<thead>
<tr>
<th>A.C.S.</th>
<th>Type of Retelling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Pre</td>
<td>73.3</td>
</tr>
<tr>
<td>Post</td>
<td>79.1</td>
</tr>
<tr>
<td>Pre&amp;Post</td>
<td>70.3</td>
</tr>
<tr>
<td>Just</td>
<td>84.9</td>
</tr>
</tbody>
</table>

Key: 0= Omissions
1= Main point + Details
2= Main Point - Details
3= Inadequate Presentation (e.g. mispronounced name)
4= Textual Elaboration
5= Cultural Elaboration
6= Textual Distortion
7= Cultural Distortion
8= Misplacement
9= Repetition

the highest mean of Category I (M=4.6). This proves the point that getting acquainted with the schema before reading the text and then reviewing it after the reading makes the retelling more exact than limiting the schema discussion to either before or after. This is not the case with all seven schools. If we look at the means of group 1, i.e. the Pre- group, we find that the schools split into three groups:

* A.C.S., Al-Ahliah School, and Makasid School
* Ataya New School and Ras-Beirut School
* N.P.C.

b. Al-Ahliah School

Similar to the A.C.S. children, children at Al-Ahliah School tend to omit fewer units when they belong to the Pre- & Post- group (M=73.6). Within that group, children tend to mostly recall main ideas of the units without details (M=5.8) across the four groups and across the nine types of responses again,
similar to Pre- & Post- children at A.C.S.. However, unlike the other 'experimental' children at A.C.S., Al-Ahliah School children in the Pre- and in the Post-groups recall almost the same number of units (M=75.9 and M=75.1 respectively). The difference between these two groups lies in the type of recalls the children tell. In the Pre- condition, both kinds of distortions and misplacements are the most common (M=1.8, M=1.3, and M=5.5 respectively). The reason may be that with their limited knowledge of English, children tend to recall the story events according to the few clues they could get out of the text (text-vocabulary most likely) combined with the knowledge they have about these items to make up events based on these conceptions. Thus, the number of misplacements is frequent so that the order of events follows the children's schema rather than the text schema. The results of children in this school are presented in table 5.9.

Table 5.9 Mean Occurences of each Type of Retalled Units by the Four Different Groups at Al-Ahliah School

<table>
<thead>
<tr>
<th>Group</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>75.9</td>
<td>3.1</td>
<td>4.3</td>
<td>3.1</td>
<td>3.4</td>
<td>0</td>
<td>1.8</td>
<td>1.3</td>
<td>5.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Post</td>
<td>75.1</td>
<td>1.6</td>
<td>5.5</td>
<td>5.5</td>
<td>3.5</td>
<td>0.1</td>
<td>1.0</td>
<td>1.1</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Pre&amp;Post</td>
<td>73.6</td>
<td>2.8</td>
<td>5.8</td>
<td>5.0</td>
<td>2.3</td>
<td>0.1</td>
<td>2.0</td>
<td>0.5</td>
<td>5.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Just</td>
<td>92.3</td>
<td>0.1</td>
<td>1.3</td>
<td>1.6</td>
<td>0.1</td>
<td>0</td>
<td>1.3</td>
<td>0.3</td>
<td>1.0</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Key:** Same as in Table 5.8

As for the Post- group, children seem to be best at recalling main ideas without details and ideas inadequately retold equally well (M=5.5). However, when compared with the three other groups, they tend
to have the highest mean of repetitions (M=2.1), but they have the highest mean of textual elaborations as well (M=3.5). This might imply that children with the same background benefit most from schema activities after reading the text for one of two reasons: either because they then could grasp and fit the information better into a well-established schema, or as the highest mean of repetitions may suggest the post-text activities help the children retell the story events from what is retained in their working memory about the topic schema without really grasping how the events coherently flow. Finally, both types of schema activities, those before and those after reading, resulted in the same quantity of recalls with Al-Ahliah school children (M~75).

c. N.P.C.

N.P.C. children recall ideas almost equally whether they are in the Pre- or the Post- groups (M=73.1 and 72.9 respectively). This result is similar to Al-Ahliah School except that at N.P.C. these two groups have fewer omissions than the Pre- & Post-group does (M=76.7). While misplacements are by far the most frequent for the Pre- group (M=7.3), units that are adequately but briefly retold and inadequately presented units occur most with the Post-group (M=7.3 and M=7.6 respectively). Once again, this may be the effect of having the schema before or after reading employed in this study. It seems that getting to know about the topic prior to reading the text sets the reader ready to retell story events out of this specific order. This outcome may be an indication that, with activities prior to reading the text which mainly draw on the children’s experiences and knowledge about bulls and then relating the available knowledge to the concept of bull-fighting, the children tend to capitalize on their instantiated schema of what they knew prior to entering the class rather than grasping the new or "refined" schema about bull-fighting and employing it in the retelling. This
does not seem to result in a coherent recall similar to the original story which may be the outcome of insufficient time and/or the kind of activities used to familiarize the children with the topic. Rather, the post-text activities, though similar to the pre-text activities, seem to result in better recall in the sense that ideas were adequately or inadequately retold more often than misplaced. The children's responses are given in table 5.10.

Table 5.10  Mean Occurences of each Type of Recalled Units by the Four Different Groups at N.P.C.

<table>
<thead>
<tr>
<th>N.P.C.</th>
<th>Type of Retelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>0</td>
</tr>
<tr>
<td>Pre</td>
<td>73.2</td>
</tr>
<tr>
<td>Post</td>
<td>72.9</td>
</tr>
<tr>
<td>Pre&amp;Post</td>
<td>76.7</td>
</tr>
<tr>
<td>Post</td>
<td>96.7</td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.8

The element of language might come into the discussion here. The type of recall observed in the Pre- and Post- groups at N.P.C. may also imply that with a better language proficiency, the children may have benefited more with the pre-text activities to result in a better understanding of the story as related to the newly developed schema.

d. Ataya New School

At Ataya New School, as with the three previously discussed schools- A.C.S., Al-Ahliah School, and N.P.C.- the most frequent misplacements is with the Pre- group children (M=2.4). However, what sets this school's children different is the sum of means of group I responses. Adequately and inadequately
represented idea units are most frequent for the Pre-group (M=4.6). Compared with the three other groups at Ataya New School, the mean score of exactly retold units is significantly higher with the Pre-group (M=3.6 vs M=0.8, M=0.5, and M=0.2 for the Post-group, Pre- & Post-group, and Just-Read group respectively). Table 5.11 shows the types of retellings by children at Ataya New School.

Table 5.11 Mean Occurrences of each Type of Recalled Units by the Four Different Groups at Ataya New School

<table>
<thead>
<tr>
<th>Ataya Type of Retelling</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Pre</td>
<td>Post</td>
<td>Pre&amp;Post</td>
<td>Just</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>74.9</td>
<td>79.2</td>
<td>75.5</td>
<td>89.6</td>
<td>3.6</td>
<td>0.8</td>
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<td>0.2</td>
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<td>2.2</td>
<td>0</td>
<td>0</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.8

While Pre- and Just-Read children score no cultural elaborations at all (as in the case of Al-Ahliah School, N.P.C., Makassid School and Ras-Beirut School), children in the Post- and in the Pre- & Post-groups at Ataya New School have close mean scores for such elaborations (M=0.4 and M=0.5 respectively). This is a surprising result for children in five out of seven schools not to include any cultural elaborations in their retellings if they belong to Pre- and Just-Read groups. The explanation for the Pre-group may be that children in this group had already made the connection between what they already knew about the topic and its relation to the story they read afterwards. Thus, whatever elaborations they had to add in their recall depended on what 'extra' clues they could get from print. This may seem to contradict
the conclusion drawn earlier about the limited efficiency of pre-textual activities with respect to time allocated for such discussion or type of presentation used. However, this explanation suits the results with respect to misplacements observed in children’s retellings but not for elaborations.

What is distinctively different at Ataya New School is the mean score of misplacements which is significantly higher for the Pre- & Post- group (M=11). This seems difficult to explain but the reason may be that with activities before and after the reading, children in this group felt confused between the knowledge they had and the knowledge they acquired and so could not sort out the information properly. Maybe children in this group at Ataya New School were not given enough time for these Pre- and Post- text activities which might imply that a slight change in the procedure had been employed in this school to fit the classroom’s schedule. On the other hand, children at this school may be more used than children at other schools to share their ideas about the text and bring into the discussion their personal reflections and prior knowledge about the topic.

e. Independence School

It was noticed that Independence School was quite different from the other participating schools in its way of teaching and the children attending its classes. Children at Independence School have by far the highest mean score of omissions in all groups averaging 91.5 out of 99 possible responses. However, it is interesting that the most frequent responses are inadequately represented units across the three experimental groups. It might be because children at Independence School are usually trained in the classroom to concentrate on ‘memorizing’ bits of a text in order to answer post-text comprehension questions, rather than try to understand the theme of the selection as a whole. In the case of reading The
Story of Ferdinand, Independence School children remembered what was easy to them linguistically irrespective of how the information fits in the overall context.

The least number of omissions is for the Pre- & Post- group (M=84.5), which at the same time has the highest mean for ideas briefly recalled (M=3.0), textual distortions (M=4.5), and repetitions (M=1.5). As for the other responses, exactly retold units, cultural elaborations, cultural distortions, and misplacements, the Pre- group has the highest mean scores (M=2.0, M=0.3, M=1.5, and M=1.3 respectively). This implies that schema activities/building prior to reading are beneficial even for children with a low language proficiency level and who are not used to reading for comprehension but rather for decoding and answering specific comprehension questions that do not need the child’s active involvement and interaction with the text. A summary of results is presented in Table 5.12.

Table 5.12 Mean Occurrences of each Type of Recalled Units by the Four Different Groups at Independence School

<table>
<thead>
<tr>
<th>Ind.</th>
<th>Type of Retelling</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>0 1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>Group</td>
<td>Pre</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>87.8</td>
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<td>0</td>
<td>2.0</td>
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<tr>
<td>1</td>
<td>1.5</td>
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</tr>
<tr>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>7</td>
<td>1.3</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.8

f. Makasid School

Makasid School children in the Pre- & Post- group,
like those at A.C.S., Al-Ahliah School, and Independence School, have the least mean of omissions ($M=71.8$). The Pre- and the Post- groups have the same frequency of omissions ($M=82$). Cultural elaborations and distortions as well as textual elaborations are most observable in the Pre- & Post- group ($M=1.0$, $M=1.6$, and $M=4.4$ respectively). This is direct evidence of the efficiency of both pre- and post-text activities when introducing a new schema for reading comprehension that make the children more active in reflecting on print. The Just-Read group has a very high mean of omissions ($M=97.0$) with only two types of responses occurring in the children's retellings: misplacements ($M=1.2$) and exactly retold units ($M=1$). The types of recalls of children at Makasid School are shown in Table 5.13.

### Table 5.13 Mean Occurrences of each Type of Recalled Units by the Four Different Groups at Makasid School

<table>
<thead>
<tr>
<th>Makasid</th>
<th>Type of Retelling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Pre</td>
<td>82.2</td>
</tr>
<tr>
<td>Post</td>
<td>82.0</td>
</tr>
<tr>
<td>Pre&amp;Post</td>
<td>71.8</td>
</tr>
<tr>
<td>Just</td>
<td>97.0</td>
</tr>
</tbody>
</table>

**Key:** Same as in Table 5.8

g. Ras-Beirut School

Children at Ras-Beirut School seem to benefit most from pre-text activities. They score the least mean of omissions in that group ($M=69.0$) while omissions are most for the Just-Read group ($M=93.0$). Unlike any other school participating in this research (except for N.P.C.), children in the Post- group score less omissions than those in the Pre- & Post- group ($M=78.3$).
vs \( M=81.0 \) respectively). This may be due to a better grasp of the language used in the story which, with the aid of schema instantiation after reading the text, made recall higher in frequency. It is also noticed that both kinds of distortions - textual and cultural, repetitions, cultural elaborations, and retellings of exact units are most frequent for the Post-group (\( M=1.5, M=1.0, M=0.3, M=0.3, \) and \( M=1.3 \) respectively). This, then, may indicate that the number of idea units recalled is not the measure for comprehension as much as it is interesting to analyze the type of retellings recorded. Though the Post-group had the lowest mean of omissions, they had the highest mean of textual distortions, among other types of responses, in their retellings when compared with their peers in other groups. However, this relatively higher mean of responses, though distortions are part of it, show that schema activities promote the children's interaction with the text.

A final note due here is that the Just-Read group in both schools Ras-Beirut and Makassid scored the highest frequency of recalls as misplacements (\( M=5 \) and \( M=1.2 \) respectively). This could be the result of recalling pieces of information irrespective of how they fit into the bull-fighting schema but drawn from the children's background information about whatever clues they could draw out of the print. Table 5.14 shows the means of results at Ras-Beirut School.

The previous part accounts for the results of each school across the four experimental groups. To highlight a few peculiarities that arise, it would be interesting to consider the results from another angle.

2. Groups

The following section attends to the results from the groups' perspective. Results were grouped according to each of the four experimental groups
Table 5.14 Mean Occurrences of each Type of Recalled Units by the Four Different Groups at Ras-Beirut School

<table>
<thead>
<tr>
<th>Ras-B.</th>
<th>Type of Retelling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Pre</td>
<td>69.0</td>
</tr>
<tr>
<td>Post</td>
<td>78.3</td>
</tr>
<tr>
<td>Pre&amp;Post</td>
<td>81.0</td>
</tr>
<tr>
<td>Just</td>
<td>93.0</td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.8

Across the seven participating schools to note frequencies of each of the nine responses which have been grouped earlier into five categories. A summary of the means of the nine types of possible recalls for each group is presented in table 5.15. Alongside the means of alternative retellings, the means of the first three categories are given in the same table.

A general view of the results shows that the Pre-, Post-, and Pre- & Post- groups have close means of omissions (M=75.5, M=77.9, and M=74.2 respectively) when compared with the Just-Read group (M=91.9). The mean occurrence of repetitions is also parallel to that of omissions. Repetitions are almost the same for the first three groups (M=1.1, M=1.0, and M=1.1 respectively) while much lower for the control group (M=0.4). On average, repetitions are the least frequent responses across the four groups.

Though the three experimental groups seem to have very close means of the types of responses through a comprehensive glimpse at table 5.15, it will be more helpful to look into the details to detect differences. The most frequent response for the Pre-
Table 5.19  Means of the Types of Recall Across The Four Experimental groups

<table>
<thead>
<tr>
<th>Type of Retelling</th>
<th>Group</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>3.1</td>
<td>5.1</td>
<td>4.3</td>
<td>2.9</td>
<td>0.03</td>
<td>1.2</td>
<td>1.2</td>
<td>4.3</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>3.5</td>
<td>5.5</td>
<td>5.3</td>
<td>2.3</td>
<td>0.3</td>
<td>1.3</td>
<td>0.9</td>
<td>2.7</td>
<td>1.0</td>
<td></td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre&amp;Post</td>
<td>1.9</td>
<td>6.5</td>
<td>5.5</td>
<td>3.1</td>
<td>0.5</td>
<td>1.4</td>
<td>0.6</td>
<td>3.6</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Just</td>
<td>0.3</td>
<td>1.2</td>
<td>1.5</td>
<td>0.5</td>
<td>0.03</td>
<td>1.3</td>
<td>0.5</td>
<td>1.4</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.8

The brief recalls as is the case with the Post- and the Pre- & Post- groups (M=5.1, M=5.5, and M=6.5 respectively). The second most frequent response across the three groups as well is the inadequately represented units (M=4.3, M=5.3, and M=5.5 respectively). However, when the mean is taken for category one, the Pre- & Post- group records the highest mean (M=4.6). Group 2, i.e. the Post- group, comes second in rank with a slightly lower mean (M=4.4) and then the Pre- group (M=4.2). When the overall average mean of elaborations is calculated, the Pre- & Post- group also scores the highest (M=1.8) while the Post- group scores lower than the Pre- group (M=1.3 and M=1.5 respectively). The reason behind the highest means of category I and category II for the Pre- & Post- group may be that with a limited proficiency in the English language, such children may benefit more with pre- and post-text orientation to
the schema. The alternative explanation remains that
the post-textual activities were kept in the working
memory and easily retold afterwards.

While the combined mean of distortions remains
almost equal for the Pre- and the Pre- & Post- groups
(M=1.1 and M=1.2 respectively), the Post- group scores
the highest (M=2.2). The reason behind the highest
average mean of distortions for the Post- group may be
the less efficient schema representation these
children received with schema activities restricted to
those after reading the text. In brief, post-textual
schema activities seem to be less efficient in that
they produce more distortions in recalls than pre- and
pre- & post-textual activities do.

Thus to summarize the results of the Pre- group,
children in that group across the seven schools score
highest on briefly recalled ideas but their cultural
elaborations are reported to be very minimal (M=0.03).
The overall results recorded by group one indicate
that children who build up a schema about the story
topic before reading the text tend to retell the
original units slightly less precisely than group two
children (M=3.1 vs M=3.5). However, the Pre- group
children score the highest mean of misplacements.

It is obvious from the discussion in the previous
section of this chapter that group 2 ranks third after
groups 1 and 3 in the highest number of ideas retold
(M=21, M=23, and M=25 respectively). The children’s
total number of omitted units is 77.9 out of 99 idea
units. The total mean of adequately and inadequately
represented unit (M=4.4) is slightly higher for the
Post- group than that of the Pre- group (M=4.2). As
previously mentioned, the reason for more distortions
with children who had schema activities after reading
may be a lack of any preexisting representation with
which the reader is to relate the new incoming
material. With an orientation towards the topic to be
read before actually looking at the script helps readers to instantiate any pre-existing schema and to modify it according to the text in hand. Thus with activities limited to post-reading, children are not fully prepared to grasp the story. This is reflected in their higher number of distortions in their retelling when compared with their classmates participating in the other groups to fit the limited amount of information they could comprehend from the text based on their limited prior knowledge of 'bulls' then try to fit this information into the later practiced schema.

The high average number of omissions by the Just-Read group (M=91.9 out of 99 idea units) may be the best proof of the effectiveness of pre-, post-, or pre- and post-textual activities clarifying the schema. When kept to reading and trying to understand the text without any assistance with the schema presentation, children are less able to retell the story they have read. Though the mean recall of each response type in the Just-Read is very low, the mean average cultural elaborations is almost null (M=0.03). The highest frequency amongst the responses is that of inadequately represented ideas (M=1.5). This may mean that though the children managed to extract a few ideas from the text, they could not remember the exact terms used in the original story. Instead, the children in the Just-Read group tended to retell the few ideas they encoded as separate units with no relation to the overall coherence in the structure of the original text.

The following part looks into more detail within each of the four groups. The results of the four experimental groups are tabulated in tables 5.16-5.19 to report the amount of recalled types across the seven participating schools.
Table 5.16  Mean Occurrences of Each Type of Recalled Units across the Seven Schools in The Pre- Group

<table>
<thead>
<tr>
<th>School</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>73.3</td>
<td>4.7</td>
<td>6.2</td>
<td>4.8</td>
<td>3.8</td>
<td>0.1</td>
<td>1.1</td>
<td>0.9</td>
<td>3.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Ahliah</td>
<td>75.9</td>
<td>3.1</td>
<td>4.3</td>
<td>3.1</td>
<td>3.4</td>
<td>0</td>
<td>1.8</td>
<td>1.3</td>
<td>5.5</td>
<td>0.8</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>73.1</td>
<td>2.7</td>
<td>6.2</td>
<td>2.6</td>
<td>1.9</td>
<td>0</td>
<td>1.1</td>
<td>1.2</td>
<td>7.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Ataya</td>
<td>74.9</td>
<td>3.6</td>
<td>4.8</td>
<td>5.4</td>
<td>3.0</td>
<td>0</td>
<td>1.8</td>
<td>1.6</td>
<td>2.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Ind.</td>
<td>87.8</td>
<td>2.0</td>
<td>1.5</td>
<td>3.0</td>
<td>1.0</td>
<td>0.3</td>
<td>0.8</td>
<td>1.5</td>
<td>1.3</td>
<td>0</td>
</tr>
<tr>
<td>Makasid</td>
<td>82.1</td>
<td>2.2</td>
<td>1.8</td>
<td>3.7</td>
<td>2.0</td>
<td>0</td>
<td>1.2</td>
<td>1.5</td>
<td>3.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>69.0</td>
<td>3.0</td>
<td>8.3</td>
<td>11.7</td>
<td>4.7</td>
<td>0</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>75.5</td>
<td>3.1</td>
<td>5.1</td>
<td>4.3</td>
<td>2.9</td>
<td>0</td>
<td>1.2</td>
<td>1.2</td>
<td>4.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Key**: Same as in Table 5.8

The pre-, post-, and pre- and post-text activities result in almost the same number of omissions, category I responses, and elaborations when compared with the Just-Read group. The major difference between these three groups is that with pre-text activities, the children tend to have more cultural distortions ($M=1.2$ vs $M=0.9$ and $M=0.6$) in their retellings, yet less cultural elaborations ($M=0.03$ vs $M=0.3$ and $M=0.5$). The latter finding may be explained through the possibility that children in this group understand the difference between the schema they had about bulls in their culture and the concept of bull-fighting. Hence, in their retellings, they do not attempt to elaborate on their comprehension of the text from their previous knowledge. The slightly higher number of cultural distortions when compared with the Post- and Pre- & Post- groups might be the lack of full
Table 5.17  Mean Occurrences of Each Type of Recalled Units across the Seven Schools in The Post- Group

<table>
<thead>
<tr>
<th>School</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>79.1</td>
<td>2.2</td>
<td>5.6</td>
<td>4.0</td>
<td>1.2</td>
<td>0.3</td>
<td>0.7</td>
<td>1.3</td>
<td>3.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Ahliah</td>
<td>75.1</td>
<td>1.6</td>
<td>5.5</td>
<td>5.5</td>
<td>3.5</td>
<td>0.1</td>
<td>1.0</td>
<td>1.1</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>72.9</td>
<td>2.0</td>
<td>7.3</td>
<td>7.6</td>
<td>3.0</td>
<td>0.5</td>
<td>2.7</td>
<td>0.7</td>
<td>2.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Ataya</td>
<td>79.2</td>
<td>0.8</td>
<td>5.2</td>
<td>5.2</td>
<td>2.8</td>
<td>0.4</td>
<td>1.4</td>
<td>0.4</td>
<td>2.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Ind.</td>
<td>94.5</td>
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<td>1.0</td>
<td>1.5</td>
<td>1.0</td>
<td>0.0</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Makasid</td>
<td>82.0</td>
<td>1.5</td>
<td>3.0</td>
<td>6.0</td>
<td>1.5</td>
<td>0.1</td>
<td>1.5</td>
<td>0.0</td>
<td>3.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>78.3</td>
<td>1.3</td>
<td>4.8</td>
<td>6.8</td>
<td>3.0</td>
<td>0.3</td>
<td>1.5</td>
<td>1.0</td>
<td>2.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>77.9</td>
<td>3.5</td>
<td>5.5</td>
<td>5.3</td>
<td>2.3</td>
<td>0.3</td>
<td>1.3</td>
<td>0.9</td>
<td>2.7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Key: Same as in Table 5.8

The grasp of the bull-fighting schema with the pre-text activities. A presentation of the schema before reading a text seem to help in the differentiation between preexisting knowledge and newly incorporated information about the topic yet not enough to retell the assimilated knowledge as presented in the text.

If we look more specifically within each group, we find that Pre- group children in four out of the seven participating schools mostly recall ideas inadequately. Two of the remaining schools score the highest mean frequencies of recalls as misplacements. Ras-Beirut School scores the highest average means\(^3\) of Category I (M=7.7) while Independence School children score the least (M=2.2) yet still better than the

\(^3\) The average means of Category I are the sum of the means of responses 1, 2, and 3 divided by three.
Table 5.18  Mean Occurrences of Each Type of Recalled Units across the Seven Schools in The Pre- & Post-Group

<table>
<thead>
<tr>
<th>Type of Retelling</th>
<th>School</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A.C.S.</td>
<td>70.3</td>
<td>4.3</td>
<td>8.4</td>
<td>6.8</td>
<td>4.2</td>
<td>0.7</td>
<td>0.9</td>
<td>0.3</td>
<td>2.5</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Ahliyah</td>
<td>73.6</td>
<td>2.8</td>
<td>5.8</td>
<td>5.0</td>
<td>2.3</td>
<td>0.1</td>
<td>2.0</td>
<td>0.5</td>
<td>5.0</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>N.P.C.</td>
<td>76.7</td>
<td>1.6</td>
<td>6.1</td>
<td>5.0</td>
<td>2.4</td>
<td>0.3</td>
<td>1.1</td>
<td>0.7</td>
<td>3.8</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Ataya</td>
<td>75.5</td>
<td>0.5</td>
<td>2.0</td>
<td>3.0</td>
<td>0.5</td>
<td>0.5</td>
<td>3.5</td>
<td>0</td>
<td>11.0</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Ind.</td>
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<td>0.5</td>
<td>3.0</td>
<td>4.5</td>
<td>1.0</td>
<td>0</td>
<td>2.5</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Makasid</td>
<td>71.8</td>
<td>2.4</td>
<td>9.4</td>
<td>6.4</td>
<td>4.4</td>
<td>1.0</td>
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<td>1.6</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Ras-B.</td>
<td>81.0</td>
<td>1.0</td>
<td>3.0</td>
<td>4.5</td>
<td>4.0</td>
<td>0</td>
<td>0.5</td>
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<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>74.2</td>
<td>1.9</td>
<td>6.5</td>
<td>5.5</td>
<td>3.1</td>
<td>0.5</td>
<td>1.4</td>
<td>0.6</td>
<td>3.6</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Key:** Same as in Table 5.8

other categories.

The Post- group seems to have the same trend in the type of responses as that of the Pre- group (though with a slightly higher average mean of inadequately presented units: M=5.3 vs M=4.9). The highest mean score of the type of responses for six out of the seven schools in group 2 is the inadequately represented recall (two out of these schools, besides the seventh one, have similar means for both briefly represented and inadequately represented retellings). N.P.C. children in the Post- group have the highest means in four out of the nine possible responses: briefly recalled units (M=7.3), inadequately represented units (M=7.6), cultural elaborations (M=0.5), and textual distortions (M=2.7), which implies that their mean of omissions is the lowest of this group.
## Table 5.19 Mean Occurrences of Each Type of Recalled Units across the Seven Schools in The Just-Read Group

<table>
<thead>
<tr>
<th>School</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.C.S.</td>
<td>84.9</td>
<td>1.0</td>
<td>2.9</td>
<td>3.1</td>
<td>1.5</td>
<td>0.2</td>
<td>1.6</td>
<td>0.6</td>
<td>2.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Ahliyah</td>
<td>92.3</td>
<td>0.1</td>
<td>1.3</td>
<td>1.6</td>
<td>0.1</td>
<td>0.0</td>
<td>1.3</td>
<td>0.3</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>96.7</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.9</td>
<td>0.6</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ataya</td>
<td>89.6</td>
<td>0.2</td>
<td>1.4</td>
<td>2.8</td>
<td>0.2</td>
<td>0.0</td>
<td>3.4</td>
<td>0.6</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Ind.</td>
<td>99.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Makasid</td>
<td>97.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
<td>0.4</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>93.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>91.9</td>
<td>0.3</td>
<td>1.2</td>
<td>1.5</td>
<td>0.5</td>
<td>1.3</td>
<td>0.5</td>
<td>1.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

**Key:** Same as in Table 5.8

Just to briefly recapitulate the results of group 3, children provided with schema activities before and after reading have the lowest mean of omissions (M=74.2). Within that group, A.C.S. children recall the most number of units (M=29) and Independence School children the least (M=14). Makasid School children in the Pre- & Post- group score the highest means in briefly retold units (M=9.4), both types of elaborations (M=4.4 and M=1.0 respectively), and cultural distortions (M=1.6) when compared with children in the other schools. From another angle, response 2, or briefly recalled units, has the highest means in four of the seven participating schools with a total mean of 6.5.

The Just-Read group children recall very little of The Story of Ferdinand. The average mean of omissions
is very high (M= 91.9 out of the original 99 story units), certainly when compared with those of the Pre-, Post-, and Pre- & Post- groups (M=75.5, M=77.9, and M=74.2 respectively). Independence School children in this group fail to recall any of the units. Children at A.C.S. have the least mean of omissions (M=84.9). They score the highest means in five out of the nine possible types of responses—excluding both kinds of distortions, misplacements, and repetitions. The contrast between the results at A.C.S. and at Independence School mark that, in addition to the effectiveness of schema activities to increase recall, language proficiency also helps in promoting the number of idea units retold. As mentioned in the first part of this chapter, A.C.S. children are better in English language proficiency than children in the other schools. Other factors may come into the scene to decrease the number of omissions irrespective of whether activities were provided before, after, or before and after reading. Such factors include I.Q. scores, children’s attitudes towards reading, the number of books they have at home, the opportunity to share these books with adults or with other children, and the parents’ occupation. A.C.S. children scored high on these variables in addition to their language proficiency. In the case of this study, it is difficult to point out one or the main factor that directly affects retelling. A.C.S. children and children at Independence School have been noticed throughout the discussion as being two contrasts: each on one extreme of any continuum considered (e.g. I.Q. scores, M=93.3 vs M=79.5; and number of books at home, M=3.62 vs M=1.50). However, one conclusion that can be safely derived is that the lack of schema activities provision hinders any type of retelling. In addition, language proficiency and other social, psychological, and educational factors do affect the amount of units recalled. The higher the linguistic knowledge and the more positive attitudes the children have towards books and reading, the more they can retell of a story
even if they were not oriented to the theme or schema of the text.

3. Recall of Episodes
A count of the sum of occurrences in each of the episodes was done for the total retellings. The aim is to study the overall percentage of each episodes' recall irrespective of the number of idea units comprising the episodes. A general glimpse at the results divides the recall percentages into two: the Episode System with its two subcategories and the Setting and Coda. The State Episodes and the Narrative Episodes have been almost equally recalled (84.5% and 83%). Both the General Setting and the Coda have been less recalled and their registered percentages are 74 and 75 respectively. Next, results of each sub-episode of the Episode System are considered. The most frequently recalled episode is Narrative Episode 7 (83%) which can also be entitled the bull-fighting episode. It includes a long Setting (23 units) which orients the reader to the place and procedure of and of people involved in a bull-fighting session. Narrative Episode 7 goes on after the Setting to describe the whole process of the bull-fighting where Ferdinand was taking part. The reason for the high frequency of Narrative Episode 7 recall may be the high number of idea units comprising it (36 units in total). However, looking at the percentage of individual units, one may notice the rather high individual frequencies as compared to units in other episodes. For an account of these figures, the reader may refer to Appendix 0.

The second most frequently recalled episode is the Narrative Episode 6 (78.5%). This episode, though complete, is the Reaction of the Audience Address Episode. Its percentage of recall is not much less than that of the most frequently retold one. The reason may be that the semantic contents of this episode are quite crucial for the development of the
story leading up to the "major event": bull-fighting.

State Episode 1 which is similar in content to State Episode 3 except for the change in time, is the third most frequently retold episode (76.5%). This result may show that the children's interest or memory span was for the main theme of the story or for the last two episodes of *The Story of Ferdinand*. It is interesting to compare the frequency of recall of this episode with that which is similar in information. State Episode 3, though longer in idea units (11 vs. 7), repeats, more or less, the same information about Ferdinand and the other bulls, however at a later time. The big difference in percentage of recall of State Episode 1 (78.5%) and State Episode 3 shows that the children did not grasp the change in time of the story events showing the growth of the bulls and their continued practice to become stronger for getting into bull-fighting. An alternative or compatible explanation for the lower frequency in the recall of State Episode 3 could be related to memory. Most children may have recognized the time difference while reading the story but have chosen not to exhaust their memory in similar information which has already been encoded.

The least retold episode is that termed Audience Address Episode. For one thing, it is a very short episode with only four idea units. However, its function as a distinctively different episode is of more interest in being related to its recall frequency. Because it is a special, non-frequent type of story episode, especially in a story book similar to *The Story of Ferdinand*, children are unable to associate it to similar episodes previously encountered and encoded. In other words, it might be possible to relate this to the general concept of 'schema'. The children seem not to have the schema, or previous knowledge, of audience address episodes because they do not have enough experiences with such
a type. Thus, they could not relate the information presented in this special type to a previously existing form and therefore could not encode it.

Section A has discussed the children's retellings of The Story of Ferdinand. The following section presents the recalls of A Winter Evening by the Just-Read group. A brief reminder of the intention for having only the Just-Read group read and retell this story is presented. The idea is to have a control group reading both stories— one built around an unfamiliar schema and the other with a familiar topic— to check the effect of the availability of a topical schema on the amount and type of the story retelling.

B. Recall of A Winter Evening

The same procedure of analysis is used in this section as that of The Story of Ferdinand. However, as expected, the part about 'Groups' is missed out since only one group, the Just-Read group, had to read and retell the 'Lebanese' story.

Unlike The Story of Ferdinand which is made up of an Episode System, A Winter Evening, besides the Setting and the Coda, has only one episode to start with. However, it comprises what may be termed as an "Episode Chain" where Episode 2 is the Response of Episode 1; Episode 3 is part of the Direct Consequences of Episode 2's Plan Application 3; and Episode 4 is the Reaction of Episode 3. In a sketch (Figure 5.2), the Episode Chain of A Winter Evening seems more obvious.

Moreover, A Winter Evening is much shorter than The Story of Ferdinand (34 ideas units vs. 99 units). The story grammar is obviously different since one comprises an Episode System while the other consists of an Episode Chain. One of the main reasons for the difference in the structure is the different languages in which the original stories were written. This may imply that though stories have the same constituent parts, they do not share a universal structure. Yet, from this limited sample of stories, an
Figure 5.2 The Episode Chain of *A Winter Evening*

**Episode 1**

IE \(\rightarrow\) S \(\rightarrow\) Response

**Episode 2**

IE \(\rightarrow\) PA System

PA1 \(\rightarrow\) PA2 \(\rightarrow\) PA3

**Episode 3**

IE \(\rightarrow\) Reaction

**Episode 4**

**Key**: IE = Initiating Event  
S = Setting  
PA = Plan Application

Arabic story and an English one, only observations but no generalizations can be made.

Looking at the mean omissions of ideas throughout the seven schools, it is noticed that the least number is that of A.C.S. children (M=25.9) whereas the only student in the Just-Read group at Ras-Beirut School did not have the chance to read *A Winter Evening*. As for the other schools, Al-Ahlijah children had the second less frequent mean of omissions (M=27.1) while Ataya New School and Independence School had almost the same mean (M=28.2 and M=28.5 respectively) and N.P.C. and Makasid School had the same means (M=29.2). The means of each type of the recalled units is presented in table 5.15 for the seven participating schools.

A.C.S. children in the Just-Read group had the highest means in responses 1, 2, and 3 and therefore the highest of Category I responses.

Independence School children managed the highest mean of textual elaborations (M=1.5) while the other means ranged
Table 5.15  The Means of each Type of Recalled Units in each of The Seven Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Type of Retelling</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>A.C.S.</td>
<td>25.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Ahliah</td>
<td>27.1</td>
<td>0.0</td>
</tr>
<tr>
<td>N.P.C.</td>
<td>29.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Ataya</td>
<td>28.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Ind.</td>
<td>28.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Makasid</td>
<td>29.2</td>
<td>0.4</td>
</tr>
<tr>
<td>Ras-B.</td>
<td>34.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

from 0.3 to 0.6 only. The reason may be that children at this school are more familiar with the terms used in this story and therefore could elaborate ideas based on these textual clues. This implies that if sufficient knowledge of the language is available to make sense of the jargon as related to a familiar schema, the children are better able to use these cues to make elaborations.

Cultural elaborations were, though few, quite close in means across schools. Children at A.C.S., Al-Ahliah School, and Makasid School have means of 0.4 while children’s means of elaborations at N.P.C. and Ataya New School is 0.2. This result may mean that personal background characteristics (educational or otherwise) does not have a direct effect on recall of stories with familiar schemata. This conclusion comes in contrast to the one derived for stories with unfamiliar topical schemata where language proficiency, intelligence, and social variables seem to have an important impact on the quantity and quality of story retellings.

As for textual distortions, their overall mean across schools is higher than that of textual elaboration (M=0.9 vs. M=0.5). At the same time, the means within that response are quite close. This may imply that though textual distortions are more frequent than textual elaborations for the same group, the language proficiency, and educational
and social privilege do not play a very important role to differentiate between the different groups of children attending different schools.

Besides scoring the highest mean for textual elaborations, Independence School children participating in the Just-Read group scored the highest means of cultural distortions and of misplaced ideas when compared to children in the other schools. Their mean for cultural distortions was quite a lot higher than the rest (M=1.0 whereas the others ranged from 0.0 to 0.2). Though it might sound contradictory to note their highest mean for textual elaborations and for cultural distortions as well, a reasonable explanation is plausible. Out of the few textual cues they could gather from the text, Independence School children transformed the reflected cultural constituents to fit into a presentation they imposed during their retellings. Unlike their response to *The Story of Ferdinand* where they could retell very little because of their limited English language knowledge, these children could manipulate the story events of a familiar topic more freely and accommodate it according to their own knowledge of the situation. The highest mean of misplacements for this group of children is explained through the same phenomenon where they were in control of the information in the story because they could use it based on the schema they could instantiate during reading and impose during recall.

The highest means of repetition was scored by Al-Ahliah School children (M=1.6) which varied a lot from the other repetition means in other schools that ranged from 0.0 to 0.4 only. The explanation may be that children at Al-Ahliah School are (very) familiar with village life and thus they included lots of repeated ideas in their retellings as a sign of the semantic connections they could establish between the story they have read and their real-life practice.

In summary, the retelling results of the 'Lebanese' story *A Winter Evening* reveal an interesting observation
especially when compared to The Story of Ferdinand's recalls. Whereas a story with a previously unknown schema is read, activities to provide familiarity with the schema help in recall; but language proficiency and social and educational variables do contribute to the quality and quantity of retellings as well. On the other hand, when a story with a familiar topic is read, children are more able to work with the story events during recall to fit it into their own existing schema of the topic irrespective of- or to a certain extent at least- knowledge of the language the story is written in or other educational and social variables.

With the discussion of A Winter Evening's type of recalls by the Just-Read group children, this chapter is concluded. A survey of the general information about the participating children, the results of the retellings of both research stories, The Story of Ferdinand and A Winter Evening, have been presented and discussed across the seven schools and the four experimental groups.

The next chapter deals with the twenty one children who were included in the general discussion about the sample but excluded from the results and discussion about the retellings of the two stories. The description of and reason for such a procedure follows.
Chapter Six

CASE STUDIES

Children in this chapter total twenty one from four of the seven participating schools: A.C.S., N.P.C., Ataya New School, and Makasid School. They belonged to one of the four experimental groups (Pre-, Post-, Pre- & Post-, or Just-Read groups) but are dealt with separately out of their original groups because these children have watched a cartoon on television that was based on The Story of Ferdinand using Walt Disney characters such as Bugs Bunny and Pink Panther. The researcher knew that at different stages of the individual work with these children and thus decided to keep them as part of the sample to check the effect of prior exposure to a relatively unfamiliar schema on later recall of a similar schema.

In brief, this chapter deals with individual children rather than groups of children sharing the same experimental conditions as was the case in the previous chapter. For each case, a brief mention of the child’s background is given besides naming the school and experimental group he/she belongs to. The children will be discussed according to the order the researcher worked with them, i.e. not in an ascending or descending order of the chronological age, educational attainment, or number of idea units recalled. Therefore, the discussion will proceed from those children at A.C.S., second N.P.C., then Ataya New School, and finally Makasid School. Besides, the order of the experimental groups will be kept to the Pre-, Post-, Pre- & Post-, and finally the Just-Read group.
I. A.C.S.

Twelve children at A.C.S. watched the television cartoon before taking part in this research. Neither the researcher nor the children knew that until later during the individual work for this study. Three of them participated in the Pre- experimental group, four in the Post- group, three in the Pre- & Post- group, and two children in the Just-Read group.

A. The Pre- Group Children

The first child in this small sample is a seven-year old boy at A.C.S. whose father is a professional man and mother is a house-wife. His IQ is over than that of the school's mean IQ (IQ=85 vs IQ=93.5). This child scores low on the scale on having books at home and on sharing books but high on considering books useful to children and to adults. He finds reading 'very interesting' but 'does not like it'! He belongs to the Pre- group. The researcher’s notes on this child’s reading and retelling include the following: 'poor reading'; 'very slow in retelling'; 'cannot remember much'; 'full of [what was termed] distorting elaborations'; and, 'obviously, did not grasp the main point'. During recall, this child kept on repeating certain sentences such as 'He will like to fight very much' that were not clear as to whom the subject is and that did not make sense when related to the original text. The child missed sitting for the Primary Reading Test but the language he uses for retelling The Story of Ferdinand, though totally in English, sounds very limited. He does not even use any of the terminology introduced in the pre-reading activities as related to the schema of bull-fighting.

The second child in this group is also a seven-year old boy whose IQ is 100. Both his parents are working; his father is a professional and his mother is a skilled lady working at an office. The child enjoys reading 'quite a lot'. He regards reading as very useful to help him proceed into reading 'big books
which have many words'. This child is 'bright' and his 'language is excellent' both in reading and in speaking. In his retelling, the child uses lots of the vocabulary and phrases that were written in the original text. However, terms that are specific to the bull-fighting concept such as Banderilleros, Picadores, and Matador were not recalled, but some of the equipment such as 'cape and sword' and 'sharp pins with ribbons' were mentioned as an answer to one of the questions posed by the researcher at the end of the free recall. A copy of the child's retelling is found in Appendix P.

When the first two children are compared, the conclusion that can be derived is that the positive attitudes towards leisure, independent reading (as opposed to 'instructed' reading) and the good grasp of the language promote the comprehension and recall of a story. It should be highlighted here, especially as it was not mentioned earlier in this study, that children's retellings can be a direct indication of their text comprehension and not merely a presentation of what is stored in memory—working memory or otherwise. The coherence of a retelling is the main indication that a child has grasped the main idea and the flow of events of the story. The example of this child's retelling is a perfect illustration of this point.

The third child is a seven and a half year old boy with a professional father and non-working mother. The child enjoys reading at home 'a lot' but 'not at all' in the classroom. The question was asked in general but the child wanted to make this distinction. He considers reading as extremely useful 'for reading stories' and makes great use of story pictures during reading. His retelling is 'coherent' including the 'main episodes except the description of the bull-fighting process'. The recall does include a brief mention of the 'boys and all the peoples' who
cane to watch the bull-fighting. However, the people and equipment involved in the actual bull-fighting were not named except for mentioning that 'the man was angry and angry and angry'. The child's retelling starts, proceeds, and ends using a traditional story structure (e.g. 'Once upon a time' and an Arabic expression at the end of the recall signalling the end of the story). His English language is average to good, 'i.e. he can easily express himself'.

This is another child who is participating in this study as a member of the Pre- group whose previous exposure to the concept of bull-fighting, whose positive attitudes towards independent reading, and whose language proficiency is good promoted his ability to retell The Story of Ferdinand in a coherent, comprehensible manner.

B. The Post- Group Children

The following four children are also A.C.S. students but who took part in the study as Post- group children. The fourth child in the group of children who recognized they watched a similar story on television is the only child in the whole sample with the highest IQ (124). He is seven years old; both of his parents are professional. He scored very high on the scale of enjoying reading, of finding it useful, and of having books at home. However, when asked if anyone reads to him at home, he answered negatively. The reason may be that he can enjoy reading by himself without help. Since all children in the Post- group did not see the story pictures while reading, they were asked to draw a picture that they felt suitable to be a cover for this book directly after reading the story but before having the post-text activities, this child had to do the same. It is interesting to consider the picture he drew and the description he gave. A reduced size of the drawing is shown in figure 6.1.

It sketches the bull-fighting ring where people are
sitting all around watching and the door leading to the arena with the bull and the Matador with his cape in the ring. When asked to describe what he drew, the child answered 'ring and the bull and the boy to tell him toro toro'. The child's retelling is quite brief compared to the second child's in this sample. Moreover, the structure of his recall and the vocabulary used are "less professional" than that child's. This may be a support for the idea that more direct activities about an unfamiliar schema closer to the time of reading are more helpful in fitting the information or story events coherently and in putting the jargon into use during retelling.

The fifth child also took part in the Post-group. He has an IQ of 80 and a negative attitude towards books and reading. He 'recalled almost nothing' from The Story of Ferdinand and even what was retold was neither clear nor a reflection of comprehension of the story events. The cueing questions after the free recall did not help the child to recall any ideas more than he already included in his retelling. This case is an obvious example of the (intrusion of) language
hindrance which limits the comprehension process especially when reading about an unfamiliar concept which was not discussed until after the story reading was done. The child’s limited knowledge of the English language is obvious in the child’s hesitation to start the recall and in the retelling which was ‘very slow’. Therefore, the poor language proficiency, the low IQ, and the negative attitudes towards books all added to the type of schema activities this child had (post-textual) to result in a poor recall reflecting poor comprehension of the story.

The sixth child of this sample is a seven-year old girl with a good knowledge of the English language but with a rather low IQ of 85. She has positive attitudes towards books and reading. Partly that may be the effect of her professional parents especially her teacher mother. The only low score she had on the Pupil Information Sheet was the use of story pictures. Her story retelling is comprehensible and coherent. However, at some points during the recall, the child repeats things that were part of the post-text activities yet not part of the text, for example, "The ladies come and they are putting flowers on their heads. They sit and wait..." The underlined sentence was part of the general schema introduction of what happens on a typical bull-fighting day at the arena. Looking at the child’s drawing and her description of it, it is clear that she got few things of the story before having the schema activities with the researcher yet there was some misunderstanding of few details. For example, this girl commented that the ‘boy’ was standing and ‘he thought the girls liked him’ but took the story’s red cape for a ‘red hat’ that the ‘boy had on his head’. The following is the child’s comment on her drawing: "when he was standing and put it the red hat on. The girls ---- and walking and he thought the girls like him. The boy that his name is too long". It is not clear what this child means by ‘his name is too long’. Is she implying about
the 'Matador' or does she mean Ferdinand? In brief, this child proved to be a very good reteller of *The Story of Ferdinand* though her IQ did not predict that. This takes us back partly into doubting the norms of Raven's Colored Progressive Matrices in Lebanon. In addition, it reinforces the idea that both language proficiency and familiarity with the topic do promote recall.

The seventh child, who is also part of the Post-group, is quite a lot older than his classmates (eight years, nine months) with a very low IQ (IQ<75). He had difficulty in understanding, relating to, and answering the questions related to feelings towards books and towards reading in general. His school records show that his language proficiency is average. His retelling of the story is totally in Arabic. The researcher's comments on the recall mention that the child 'does not understand well', 'yet, the retelling sounds O.K.' The child's recall sounds coherent and briefly summarizes the original story, yet it directly follows the line of post-text schema activities shared and mainly directed by the researcher. This definitely proves the effectiveness of the post-reading activities; however this may not conform to the general expectations. The main aim of experimenting with post-textual activities is to relate the topical schema to the reading done earlier. However, in this case to a great extent and with the previous case to a lesser extent, these activities seem to predominate in the actual reading comprehension when language proficiency and intelligence are poor. In cases of good language knowledge, positive attitudes towards reading, and high educational profile, post-text schema activities prove more helpful in relating the schema discussion to the story text with a similar topic.

C. The Pre- & Post- Group Children

The next three children also attended A.C.S. but
were in the Pre- & Post- group. The first child in this group, and the eighth of this sample, has an excellent command of the English language but a rather low IQ score (IQ=80) which was the general trend for him and other children in the total sample who are aged seven years. His father is a professional and his mother is a non-working lady. He has positive attitudes towards reading but again as the sixth case girl whose language proficiency is good, does not consider story picture as useful. This may imply that with a certain level of language proficiency, visual clues become less important. The child’s retelling is very good: it is coherently done including all the episodes and using the jargon related to the bull-fighting schema such as 'matador' and 'sharp pins' as well as vocabulary used in The Story of Ferdinand but which are not common for these children in Lebanon, e.g. 'cork tree' and 'bumble bee'. There is no obvious direct effect of post-textual activities as is the case with the seventh child of this sample. The recall flows nicely and shows a very good understanding of the story events and how they are connected (in time and causality). In general, therefore, this child who had the chance of schema presentation both before and after reading the story, in addition to watching it on television, is able to comprehend and retell the story well. it is interesting to compare this child then with the other two children in the Pre- & Post- group at A.C.S. in the following three paragraphs.

The next child, case nine of this sample, is also seven years old but with an IQ of 100. Her father is a professional and her mother is a housewife. Her command of English is very good and so are her attitudes towards reading. As with the children previously discussed, this child does not find pictures very helpful; however, she adds the comment 'not always'. This means that under certain circumstances, when the book’s language is higher than
that of the child’s level, story pictures are made use of to compensate for the clues missed from print. The researcher’s notes mention that this child is ‘bright’, she is ‘very good in reading’—meaning oral reading—and that the retelling is ‘good in general’. Yet, looking closely at the child’s story, it becomes obvious that there is a confusion in the order of certain events and even the correctness of few ideas recalled. It might be an interference from the television program which is slightly different from The Story of Ferdinand and the child tried to accommodate between the two stories and the schema activities she had as part of the study. However, and in general, this child’s recall is comprehensible, though not an exact retelling of the original story read.

Compared to the eighth case in this chapter, child nine, though with a higher IQ, recalls a poorer version of The Story of Ferdinand than that of child eight. This confirms the general conclusion derived in the previous chapter that, when reading a story with a previously unfamiliar topic, children depend mostly on the language used in the book and their own linguistic knowledge to comprehend the book. The higher their language proficiency is, the better they comprehend the story reflected in a more coherent retelling of the original text.

The third and last child in this Pre- & Post- group at A.C.S. is an eight and a half year old girl who joined this school only few months before this study was done. The general supposition is that the earlier in school-years the children join A.C.S., the better their language proficiency is expected to be. Yet, this child’s language level is good. Looking at her age and the class she belong to, it becomes clear why she was placed in grade II rather than in the third grade. Her IQ is low (IQ=80) but she seems to be a good pupil. Her recall of The Story of Ferdinand
starts with the traditional opening 'Once upon a time' but misses the Setting and the three State Episodes. Some of the vocabulary and the whole of the bull-fighting process were mentioned. The child recalls that these groups of men are involved in the actual fighting, each bringing in to the 'pool' a different sets of equipment to fight the bull with. Her English language is not grammatically perfect, yet this child manages to express herself mostly in English asking about some 'technical' terms in Arabic. However, the recall in general has a reflection of the schema activities per se rather than their link with the story events. This again may have a direct link with the command of language.

D. The Just-Read Group Children

The last two children to be discussed at A.C.S. were part of the Just-Read group. One of them is eight years old with an IQ of 90 and good language. This child regards reading as interesting and useful. Looking at his recall, it is 'obvious that he is retelling the cartoon'. One of the retold ideas that was in the cartoons but not a part of The Story of Ferdinand is 'women throw flowers' vs. '...ladies had flowers in their hair' and 'he run and catch the flowers' as opposed to 'he just sat and smelled the flowers'. The child cannot answer any of the clues questions asked after the free recall was over. It may be concluded that in the case of this child who had watched a similar schema on television, he would make use -with his knowledge of the language- of the story cues to instantiate the story events of the television cartoon and retell them. In that aspect, having a prior encounter with a similar schema helped in promoting the recall, yet, the other way around. Reading the story helped in activating the previously conceived concept about Ferdinand and about bull-fighting acquired through television. It should be noted that a good grasp of the television version of bull-fighting should have been achieved by the
child for him to be able to relate it to the newly activated schema through The Story of Ferdinand and hence retell it.

The second child in this group is seven years old with a very good command of the English language. He is a very bright boy with an IQ of 110. His father is a professional but his mother does not work. Compared to all the other children in the Just-Read group, this child’s retelling is very long, includes details of the original story, and comprehensible. The first half he recalled was very much like The Story of Ferdinand describing what Ferdinand enjoyed doing while the other bulls were 'playing and bumping heads'. The child recalled that 'the five men came...' and 'the took him [Ferdinand] to the fighting bulls [i.e. bull-fighting]', then stopped for a few seconds and said 'I can’t remember'. He later continued the retelling but this time purely from the television cartoon where 'the bull looked, he saw ladies throwing flowers...'. At the end of his recall, this child goes back in time to mention that 'all the bulls played and Ferdinand just sat and smelled the flowers' which he did not mention as such earlier in the retelling. This child is definitely an exceptional case in that he could retell any part of the story in a comprehensible manner. There is certainly the effect of his intelligence, his language proficiency, and his chance to have watched a similar story on television. In brief, all three factors are very important in determining the level of reading comprehension, of understanding the new schema, and of retelling accuracy.

The first twelve children who said they have watched a cartoon on television similar to The Story of Ferdinand were presented in the previous part. The general conclusions for those children at A.C.S. confirm the general results reached in the preceding chapter. Having an orientation of the schema to be
read about enhances comprehension and recall of that story. In addition, a good level of language proficiency is an advantage to understanding the story and relating the new schema -presented through discussion and activities- to the text. However, the results of this group have added to the understanding of the time and level of the schema presentation needed to be able to instantiate it for use with the story in this study. Schema presentation directly before reading seems to be more beneficial for children in this group. These children could not make use of the television cartoon they watched to promote recall. On the contrary, in some cases a negative effect of the prior exposure to the schema occurred; children retold instances from the television version of the story instead of the text they read for this research. At other times, where children did not understand parts of *The Story of Ferdinand*, they retold what they could remember of the television program. In such cases, the earlier 'familiarization' with the schema of bull-fighting aided in filling in the gaps of events that were either not fully understood from the text or were forgotten -possibly because they could not be accommodated to the prior schema the child had acquired from the cartoon. This idea leads us to the second addition this group contributed to the general results. In cases where a good level of the schema understanding was achieved from the television program, the child could instantiate that schema during reading to slightly assimilate it according to the 'modified' version of the bull-fighting schema as presented in *The Story of Ferdinand*. The next section of this chapter discusses two children at N.P.C. who also mentioned that they have watched the cartoon on television.

II. N.P.C.

At N.P.C., only two children said they watched the cartoon on television. One child was in the Post- group and the other took part in the Pre- & Post- experimental
condition.

A. The Post- Group Child

The first child at N.P.C. who remembered watching the television cartoon was part of the Post- group. He is seven years old with semi-skilled parents. He regards reading as useful 'to learn and to go to college' but does not share books with anyone because he 'does not like stories much'. This child is differentiating between reading for pleasure and reading for academic purposes. This shows the conflict within him; his dislike of reading and the social pressure of getting educated -through reading; an issue which should be of primary concern to promote interest in reading for enjoyment and success in 'getting educated'. Unlike his peers at A.C.S., this child greatly bases his recall on the television program. Initially, the retelling is very similar to the post-textual activities. However, this does not last long until the child starts basing his recall on the program he watched earlier on television. He is the only child so far in this chapter whose retelling is an obvious indication or a proof that he watched the cartoon. The recall includes "too many 'elaborations' based on the T.V. program". This concludes that the child must have had a lot of exposure to that television program and thus developed a very good understanding of it. Consequently, reading The Story of Ferdinand instantiated the previously acquired schema of bull-fighting through television and was reflected in the retelling of the story read for purposes of this research. This result has already been concluded before that when a usually culturally unfamiliar schema is learnt to a certain level, it could be used in the future when instantiated in another context.

B. The Pre- & Post- Group Child

The second child at N.P.C. who watched the television cartoon participated in the Pre- & Post-group. He is seven years three months old and his
parents are also semi-skilled people. His attitudes towards reading are very similar to those of his classmate discussed in the previous paragraph. They both admit that reading is necessary for future academic life but they do not enjoy it. If more children at this school were found to regard reading in the same manner, a conclusion about the teaching reading methods and approaches in this school could be drawn. Again, this child's retelling of *The Story of Ferdinand* is totally in Arabic. It is very brief and shows the lack of understanding of the text. When asked to elaborate on his recall, this child added some more events that, similar to the previously recalled ideas, were very brief. The grammatical structure of the sentences in this recall seem to be reflecting a limited ability of the child to use language besides a lack of comprehension on his side. The first conclusion derived is based on the analysis of the retelling's content. The sentences, though in the child's native language, are very short, grammatically mistructured, and incoherent. The limited understanding of the basic semantic connections in *The Story of Ferdinand* is proved at the later stage of recall when the child was asked the cueing questions. He could not answer the questions with more information than what was already recalled. Moreover, with more 'discussion', the child ended up giving wrong answers that were neither true based on *The Story of Ferdinand* nor were part of the television program. In the case of this child, therefore, neither the pre- and post-textual activities directly related to the reading the story nor the prior exposure to the schema of bull-fighting helped the child to understand and recall the text. The reasons may be several some of which are his low English language proficiency and IQ (IQ= 90), his attitudes toward reading stories, and his limited mastery of the bull-fighting schema from the television cartoon.

The previous two cases at N.P.C. are special in the
area of their view of reading purposes. Yet, they support the general results of the effects of language and of schema familiarity in recalls. The following section is concerned with the five children at Ataya New School who watched the cartoon similar in content to *The Story of Ferdinand* on television.

### III. Ataya New School

Five children in total at Ataya New School remembered watching the cartoon program similar to *The Story of Ferdinand* on television. As is the case at A.C.S., children who watched the television program and took part in the study were members of the four experimental groups. One of them was in the Pre- group, two in the Post- group, one in the Pre- & Post- group, and the last one participated in the Just-Read group.

#### A. The Pre- Group Child

The first child in this school is a seven year old girl with an IQ of 100 and participating in the Pre-group. Her father is a professional -teacher- and her mother is a house-wife. The child likes reading 'quite a lot' but does not share books much. Her distinction in the usefulness of reading is interesting. She believes that reading is useful for children because she 'likes to read stories'. As for older children and adults, reading is useful to them 'to be able to speak English'. The researcher’s comments on this child’s general character and recall include 'very bright', 'interested', and her retelling 'shows understanding'. The recall is 'coherent and the basic episodes' included. The Mother’s Episode was not mentioned in the free recall but was properly described with one cueing question. The Bull-fighting Episode was not elaborated into its details. Even with the cueing question, the child was just able to describe few of the story pictures that are related to the part of the story, e.g. 'one of the [matador’s] friends was [angry] stamping his feet on the ground'. However, in general, the retelling was clear and included information about 'the other bulls', five men', and
'the bee episode'. In brief, similar to her peers at A.C.S. in the Pre- group with an average or above average level of language proficiency and intelligence, this girl retells The Story of Ferdinand coherently with the main episodes, yet without using 'new' vocabulary associated with the schema of bull-fighting. This may have a direct relation with the type of pre-textual activities used for this study which will be discussed in the following chapter.

B. The Post- Group Children

The next two children are also pupils at Ataya New School who have watched the television cartoon prior to participating in this research as Post- group members. The first of these two children is seven and a half years old with an IQ of 95. His English language proficiency is good but his recall, as most of his classmates', is in Arabic. He enjoys reading but does not have many books at home. Reading, to him, is useful 'for learning'. The drawing he sketched after reading the story included a cow, a bee on a flower, and a tree. This sketch suggests that the child has understood the story well. However, when asked to explain what he has drawn, the child said 'that is what he has understood while reading The Story of Ferdinand: that the bee is on the flower talking to the cow and next to them is a tree'. This description shows a literal understanding of separate chunks of the story, nicely put together according to the child's general knowledge of how these three 'things' fit together but not necessarily conforming to the information of the story. A closer look at the child's retelling shows that he did actually comprehend the story which is reflected in a brief yet coherent recall that includes the essential parts of the original story. Though there are similarities, especially in the flow of events, with the post-textual activities, there is no direct trace of the cartoon version watched on television as was the case with some children in this group mentioned
earlier. The reason may be that the child has probably mastered the schema of bull-fighting to a certain level where he could use it to accommodate the story events into it besides his good level of language proficiency and intelligence and the post-textual activities that may have helped in reinforcing the schema knowledge.

The other child is seven years old with a slightly lower IQ of 90. Both her parents are professional. Her language is good and her attitudes towards reading are positive. It is mentioned that she is an only child and she is 'talkative' or 'sociable'. This may partly explain her fluency in retelling the story. The recall is well-structured and quite comprehensive. It is parallel in flow to the post-textual activities but there is no mention of the bull-fighting process. This may have a direct link with the type of and time allocated to the activities done to introduce the new schema of bull-fighting. However, keeping in mind that this child has already been exposed to the bull-fighting schema through the cartoon she watched on television, one would wonder about the lack of advantage in that aspect. To compare it with previous cases, it is found that most of these children cannot include any of the special vocabulary terms about bull-fighting in their recalls. This may suggest that more intense activities and active involvement on the part of the children in these activities are required.

C. The Pre- & Post- Group Child

The fourth child at this school who said that he had read the story before rather than watched the television cartoon participated in the Pre- & Post-group. He is nine years old and has a low IQ (IQ=80). His score on the Primary Reading Test, though slightly higher than the average of other children, was still less than six years of age when converted to reading age. His responses to the questions of attitudes towards books and towards reading show a general
positive appreciation of reading 'to get smart'. Yet, he does not regard reading as an interesting or enjoyable activity nor does he share his books at home. His retelling of The Story of Ferdinand is 'very good in general'. The vocabulary he chose to use during recall is very similar to the one in the original text. He uses terms such as 'puffing', 'bumping', 'funny hats', 'Picadores', and 'Matador'. Moreover, he recalls almost all episodes except for the Mother and Bee Episodes which he easily and clearly retold with the cueing questions. The retelling of this child can be found in Appendix Q. As with one of the children at A.C.S. in the Pre- & Post-group, the recall is coherent and reflects a very good understanding of the story. Again, the chance to have 'practiced' the new schema puts the child at an advantage in the retelling. He is able to recall the events in the correct order and identify things with their proper names. On the other hand, when the child's level of language proficiency and/or mastery of the unfamiliar schema are low —as was the case with other children in this group— interference from the television program which is slightly different from the story used in this research and the failure to accommodate the story events to the previously encountered schema result in poorer recalls.

D. The Just-Read Group Child

The last child from Ataya New School who participated in this study had not only watched the television program but also read the book earlier is a seven-and-a-half-year-old girl who was presented as a special case in the previous chapter as well because she was born and lived in the United States until few months prior to participating in this study. Her command of English is therefore perfect, especially when compared to the language proficiency of other children included in the research. The child's IQ is 100 and her score on the Primary Reading Test is very good. Though she took part of the Just-Read group, her
retelling is excellent. She recalls all the details of the story except for the bull-fighting process. The jargon is conveniently used to label things, but again not that of the bull-fighting episode. Unlike the other children in this group, this child’s retelling is long, coherent, and reflects a perfect understanding of *The Story of Ferdinand*. This case is a definite proof of the effectiveness of high language proficiency and mastery of a schema in the ability to produce a good recall of a certain text. These two factors seem to go hand in hand to secure an understanding of texts and the capacity to retell what has been read.

IV. Makasid School

The last two children in this sample of twenty one children who at one point of the study or another remembered they have watched a similar cartoon on television are from Makasid School. Both of these children took part in the Post-experimental group. The first has a very low IQ of 75. He likes reading and finds it interesting and enjoyable ‘quite a lot’. He does not have much chance to share books with others and regards reading useful for children ‘to get good grades in Reading at school to be promoted to a higher class’. The child’s drawing does not trace any understanding of the story read without having the chance to look at and make use of the story pictures. It includes a house, a car, and a garden with an apple tree and some flowers. However, and after the post-textual activities, the child’s retelling of *The Story of Ferdinand* shows a considerable improvement. This child ‘recalls quite a bit of ideas’. Yet, the retelling is not in the original order of events and it ‘certainly does not reflect a real understanding of how things –ideas– are tied together’. This is a case where the direct effect of post-textual activities cannot be mistaken. Most of the episodes were remembered except for the details of the bull-fighting episode which were inadequately described as an answer to a cueing question. Though the child’s attitudes towards
reading are positive, his limited linguistic knowledge and intelligence render it difficult for him to understand the story without pictures and without an orientation towards the schema presented in the text. This schema familiarization was expected to have been established through watching the television program. However, the child’s limited knowledge of the English language and his poor reading skills did not help him to instantiate, nor even make the connection, between the text and the cartoon until later when the post-textual discussion took place. This is a support to the generalization that a limited linguistic level hinders the comprehension of texts with unfamiliar schemata—irrespective of the general attitude towards reading.

The second child at Makasid School is seven years old whose IQ is 100. He regards reading as a very useful skill for children ‘to learn’ and for adults to ‘do well in their jobs’. This child neither has books at home nor has the chance to share books with anyone. The child’s drawing include two flowers; a tree; a river and some fish that are swimming; a bull that is sitting and playing; a girl and a boy; a bird and a butterfly; and sand. When asked why he drew these things—whether they were part of the story—the child answered positively. As his classmate’s recall, the retelling is totally in Arabic. This child’s retelling is full of uncompleted and unconnected sentences. He "recalls bits but cannot connect them 'logically' as presented in the original story". Though this child’s drawing shows some comprehension of The Story of Ferdinand, it is the understanding of ‘words’ only: 'tree', 'bull', and 'flowers'. Yet, the drawing of a bird, a river, fish, and sand is a personal elaboration of the concept of a 'garden' probably which is a generation from the concepts of flowers and trees and their relation to gardens. In brief, this child is the reverse of his classmate who was discussed in the previous paragraph in two factors: attitudes towards reading and level of intelligence. The second child is better in reading in English according to
their teacher's evaluation. Yet, the only difference in their reaction to *The Story of Ferdinand*, keeping in mind that they both took part in the same group, is in their drawings. While the first child did not include in his sketch anything related to the text, the second has three things. This may be the result of a higher level of proficiency in the English language, yet not high enough to understand the text as a whole but the comprehension was limited to 'words'. These two children may be compared to cases six and seven of this sample participating in the same group. Whereas the good level of language knowledge of child six helped her in retelling a good version of the text, the poorer level of language proficiency of child seven was reflected in his retelling which was parallel to the post-textual in ideas and in structure.
Chapter Seven

Conclusion, Implications and Recommendations

As research with schema theory suggests (e.g. Mandler and Johnson, 1977), building a representation about the topic to be read is a helpful aid to promote reading comprehension. The subjects of this study were second grade children who are learning to read in a second language. Thus, they are also learning about a foreign culture since the reading books used at Lebanese schools are mainly written and published in western countries mainly America. Previous work with schema theory and its effect on reading comprehension (e.g. Rumelhart, 1975 and Carrell et al. 1988) suggests that providing the reader with a title (e.g. Anderson et al., 1977) or with a picture for example assists in grasping the content especially if the material is not very clear or if it can be interpreted in more than one way depending on the schema given about the topic or on the reader’s background.

This study takes a different approach towards investigating the effect of having knowledge about the content prior to, post, or both before and after reading a text. Using discussion activities to build up a topical schema that is not previously available resulted in remarkable improvements in comprehension and retention of story events with young children learning to read in English as a second language. The number of omissions significantly dropped when children had a chance to work with the story’s vocabulary and pictures as part of developing their
awareness of the Spanish concept of bull-fighting. Even in the case of the Independence School children who had the lowest English language proficiency level when compared to children in other schools, the mean of omissions dropped tremendously with the Pre- & Post- group.

As results of this study show, children from four out of the seven schools benefit mostly from schema activities both before and after they encounter the print. The three other participating schools have either equal or superior results with pre-reading activities as compared with post-reading conditions or pre- and post-textual activities. However, with an average language proficiency level, children depend more heavily on their instantiated schema in their retellings rather than on the assimilated one. This was obvious with N.P.C. children whose command of English is good but not enough to understand the story fully. Children with a high level of language proficiency, A.C.S. children for example make use of the 'refined' version of the instantiated schema and of the linguistic cues they get out of print to understand and retell the story events. On the other hand, children with a low language proficiency level tend to depend on the schema activities heavily to understand the story.

This chapter is divided into three main parts. The first draws conclusions about the teaching of reading in general and more specifically to beginning readers who are mostly learning to read in a foreign language. The second section suggests practical activities that Lebanese primary teachers can adapt in their classrooms. Some suggestions for further research are the focus of the last section.

Though some ideas in the three parts overlap, the focus of each is its application in its context, i.e. general, specific, or open for future research. However, the content can be grouped into two main areas. The first deals with teachers' awareness of strategies that help young children to learn reading in a second language. Consequently they are advised to plan schema activities/tasks to use in their
reading classrooms before, during, and after reading a selection. A series of textual activities and cultural tasks are the focus of the second area of this chapter. Such schema activation exercises include vocabulary practice, use of pictures, and promotion of cultural awareness.

I. General Implications

The following section presents the concerns and issues that this study derived from the literature in the area and the field-work in Lebanon. It discusses some concerns that the primary school teachers should be aware of for more effective teaching of reading in a second language.

* Accuracy versus Comprehension

There is a potential dilemma between bottom-up and top-down approaches between emphasizing 'accuracy' in reading or encouraging children to develop a 'global' view of understanding. After all, looking for details during reading is merely one form of reading which develops a limited range of reading strategies. Thus, the need for end-of-passage comprehension questions is greatly diminished since the general purpose of reading, especially with beginning readers, is to enjoy reading whole selections interacting with them by bringing their own experiences of the situation at hand into the classroom. A better type of questioning than 'comprehension questions' may be 'discussion-cueing questions'. These are not limited to a post-reading session checking for retention of details but rather are frequent guiding questions before, during, and after reading many of which would specifically be aimed at helping children to attain global understanding of the text. The pre-reading questions are to help the children instantiate a possibly existing representation in their minds about the topic or context. The leading questions during reading are to encourage the children to keep up their interaction with the text bringing more information from their previous experiences as they read on. This should encourage any necessary modifications of an accessed schema. The aim of post-textual cuing questions
is to guide the children in integrating their own knowledge with the information given in the text, reflecting upon similarities and differences and suggesting alternatives.

* World Knowledge

Lebanese teachers should seriously consider helping the children to use their knowledge about the world in comprehending texts by actively involving them into pre-reading discussion and activities to make reading more authentic and more purposeful. Children need help to see "that knowledge about the world is important in establishing global links between the parts of a text" (Oakhill and Garnham 1988, p.30). Relevant classroom techniques include asking children to list (orally or in writing) what they know or have experienced, or to draw a picture or sequence some previously drawn pictures while commenting on them.

* Purpose for Reading

The concept of 'purpose' for reading is not widely recognized and appreciated amongst teachers in Lebanon. However, it is crucial that children are made aware of it. Even at an early stage of learning to read, children may learn to handle different books -or sometimes the same book- differently according to their purpose. For example, they may read outer-space books or animal books for the enjoyment of the story or to extract special information from the text such as how a caterpillar is formed or how a spider builds its web. (Such activities are possible for example with the story of The Very Hungry Caterpillar by Eric Carle.) Children can be taught to select a purpose from suitable lists before actual reading; for example asking themselves "Am I going to need this for information or for enjoyment?"

* Oral Stories

To date, there is no place for 'oral' storytelling in most Lebanese classrooms. Very little time is allocated or 'sacrificed' for children's narratives during the
school hours. However, storytelling not only helps children in developing their oral fluency and confidence but also expands their literacy and general development in society and in their own culture besides building up a stock of story schemata. As Meek (1991, p.103) emphasizes: "we must see the value and nature of narrative as a means by which human beings, everywhere, represent and structure their world". Right from the early encounters with oral stories children listen to, they develop a sense of how their society and culture function; what its values are, and how important each is; and, how to talk about their feelings and share their thoughts. The use of pictures and props will encourage children's storytelling, as will games such as story chains.

* Structure of Stories

Teachers in Lebanon might give young beginning readers a better view of what stories are and how they are constructed by exposing them to story variations in different cultures. This may be indirectly practiced through providing a wide range of story books from a number of different cultures, e.g. African, American Indian, or Arabic cultures. The children will automatically pick up the idea that stories, though basically similar in that they tell about life events, differ in narrative style and possibly in narrative structure, openings and endings, etc.. Irwin (1991) suggests that teachers should actually start by themselves learning what story grammars are and mentions some tasks. She even suggests a few examples of how to arouse the children's awareness of story structure. For example, Irwin introduces the "story-maker tree" where children are given a set of cards displayed hierarchically on the bulletin board with the story constituents marked on them and are encouraged to replace these cards with story events. Different cards would be used for different stories but the tree structure may remain the same.
* 'Decoding' versus 'Meaning'

Beginning readers may have difficulty with both decoding and comprehension. As Oakhill and Garnham (1988, p.105) point out, "the burden of word recognition may leave little mental energy for comprehension". The children's working memory may get 'overloaded' and does not retain important and relevant information for incoming material to be meaningfully integrated. Slow readers in particular cannot hold enough information in their working, or short-term, memory to make semantic connections between sentences, let alone parts, of a selection. This aspect is even more difficult with young Lebanese children learning in a second language who lack a sufficient store of vocabulary in their oral language as an aid. To read and decode, to understand words that are not part of their current knowledge storage, and to make connections integrating the information in one sentence/paragraph with what precedes it is an effortful task. One implication of this is that young Lebanese children should work with some of the text vocabulary before meeting the text orally and with written forms. This would be part of a range of activities to work with a story schema prior to reading.

Thus the limited working memory capacity, effortful processing of language, and slow decoding are among the major reasons for slow progress with some children learning to read. The negative effect of these factors can be highly reduced for children in Lebanese schools by working with vocabulary, introducing them in association with pictures for example, to build the text schema.

Though Baddeley (1976), amongst other researchers, maintains that, with its limited capacity, working memory cannot cope with comprehension when a lot of strenuous work is done on decoding and word recognition, how much are educators to depend on linguistic explanations of comprehension when more emphasis is increasingly placed on the cognitive, psycholinguistic aspect of reading? As Bransford and his colleagues (1972, cited in Oakhill and
Garnham 1988, p.22) remind us, "comprehension is integrative and it is constructive". Teachers cannot rely on the belief that a theory of comprehension should be purely based on ideas from linguistics, and that mental representations of sentences correspond to linguistic representations of them. Reading is currently interpreted as putting together ideas from various sentences and deriving implicit information from explicitly presented material, and teachers in Lebanon should be more aware of this fact. Reading is not a passive reception of textual information as some Lebanese teachers seem to believe but rather an active construction of meaning and reflection from one's own previous experiences. For this reason teachers cannot exclusively depend on linguistic analysis of sentence segmentation and working memory capacity to explain comprehension. Teachers in Lebanon need a more active explanation of why some children are less able readers than others. Schema theory sheds light on this issue and explains that readers may be inefficient in this skill not mainly because they cannot decode, but because they need to have mental representations of the topic and expectations about what is in the message. Schema theory offers a more comprehensive view of reading that Lebanese teachers should make use of to provide the children with sufficient information about the text prior to reading.

* Schema Instantiation

The question of to what degree the teacher is to instantiate a certain schema prior to reading without the risk of 'teaching' the content is rather delicate. Primary teachers in Lebanon should also consider the part or the ratio of the schema to be invoked during reading, planning carefully how to instantiate the schema while reading the text with the children. A preexisting schema might be instantiated and modified according to the topic at hand or a new schema might be built up if the two are very different and only after reading would the two be compared or perhaps integrated. In Lebanon, this question is rendered considerably more complex by the fact that
the children are learning a second language and reading materials which often represent a foreign culture. Would it then be better to instantiate a schema that is already available in the children's knowledge structures then modify it or expand it to include more varied instances?

* Interaction with Text

Training children to 'interact' with text not only helps them in interpreting, expanding on, and discussing the text and seeking possible alternatives to its presentation and endings, it also leads to their general language development, in communication with peers, and in creative handling of written and oral skills. Above all, an approach which emphasizes interaction is highly likely to assist children to access relevant schemata, especially with young Lebanese children who are learning to read in English as second language, and is in line with current constructivist perspectives on the reading process.

* Children's Reading Strategies

Considering changes in strategy in learning to read, Biemiller (1970) suggests that first graders pass through three stages in their reading development. In the first, children 'guess' unfamiliar words semantically based on the preceding text. Later, children become aware of the need for visual resemblance between the written word and the word they have to 'guess'; i.e. decoding becomes important to them. At the end of first grade, children recognize that both sources, contextual and graphemic, are essential. In fact this relates strongly to the concept of teaching reading currently followed by the teachers in Lebanon. Children are not left to make 'smart guesses' of unfamiliar words based on semantic contextual meaning but are rather encouraged to emphasize the visual representation and decoding of words. The children at that stage learn to produce a word that is more visually similar to the written one than to the meaning of that word in its context. So, what does this imply for children at that grade? Are we to encourage these guesses
more at initial stages or are we happy with the results at the end of grade one! Some children might 'suffer' during the process and some negative after-effects may be the case with some children who grow to dislike reading both as a classroom collective activity and as an individual information-seeking or leisure activity.

* Use of Pictures

The Lebanese teachers give little emphasis to the importance of the use of pictures during reading and encourage the children to make use of them as an aid to comprehension. Current approaches encourage the use of pictures to develop familiarity with books, the reading process, visual literacy, and in general, to talk about stories. Clay (1966 cited in Oakhill and Garnham 1988, p.71) "revealed that two-thirds of five-year-olds thought that the pictures in a book, not the words, told the story, although after six months of schooling almost all of the children had reversed their judgement". Meek (1991) adds that the effects of story pictures on beginning readers is as powerful as icons are in holding information in memory. She says that "the effect of illustrations on children's early understanding of stories can be quite long-lasting, because striking pictures, those that remain in the memory, work, as icons" (Ibid, p.117). Children use pictures in books to comprehend print, to search for meaning that is beyond their previous knowledge, and to make inferences and predictions of what is coming next. So children in Lebanon who are learning to read in a foreign language are to be encouraged to explore the story pictures and to share what they see. As the results of this research suggest, it is beneficial for children to work with pictures before they encounter the text. Children with pre-textual activities and tasks with pictures performed much better in their retellings than did the children who read the text without looking at the story pictures. This kind of pre-text activity with pictures to promote schema application could usefully form a new strategy among the existing ones used by Lebanese teachers.
* The Place of Phonics

Though phonics teaching in foreign language classrooms is needed for better pronunciation and decoding, it does not have priority at the early stages. The main reason is that children learning to read in a foreign language, as is the case in Lebanon, do not have a sufficiently broad base of vocabulary skills to benefit from a phonics approach. At initial stages, the vocabulary register of the primary school children in Lebanese classrooms is to be expanded since English is their second language.

II. Suggestions for Teaching

* Language Practice

Primary children in Lebanon should be given more chance and encouragement to talk English to each other. One possibility to promote this skill is through organizing games in class to be "played in English". The teacher should highlight the fact that these games and their 'jargon' may be transferred to other situations and places, e.g. playground. Teachers have to be sensitive to the fact that children hesitate to speak in L2 classes not because they have nothing to say, because they are bored or day-dreaming, uninterested or stubborn, but because they are afraid of making mistakes. Thus, teachers should be careful not to ridicule the children and their language usage, but maybe indirectly correct their use of the language by repeating the same idea in the correct form but not asking the child to repeat it afterwards.

However, the debate raised nowadays by Arab nationalists is to what extent the Lebanese want the English language prevailing in everyday life? In other words, is the teaching of English to be limited to purely academic purposes and the current language of the medium of instruction (English or French) be replaced by Arabic?

On the other hand, Meek (1991) discusses the need to learn to read in general. She speaks about 'instrumental'
and 'organizational' uses of reading. Moreover, she makes the distinction between the 'ability to read' and 'being a reader', i.e. reading for practical ends as opposed to reading for enjoyment and 'recreation' where readers are recreated by getting new information and by discovering how written texts 'make worlds' that are different from that the reader is living in. Teachers in Lebanon should be clear as to which one they are targeting in their second language classrooms. In either case, Lebanese primary teachers need to develop a 'passion' for reading in Lebanese children and get them interested in reading through making them aware of the importance and advantages of being good readers.

* Active Reading

Lebanese teachers have to encourage the children to regard reading as an active constructive thinking process. In reality it is even more than an active/interactive skill. Reading is a transactive skill especially to those children who are learning to read in a second language and about a foreign culture. Young Lebanese readers are neither merely extracting the information explicitly stated in the text nor simply bringing into the text their personal experiences to explain, compare, and contrast the text information. They are rather forming new texts and generating their own versions of the script they have read based on the interweaving of the information from the selection, the child's schemata or previous knowledge, and the personal reflection on the integrated representation from both sources. The Lebanese primary teachers should encourage the children to talk freely about how each of them understands the text meaning and to 'evaluate' it. This is a skill the children in Lebanon need to develop for successful and active future reading in all domains.

One way to reinforce children's interaction with the script is through teachers' modelling. The teachers are to share their interpretations, understanding, and construction of the text with the children on equal
Terms. Teachers should not give the impression they are extracting the 'truth' from the printed message but rather they are 'interpreting' it according to their own personal understanding.

* Cultural Awareness

Teachers of young children in Lebanon should promote the children's awareness of different cultures and different ways of living. Rivers (1968) suggests that to achieve international understanding, teachers should provide:

1. direct intercultural communication;
2. experience of a foreign culture; and,
3. information about a foreign culture.

A direct interaction with the target culture is difficult to achieve and not feasible in natural settings of schools. Language-class organizers, however, can possibly plan for 'giving a flavor' of the foreign culture by inviting natives of the target culture who are working in the community or by bringing in materials, food, and clothes for example from the target culture. Providing information about the target culture is the most practical suggestion that Rivers (1968) gives for natural classroom settings; thus, the Lebanese teachers should capitalize upon it. It is suggested that the teacher spends more time prior to reading on providing cultural awareness to build up a topic-schema. This is mainly done by using multiple sources to help the children in processing the information about the target culture more efficiently and clearly. As a substitute for trips to the target culture, teachers can use authentic material such as films and video-tapes, pictures and tourist brochures, cultural traditional songs, tourist guides to the country's attractions, and currency samples which can be gathered easily from travel agencies. The teachers do not have to spend too much time preparing this material merely because these pre-reading activities do not make up a curriculum; they supplement other material and basic approaches to introducing reading to beginners especially those learning in a second/foreign
language. The purpose of such a cross-cultural interaction is to promote the Lebanese children's cultural awareness of other societies and to provide them with positive encounters of the target culture, to share their values, viewpoints, and way of life.

Since most of the children's knowledge and concepts about 'different cultures' are vague and limited, it may prove helpful in the Lebanese classrooms to bring a globe and/or to show a map pointing to different countries and pointing to the diversity of cultural practices across the different geographical units. This can be related to stories and picture books featuring different countries. The teacher can simplify these concepts by giving simple examples from everyday life that children can relate to; for example, eating habits, school systems, and means of transportation. The role of sharing individual experiences with the group becomes more obvious in the classroom. Some Lebanese children may have travelled abroad or read a book or stories from a specific country or culture and thus have a clearer schema about the target culture. They may then tell their peers about their experience of, attitude about, and evaluation of the incidence.

"An experience of the foreign culture" may follow such a discussion. The children, with their teacher's help and guidance, may prepare a short play or a bulletin board depicting traditional customs of a certain country/culture. This gives the Lebanese children a chance to materialize and put into practice what they have built about the story they are going to read.

* Reading Units

Lebanese teachers can occasionally plan for a 'reading unit' on a specific target culture. Young children, may read one or two stories in small groups with the teacher while more story books are kept in the class library and children are encouraged to read them either on individual basis or in pairs. Children may also be told they may
share these culturally different books with the rest of the class either through an oral report or in writing. They may also be encouraged to predict a few cultural practices common in the target culture.

The Lebanese teachers are recommended to introduce the topic of the story not just directly prior to reading but start preparing for it a few days beforehand with posters, role-playing tasks, story-making activities, and so on. Rivers (1987) even suggests one week of pre-reading tasks, where the teacher leads the children from comprehension - i.e. from the role of listening to and reading material about the target culture- to production, where the children have to produce some visual, written, or oral material about the foreign culture. Young Lebanese children can produce their own material by drawing pictures, building models using play-dough, or even by acting a script typical of the target culture. Older children may write short stories, poems, or rhymes depicting some traditions of the foreign language or they may simply draw or role-play cultural scenes using the schema they are building with the help of the teacher about the target culture.

* Pre-Reading Activities

It is essential that Lebanese teachers plan pre-reading activities about the target culture that children can relate to. Young children should be allowed to make comparisons between the ways their native culture deals with a certain issue with that of the foreign culture. Wallace (1992, p.115) calls these "cross-cultural pre-reading tasks" that are most helpful "in the case of highly culture-specific texts... which invite comparison between students' own culture and the target culture". Though Wallace recommends such activities for use with advanced students, implementing this procedure is likely to be helpful with young learners as well. Lebanese children will find it easier to assimilate new schemata into what they already possess rather than build totally new, culturally unfamiliar
representations that they had never encountered before. Teachers in Lebanon have to keep in mind that though the children may be exposed to foreign cultures through television programs or imported stories, these experiences can only be made use of to build upon them, expand them, and modify them as required. They are not sufficient in themselves to understand culturally unfamiliar texts.

* Post-textual Tasks

One way to promote Lebanese children's interaction with the text is to ask them to draw a picture illustrating the story after reading. Children can be asked to look for specific information in the text, such as what they find unfamiliar or which depict knowledge they picked during schema tasks, or to suggest an alternative ending to the story. Alternatively, the teacher can initially delete the ending and ask the children to make up one, discuss the different suggestions and then read the original ending. Such activities would encourage the Lebanese children to interact with the print and to share their ideas about the text. Moreover, they will train the young readers to predict the content as they read and to formulate questions trying to find answers as they read on.

The Lebanese teachers can make more use of these tasks to promote students' interaction with each other in reading sessions. The young readers may be asked to work in pairs or in groups of three formulating questions to which they expect answers after reading the text, suggesting a title for the selection, or writing a summary of the story.

* The place of decoding

There is no need for primary school teachers in Lebanon to emphasize decoding at an early stage: it makes reading mechanical. Children do not understand through 'proper' decoding because they do not have an active vocabulary store in their second language knowledge.
Young Lebanese readers usually become good 'decoders' with a very good level of oral reading but poor readers in the sense that they cannot comprehend what they decode, certainly not at the sentence level, let alone whole selections. A typical case is the children at Al-Ahliah School who participated in this research. Decoding and oral fluency skills need not be undermined in Lebanon but they are to be 'taught' at a later stage when the children have acquired the basic reading skill of drawing meaning out of text by integrating their prior knowledge about the world with the information given directly by and implied through the script. At a later stage, the children's knowledge of the foreign language would have increased and they would be better able to handle decoding and oral fluency alongside extracting meaning from print. However, the teaching of decoding and oral pronunciation are still needed for a more comprehensible, native-like pronunciation and for developing oral skills. Moreover, it is not sufficient for Lebanese children to be fluent in oral language but unable to decode print.

* Reading Materials

When the Lebanese teachers are presented with these ideas about promoting cultural awareness and building topical schemata through vocabulary and picture activities before, during, and after reading a given selection with the children, they will rightly worry about the books to plan the curriculum. The question of what type of material best suits the children as they begin learning to read in a second language will arise. Using books with simplified language and structures are not recommended for frequent use in the classroom since they are not the authentic type that is usually published as story books children normally read. Similarly, limiting the use of graded books, as is the case in the Lebanese classrooms, is not advised. Learning to read through scheme books make it more difficult for the young Lebanese readers to generalize the use of their reading skills to reading content based books. Thus, the need in
Lebanese schools is for authentic story books that actively involve the teacher and children into discussions. The purpose is to share common language experiences "to enable students to achieve immediate success as meaning-makers" (Cairney 1990, p.88). Moreover, a classroom approach that focuses upon reading texts as wholes, integrating the meaning between different parts of a selection is recommended. The primary aim in teaching reading to children in Lebanon should be on extracting meaning from print. Other reading skills such as decoding and oral fluency are to be introduced at a later stage, i.e. after the level where children have become aware that reading involves extracting a message from print and reflecting on it from personal experiences and prior schemata.

* Group-Work

Teachers in Lebanon should adapt the method of working with groups more often. Group work motivates more discussion and more activities, besides giving the effect of more authenticity to the materials. Teachers are to allow more time for imagination and creativity and reflection on the children’s side before introducing the written text. As previously mentioned, these activities are not meant for ‘pre-teaching’ the story content; the purpose of employing them is to make reading more meaningful and related to the children’s own experiences. Teachers have to make the Lebanese children more aware that reading is connected with real life: it is authentic and reflects part of our lives. Small-group work stimulates the children to participate and to behave as ‘enquirers’, to be open-minded in listening to others’ points of views, and to grow as reflective individuals dealing with other speculative individuals.

The practice group work is highly restricted in Lebanese classrooms until now. Teachers need to work with the children in groups during the main reading sessions. It gives an opportunity for the Arabic-speaking children to practice the second language orally which helps them
in reading and writing activities besides promoting their oral communicative skills. Second, group-work is more practical for teachers and easier to manage. Moreover, group discussions are more interesting and varied and the children are more enthusiastic to share their experiences with their classmates.

III. Suggestions for Further Research

Given the prevailing disturbances and civil conflict, research and opportunities for professional development have been very limited in Lebanon for the past fifteen years. This increases the need for those who work with young Lebanese readers to become more aware of recent developments in the field. There is a need to reach a better understanding of how beginning readers in the Lebanese setting make use of strategies to read in a second language, and to plan classroom activities accordingly.

* In-Text Activities

Further research in this field with young Lebanese children will help in looking into the effectiveness of in-text activities, e.g. discussion of content and prediction. Care should be taken in such studies to control those activities and to have a balanced and similar procedure across subjects. In other words, the researcher should be in full control to direct the discussion towards a preplanned focus at different intervals rather than keeping the leading role for the child. This is needed in order to be able to generalize the results to bigger populations.

* Group-Work Research

Another activity that is open to research is working with small groups. The benefits will prove more generalizable because that is how classrooms are constructed in real life. Moreover, the children learn from each others experiences’ and comments thus making the setting of the research more natural and informative. Group work promotes the children’s active involvement
with the text and the discussion teaches the children to share information and to enjoy book-sharing.

One way of doing that is to have a small group discussion with different schema activities then record the retellings of the children. The emphasis would be on studying the first tape-recorded recall after each session. Though this might sound time-consuming for a 'researcher', it is feasible for teachers in their own classrooms. This may help in promoting more practical implications to the teacher in her/his classroom in a certain atmosphere and with a special group of children attending that school.

* Introspective Studies
  
  Given the chance to proceed in this study further, the researcher would again elicit children's retellings of the stories. However, investigating into introspective recalls is worth trying where children report orally on how they process the information. For example, children may be able to tell why they have missed on retelling a specific piece of information during the free recall though they could answer cueing questions afterwards. This procedure is difficult to adapt and needs training both on the researcher's side and on the children's.

* Transfer of Skills
  
  Future studies in Lebanon should look into the area of skills' transfer from L1 to L2 reading. Though this area has been heavily studied abroad, it is relevant to check if similar skills are required in reading Arabic books and in reading English script. The layout of stories differs from English to Arabic; an example is the structure of the two stories used in this research. The question is whether the skill required in L1 reading is the same as that of L2. If so, then schema theory may be very helpful in promoting the comprehension of culturally unfamiliar texts. Moreover, it is useful to compare the teaching methods in Arabic language classrooms with second language classrooms and the emphasis each puts on
the different reading skills. This may show that the more traditional way of teaching Arabic make it difficult for the children to see similarities between the two activities and thus skills' transfer becomes more difficult.

* Effect of Teaching Methods

Though this study included subjects from a variety of teaching approaches classes, it will be relevant to have this factor as the focus of a study: how would children, who are 'used to' a teaching method that emphasizes decoding and oral reading, react to activities introduced in another language that help them in getting a wholistic meaning of a story? This can be investigated in comparison with children whose teachers appreciate their reactions to and comments on a reading passage at any point of the reading session: before, during, or after reading. It will also be of interest to compare the 'miscues' in L1 reading and L2 Reading, checking what is more common in each: syntactic, semantic, and their proportion.

* Translation of the same text

One of the procedures this research was interested in is to study the relation between text structure (which is different between Arabic and English) and language proficiency on comprehension. The effect can be checked by working with two groups of children, using two texts: an Arabic one and an English one. Each group starts by reading one of the original texts and then children in each group read the translation of the other text. Thus the plan would be:

\[
\begin{array}{ccc}
\text{Group a} & \text{Group b} \\
A1 & \text{(original)} & E1 \\
E2 & \text{(translation)} & A2
\end{array}
\]
This procedure will show how much text information children can process depending on the language in which the text has been read.

* 'Reading' versus 'Listening' to the Story

A similar procedure of this study can be carried out again but with an older sample than the one participating here (e.g. second graders). The aim is to check how children who can read the story totally on their own be compared to those children who had the researcher's help in reading the text. In a way, children participating in this study were partly listening to the story as the researcher read it because they could not decode all the words on their own. Moreover, this research was not interested in checking the children's decoding skills but rather their comprehension and retention of story events. Such a study will show whether beginning readers in a second language emphasize decoding or comprehension.

These suggestions for classroom practices and with suggestions for further research in the field are directed to primary teachers and researchers in Lebanon. The field-work of this research which was carried out in Lebanon demonstrates that schema-activation activities are very effective with young Lebanese children learning to read in a second language about distant culture practices. The more elaborate and frequent the schema tasks are, the better the comprehension and retention of the material is. However, educators should be careful in applying this theory to the teaching of reading allowing for 'reading as exploration'. Teachers are not to 'teach' the story content through the activities but rather use them to build an understanding of the context of the story events. Beginning readers have the right to experience reading for exploration and to develop it as part of their reading skills; i.e. to employ their prior knowledge about the world, contextual cues, as well as their peers' responses in understanding print. It is essential to convey to the children the need to read not just as a leisure/pleasure activity but as an informative one as well where new knowledge can be acquired, questioned,
It is doubtful whether Lebanese teachers are aware of the Schema Theory concept and its effectiveness in the teaching of reading to young children. This research was an attempt to apply story grammars and schema theory to Lebanon using authentic texts to make the context similar to real school situations. Moreover, this study worked with learners of English as a second language outside Europe and North America while the majority of the research with schema theory in the teaching of reading has been done in these two continents. The conclusions and practical suggestions offered in this chapter will help the Lebanese teachers to make use of schema theory in teaching the young Lebanese children as they learn to read in a foreign language at an early age.
Appendix A.1

"A Wrestler in A Tight Corner"
or
"A Prisoner Plans His Escape"

Rocky got up slowly from the mat, planning his escape. He hesitated a moment and thought. Things were not going well. What bothered him most was being held, especially since the charge against him had been weak. He considered his present situation. The lock that held him was very strong, but he thought he could break it.

Appendix A.2

"A Space Trip to an Inhabited Planet"
or
"Watching a Peace-March from the Fortieth Floor"

The view was breathtaking. From the window one could see the crowd below. Everything looked extremely small from such a distance, but the colorful costumes could still be seen. Everyone seemed to be moving in one direction in an orderly fashion and there seemed to be little children as well as adults. The landing was gentle and luckily the atmosphere was such that no special suits had to be worn. At first there was a great deal of activity. Later, when the speeches started, the crowd quieted down. The man with the television camera took many shots of the setting and the crowd. Everyone was very friendly and seemed to be glad when the music started.
APPENDIX B

Appendix B.1

"Washing Clothes"
(Adapted from Bransford and Johnson 1973, p.400)

The procedure is actually quite simple. First you arrange things into different groups. Of course, one pile may be enough depending on how much there is to do. If you have to do it somewhere else due to lack of facilities that is the next step, otherwise you are ready to begin. It is important not to overdo things. That is, it is better to do too few things at once than too many. This may not seem important, but problems can easily arise. A mistake can be expensive as well— you could ruin your things. At first the whole procedure will seem complicated. Soon, however, the procedure will become just another part of everyday life. It is difficult to foresee any end to the need for this task in the immediate future, but then you can never tell. After the procedure is completed, you arrange the materials into different groups again and put them into their appropriate places. Eventually the materials will be used again and the whole cycle will have to be repeated. However, this is part of life.

Appendix B.2

"Balloon Serenade"
(Adapted from Bransford and Johnson 1973, pp.392-393)

If the balloons popped, the sound wouldn't be able to carry since everything would be too far away from the correct floor. A closed window would also prevent the sound from carrying, since most buildings are well insulated. Since the whole operation depends on a steady flow of electricity, a break in the middle of the wire would also cause problems. Of course, the fellow could shout, but the human voice is not loud enough to carry that far. Another problem is that a string on the instrument could break. Then there would be no accompaniment to the message. It is clear that the best situation would involve less distance. Then there would be fewer potential problems. With face to face contact, the least number of things could go wrong.
APPENDIX C

Appendix C.1  Title and Context Picture of "Washing Clothes"  
(Adapted from Carrell 1983, p.206)

Appendix C.2  Title and Context Picture of "Balloon Serenade"  
(Adapted from Bransford and Johnson 1973, p.394)
The Story Grammar for The Story Of Ferdinand

The Story Of Ferdinand

Setting ----------- ALLOW ----------- Episode System ----------- THEN ----------- Coda

95-99

State -- AND -- State -- AND -- State
1
2
3

State Episodes ----- THEN ----- Narrative Episodes

SE1 - CAUSE - SE2 - THEN - SE3 --- THEN --- NE4 - THEN - AAE5 - ALLOW - NE6 - CAUSE - NE7
4-10
11-21
22-32
33-44
45-48
49-57
58-94

Key: SE = State Episode
NE = Narrative Episode
AAE = Audience Address
----- = Syntactic Relationships
--------- = Semantic Relationships
STATE EPISODE 1

Initiating Event ------- INITIATE ------- Response

ACTION - AND - ACTION

4 5

Internal Response ----- MOTIVATE ----- Plan Sequence

AFFECT

6

Internal Plan ---- MOTIVATE ---- Plan Application

COGNITION

7

Attempt ---- RESULT ---- Resolution

Direct Consequence ---- INITIATE ---- Reaction

NATURAL OCCURANCE

ACTION - AND - ACTION

8 9 10

Key: In this and all the following trees:
(BOLD UPPER CASE) = Intercategory Relations
(UPPER CASE) = Informational Content
STATE EPISODE 2

Setting - ALLOW - Initiating Event ---- INITIATE ---- Response

STATE - AND - STATE
STATE
11 12

INTERNAL EVENT
INTERNAL EVENT
13

Internal Response --- MOTIVATE --- Plan Sequence

AFFECT
14

Internal Plan - MOTIVATE - Plan Application

- Attempt --- RESULT --- Resolution

ACTION
15

Direct Consequence - INITIATE - Reaction

A - AND - S - THEN - ES - AND - NO - AND - NO ACTION
ACTION
16 17 18 19 20 21

Key: A = Action
S = State
ES = End State
NO = Natural Occurrence
STATE EPISODE 3

Setting - ALLOW - Initiating Event -- AND -- S ----- INITIATE ----- Response

STATE - AND - STATE
22 23
NO - AND - NO
24 25

STATE Response 1 Response 2
26
IR - AND - S - MOTIVATE - PS
GOAL STATE
29 30
IP - MOTIVATE - PA

IR - MOTIVATE - PS
GOAL
31
IP - MOTIVATE - PA

SUBGOAL
32
A - RESULT - R
ACTION
27
DC - INITIATE - Reaction
ACTION
28

Key: S = Setting
NO= Natural Occurrence
IR= Internal Response
PS= Plan Sequence
IP= Internal Plan
PA= Plan Application
A = Attempt
R = Resolution
DC= Direct Consequence
Key: DC = Direct Consequence
NARRATIVE EPISODE 6

Initiating Event --- INITIATE --- Response

ACTION

Internal Response -- MOTIVATE -- Plan Sequence

AFFECT

Internal Plan -- MOTIVATE -- Plan Application

Attempt --- RESULT --- Resolution

Direct Consequence -- INITIATE -- Reaction

A - AND - A

A - CAUSE - A - AND - C - AND - C - CAUSE - A

Key: IP = Internal Plan
A = Action
C = Cognition
NARRATIVE EPISODE 7

Setting - ALLOW - Initiating Event --- INITIATE --- Response

ACTION 81

Internal Response - MOTIVATE - Plan Sequence

C - CAUSE - A 83 82

IP - MOTIVATE - PA

SUBGOAL 84

S - ALLOW - Attempt - RESULT - Resolution

A - AND - A ACTION 85 86 87

DC - RESULT - Reaction

A - AND - A 88 89

AF - AND - A - AND - A - AND - C - CAUSE - A 90 91 92 94 93

Key: C = Cognition  S = Setting
A = Action  DC = Direct Consequence
IP = Internal Plan  AF = Affect
PA = Plan Application
Setting of Narrative Episode 7:

58  59  60  61  62  63  64  65  66  67  68

69  70  71  72  73  74  75  76  77  78  79  80

Key: S = State  
A = Action  
q = question  
a = answer
The Story Grammar for *A Winter Evening*

**A Winter Evening**

- Setting
- ALLOW
- Episode 1
- THEN
- Coda

**Key:**
- **S** = State
- **---** = Syntactic Relationships
- **-----** = Semantic Relationships
Episode 2

Initiating Event ---- INITIATE ---- Response

Action 8

Internal Response -- MOTIVATE -- Plan Sequence

Internal Plan - AND - Setting - ALLOW - Plan Application System

S - AND - S - AND - S
6-7 9 10

PA1 - AND - PA2 - AND - PA3

Key: PA= Plan Application

Plan Application 1

Attempt ---- RESULT ---- Resolution

ACTION 11

Direct Consequence ---- RESULT ---- Reaction

ACTION 13
Plan Application 2

Attempt ------ RESULT ------ Resolution
ACTION 12 Direct Consequence ------ RESULT ------ Reaction

ACTION 14

Plan Application 3

Setting -- ALLOW -- Attempt -- AND -- Setting ------ RESULT ------ Resolution
15 16 17 18 19 20 21

Setting -- ALLOW -- DC -- RESULT -- Reaction -- THEN -- Setting
STATE NO - CAUSE - NO AFFECT ACTION
24 25 26 22 23

Key: A = Action
DC= Direct Consequence
Episode 3

Initiating Event ---- INITIATE ---- Response

ACTION 26

Internal Response -- MOTIVATE -- Plan Sequence

COGNITION 28

Internal Plan -- MOTIVATE -- Plan Application

Attempt -- RESULT -- Resolution

ACTION 27

DC - AND - S - RESULT - Reaction

ACTION 29 STATE 30

Episode 4

Key: DC = Direct Consequence
    S = Setting
**Episode 4**

Initiating Event -- **INITIATE** -- Response

A - AND - A

32 33

Internal Response -- **MOTIVATE** -- Plan Sequence

Internal Plan -- **MOTIVATE** -- Plan Application

Attempt -- **RESULT** -- Resolution

Direct Consequence -- **RESULT** -- Reaction

**ACTION**

31

**Key:** A = Action
APPENDIX F

Pupil Information Sheet

Name: __________________________
Sex: Male ___
            Female ___
Date of Birth: ________ Chrono. Age: ________
Religion: ________________
School: ________________
Father’s Occupation: ________________
               Education: ________________
Mother’s Occupation: ________________
               Education: ________________
Reading Grade (English): ________________
               (Arabic): ________________
Language Skills Grade: ________________
Raven: ________________
Reading Age: ________
Primary Reading Test: ________________

5  4  3  2  1
a lot quite a lot average not much not at all

1. Do you like reading? 5 4 3 2 1
2. Do you have any books at home to read/look at? 5 4 3 2 1
3. Does anyone at home read to you? How much/often 5 4 3 2 1
4. Do you read to anyone? To whom? ________________ 5 4 3 2 1
5. Who helps you read? ________________
6. What do you do when you come to a word you don’t know? ________________

7. Do pictures help? 5 4 3 2 1
8. Do you think reading is useful to children of your age? 5 4 3 2 1
9. Do you think reading is useful to older children/grown ups? 5 4 3 2 1
10. Do you find reading interesting/enjoyable? 5 4 3 2 1
Primary Reading Test Level 1

Name: ___________________________ Boy or Girl: ___________________________
Age: ________ Years ________ Months Today's Date: __________________________
Date of Birth: Day ________________ Month ________________ Year ________________
School: ___________________________ Class: ___________________________

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<tr>
<th>RAW SCORE</th>
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How to do this test:
Here are some questions for you to answer. You must choose the best one of the five answers. Draw a circle round the word you choose. If you put a circle round the wrong word, rub it out or cross it out carefully, and put another circle round the right word.

Here are two examples:

1. The box is a ....

   ![Picture](image1.png)
   - bird
   - cup
   - table
   - rock
   - flower

2. The bus was ....

   ![Picture](image2.png)
   - step
   - three
   - trip
   - train
   - tree

After the picture questions, there will be sentences for you to finish by choosing the right word, like this:

3. They had _____ and chips for tea. (five wish fish fresh flash)

Try these two examples:

4. The bus was ______ . (dog mug time cow late)

5. _____ will it stop raining? (Where What Who Which When)

The questions will get harder as you go along but you will have plenty of time to answer so do not rush.

Turn over and begin the test when you are told.
In the box is a....

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Please go on to the top of the next page.
17 It began to ___ so we put on our coats. ( rain bucket collar
dance spare )

18 On a sunny day it is ___. ( dull bright wet hilly valley )

19 They ___ it is time to go home. ( walk give think draw gone )

20 When it became dark he switched on the ___. ( curtains window sunshine
fence light )

21 He opened his ___ to shout. ( asleep chest mouth ears pocket )

22 If nothing happens ring the ___ bell. ( better rather mother
other tether )

23 Out of the rocks came a spring of cool, clear ___. ( water light ice
glass wager )

24 Mary had her supper ___ going to bed. ( asleep today late
hungry before )

25 It has been a long time ___ we met. ( sin sincere still since nice )

26 Bill made a ___ with dots and crosses. ( lantern patter pattern
patent patron )

27 The policeman tried to ___ the thief. ( unrest arrest rest steal test )

28 It soon became dark after ___. ( daylight noon rainbow
light sunset )

29 For lack of water the ___ was dying. ( rain towel plant glass air )

30 She used the water to ___ the soap suds down the sink. ( flash fuss flush
flesh finish )

31 The travellers needed a good ___ in order to camp. ( valley road pack
site fire )

32 Please put a ___ under the door. ( wedge hedge stage
ledge nudge )
33 A word that belongs with 'letter, word, paragraph and chapter' is ___.

34 We went in single file ___ the doorway. ( though threw throw through trough )

35 He was very ___ and kept his promise. ( relish relentless resulting reliable restitute )

36 He warned us that the parrot was ___ . ( viscous vicious viscose victorious vein )

37 Another word which means 'mistake' is ___. ( lumber fumble blunder blinder tumbler )

38 After her illness she looked thin and ___ . ( gallant gleam glisten gamble gaunt )

39 He closely ___ his brother. ( assembled resolved resumed renewed resembled )

40 The food was plain but most ___. ( nutriment nautical plutonic germane nutritious )

41 His story was clear and ___ . ( precious present process precise pressing )

42 This book is an example of fine ___. ( literal ligature literature linotype latitude )

43 Some little animals eat their own ___ of food each day. ( shape fruit meat weight help )

44 She tried to be funny and made a ___ reply. ( factual facetious facile factional fascinating )

45 A word which means 'increase' is ___. ( decrease enlarge wither decline exceed )

46 She walked out of the room with a ___ air. ( superior superlative supernatural subtle sustained )

47 The account he gave was very ___. ( implicated extradited exaggerated accounted advertised )

48 He felt insulted and made an ___ reply. ( indigenous indefinite indignant indicative infinitive )
Once upon a time in Spain there was a little bull and his name was Ferdinand. All the other bulls he lived with would run and jump and butt their heads together, but not Ferdinand. He liked to sit just quietly and smell the flowers. He had a favorite spot out in the pasture under a cork tree. It was his favorite tree and he would sit in its shade all day and smell the flowers.

Sometimes his mother, who was a cow, would worry about him. She was afraid he would be lonely all by himself. 'Why don't you run and play with the other little bulls and skip and butt your head?' she would say. But Ferdinand would shake his head 'I like it better here where I can sit just quietly and smell the flowers'. His mother saw that he was not lonely, and because she was an understanding mother, even though she was a cow, she let him just sit there and be happy.

As the years went by Ferdinand grew and grew until he was very big and strong. All the other bulls who had grown up with him in the same pasture would fight each other all day. They would butt each other and stick each other with their horns. What they wanted most of all was to be picked to fight at the bull fights in Madrid. But not Ferdinand— he still liked to sit just quietly under the cork tree and smell the flowers.

One day five men came in very funny hats to pick the biggest, fastest, roughest bull to fight in the bull fights in Madrid. All the other bulls ran around snorting and butting, leaping and jumping so the men would think that they were very very strong, and fierce, and pick them. Ferdinand knew that they wouldn't pick him and he didn't care. So he went out to his favorite cork tree to sit down. He didn't look where he was sitting and instead of sitting
on the nice cool grass in the shade he sat on a bumble bee. Well, if you were a bumble bee and a bull sat on you what would you do? You would sting him. And that is just what this bee did to Ferdinand. Wow! Did it hurt! Ferdinand jumped up with a snort. He ran around puffing and snorting, butting and pawing the ground as if he were mad. The five men saw him and they all shouted with joy. Here was the largest and fiercest bull of all. Just the one for the bull fights in Madrid! So they took him away for the bull fight day in a cart.

What a day it was! Flags were flying, bands were playing... and all the lovely ladies had flowers in their hair. They had a parade into the bull ring. First came the Banderilleros with long sharp pins with ribbons on them to stick in the bull and make him angry. Next came the Picadores who rode skinny horses and they had long spears to stick in the bull and make him angrier. Then came the Matador, the proudest of all— he thought he was very handsome, and bowed to the ladies. He had a red cape and a sword and was supposed to stick the bull last of all. Then came the bull, and you know who that was don’t you?—Ferdinand. They called him Ferdinand the Fierce and all the Banderilleros were afraid of him and the Picadores were afraid of him and the Matador was scared stiff. Ferdinand ran to the middle of the ring and everyone shouted and clapped because they thought he was going to fight fiercely and butt and snort and stick his horns around. But not Ferdinand. When he got to the middle of the ring he saw the flowers in all the lovely ladies’ hair and he just sat down quietly and smelled. He wouldn’t fight and be fierce no matter what they did. He just sat and smelled. And the Banderilleros were angry and the Picadores were angrier and the Matador was so angry he cried because he couldn’t show off with his cape and sword. So they had to take Ferdinand home. And for all I know he is sitting there still, under his favorite cork tree, smelling the flowers just quietly. He is very happy.
APPENDIX I

A WINTER Evening

It is Saturday. Dad suggested that we spend a winter evening in the mountain.

Here we are, after months, spending the evening in our mountain house again. But this time it is not covered with green as it was during summer; it is covered with a white carpet of the white snow.

The sitting room is busy with the evening-visiters: my uncle’s family, the neighbors, and friends whom dad invited from the city.

A big fire-place, constructed of red brick, occupies the main area; The fire flames are sparkling in the room adding warmth to the temperature generated by the central heating system. The visitors spread out: a group around a table where people played cards and a group sat in front of the T.V. watching a Lebanese program.

And from time to time the cheering of the players or the T.V. watchers’ comments were heard.

We, the children, sat around my grandmother in one of the corners. We sat on the floor furnished with carpet and animals’ skin.

My grandma covered herself with her woollen blanket. She put her back against a cushion, and she started telling us old stories. She told us how the old winter evenings used to be spent, the days when no T.V. and no central heating existed. And she told us how they used coal for heating and oil lamps for light.

Then, Grandma would sigh and say: "Good olden days...". And then she would go around offering us roasted chestnuts, raisins, and nuts.

The stories were many, one after another, until my grandma got sleepy, and my father noticed that; so he waved from a distance that it was time for children to go to bed.

So, we went to the bedroom; the one next to the sitting-room.

We did not fall asleep quickly; we were amused to follow up the voices of the people and their laughs; and we were still thinking about my grandma’s old stories... while the snow on the mountain house was getting thicker and thicker, like a coat.
APPENDIX J

THE STORY OF FERDINAND

1. Once upon a time in Spain
2. there was a little bull and his name was Ferdinand
3. All the other bulls he lived with
4. would run and jump and butt their heads together
5. but not Ferdinand
6. He liked to sit just quietly and smell the flowers
7. He had a favorite spot out in the pasture under a cork tree
8. It was his favorite tree
9. and he would sit in its shade all day
10. and smell the flowers
11. Sometimes his mother
12. who was a cow
13. would worry about him
14. She was afraid he would be lonely all by himself
15. "Why don't you run and play with the other little bulls and skip and butt your head?" she would say.
16. But Ferdinand would shake his head
17. 'I like it better here where I can sit just quietly and smell the flowers'
18. His mother saw that he was not lonely
19. and because she was an understanding mother
20. eventhough she was a cow
21. she let him just sit there and be happy
22. As the years went by
23. Ferdinand grew and grew
24. until he was very big and strong
25. All the other bulls who had grown up with him
26. in the same pasture
27. would fight each other all day
28. they would butt each other and stick each other with their horns
29. What they wanted most of all was to be picked to fight
30. at the bull fights in Madrid
31. But not Ferdinand
32. He still liked to sit just quietly under the cork tree and smell the flowers
33. One day five men came
34. in very funny hats
35. to pick the biggest, fastest, roughest bull
36. to fight in the bull fights in Madrid
37. All the other bulls ran around snorting and butting, leaping and jumping
38. so the men would think that they were very very strong, and fierce and pick them
39. Ferdinand knew that they wouldn't pick him
40. and he didn't care
41. So he went out to his favorite cork tree to sit down
42. He didn't look where he was sitting
43. and instead of sitting on the nice cool grass in the shade
44. he sat on a bumble bee
45. well, if you were a bumble bee
and a bull sat on you
what would you do
you would sting him
And that is just what this bee did to Ferdinand
Wow! Did it hurt
Ferdinand jumped up with a snort
He ran around puffing and snorting, butting and pawing the ground as if he were mad
The five men saw him
and they all shouted with joy
Here was the largest and fiercest bull of all
Just the one for the bull fights in Madrid
So they took him away for the bull fight day in a cart
What a day it was!
Flags were flying
bands were playing
all the lovely ladies had flowers in their hair
They had a parade into the bull ring
First came the Banderilleros
with long sharp pins with ribbons on them
to stick in the bull and make him angry
Next came the Picadores who rode skinny horses
and they had long spears
to stick in the bull and make him angrier
Then came the Matador the proudest of all
he thought he was very handsome
and bowed to the ladies
He had a red cape and a sword
and was supposed to stick the bull last of all
Then came the bull
and you know who that was don’t you
Ferdinand
They called him Ferdinand the fierce
and all the Banderilleros were afraid of him
and the Picadores were afraid of him
and the Matador was scared stiff
Ferdinand ran to the middle of the ring
and everyone shouted and clapped
because they thought he was going to fight fiercely and butt and snort and stick his horns around
But not Ferdinand
When he got to the middle of the ring
he saw the flowers in all the lovely ladies’ hair
and he just sat down quietly and smelled
He wouldn’t fight and be fierce no matter what they did
He just sat and smelled
And the Banderilleros were angry
and the Picadores were angrier
and the Matador was so angry
he cried
because he couldn’t show off with his cape and sword
So they had to take Ferdinand home
And for all I know he is sitting there still
under his favorite cork tree
smelling the flowers just quietly
He is very happy
A WINTER Evening

1. It is Saturday
2. Dad suggested that we spend a winter evening in the mountain
3. Here we are, after months, spending the evening in our mountain house again
4. But this time it is not covered with green as it was during summer
5. it is covered with a white carpet of the white snow
6. The sitting room is busy with the evening-visitors
7. my uncle’s family, the neighbors, and friends
8. whom dad invited from the city
9. A big fire-place, constructed of red brick, occupies the main area
10. The fire flames are sparkling in the room adding warmth to the temperature generated by the central heating system
11. The visitors spread out: a group around a table where people played cards
12. and a group sat in front of the T.V. watching a Lebanese program
13. And from time to time the cheering of the players
14. or the T.V. watchers’ comments were heard
15. We, the children, sat around my grandmother in one of the corners
16. We sat on the floor furnished with carpet and animals’ skin
17. She covered herself with her woollen blanket
18. She put her back against a cushion
19. and she started telling us old stories
20. She told us how the old winter evenings used to be spent the days when no T.V. and no central heating existed
21. And she told us how they used coal for heating and oil lamps for light
22. Then, Grandma would sigh and say: "Good olden days..." 
23. And then she would go around offering us roasted chestnuts, raisins, and nuts
24. The stories were many, one after another
25. until my grandma got sleepy
26. and my father noticed that
27. so he waved from a distance
28. that it was time for children to go to bed
29. So, we went to the bedroom
30. the one next to the sitting-room
31. We did not fall asleep quickly
32. we were amused to follow up the voices of the people and their laughs
33. and we were still thinking about my grandma’s old stories...
34. while the snow on the mountain house was getting thicker and thicker, like a coat
Ferdinand was sitting under the tree, What’s the name of the tree? (cork) to sit and he will smell the flowers and he don’t like the fighting. He only sat under the tree and smelling and then the five men came. They see his friends, Ferdinand’s friends and they thought F (the name of the bull) he was a stronger bull so they took him and they put him a picture or he draw him and when they pick the picture they put the picture on he wall and the people start to see the picture and say and they said WOW, what is the stronger bull! They said; the people I will go and we will go also so let’s go now. They go and see F (Ferdinand) and they put on their heads flowers. all the womens, they start to put; in the end F saw the womens and he just sat and smell and the five mens they come and they start to fight with him and he don’t mind, and he sit and smell the flowers, he don’t fight with them, with the mens. So he start to smell and smell and smell and then, the mens don’t fight with him and the mens take Ferdinand and he take them to his house and then they choose another one. When they choose, they take him to the bull-fighting. They take him to the bull and he start to fighting and to fighting and also they he see the womens and they also sat and smelled the flowers because the flowers have a nice smelling. It finish.

Q: Why did they choose Ferdinand?
A: Because they thought him he was strong.

Q: Why?
A: Because he was jumping and, because the bee (stung) him.

Q: What about his friends?
A: They start to fighting and fighting and fighting. They also, when they saw the mens, they start to smell and smell because the flowers have a good smell and ??? smell, and they also take him home and they don’t choose another one.
APPENDIX M

Pre-Text Questions

1. Do you know anything about Spain, anything special?
   a. A: No.
   Q: Have you heard of bull fighting?
   b. A: Yes, bull fighting.
   Q: What is it about? Who is involved?

2. Show the picture of the bull with the bull-fighter (Matador) in the ring.
   Q: How would you describe the bull? (big, fast, rough...)
   Q: Since he is big, rough, and fierce, what do you think he would do? (jump, snort, puff, butt, charge ...)

3. Discuss the "bull-fight" using the picture cards:
   Persons: men who choose the bull
   banderilleros: use long sharp pins with ribbons
   picadores: ride horses, use long spears
   matador: uses red cape and sword
   audience: men and women cheer

4. Do you think a bull would like to be chosen to go to a bull-fight?

5. Shall we read a story about a bull called 'Ferdinand' who is different from any other bull? (Show pictures)
APPENDIX N

Post-Text Procedure

1. Read the story (without pictures) starting with the title.

2. Ask the child to draw a cover picture.

Discuss:

3. Where does bull fighting take place, in which country?

4. Why do they do it? What is the point?

5. Who is involved in a bull-fight? (Show the picture of the bull and the bull-fighter—Matador; picture cards and word cards of: banderilleros, picadores, and matador.

6. How would you describe the bull? (big, fast, rough ...)

7. Since he is big, rough, and fierce, what do you think he would do? (jump, snort, puff, butt, charge ...)

8. Do you think a bull would like to be chosen to go to a bull-fight? What about Ferdinand? Did he like to be chosen for the bull-fight?
Occurrence of Individual and Group
Episodes of The Story of Ferdinand in Percentages

APPENDIX O

"Little Bulls" Episode
"Mother" Episode
"Growing Up Bulls" Episode
"Choosing" Episode
"Bee" Episode
"Taking Ferdinand" Episode
"Bull Fighting" Episode
APPENDIX P

Retelling of Pre-Group Child at A.C.S.

Once upon a time, there was a bull named Ferdinand. He didn’t like to fight. He liked to sit under his favourite tree and smell the flowers quietly. Then when years passed by, Ferdinand grew and be strong. He still didn’t like to fight. The next day, he went to sit under his favourite tree, he sit in a shady place, he sat on a bumble bee. Then he jumped and --- but his head and jumped very fiercely and then the 5 man saw him and ran. They saw that and that he was the strongest bull of all. They had. There were flags and pictures and flowers in the ladies’ hair. They made a parade and they had a lot and they came all then the bull came out came to the middle, he saw the flowers in the ladies’ hair. He sat down quietly and smelled so all of the men got mad and the man who was going to fight the bull was very mad and he cried and they took Ferdinand home then he went to his favourite tree and sat down quietly and smelled the flowers.

Q. Can you tell me about the man? (the 5 man)
A. Yes. The 5 man took Ferdinand home. --- (and the ones to fight Ferdinand). They were mad and the one that wants to fight the bull, he got very mad and started to cry (what did they have?). They have the ----. The one that has to fight the bull had a cape and a sword and one of them had sharp pins and ribbons and another one had long spears.

Q. What do you think about his mother?
A. His mother was very worried (mm?) and that’s all.

Q. What about the bee?
A. The bee? (mm) The bee stinked Ferdinand when he sat on the flower and the bumble bee making honey.
There was a little bull called Fred. He sat under a tree, a cork tree I mean, and smelled the flowers and sat down quietly but he did not bang his head with the other bulls. His mother came and said: "Why don't you come and bang your head with the other horses - with the other bulls I mean." But Ferdinand just shook his head and so he did not. He smelled the flowers and sat quietly. The next some men came to take the fattest and biggest bull. They saw all the bulls and Fredrick didn't care if he didn't, if they didn't choose him. He just sat under the tree and smelled the flowers. But he did not realize he was going to sit on a bumble bee. So he sat on it and it pinched him and he started yelling and then the men heard him and came running. They said: "That is the biggest and fattest bull that can go." So they took the bull and put him in the carriage and left. And then all, and then all the people who were gonna fight with the bull were out and then the bull, and hen I mean Fredrick came out and nobody wanted to fight with them. They were all scared so Fredrick just came out with the middle of the what is called? (ring) yes and just they wanted to fight, Fredrick did not want to fight with them because he saw the flowers on the pretty ladies and he just sat down quietly and all the people were angry so they took Fredrick back home and he sat under his favorite tree again and he was happy.

Q. You said "... they took the bull and put him in the carriage and left...", where did they go?
A. They went to the __ I don't know how to say it.

Q. Can you describe it?
A. They went to a place where the bulls have to fight with the men.

Q. And what do the men have?
A. They have swords and they have long ___ long (um?) long weapons __ (Anything else?) and one of them that had the sword had a red cape.
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