CHAPTER II

READING: THEORIES AND APPROACHES

Formal schooling is inescapably bound up with literacy, and ever since foreign languages have been taught reading has been an essential part of the process (Kelly, 1969: Chapter 5). However, conscious research into the process of reading is just a little more than a hundred years old. In fact, it was in the year 1879 that Emile Javal published his first paper on eye-movement and James McKeen Cattell's still-cited paper on seeing and naming letters versus words was published in 1886.

There are many reasons for the comparative neglect of this important area of language teaching. The situation is partly accounted for by the view commonly held for a long time: "reading is what reading is and everybody knows that" which usually translates to "reading is matching sounds to letters." It is also the result of the fact that a methodology of teaching reading in a foreign language is dependent on a number of areas of study which are not directly involved with the teaching situation at all: reading occupies an undefined position midway between linguistic and cognitive studies (Brumfit, 1977: 173). Moreover, research into the nature of the reading process is, as Candlin rightly observes (Candlin 1983), "research
into the unobservable": reading is essentially a silent, private activity and one cannot directly observe what goes on in the reader's mind while he is reading a text.

Even though the process of reading is elusive, attempts have been made, in the history of research in reading, to find techniques to investigate the process of reading. Prominent among these are eye movement studies, miscue analysis, and, in recent years, interviews, thinking aloud and introspective/retrospective research techniques and conversational/talk-back sessions with the reader. As Alderson and Urquhart (1984: xix) point out, the value of concentrating on process in research and teaching is that if processes can be characterized, they may contain elements that are general across different texts, that learners can learn in order to improve their reading.

The basic rationale behind attempts to describe process is that an understanding should lead to the possibility of distinguishing the processing of successful and unsuccessful readers. This in turn should lead to the possibility of teaching the strategies, or process components, of successful readers to unsuccessful ones, or at least making the latter aware of the existence of other strategies, which they might then wish to try for themselves.

(Alderson & Urquhart, 1984: xix)
Research into the process of reading started about a hundred years ago, but, surprisingly, no serious attempts seem to have been made until the 1950s at building explicit models of the reading process. This does not mean, as Samuels and Kamil (1984/1988:22) rightly observe, that early reading researchers were not concerned about all aspects of the reading process or that there were no scholarly pieces from which a model could be deduced. It is perhaps more accurate to speculate that until the mid-1950s and the 1960s, there simply was no strong tradition of attempting to conceptualize knowledge and theory about the reading process in the form of explicit reading models.

During the 1960s and early 1970s, a number of scholars developed more or less formal models of the reading process. It is not within the scope of this study to describe and comment on all these various models here, but we will look at some of these, particularly those which have had significant bearing on the growth and development of reading research, with a view to understanding some current theories about the nature of reading.

Carroll (1964) provides a definition of reading along with a simple one-way flow diagram from visual stimulus to an oral language recoding to meaning responses.

Kenneth S. Goodman also has worked out a model of
reading over several years (1965, 1966, 1967/76) and came up with a formal statement of the model's components and stages (1970) complete with a flow diagram. Goodman's model consists of three "proficiency levels" which correspond to skills levels of the readers. At the highest level of proficiency, Goodman claims that the focus is on meaning, decoding automatic, and reading is structured by oral language.

Goodman views oral language as the basis for meaning in reading and, therefore, he contends that errors in reading can almost always be interpreted as 'miscues' rather than mistakes.

Goodman's model (1968) has been interpreted as a strict "top down" process in which there is virtually no cue usage from the graphic input. Samuels and Kamil (1988:23), however, view it both as a "top down" and a "bottom up" process. They argue that the most distinctive characteristic of the model is its procedural preference for allowing the reading to rely on existing syntactic and semantic knowledge structures, so that reliance on the graphic display and existing knowledge about the sounds associated with graphemes can be minimized. But this is not to say, they point out, that his model does not allow for a reader to go from symbol to sound to meaning--such mediation will not occur in predictable situations. It is more
accurate to assert, they contend, that his model always prefers the cognitive economy of reliance on well-developed linguistic (syntactic and semantic) rather than graphic information.

Smith (1971) has also described reading as a psycholinguistic process. He rejects the notion that reading is decoding of printed words to spoken language. He believes that comprehension must precede the identification of individual words. As an example of the phenomenon, he uses the following sentence:

We should read the minute print on the permit.

Neither of the underlined words, he argues, can be articulated until they have been understood in the context. He explains that we have acquired information from an average of four to five words ahead of and behind the actual words which we are reading. Like Goodman, his account of reading exhibits a procedural preference for reliance on language factors instead of graphic information. He states: "The more that is known behind the eyeball the less that is required to identify a letter, word, or meaning from the text." Conversely, when the material is more unfamiliar and the language is more complex, the reader will rely heavily upon the visual stimuli of the passage. Thus, like Goodman, he is careful to distinguish between mediated (through
Trabasso (1972) defines comprehension as:

...a set of psychological processes consisting of a series of mental operations which process linguistic information from its receipt until an overt decision.

According to Trabasso, two main operations are involved:
(1) encoding the information into internal representations, and
(2) comparing these representations.

Trabasso's definition clearly presents a stage theory which assumes that the sequence of information processing on the part of the reader is not instant. The time taken to process the information can be predicted since it depends on the number of encoding, matching, and recoding operations required of the reader.

Gough (1972) proposed a serial model with a set of linear, independent stages of processing. He suggests that reading proceeds letter-by-letter to word formation and phonemic representations. Lexical meanings are grouped into sentential units and interpreted by the individual's processing mechanism of syntactic and semantic information. He assumes that all letters in the visual field must be accounted for individually by the reader prior to the assignment of meaning. He rejects the notion of "top down"
processing. He does not believe that readers use any guessing strategies to facilitate reading. Samuels and Kamil (1988:22) point out that with the publication of Gough's (1972) model of reading, the impact of the information processing approach to studying mental processes is seen within the reading field.

LaBerge and Samuels' (1974) is one of the first models to use automaticity. Automaticity theory assumes that -

1. reading is divided into two general skills: decoding and comprehension;
2. attention is required to perform either of these skills;
3. only a fixed amount of attention is available during processing.

In this model the authors maintain that until decoding is 'automated', comprehension suffers and that extra attention can be diverted to comprehension only when decoding is mastered. They also believe that there are three stages to reading:

1. visual feature detectors and recognizers,
2. phonological interpreters, and
3. semantic interpreters.

Units are processed individually or in groups in each of these stages. It, thus, is a "bottom up" model which
assumes that all reading must begin with a visual input and end with a semantic interpretation.

Another important model of the seventies is that of Rumelhart which was published in 1976. It is based on what he calls interactive stages. The representation is given in Figure I.

This model is important in that it provides for both top-down and bottom-up processing. The theory predicts that a reader begins with graphemic input to guide the extraction of meaning. The reader can assume features and proceed with meaning first and then move to verification of features and word patterns. As can be seen from the model, information from syntactic, semantic, lexical and orthographic knowledge sources converge upon the pattern synthesizer. These knowledge sources are providing input simultaneously and a mechanism has been provided which can accept these sources of information, hold the information and redirect the information as needed. The mechanism which can accomplish these tasks is the message centre.

By means of separate knowledge sources and a message centre which permits these sources to communicate and interact with others, the higher-order stages are able to influence the processing of lower-order stages. This model, thus, tries to accommodate the occurrences known to take
place while reading which linear models have difficulty accommodating. Samuels and Kamil (1988: 24) state that the appearance of LaBerge and Samuels's (1974) model emphasizing automaticity of component processes and Rumelhart's interactive model (1977) emphasizing flexible processing and multiple information sources, depending upon contextual circumstances, provided convincing evidence that the information processing perspective was here to stay within the reading field.

Stanovich (1980) has provided an interesting variation of Rumelhart's model in his interactive-compensatory model of reading. According to Stanovich both earlier bottom-up reading models and the top-down models have problems. An important shortcoming of the bottom-up models is lack of feedback, in that no mechanism is provided to allow for processing stages which occur later in the system to influence processing which occurs earlier in the system. Because of this lack of feedback these models cannot account for sentence-context effects and the role of prior knowledge of text topic as facilitating variables in word recognition and comprehension. Similarly, one of the problems for the top-down model is that for many texts, the reader has little knowledge of the topic and cannot generate predictions. A more serious problem, he continues, is that even if a skilled reader can generate predictions, the
amount of time necessary to generate a prediction may be greater than the amount of time the skilled reader needs simply to recognize the words. In other words, for the sake of efficiency, it is easier for a skilled reader to simply recognize words in a text than to try to generate predictions.

In his model Stanovich integrates concepts from a variety of sources. He has attempted to incorporate what is known about skilled and unskilled reading into the interactive-compensatory model. A key concept is that "a process at any level can compensate for deficiencies at any other level" (1980: 36). Stanovich states:

Interactive models... assume that a pattern is synthesized based on information provided simultaneously from several knowledge sources. The compensatory assumption states that a deficit in any knowledge results in a heavier reliance on other knowledge sources, regardless of their level in the processing hierarchy.

(Stanovich, 1980:63)

It is clear from the above account that there are many theories which have been generated in an attempt to provide insights into reading processes and that there is no one opinion about the processes involved in comprehending written discourse. However, from these theories of reading processes we can see the growth and development of reading research through three stages: (1) reading as decoding (a
bottom-up process); (2) reading as a top-down process; and (3) reading as an interactive-compensatory process.

Let us now see by discussing the historical development of several educators' understanding of comprehension processes how reading-teaching has been practised in foreign language classrooms.

Different people have used the term 'reading' in different ways. There are at least three different ways in which this word has been used: (a) identify, decipher, decode; (b) articulate, speak, pronounce; and (c) understand, interpret, getting meaning, making sense. Those who mean (a) above mean to include the first thing about all reading: namely that unless the learner can correctly recognize the words he meets in print, he cannot even begin to read. And there is no doubt that in a great many second language classrooms the reading text is used as an opportunity to teach pronunciation and fluency in speech with proper stress, tone and intonation. This practice of teaching learners to decipher and identify words and of reading aloud is of course an important aid for beginners. Early work in second language reading, specifically in reading in English as a second language, confined itself to these views of reading. In the words of Carroll (1988: 2), it
assumed a rather passive, bottom-up, view of second language reading; that is, it was viewed primarily as a decoding process of reconstructing the author's intended meaning via recognizing the printed letters and words, and building up a meaning for a text from the smallest textual units at the 'bottom' (letters and words) to larger and larger units at the 'top' (phrases, clauses, inter-sentential linkages). Problems of second language reading and reading comprehension were viewed as being essentially decoding problems, deriving meaning from print.

It is not surprising when one considers historical appraisal of the nature of reading process that the major research efforts in the reading field have usually been expended in the area of word identification skills and the visual and auditory subskills upon which they draw. The 'read skills' have received far more attention than any of the other skills in the reading process both from teachers and researchers. This was no doubt a reflection of the attitudes towards reading in the past when reading was viewed merely as the ability to recognize printed words.

Reading and writing, it was assumed, are forms of communication, as is gesture, but, unlike gesture, they are both entirely based on spoken language. "Written expressions are partial representations of the spoken forms," said Lado (1964:132) and that "writing does not represent meanings or ideas directly; it represents language units." Writing, it was assumed, is the process of
presenting speech in a more permanent visual form. It was therefore apparent that an understanding of the form of a communication system where a written code mediates between an author and a reader is crucial for an appreciation of the process of reading comprehension. How does a reader reconstruct the meanings which an author seeks to communicate through a written code? The answer was simple: since writing is talk written down reading can be looked upon as the reverse of this process, namely turning the collection of symbols seen upon a piece of paper into 'talk', or, in the case of silent reading, into an image of speech sounds. "To read is to grasp language patterns from their written representations", said Lado (1964:132). This in English means gaining an ability to read from left to right and from top to bottom of the page, the recognition of letter symbols and their grouping into words.

Since learning to speak precedes learning to read, it was assumed that young children had attained a certain language competence through listening and talking which would transfer readily to the reading situation. Indeed, even in a second language teaching situation such a competence was regarded as a necessary prerequisite for reading instruction. It was also assumed that meaning came automatically with decoding. Because the child 'has language' the meaning is there, and can be transferred
directly as the reader produces a phonetic transcription of a text (Callaway, 1970).

The concept of reading that has guided teaching practice in the past, as W.S. Gray (1956: 61) rightly points out, has been a dynamic one. It has frequently changed as research has made the nature of the reading act clearer. Before 1900, the principal aim in teaching reading was word recognition. The teaching of reading meant enabling the learner to decode the printed word; what has also been called, matching symbols with sounds or translating print to speech. It was assumed that reading was primarily a perceptual act. As it was a test of the accuracy of word recognition, oral reading was used almost exclusively in class.

It was believed that visual perception, auditory perception, ability to copy visual designs, and ability to discriminate between letters of the alphabet were some of the skills needed for reading. Reading problems were attributed to inefficient decoding which usually meant that the learner had either not reached the stage of independent and accurate decoding or that the learner, though accurate, was a slow decoder.

The eye-movement studies were applied to the teaching of English sometime around 1900. During the later part of
the nineteenth century and the early years of the twentieth, reading research was concerned mainly with investigations of the perceptions of letters and words when exposed to view very briefly. Experiments showed that increasingly large amounts of printed matter were recognized at each brief exposure depending upon the familiarity of the material presented. The eye-movement studies thus challenged the validity of a widely held view that reading proceeds by letters. As a result it was concluded that reading is by letters, words or group of words, or phrases according to familiarity with the material, its difficulty, and the skill of the reader.

As Gray (1956:45) points out these findings not only invalidated the earlier views, namely that reading proceeds by letters and that the eyes move continuously along the lines, they led to the development of a new concept of reading. The good reader, it was pointed out, is intent on meaning of what is read, at each pause he recognizes words, or groups of words, as wholes—that is, by their general form and striking features—and he proceeds as rapidly along the lines as he can grasp their meaning. When the reader meets new and unfamiliar words, however, he must attend to their details. As he becomes more and more familiar with such words, fewer and fewer clues are needed to ensure the recognition of both their pronunciation and meaning.
This new concept of reading cast doubt on the validity of teaching methods which focused attention on skill in word recognition.

It was thought that frequent eye fixations and frequent eye regressions were signs of poor reading and that the learner resorted to these because the words had not been mastered well enough to be recognised instantly in units of two or three. It was believed that if a learner focused on each word many times it was often due to lack of systematic training in reading and inadequate emphasis on the skills of word recognition. Hence perceiving words and grasping meanings were considered essential skills for reading.

However, comprehension, as the term was used, provided merely for a grasp of meaning in the form in which it was presented. It did not include reader's reaction to the facts or view apprehended. Obviously, comprehension problems were attributed to language difficulties.

That beginning reading, that is, learning to read, has received the lion's share of attention in the reading research is reflected in the fact that for well over a century, there has been discussion concerning appropriate strategies for initial reading instruction.
All beginning reading instruction is concerned with the teaching of decoding. There is consensus among professionals associated with reading that many factors come into play in this process of decoding print to speech. Predominant among these factors are two types of clue that can help unlock the print-to-speech code:

1. clues that come from outside the particular word that is being decoded such as the syntactic and semantic clues that surround the word: picture clues, etc.,

2. phonological clues within the word that come from knowing expressly that letter-sound relationships do exist and can be employed specifically to unlock the code.

A number of methods of teaching decoding have been proposed. One can find reference to a variety of instructional approaches in the reading literature virtually all of which have modern counterparts as, for example, whole word approach, language experience approach, linguistic approach and phonic approach. Chall (1967) has proposed two general families of these instructional approaches: (1) meaning-emphasis methods, and (2) code-emphasis methods.

Proponents of various meaning-emphasis approaches stress the communication aspects of reading from the beginning of instruction. They believe that initial reading instruction should be arranged to put the learner into a position where he emulates skilled reading performance as
closely as possible. It follows, then, in the meaning-emphasis approaches that, since skilled readers process units such as words and sentences, so should beginning readers, even if they can manage only a few words and sentences.

A code-emphasis in early reading assumes that the fundamental task of initial reading is to learn the structural relationships between written and spoken language. Proponents of various code-emphasis approaches do not see initial instruction as concerned primarily with arranging conditions for the beginning reader to behave as a "miniature skilled reader".

In practice, the whole-word and language experience methods fall under the label of meaning-emphasis approach and the phonic and linguistic methods fall under code-emphasis.

The whole-word approach came into being in the 1920s. The famous 'look-say' method is an example of this method. This method produced good results with far less agony to learners who were hitherto subjected to arduous and often monotonous drills under the phonic method--drills on letter-sounds, their synthesis into often meaningless syllables, and the recitation of rules of pronunciation. By the 1930s, the whole-word method prevailed and continued virtually
unchallenged until the 1950s when it received challenges from two quarters—the academic world and the public sector.

The academic attack was launched by linguists who revived the notions Bloomfield (1942) had discussed several decades earlier. They argued that the whole-word approach as exemplified in the basal readers of the period made it difficult for the child to discover the structural relationship between written and spoken language. That is, since the words for the basal readers were chosen for their frequency in the language and their meaningfulness to the young child, they were not of the sort that displayed the regularity of the written code. Hence, the task of learning to read was made unnecessarily difficult. They urged that instructional materials be arranged to expose beginning readers to words that maximize the regularities of print-to-sound mapping (e.g. man, pen, etc.) rather than to those that exacerbate the irregularities (e.g. come, hot, stove, coat, etc.).

In practice, however, despite the variety of word methods, experience methods, sentence methods, and phonic methods that surfaced in the literature from time to time, phonics was the prevalent method of beginning reading instruction through the early decades of this century.

Whether initial decoding is taught through whole-word approach or through direct grapheme-phoneme knowledge, it was agreed by nearly all, that it must be developed to the point where it becomes automatic. The word 'automatic' is used to describe a skill that can be carried out without receiving overt attention. The need for automaticity is based on the theoretical position that a limited capacity processor cannot attend to many things at once without hindering at least some of its processing activities (Kiss and Savage, 1977). If attention is more than occasionally focussed on getting through the words during reading, too much processing capacity will be taken up with decoding and that will interfere with the higher level components of the reading process, that is constructing meaning. There is evidence that comprehension of texts that are read too slowly will be weak. Studies by LaBerge and Samuels (1974) and Perfetti (1976) indicated that slow word recognition is related to poor sentence processing.

There were reactions against this narrow view of reading comprehension. In the Second Report of the National
Committee on Reading (1937) W. S. Gray wrote that a broader view of the nature of reading is that it involves the recognition of the important elements of meaning in their essential relations, including accuracy and thoroughness in comprehension. This definition, while implying a thorough mastery of word-recognition, attaches major importance to thought getting.

In the course of time, a much broader concept of reading emerged. According to Gray (1956:75) it resulted from two important developments. After 1900, great social changes occurred in different parts of the world, and the need for reading and for greater ability to understand and enjoy what was read became increasingly apparent. At the same time, research showed that silent reading was much faster and more effective than oral reading. Gray (op. cit.: 76) hails it as the most important discovery in reading in recent times.

It was now agreed that an efficient, accomplished reader would reveal flexibility and versatility in his reading programme. He would have the ability to adjust his rate of reading according to his purposes, to the nature and type of material, and in accord with his own background of experience: some materials may be scanned, or skimmed; yet, for material demanding reflective thought, the proficient reader would shift his reading gears.
Researchers now blamed vocalization, mind-wandering and language difficulty for slowness in reading. There were many reasons, it was said, why some readers failed to reach their maximum flexibility. Many readers did not completely eliminate vocalization; that is, they still moved their lips, saying the words either sub-vocally or mentally.

Many slow readers, it was said, were guilty of mind-wandering. This happened when the individual's rate of reading is slower than the rate of thinking: the process of assimilating ideas from print is so slow that the attention wanders. It was also believed that unfamiliar or difficult vocabulary may also curtail speed of reading.

Accordingly methods and materials for teaching reading were adapted to achieve this new concept of reading comprehension process.

The major objectives of reading instruction during the sixties seem to have been mastery of word pronunciation and fluency of oral reading and these were sought to be given in progressive stages through regular practice. According to Lado (1964:137) "Reading is grasping the language patterns from their written representations quickly without analysis of what symbols represent what sounds. This is a skill that comes through habit." Wilga
Rivers (1968:215) voices almost the same view: "Reading with direct comprehension and with fluency is a skill which must be taught in progressive stages, and practised regularly with carefully graded materials." Both firmly believe that the first step to fluent reading is the oral mastery of language forms which the student subsequently learns to recognize in the printed script.

Lado (op.cit.: 134ff) divides the reading task into eight parts as follows:

1. Pre-reading: identifying the graphemes
2. Fit: associating the graphemes and the language
3. Habit: reading what is spoken
4. Reading aloud: speaking what is written
5. Reading for information: technical, cultural, recreational
6. Diversification: reading different styles of graphemes and of language
7. Reading Power: vocabulary building and speed
8. Literature: esthetic experience.

Wilga Rivers (op.cit.: 215 ff) lays down six developmental stages. According to her these stages must be gone through in succession as jumping will lead to regression rather than to accelerated progress.
How to achieve this dual objective of accurate and independent decoding and fluency of oral reading? The answer in this age dominated by the behaviourist theory of learning was, of course, 'practice'; one must simply read more. "Eventually, more reading will be necessary than can be done in class," observes Lado (op.cit.: 139). He suggests properly selected and graded material for supervised reading as well as independent reading outside the classroom. Wilga Rivers (1968:224), too, advocates two track materials (textbook for reading with the help of the teacher in the class and supplementary readers for independent reading outside the class) to achieve this dual objective of teaching accuracy and fluency. According to her reading activities can be classed as (1) intensive, and (2) extensive. Intensive reading is for language learning under teacher's guidance and its primary aim is extension of vocabulary and elucidation of difficulties of structure. Extensive reading is for fluency and hence supplementary readers are meant for silent personal reading outside the class.

There can also be seen a concern about the type of material to be selected. Researchers advocated a variety of material which is of real interest and suitable for the learner's age level; material which is within the range of vocabulary and structures already learnt orally, which
introduces unfamiliar vocabulary gradually and provides for its repetition. Such supplementary reading material must be easier than intensive material as the aim is to teach fluent reading.

The characteristic intensive reading exercise consists of a short passage which was used as a basis for activity to promote accurate reading. The reading passage was followed by reading comprehension questions which were designed to check understanding and, as Munby (1968) rightly says, it is difficult to say whether classroom procedures were intended to facilitate or to check comprehension. It was assumed that reading ability would develop naturally if the activity was insisted on and that the main role of the reading passage was to provide exposure to language (Lockett, 1972). The passage was exploited for introducing new vocabulary or for reinforcing syntax.

The teacher's role was seen as providing a model, acting as a tester and to ensure that extensive reading outside the classroom was done.

In methodological terms, there have been, to quote Brumfit (1977:175), "two main responses to reading problem. One, a predominantly American tradition, has been to break down the reading process, even when the goal has been
fluency, and teach on the basis of a detailed analysis of types of reading skills." Lado (op.cit.:140), for example, advocates what he calls 'diversification'. He argues that just as speaking style changes according to situation, purpose and persons involved, so reading varies according to subject, readers and purposes. Hence diversification of reading is necessary: viz. learning to skim, to read quickly for specific facts, or to read critically. This tradition, to cite Brumfit again, has tended to concentrate on the production of appropriate muscular habits and has borne fruit in many faster reading and reading development courses such as the one developed by Edward Fry (Fry, 1963).

The alternative tradition has concentrated on cognitive and affective aspects of the reading process, with an emphasis on classroom activity and discussion.

There was recognition of the importance of background knowledge and in particular of the role of socio-cultural meaning in second language reading comprehension. According to Fries (1963), a failure to relate the linguistic meaning of a reading passage to cultural factors would result in something less than total comprehension. Wilga Rivers (1968) also recognised that the strong bond between culture and language had to be maintained for a non-native reader to have a complete understanding of the meaning of a text.
Researchers began to regard reading as a form of experience, like hearing or seeing, as well as a form of learning. Most reading, it was believed, has at least three levels of meanings: the literal meaning, related meaning, and implied meaning. The literal meaning of a passage answers the question: 'What does the passage say?' But a good reader understands not only the literal meaning of a passage but its related meaning as well which includes all the reader knows that enriches or illuminates the literal meaning. He also seeks its implied meaning, that is, ideas that are not expressly stated but may be implicit. The Yearbook Committee asserts that any conception of reading that fails to include reflection, critical evaluation and the clarification of meaning is inadequate (Quoted in Moyle, 1968:25). R.Morris (1963) has termed this 'responsive' reading, in that the reader is called upon to make an active mental response to the content of the passage read. The reader is called upon not only to understand the message of the author but to reflect upon it, assess its value by comparison with previously learned concepts and finally to reach out in imagination to new realms as a result of the stimulus of the text. Fries (1963), however, dismisses these supposed higher levels of reading as being items which are separate from the reading process for comprehension, evaluation, imagination and creativity can equally well be practised upon the spoken word. As such, he maintains
that they are not unique to the reading process and therefore not part of it. Fries sees reading basically, though not entirely, as a matter of learning the skill of responding to the visual symbols of our language in a speedy and automatic fashion and converting these perceptions into language within our mental processes. In spite of these views, it became apparent that for effective reading the reader has not only to recognize words and grasp the ideas presented, but also to reflect on their significance, relate them and see their implications. It is equally important for him to comprehend the value and significance of the content. Finally, if reading is to help him solve problems or direct his own activities, he must learn to apply the ideas acquired.

Talking of the processes carried out by the reader, Peter Strevens (1977:112) deems it necessary to distinguish between two different kinds of process. The first, which he calls *deciphering*, is visual in nature: the second, which he calls *decoding*, is semantic in nature. He describes the two processes as follows:

a. Deciphering: this is a form of pattern-recognition. The reader learns to distinguish writing from other kinds of pattern, learns the letter-shapes, becomes accustomed to the direction of writing, finds beginnings and ends, identifies words, sentences, paragraphs, learns to adjust the rate of eye-scan to the rate of comprehension, and also learns how to refer back—or forward—to resolve ambiguity or doubt.
b. Decoding: this is part of the total process of comprehension. It entails linking the flow of deciphered information to the reader's knowledge of the language—its grammar, vocabulary, semantics, pronunciation—and of the culture. The reader has to bring together vision, hearing, memory and imagination in order to discover the meaning, interpret it, and perhaps put it into action; and finally, the language he has read is assimilated into his total experience, thereby affecting in some degree all his subsequent reading.

However, as Carrell (1988:2) remarks, despite the acknowledged importance of the role of background knowledge and, in particular, culture-specific knowledge (what today we call 'schemata'), these concepts played no real role in early theories of second language reading, and the methodological and instructional focus remained on decoding, or bottom-up processing.