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**What Do EFL Learners Do with a
text: The Reading Styles and
Strategies Used by First Year
University Students of English.**

Dissertation submitted to the Department of English, University of Algiers, in
candidacy for the degree of Magister in linguistics.

Presented by :

Mrs.Silhadi Lynda

Supervised by

Dr Khaldi Kamel

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University of Algiers
Faculty of Letters and Languages
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Board of examiners:

President: Prof. Miliani, M.

Examiner: Prof. Cherchalli, S.

Supervisor: Dr. Khaldi, K.

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Declaration

I hereby declare that the substance of this dissertation is entirely the result of my own investigation and that due reference or acknowledgement is made, whenever necessary, to the work of other researchers.

Mrs.Silhadi Lynda

Dedication

To the dearest persons in my life:

My husband Mohamed and my son Zizou

My Aunt Zina

My parents in-law Fatima and Med Zine

My parents Hamid and Ouiza

And to my brother Samir and all my brothers and sisters-law.

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Abstract

The present research aims at investigating EFL learners' reading styles and strategies. More precisely we compare 'successful' and 'less' successful' readers in terms of the use of some particular styles (receptive and reflective) and strategies (pre-, in- and post-reading strategies) of reading. Twenty English students enrolled in the English Department of the University of Algiers participated in this study at the end of their first year. We could classify the subjects into degrees of successfulness: successful, average and less successful readers according to their scores on two academic tests in Reading.

Our particular interest in comparing EFL learners in their use of certain strategies was triggered by the divergent views about the differences between the 'successful' and 'less successful' readers. One view considers that 'good' readers use certain 'successful' strategies (mainly the top-down ones) that the 'less successful' readers are not even aware of (Hosenfeld, 1977); 'less successful' readers are seen to rely more on language decoding (a bottom-up strategy). Another view does not consider that strategy awareness distinguishes between these so-called 'successful' and 'less successful' readers because what makes the difference between the two is the effective or ineffective way in using the reading strategies (Carrell, 1998).

On the basis of these views, we developed an experiment which consisted in giving the subjects three short texts to read and then answer comprehension questions on each of them. Four techniques were used for the investigation: Text Marking, Questionnaire, Observation and Oral Interview. The results showed

that no significant statistical difference existed among the subjects in terms of reading styles and strategies. In fact, most subjects seemed to adopt an interactive approach for reading the texts, though they probably were more reflective and used more strategies when they encountered difficulties in the text and more receptive using less strategies when reading a text they found easy. However, more and less successful readers could be distinguished in their way of using some strategies in addition to their background knowledge in vocabulary .

These findings help us conclude that there can be no ‘good’ or ‘bad’ strategy but only an effective or ineffective use of it. On the basis of this, strategy training should be more concerned with the ‘how’ and ‘where’ to use a strategy. In addition, learners should work at increasing their vocabulary to facilitate reading.

Introduction

« Reading is private. It is a mental or cognitive process which involves a reader in trying to follow and respond to a message from a writer who is distant in space and time. Because of this privacy, the process of reading and responding to a writer is not directly observable »

(F. Davies, 1995: 1)

Knowledge of what goes on in the mind during the processing of written information has taken researchers many decades of speculation and experimentation and still no attempt under the form of models and theories has won general acceptance among researchers and practitioners. In addition, people read for a wide variety of purposes, thus making any global definition of reading can be difficult, if not impossible. In fact, Alderson and Urquhart (1984) state that the only certain element in a definition of reading is that there is a reader, a writer and a text. Widowson (1979) describes reading as "the process of getting linguistic information via print" but Alderson and Urquhart (ibid) point out that this is not as simple as it seems. And Davies (1995) defines it as "a mental or cognitive process which involves a reader in trying to follow and respond to a message from a writer who is distant in space and time"

A model of reading is defined by Davies (1995) as:

" A formalised, usually visually represented theory of what goes on in the eyes and the mind when readers are comprehending a text." (Davies, 1995: 57)

In an attempt to give a model of the reading processes, three basic types of models have emerged : bottom-up, top-down, and interactive models. We can place the top-down and bottom-up models on a top-down / bottom-up continuum. In chapter I, an overview shall be given of these three models

in order to give abstract representations of the reading process, and reading strategies to describe what the readers do to cope with specific texts. Reading models and descriptions of reading strategies both serve to describe different aspects of the reading process: reading models describe what a reader does (and in what order) in reading (eye movements, the use of previous knowledge, and so on) whereas reading strategies describe what the reader does in order to achieve the goals of understanding (recognising cognates, choosing what to find out from a text, and so on). Thus models of reading describe the "what a reader does" whereas reading strategies describe "how they do it."

There is a dispute among researchers about whether the term strategy refers to a deliberate and conscious behaviour or it can include a behaviour more or less unconscious. For Cohen (1986) and Pritchard (1990) the term strategy is clearly restricted to conscious actions. By contrast, Barnett (1989) uses this term to include both conscious and unconscious behaviour. Kletzien (1991) defines 'a strategy as a deliberate means of constructing meaning when comprehension is interrupted'. She claims that in the process of reading or natural reading many of the strategies that readers use are unconscious, and that these strategies may become conscious only when the subjects are put in a position where they are required to report on their thought processes or when they encounter difficulties. Hosenfeld (1977) distinguishes between the two terms, 'process' and 'strategy', by considering uninterrupted reading to be the normal reading process and interrupted reading to solve problems as a strategy. And according to Hosenfeld

(ibid) there is no clear cut between the two terms in the EFL reading situation because FL reading is a problem-solving situation. The definition we wish to propose in this study is that ‘a strategy of reading is a mental action used consciously or unconsciously with the intention to facilitate text comprehension’.

The aim of this research is to gain insights into some aspects of the processes involved during reading and this in view of applying the findings to the practical field.

To understand what the EFL reader does with the text, we should consider all the dimensions involved in the task of reading: the reader, the text and the reading process.

A reader reading in his own language holds reading abilities such as recognising the shapes of the letters in his native language alphabet, identifying rapidly word groups, extracting lexical, grammatical, social and cultural meaning from the printed words, recognising certain patterns of arrangement such as paragraph division; in addition, a reader reading in his own language is familiar with punctuation marks and their functions. So, when he comes to read in a foreign language, he would know what the process of reading signifies. However, he may lack linguistic, social and cultural knowledge.

« Unlike the child learning to read in his native language, the student is not recognising symbols for words and expressions with which he already has considerable acquaintance. »

(Rivers, 1968:216)

The student learning to read in a foreign language is faced with the new language and new culture when reading a text. New language and culture may constitute a hindrance to understanding a text. In fact, text easiness or difficulty is an important matter to discuss about the text since they may influence the process of reading. As when we drive, when we are familiar with the road, we can speed up, drive without hesitating about when to stop or when to turn, rely rarely on traffic signals and spare the use of the map. However, when the road is new and difficult, we may slow down, stop to ask somebody for the way, read attentively the traffic signals, turn back to some place, read the map and so on. We can easily make an analogy between what the driver does on a road and what the reader does with a text. The latter may read smoothly without hesitation when the text is easy but will read with 'plodding' through the text when it is difficult. And in order to get out of this difficulty, the reader may use techniques to facilitate reading such as using the title to guess meaning of the text, skipping unimportant words, using the dictionary for the definition of difficult words and so on.

Different models and theories attempt to explain what the EFL learners do with the text. The models describe certain processing sequences such as from letters to sounds, to words, to sentences and finally to meaning and thinking. Gough (1972) called this model 'bottom-up processing'. Another alternative to this process is the top-down model that represents the reading sequence in reverse. Contrary to the bottom-up model, this model includes thinking and meaning at a very early stage, and the processing sequence proceeds from prediction about meaning to attention to progressively smaller units. Another model seeks to account for both bottom-up and top-down processing representing the process of

reading as an interaction of different sources of information as Rumelheart (1984) claimed. In fact, these models are very influential in the development of policies and methods for teaching and they reflect certain approaches to the teaching of reading. For example, phonic-based approaches, in which the sequence of instruction is intended to reflect the assumed sequence of processing: from words to sentences and finally to meaning.

Thus, the teacher comes to the classroom with a pre-established method that reflects any of the theoretical models mentioned above and which prescribes how the learners should read. However, it is very frustrating to see that the teacher may not bother about different reader's difficulties or individual approaches to reading different texts. It is possible that the teacher does not try to develop independent readers outside the classroom by turning the reading in the classroom into an annoying activity and a classroom exercise only. No method would say that the reading process could change from text to text or from reader to reader. In the same way, each teaching method would prescribe ready-made strategies to cope with the text and would not allow the learners themselves choose out of the wide-range strategies those which can be appropriate for them or those which are preferred or able to be used by them; after all there are different routes on a map which can lead to the same point. For example, the bottom-up approach to reading encourages the use of the dictionary with the argument that knowledge of words is an essential step to access meaning of the sentence. On the other hand, the top-down approach to reading considers that it is more strategic to rely on the text to guess meaning of words than on the dictionary which can hinder the general and contextual meaning.

Against such a background about the reader, the text and the reading process in the EFL reading context, we can consider the relationship that holds them together. One can ask about how the EFL reader reads different foreign language texts, i.e, what routes he undertakes to reach the writer's purpose, and what strategies he uses to solve the difficulties he encounters. One can ask also whether there is a relationship between any reading process and understanding. In general terms the whole work aims at finding some aspects of the reading process. In fact, this research is intended to find out:

- 1) the most common reading styles and strategies used by our EFL learners,
- 2) and whether the so-called successful and less successful readers may use the same styles and strategies of reading.

In other terms we aim to know if our EFL learners are more 'local' (reflective) when they read a text, i.e, they try to understand everything in it and use different strategies to solve the difficulties they encounter; or they are more 'global' (receptive) in reading in that they ignore the difficulties and do not interrupt reading because their aim is getting the general meaning of the text. In addition, we want to know to what extent the most common strategies (which we classify into pre-, in- and post-reading strategies) are used by the learners, and whether the 'successful' and 'less successful' readers may use the same reading strategies. In fact, this can inform us about whether the successful reading depends or not on the use of particular strategies. To achieve this goal, we will try

to answer in the present research the following questions:

- 1) Can our EFL learners be shown to belong to any of the following reading styles: reflective and/or receptive style?
- 2) Do EFL learners use some/all the reading strategies acknowledged in the literature ?
- 3) Is there a relationship between the use of (a) particular reading strategy (ies) and (a) specific literary genre(s)?
- 3) Is there a relationship between strategy use and learner's success in the reading task?

These questions are also presented in chapter 2.

In fact, we will discuss the research in more detail later in our work which is divided into: first, a review of literature about the different theories on reading process, and reading problems and strategies. Second, the rationale in which we outline the theoretical tenets that sustain our research, the aim of the study, the research questions and the method of investigation which includes the subjects, the materials and the tools. In the third chapter we present the results of the experiment, their analysis and the conclusions.

Chapter I : Literature Review

This chapter deals with the different models of reading process in the EFL context as they have a direct bearing on the categorisations of reading strategies. In fact, in the research related to EFL reading we find lists of strategies presumed to be essential for ‘good’ reading. So, we shall cover:

- 1) The problems related to the nature of these strategies (bottom-up and top-down strategies) i.e., How far does/can the EFL reader rely on each mode?
- 2) The nature of the difficulties of the EFL readers, i.e., are the difficulties linguistic or conceptual?
- 3) The distinction between the ‘good’ and ‘bad’ reading, i.e., is good reading related to the use of certain ‘successful’ strategies or is it related to the effectiveness of strategy use?

1.1/ The Nature of the Reading Process

There is a long history of attempts to answer the question ‘What goes on in the visual system and the brain during reading?’ through the formulation of models and theories of reading process. The formulated models and theories describe and explain the reading process. Those models and theories were influenced by the prevailing trends in psychology. During the behaviouristic period (60’s), the models described reading as the association of the printed words (stimulus) to the recognition of words (response). Little attempt was made at that time to explain what went on in the mind when making sense of the printed words.

After the mid-1960's and with the emergence of cognitivism, the models attempted to describe the hidden processes of reading giving importance to psychological factors in information processing. The models suggested in 1970's were influenced by both behaviouristic and cognitive models so they were interactive with the later stages (high-level skills) to influence the earlier stages (low-level skills). For example, more letters can be apprehended in a nonsense letter string which conforms to rules of English spelling than in a nonsense letter string which does not conform to English spelling, for example, *Vernalit* as opposed to *Nrveiatl* (Samuels, 1988). Thus knowledge of lexical and orthography contained in a higher order stage can influence the perception of letters which occur in the earlier stages or at lower stages. So, our lexical, syntactic, semantic and contextual knowledge does influence our perception of letters and words.

1.1.1/ Bottom-Up Model of the Reading Process:

Reading is Understanding Print.

« For me a Chinese text contains no information, and neither my best top-down reading strategies nor any amount of background knowledge on its subject will make me a successful reader of that text unless I take the trouble to decode Chinese script » (Eskey, 1988: 96)

This seems fairly logical. A reader reading in his native language never feels the burden of the linguistic elements in a text since s/he is accustomed to them. Things are different, however, when reading in a language whose syntax and vocabulary are new. In fact, a foreign language learner is not a new reader in that s/he already holds concepts of the reading process acquired in the first language. However, the learner encounters a new language, and which is seen as

a hindrance in reading; so it should be logical to say that the key to access meaning in a foreign text is decoding language. According to Eskey (ibid) good readers are good because they know the language: most of the time, they can decode both the lexical and syntactic structures encountered in the text, and for the most part, they do so, not by guessing from context or using prior knowledge, but by the rapid or automatic identification of lexical and syntactic patterns. In fact, it is such 'automaticity' that frees up the minds of fluent readers of a language to think up about and interpret what they are reading.

Gough (1972), a great proponent of this model of reading, characterises FL reading as being rather laborious; it progresses from letters to words to sentences to meaning. Gough based this model on evidence from laboratory studies of adult readers engaged in a letter and word recognition task. In the bottom-up model, the reader is posited to gain understanding of the text by first starting with the characters to identify morphemes which are then added together to make words, and these words are then combined to make sentences, and so on. In short, he proposed that the reader forms an icon which is a 15 to 20 letter and space representation of the visual stimulus of the print, the reader then compares this with stored Pattern Recognition Routines, this icon is then decoded and compared with the reader's Lexicon. After the icon is stored in primary memory, a hypothesised process, "Merlin" applies Syntactic and Semantic Rules to relate this icon to others. Gradually, sentences are decoded then they are stored in the posited PWSGWTAU (the Place Where Sentences Go When They Are Understood). If this process doesn't fail, the reader proceeds with the next group of words.

Alderson, Bastien and Modrazo (1977) in a study about Mexican subjects reading in both their native language (Spanish) and in English, found a significant correlation between proficiency in English and reading comprehension of English texts. Thus, they concluded that knowledge of the foreign language is more important to the comprehension of the foreign texts than anything else. Cooper (1984) investigated the linguistic competence and reading ability of two groups of readers enrolled in the University of Malay. The first group subjects pursued their education in English (a foreign language) before entering the university and are called 'practised readers'. The second group subjects pursued their education in Malay (their native language) and are called 'unpractised readers'. Both groups were capable of reading texts in their native language. However, the 'practised readers' comprehended academic texts in English better than the 'unpractised readers' did. In addition, the results of comprehension tests correlated highly with those on linguistic competence. So this shows that linguistic competence in the foreign language is a high contributor to foreign texts understanding.

However, though such results seem to be convincing, the conclusions they entail are challenged by other findings and views which tend to de-emphasise the role of the linguistic knowledge in the process of foreign language texts giving more importance to higher-order sources of knowledge such as inferencing, guessing and so on. Generally, this model has been criticised because of the heavy burden this process would make on the short-term memory. For example, there are more than 166 letter-to-sound correspondences in English thus reading would be a slow and laborious process, and this model does not account for the use of skimming or predicting to make sense of the text (Davies, 1995)

1.1.2/ Top-Down Model of the Reading Process: Reading is Receiving Communication

« ... Reading comprehension is little dependent on a syntactic analysis of the text's sentences. It follows that foreign language reading comprehension is possible without mastery of the contrasting parts of the second language syntax »
(Alderson, 1984: 12)

Such a view about the reading process implies that foreign language reading is possible even when knowledge of language is lacking provided that the reader brings with him skills such as inferencing, guessing, anticipating and so on. Such an approach rejects the analytical work in reading arguing that such an analysis of language to build up meaning imposes a burden on short-term memory or working memory so that by the time the reader comes to the end of a sentence he will have lost the total meaning. So, such bottom-up model was upset by models that favoured the use of higher-order skills in the process of reading. These top-down models were developed within the theoretical framework of psycholinguistics, mainly Goodman (1967). These top-down models put emphasis on higher-order sources of information. The better reader decodes less often and predicts more without fully using all the available information as Goodman (1973) suggests:

“Reading is a process in which the reader picks and chooses from the available information only enough to select and predict a language structure which is decodable. It is not in any sense a precise perceptual process” (Goodman, 1973: 164)

Data from miscue analysis has been collected by Goodman (1988) to support the top-down model of reading. With the assumption that oral miscues

reflect the psycholinguistic process of constructing meaning through predicting, sampling, confirming and correcting (Goodman, 1988). Thus, according to Goodman (ibid), making sense of a text is a four-step process:

- *Predicting*: readers predict the grammatical structures based on their knowledge of the language and semantic concepts to obtain its meaning.
- *Sampling*: readers sample the text to confirm their predictions (this is in direct contrast to bottom-up reading because they do not need to see every word or letter).
- *Confirm*: the readers confirm their guesses.
- *Correct*: the readers revise their predictions if necessary.

Additionally, Goodman (1988) characterises reading as a series of four cycles: optical, perceptual, syntactic and meaning. Each cycle melts in the other with meaning into the controlling role. Anticipation, prediction and ‘going for the gist’ are the driving forces. In his definition of reading, Goodman (ibid) argues:

« Efficient readers minimise dependence on visual detail. Any reader’s proficiency is variable depending on semantic background brought by the reader to any given reading task »

(Goodman, 1988:12)

According to Goodman the reader recognises graphic display in the visual field, predicts or anticipates meaning, verifies predictions; and when these are disconfirmed, the brain corrects them. In sum, reading is characterised as a ‘guessing-game process’ (Goodman, 1967). It involves interaction between language and thought. Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are right the first time. The

ability to anticipate that which has not been seen is vital in reading. Consider the following sample of a relatively proficient child reading orally:

...showing calmness and courage on ^{his}~~the~~ face of ill fortune. (Goodman, 1967: 127)

Goodman argument for substituting *the* for *his* is as follows: since there is no orthographic relationship between the two words so the reason of miscuing is the fact that the reader picked *the* in the periphery of his visual field. But, there is an important relationship between *the* and *his*; both of them have the same grammatical function: they are in Goodman's terminology noun markers. The reader may have anticipated a noun marker supplying one without paying attention to graphic information. In fact such tentative substitutions disturb neither the meaning nor the grammar of the text. Thus, such miscues suggest how the reader carries out the psycholinguistic game in reading. The miscues point to a selective, tentative, anticipatory process quite unlike the process of precise, sequential identification.

In fact, this anticipatory process is lacking in the bottom-up so as Stanovich (1980) claims:

« The short-coming of a bottom-up model is lack of feedback in that no mechanism is provided to allow for later processing stages to influence the earlier ones » (Stanovich, 1980: 32)

A top-down view of the reading process suggests that meaning is a driving force in the process and that the ultimate goal in reading is to get meaning or the writer's message as Stenberg (1982) suggests in his definition of reading:

« Reading is the form of communication the goal of which is the reception of information through written forms » (Stenberg, 1982: 179)

Goodman (1988) suggests that fluent readers in all aspects of reading pay attention only to relevant information to their purposes. So unlike bottom-up models which suggest that readers pay close attention to or fixate their eyes on all the words to extract meaning, the top-down models, as Goodman (ibid) argues, suggest that readers fixate print very selectively without striving mechanically to extract the provided information. Goodman (ibid) adds:

« Despite the widespread belief that you need to recognise letters in order to identify words, and to identify words in order to comprehend meanings, I shall try to demonstrate that reading actually works in the reverse direction. Normally, we need to comprehend meaning in order to identify words, in order to identify letters. In fact, we do not need to go down the scale at all.... . We ignore letters if our aim is to identify words and ignore words if we are reading to make sense » (Goodman, 1988: 105)

Coady (1979) influenced by Goodman's view (1976) which suggests that reading process is the same for all languages, points out:

« We have only recently come to realise that many students have poor reading habits to transfer from their first language and thus, in many cases we must teach reading skills which should have been learnt in first language instruction » (Coady, 1979: 12)

Clarke (1979) compared subjects' reading ability in their first language (Spanish) and foreign language (English) using cloze procedure. The results of the study indicate that 'good' first language readers got a significantly higher score on the foreign language cloze test than did the 'poor' ones. Thus, Clarke (ibid) assumed that:

« Giving equivalent proficiency in the second language, the superior reading skills of the good readers would provide them with an equal advantage over the poor readers in both languages »

(Clarke, 1979: 130)

In short, the top-down model of reading implies that reading skills such as anticipating, guessing; predicting and going for meaning are basic processes in FL reading. However, this model has been criticised because it fails to account for the reader who can be frustrated by a text with a large amount of unfamiliar vocabulary or readers who are able to understand a text for which they have little background knowledge. In fact, both bottom-up and top-down models of reading are considered serial or linear processes which exclude any interaction between the elements of the text with any external source of knowledge such as reader's knowledge of the world. Further models of reading have been developed to account for the inability of either top-down or bottom-up models of reading to describe adequately the reading process. In an interactive model, the reader is not seen to progress in just one direction (bottom-up or top-down) in understanding the text, but as being able to alternate approaches as necessary. The reader is seen as able to draw simultaneously from a variety of sources to understand the text such as lexical, orthographic, schematic, semantic, syntactical, and visual sources (Davies, 1995). Thus reading is seen as a simultaneous perceptual and cognitive process.

1.1.3/ Interactive Model of the Reading Process:

Exclusively Top-Down

« To say that someone has comprehended a text is to say that s/he has found a mental 'home' for the information in the text, or else that s/he has

modified an existing mental home in order to
accommodate that new information »

(Richards et al, 1988: 37)

This approach to reading considers reading as a process in which textual information interacts with the external information the reader brings to the text. In this view, reading is no more a matter of extracting information from the text only. Rather it is one which activates knowledge in readers' minds. So reading is viewed as a kind of dialogue between the reader and the text or the writer. Whereas a bottom-up approach to reading is data driven, i.e, the readers build textual meaning from the smallest units to the largest, and then modify pre-existing background knowledge and current predictions on the basis of information encountered in the text, top-down processing reverses the order in which this is done. Thus, such a top-down approach to reading is the "making of predictions about the text based on prior experience or background knowledge, and then checking the text for confirmation or refutation of those predictions" (Carrell, 1988:101); this approach is thus conceptually driven. The role that a reader's background knowledge has on making or modifying predictions is encapsulated in the schema theory. It holds that any written or spoken text does not carry meaning, but rather only provides directions for listeners or readers as to how they should retrieve or construct meanings from their own, previously acquired knowledge (Carrell and Eisterhold, 1988). Consider the following example:

Mary heard the ice cream man coming down the street.
She remembered her birthday money and rushed into
the house (Carrell, 1988: 80)

In this example, the reader may make several assumptions: that Mary is a

young girl, that she wants to buy an ice cream, that this ice cream is not free, that she doesn't have any money on her, and that she received some money for her birthday. Readers unfamiliar with this scenario of an ice-cream man going through neighbourhoods selling his wares (cultural differences) will have difficulty understanding this text. Evidence that readers infer information in order to conform to their predictions was obtained in a study carried out by Bransford et al (1984). They gave students recognition tests of sentences either written with "so" or "because." For example:

The floor was dirty because Sally used a mop, and
the floor was dirty so Sally used a mop.
(Bransford et al, 1984: 34)

Thus either item fitted in with the more normal background knowledge, i.e. one more readily expects a floor to be clean after using a mop. They found that students were less able to recall the exact message of items in the incongruent form i.e. the less expected interpretation which is expecting the use of the mop as a consequence to the dirty floor. Coady (1979) points out:

« Background knowledge becomes an important variable when we notice that students with a Western background of some kind learn English faster than those without such background » (Coady, 1979: 7)

Background knowledge is also referred to as 'schema'. Schemas are the cornerstone of Frederic Bartlett and Jean Piaget's works. They refer to schemas as being bodies of past experiences. These are activated when individuals try to comprehend new situations (assimilation). Bartlett (1932) (quoted in Throllope, 1995) suggests that strange elements that do not fit the existing schemas are changed and adapted so that they conform to those schemas. This adaptation

explains why subjects alter or ignore unfamiliar parts of stories when they attempt to recall them. This is what happened in Steffensen and Joag-Dev' experiment (1984) with Indian and American subjects who were asked to read and recall two texts describing in one text an Indian wedding and in another an American wedding. The recall protocols revealed that:

- The subjects recalled better familiar passages.
- The subjects elaborated more on familiar passages, i.e, added facts that were not mentioned in the texts but existed in their prior knowledge.
- They tended to distort information that did not exist in their prior knowledge.

For example, an Indian text read:

‘The wedding reception was a combination of old and new styles. They had retained some of the traditional rituals, but not all. It seems that Prema’s mother-in-law wanted it in that way. ‘

An Indian subject recalled:

“Her wedding was celebrated with old and new styles of rituals because her mother-in- law wanted it in that way”.

An American subject recalled

“The wedding was composed of old and new styles”

In fact, the American subject did not recall the information that the mother-in-law was making such major decisions, and this is probably under the pressure of the schema for American weddings, in which the role of the groom’s mother is a trivial one.

Piaget (1961) claims that a pre-existing schema can be altered to assimilate the new situation and he called this 'accommodation'. Steffensen et al (1984) suggest that:

« ... If readers possess the schemata assumed by the writer, they understand and effortlessly make inferences intended. If they do not, they distort meaning as they attempt to accommodate even explicitly stated propositions to their own pre-existing knowledge »

(Steffensen et al, 1984: 61)

In support of this view Paker (1959) claims:

« ... By... associating what you already know with information you are acquiring you will read with more understanding and you will remember better what you read » (Paker, 1995: 45).

Thus, unlike the linear bottom-up and top-down models which suggest that EFL readers rely more on one-line reading process, this interactive view of reading proposes a process in which readers use more than one source of information: the readers may allow their knowledge of the world to interact with the text. However, the term 'interactive' here is more top-down and is not concerned with low-level processes. This term is used elsewhere to mean a different concept: interaction of high and low-level processes.

1.1.4/ Interactive Model of the Reading Process:

Predominantly Bottom-Up

« I also believe that simple language decoding has a major role to play in the process...that... good reading is a more language structural affair than the guessing-game metaphor seems to imply »

(Eskey, 1988: 94)

According to Eskey (ibid), top-down models tend to emphasise such higher-level skills as the prediction of meaning by means of context clues or certain kinds of background knowledge at the expense of lower-level skills. Eskey's argument for his attack on such models is that these are not models that can explain the behaviour of less advanced foreign language readers. Rather, they are models of fluent readers whose perceptions and decoding skills have become automatic. But for the less proficient readers these models do not provide a true picture of the problems such readers must surmount. Eskey (ibid) proposes that good reading should include both bottom-up and top-down processes with more emphasis on the former. He claims that:

« Good readers are both good decoders and good interpreters of texts. [...] good decoding skills are [...] one of the causes and not merely a result as Goodman has argued of fluent reading. No doubt, the whole process is reciprocal, but that is exactly what an interactive model would predict »
(Eskey, 1988: 95)

According to Eskey, fluent readers are no more likely than poor ones to rely on orthographic or sentence context effect for the simple identification of words. Nor does prediction increase speed of recognition which is rather dependent on the speed with which a reader recognises words (bottom-up skill). Even more to the point, poor readers, are just likely as good readers to rely on prior knowledge to decode language; thus, the use of this top-down strategy is not the "hallmark" of good reading in all situations. Eskey (ibid) distinguishes between the use of prior knowledge (a top-down strategy) to facilitate language decoding, and the use of such knowledge to facilitate higher level of interpretation of texts. The latter is characteristic of good readers but the former is not.

Frequent use of top-down strategy at word level suggests a failure to decode properly. Stanovich (1980) has observed that:

“Good readers are more reliant on context for fluency and poor readers are more reliant on context for accuracy.” (Stanovich, 1980: 51)

To properly develop both, less advanced readers need to improve both bottom-up recognition skills and top-down interpretation strategies. Thus, not all proponents of a bottom-up approach to reading are so extreme in assuming a character and word level working of the text in processing information. Laberge and Samuels (1974), for example, feel that probably more than one process of making sense of the text can go on at the same time. They put forward the analogy of a basketball player who performs automatic activities, such as dribbling and passing while concentrating on all the other skills required for playing the game. Thus, according to this model, the differences between skilled and unskilled readers is that the unskilled readers will have to spend more time on automatic activities such as dribbling (decoding) whereas skilled readers can spend more time on non-automatic aspects of the game (comprehending the text). Rayner and Pollastack (1989) describe reading in their interactive model as:

«... Primarily bottom-up, but top-down processes
do interact with bottom-up processes »
(Rayner et al, 1989: 69)

For example, In order to interpret the following mini-text, given as an example by Eskey, we need two sources of knowledge: knowledge of grammar and knowledge of the real world:

‘Slowly sinking in the west, we admired the blood-red sun’

Our knowledge of grammar allows us to understand that the adverbial phrase put at the beginning can be placed at the end of the sentence which can be re-ordered in this way: ‘We admired the blood-red sun slowly sinking in the west’. Our knowledge of the real world prevents us to imagine humans admiring themselves sinking; so we are bound to understand that what is sinking is the sun. Thus according to Eskey (1988):

“Good reading, that is fluent and accurate reading, can result only from a constant interaction between these processes” (Eskey, 1988:95)

This interactive model rather than the strictly bottom-up or top-down models is also supported by Stanovich (1980) in his model of reading. He suggests that reading rate is more dependent on the speed with which a reader can recognise words and construct a representation than on the ability to use predictions. So fluent readers do not use expectations to facilitate word recognition but the reverse is true. More to the point, even poor readers are just likely as good ones to rely on prior knowledge to interpret texts.

In this model, it is the automatic recognition of words which is seen to free up the processing of information. This implies that when much time is used for visual processing or word identification there is less time available for attention to other sources of information such as semantic or background knowledge. However, the FL learners when they do not understand often slow down their reading rates. Anderson (1999) calls this slow reading the ‘vicious cycle of the weaker reader’ because the readers who slow down their reading do not enjoy reading since it takes too much time. As a result, they do not read much and so

continues the vicious cycle. Anderson (ibid) suggests that by reading faster the reader can get into the 'virtuous cycle of the good reader'. By reading faster the reader is encouraged to read more, and with more reading comprehension improves. Stanovich (1980) claims that great knowledge of vocabulary will help reading more and more exposure to language will develop vocabulary knowledge, but the essence is that learners should work at increasing their vocabularies to allow for their automatic recognition in the text. Thus as Carrell and Eisterhold (1988) argue:

« Accessing a schema depends on textual cues, the graphic display must be accessed and recognised as meaningful language... consequently readers must be encouraged to expand their vocabularies and gain greater control over complex syntactic structures in order to improve reading competence » (Carrell et al, 1988: 82)

Rumelhart (1984) came out with the model of parallel processing, i.e., simultaneous processing of information from more than one source of knowledge. The reader is seen to draw simultaneously upon a range of sources of information: visual, orthographic, lexical, semantic, syntactic and schematic. He claims that:

« The process of reading begins with a flutter of patterns on the retina and ends (when successful) with a definite idea about the author's intended message. Thus, reading is at once a 'perceptual' and 'cognitive' process. Moreover, a skilled reader must be able to make use of the sensory, semantic and pragmatic information to accomplish the task » (Rumelhart, 1977: 573)

According to this all of the various sources of knowledge, both sensory and non-sensory, come together at one place and the reading process is the product of the simultaneous joint application of all the knowledge sources. For this to happen, the graphic images of the printed words are compared with words in the Visual Information Store (VIS) where they are then moved to the pattern

synthesiser. This is where the reader uses all his or her knowledge of syntax, vocabulary, etc. to make sense of what has been read. Although this explanation does not show how the different components of the process interact (Davies 1995), it does provide an alternative to bottom-up and top-down models.

1.2/ Reading Difficulties

One important area that is of great interest to the field of reading research is the FL learners' reading difficulties. This is important for the research because the text's level of difficulty may influence the reading process. FL reading problems can be attributed to lack of linguistic knowledge, i.e, grammar, vocabulary and rhetorical organisation; or non-transference of reading skills learnt in the first language; or to lack of background knowledge about the content of the text.

« The readers' knowledge of the foreign language is not like that of the native speaker. The guessing and predicting ability necessary to pick up the correct cues is hindered by the imperfect knowledge of language; the wrong choice makes the association more difficult due to unfamiliarity with the material » (Alderson, 1984: 3)

So it seems that the difficulty of reading is attributed to unfamiliarity with the language. The following are the linguistic areas that are said to cause difficulty in reading.

1.2.1/ Syntax as a Reading Problem

The syntactic features which are found to cause problems are mainly the postponing of the main verb, shifts in SVO ordering and heavy NP's, i.e, sentences which contain complex parts. Berman (1984) claims that:

« ...Where material is preposed before the surface subject, or where adverbial clauses precede rather than follow the main clause, readers might be expected to encounter difficulty. That is, FL readers' comprehension is liable to be impaired by shifts in svo ordering.... » (Berman, 1984: 140)

Berman (ibid) reported that Hebrew students upon reading the sentences below could not identify the main verb which, in fact, they thought was 'was uncontrollable':

'That the note of fear in his parents' voice was uncontrollable is not understood by the child'

This is a complex sentence in which the subject is in the form of a sentence (heavy NP). Such complex structures may confuse the FL learners and lead them to make wrong associations between the words of a sentence.

Cohen et al. (1988) in a study about the problematic linguistic features in texts proposed to ESP students found also that long groups of words performing a single grammatical function (noun phrase) were difficult for the non-native readers to perceive as such. The following is one example:

'Thus, it was conjectured that such treatments as holding cells in buffer after irradiation before placing them on nutrient agar plates might function by inhibiting normal growth processes while repair systems completed their task'. (Cohen et al, 1988: 195)

In this sentence of a scientific text, a 16-word clause functions as the subject of the subordinate sentence introduced by 'that'

1.2.2/ Rhetorical Difference

The field of contrastive rhetoric identifies problems in composition encountered by L2 writers and by referring to rhetorical strategies of the first language. In fact, these differences in text structure can lead to difficulties in reading (Singhal, 1998).

Mauranen (1992) examined cohesion in both Finnish and English economic texts and found that Finnish writers employed relatively little metalanguage for organising text and orienting the reader. In contrast, native English speakers used plenty of devices for orienting the reader in terms of what is to follow in the text and how the reader should understand the different sections of the text. This pattern was found in their writing as well. For example, Finnish writers used less demonstrative references than native English writers did. Lindeberg (1988) found differences between Finnish and English writers in terms of topic development and the functions of the verbs. Numerous differences have been found in terms of writing style between English and other languages. For example, Chinese writing is often described as being verbose, ornamental, and lacking in coherence from a Western point of view, while Japanese writing has been noted for difference in text organisation. Japanese writers introduce their main idea at the end of their essays. Many Japanese students maintain this writing style when writing in L2. It appears that they prefer a specific-to-general pattern placing the general statement at the end of the paragraphs. Hinds (1987) noticed that there is lack of explicitness in Japanese language texts. Thus, it is teachers' job to inform students about the expectations of readers. Another difference that can be noted concerns the orthographic system. Some languages may contain

many numbers of symbols, other languages contain a limited number. For example, Chinese calligraphy is a writing system with numerous symbols and one that has strong aesthetic elements thereby differing from English. Arabic also has a unique writing system in that it is written and read from right to left.

1.2.3/ Vocabulary and Coherence as Reading Problems

Cooper (1984), however, did not find that English rhetorical patterns caused problems for the unpractised readers (see page 12). This was revealed when those patterns were encountered in their native language texts. The practised readers (those who pursued their education in English as a foreign language) were not clearly distinguished, too, from the unpractised readers (those who pursued their education in their native language, Malay) in their inability to understand the meaning carried by syntactic features which did not distinguish between the two groups on syntactic tests. However, practised readers were distinguished from the other group by their superior lexical competence especially in hyponyms and cataphoric reference. They have larger vocabulary and greater knowledge of cataphoric and anaphoric relationships. They have better grasp of the ways in which writers use words to create and maintain textual relationships by the use of features like hyponymy and synonymy. They have better grasp of sentence connectors and cohesive relationships such as addition, particularisation, contrast and logical sequence. Cooper (ibid), thus, concludes:

“ Unpractised readers are severely handicapped by poor vocabulary especially they were deficient in their understanding of the semantic relationships between words and meaning of common sentence connectors. Unpractised readers, of course, did display weaknesses in other syntactic areas but this did not distinguish them highly from the practised readers ”

(Cooper, 1984: 81)

Cohen et al (ibid) found that learners do not pick up on the conjunctive words signalling cohesion, not even the basic ones like *however* and *thus*. Cohen et al's study (1988) about the textual difficulties when reading English as a foreign language and which involved History students revealed that the inability to answer correctly questions about the text to see if students could perceive the cross-paragraph cohesive structures was a result of the non-natives' local reading. Thus the non-natives have trouble linking up parts of sentences, linking sentences with other sentences, and linking paragraphs with other paragraphs. The same study revealed that the non-natives were better than the natives when answering questions about details in the text. And this suggests that the non-natives assigned all material equal value.

1.2.4/ Language Reading Skills Deficiency

The other reason that seems to justify FL reading problems in the research is not related to linguistic competence but to reading skills. Jolly (1978) claims that success in reading in a foreign language depends mainly on the ability of reading in the first language rather than on the foreign language level. He claims that FL reading needs transference of old skills and not the learning of new ones. According to this view, reading problems are due to two factors:

- poor L1 habits in reading
- non-transference of L1 reading habits to L2 reading

Cooper (1984) noticed that his unpractised readers were far inferior to the practised readers in their inability to guess meaning from context and their use of their previous knowledge that was irrelevant to the context. So they were always

occupied with the immediate context of the words and this had great effect on their comprehension.

1.2.5/ Schema Deficiency

A breakdown in comprehension can also be due to lack of background knowledge about the content.

Collins and Quillian (1972) illustrated the way background knowledge can influence comprehension in the following example:

“The policeman held up his hand and stopped the car”

They said that readers would interpret this sentence against their previous knowledge of the driving rules. Thus, they would understand that the stopping of the car is not done by touching it with hands, but by holding up the hand.

Carrell (1984) investigated English reading comprehension of two culturally different groups, namely Muslim Arabs and Catholic Hispanic ESL students. Each group read two texts, one with Muslim-oriented content and the other with Catholic-oriented content. Each text was presented in either a familiar rhetorical format or an unfamiliar altered format. Test measures included comprehension questions and recall. The results showed that the subjects comprehended better passages that reflected their native cultures. This study revealed also that cultural schemata caused more problems than the rhetorical difference did. However the subjects remembered the most when both content and rhetorical patterns were familiar.

Rivers and Temperly (1978) also emphasise that lack of background knowledge and culturally loaded terms are main factors in hindering readers to understand foreign language texts. Consider the following example:

‘Although housewives make up the majority of volunteer groups, male participation is reported on the rise national wide as traditional distinction between men’s work and women’s work begin to fade.’

Rivers and Temperly’s subjects had misunderstood the concept ‘volunteer group’ though the words ‘volunteer’ and ‘groups’ were clearly understood. The subjects wondered if these women volunteered to be housewives. In fact, the phrase means unpaid female social workers.

So as Eskey and Grabe (1988) concluded:

« ...Students’ apparent reading problems may be problems of insufficient background knowledge One reason for this is that schema is specific to a given culture »

(Eskey et al, 1988: 244)

1.2.6/ Foreign language Reading Short-Circuited

« Any reading that does not end with meaning is a short circuit »

(Goodman, 1984: 16)

One can be taught how to guess meaning from context and taught about the target culture and still has problems of understanding because his reading can be short-circuited.

Clarke (1979) assumes that good L1 readers appear to be little better than poor L1 readers when reading in a foreign language. So the difference in reading ability between the two readers is reduced in the foreign language. Consequently, Clarke (ibid) proposed that there is a 'language competence ceiling' which hinders transfer of reading skills into the foreign language reading. So a poor reader in a foreign language may be a poor L1 reader who needs instruction in reading skills and in the foreign language or a good L1 reader whose old reading habits are hindered by the foreign language and who needs instruction in this language. Clarke (1988), thus, concludes:

« While some form of universal hypothesis may be justified, the role of language proficiency may be greater than has been previously assumed: apparently limited control over language 'short-circuits' the good reader's system causing him to revert to poor reading strategies when confronted with a difficult or a confusing task in the foreign language » (Clarke, 1988: 120)

Goodman (1988) adds that a short circuit can also occur even when language is understood but it is the background knowledge that lacks:

“ The reader may treat print as none sense, generating a deep structure without going beyond to meaning. Every proficient reader resorts to short circuit when conceptual load is too great or when they lack relevant background knowledge” (Goodman, 1988:19)

Carrell (1988) argues that:

« Schema availability alone is not sufficient condition for adequate comprehension. Relevant schemata must be activated » (Carrell, 1988: 105)

Carrell (ibid) presented subjects with a text about a familiar topic 'Brushing Your Teeth' which did not contain sufficient textual (i.e, lexical) cues

to signal the appropriate schemata to be activated. And because the text failed to signal the appropriate schemata, the subjects failed to link the text to the context.

Hudson (1988) commenting on Clarke's study (see page 36) argues that the good L1 readers lost their advantage over the poor L1 readers when reading in L2 because of false schemata production in conjunction with low proficiency. So Hudson (ibid) concludes:

« Reading problems are not due to an absence or attempts at fitting and providing specific schemata since [these] are inherent in ...information processing. Rather the problem lies in projecting appropriate schemata » (Hudson, 1988:189)

Now that we have discussed the main problems related to FL reading, we shall discuss in the next section the way the FL learners overcome such hindrances. A distinction is made between 'good' and 'poor' readers in their abilities to solve these problems. Some researchers (Goodman, 1988; Stanovich, 1980; Carrell, 1988) posit that each group of readers possesses particular strategies which distinguish it from the other group. Other researchers (Clarke, 1988; Anderson, 1991) suggest that the distinction between the two groups is not due to a particular use of strategies but to the ways these strategies are used.

1.3/ Reading Styles and Strategies

1.3.1/ Identification of reading styles

Hedge (1991) undertook a study which presented a taxonomy of reading behaviours called 'modes', knowledge sources utilised in reading called 'anchors' and reading purposes called 'drivers'. The study is based on the analysis of introspective data collected from EFL readers (of British University) engaged in

silent reading of authentic texts followed by a discussion of the texts and any difficulties or breakpoints encountered. Hedge (ibid) purpose was to test the applicability of the various abstracts and models of the reading process to the actual reading behaviour of this group of readers. The study revealed that some readers prefer to adopt bottom-up processes, others top-down strategies and even others adopt the interactive behaviour being predominantly top-down or predominantly bottom-up as the following:

- *Interactive mode* : the reader uses all available sources of information from text to content, genre and world knowledge.
- *Top-down relative data exclusion* : uses predominantly conceptual [content, genre, world] knowledge to the relative or selective exclusion of text data.
- *Top-down deferred interactive* : uses all available information from text to concepts but processes top-down before bottom-up before synthesising to attain an interactive network of comprehension.
- *Bottom-up, non-recursive* : uses predominantly text data to the exclusion of conceptual knowledge and does not reread to consider previous text.
- *Bottom-up recursive* : uses predominantly text data to the relative exclusion of conceptual knowledge but does reread or consider previous text.
- *Bottom-up, recursive, deferred interactive*: uses all available knowledge sources from text to concepts but processes bottom-up, recursive before top-down before synthesising to attain a network of comprehension.

In addition, there was evidence that the individual behaviour of the learners varied during the course of reading a single text, and also in response to different texts. Hedge (ibid) noticed that readers' purpose could have an influence

on the mode of reading adopted and the anchors utilised. She assumes that readers' purposes not only play an important part in the process of reading but that they perhaps control or 'drive' it. Davies (1995) suggests that teachers cannot prescribe how students should work on texts, but rather help them monitor and evaluate their performance.

Lunzer and Gardner (1979) and Haris-Augstein and Thomas (1984) identify different behaviours that they call types or styles of reading such as scanning, skimming, skipping, receptive and reflective reading. The methodology used by the former was classroom observation. By contrast, the methodology used by the latter involved a reading recorder which produced a record of pauses and regressions of individual readers reading a script at their own pace. The patterns of reading they found are:

- *Receptive reading*, which characterises the smooth, fluent, apparently unconscious ('escapist'), reading of a narrative and which, according to Lunzer and Gardner, is 'the most familiar to the listener behaviour'. This style of reading appears to be analogous to the style of reading identified by Harri-Augstein and Thomas as a 'smooth' read, i.e, fairly rapid, more or less smooth continuous reading from beginning to end.
- *Reflective reading*, as defined by Lunzer and Gardner (ibid), is 'reading which is frequently interrupted by moments of reflections and is an essential prerequisite for study reading and reading for learning. This style of reading appears to be analogous to two types of reading identified by Harri-Augstein and Thomas (ibid) as the 'search reading' which shows considerable search backwards and forwards within the text, and 'thinking reading' an activity which is associated with thinking and during which some specific parts are consulted briefly.
- *Skim reading*, as identified by Lunzer and Gardner is 'a rapid style used mainly to establish what a text is about'. On the surface it

appears to have some features in common with Harri-Augstein and Thomas's category of 'search read', in that it involves 'considerable searching back and forth in the text'

- *Scanning*, according to Lunzer and Gardner, is 'a kind of skimming to see if a particular point is present in the text or to locate it'. In that it involves the checking of specific items and hesitations at selected parts of the text, it appears to embrace Harri-Augstein's and Thomas's 'selective check read' which is a fairly rapid reading with few hesitations at selected parts of the text, and 'item check read' which is a slow reading from beginning to end with detailed hesitations and possibly notes.

Oxford (1993) identified six styles of reading:

- *Scanning* (to locate specific facts such as a number in the telephone directory),
- *Previewing/surveying* (to acquire a general sense of the material from examining the introduction and the topic sentences),
- *Recreational reading* (to read for enjoyment),
- *Study reading* (to remember information for a test),
- *Critical reading* (to evaluate material and react in a personal way),
- *Analytical reading* (to understand every detail in difficult material)

Davies (1995) adds another style of reading not addressed by the above researchers which he called *plodding read* and which is considered as laborious and step by step struggle through the text, often accompanied by hesitations and back tracking. Such reading appears as a 'strategy' adopted by advanced learners when confronted with demanding reading material. Such reading is considered as

a sign of bad reading strategies, this is why learners are encouraged to skim, scan and read for the gist as a means of avoiding plodding. Davies (ibid) outlines also that the tidy categorisation of the styles of reading is in reality much more fluid: a reading which that may start with a skim-read can be suddenly halted by a particular section of a text which will be then read carefully and reflectively, similarly receptive reading may be altered at frequent intervals by cycles of reflection.

Generally, as Oxford (1993) claims the reading style and the strategy use is determined by the learners' learning style (or general approach to language learning). Students often use strategies that reflect their preferred learning. For example, students with an analytic learning style prefer strategies such as dissecting words and sentences, while students with a global style use strategies that help them find the big picture such as guessing. Oxford (ibid), however, suggests that student can be made aware of other strategies and that the strategy training which takes into account the different 'styles' avoids "style wars".

1.3.2/ Identification of reading Strategies

« The basic rationale behind attempts to describe process is that an understanding should lead to the possibility of distinguishing the process of successful and unsuccessful readers. This in turn should lead to the possibility of teaching strategies or process components of successful readers to unsuccessful ones or at least making them aware of the existence of the other strategies which they might then wish to try for themselves » (Alderson, 1984: 19)

Generally, a large amount of research about reading strategies centred on comparison of good readers with less good readers or solely on good readers.

The research yielded descriptions of procedures and techniques useful for developing and sustaining the strategic behaviour that characterises the effective readers. The authors may arrange the strategies in different ways because there is no one absolute or totally agreed upon a way of doing so. The strategies are complex, interrelated, overlapping; thus, unable to be isolated and there is no hierarchy and sequence of strategies.

Olshavesky's study (1977) was one of the first attempts to discover reading strategies in an L1 context and which aimed at seeing if strategy usage is related to reading proficiency (good or bad), reader interest (high or low) or writing style (abstract or concrete). There were three students for each criterion. To discover their strategies, Olshavesky (ibid) used a think aloud procedure in which the students were asked to verbalise what was going through their minds. The study identified 10 strategies:

- Personal identification
- Use of context
- Synonym substitution
- Stated failure to understand
- Rereading
- Inference
- Addition of information
- Hypothesis and use of information about the story

Olshavesky (ibid) had hypothesised that readers with higher interest, more proficient readers, and readers with abstract writing style (referred to as group A) would use more strategies than the readers with lower interest, lower

proficiency and a concrete writing style (group B). But the study revealed no differences which were statistically significant, Olshavesky (ibid) did not find that group A used more strategies than group B. In addition, this study with all its limitations was the first to show that:

- Strategies exist for reading.
- The strategy use can change according to several variables.
- The type of strategies may be influenced by the reading material (here abstract or concrete).

Hosenfeld (1977) an early researcher in reading strategies greatly expanded the list of strategies used by good and bad readers. In her study, she asked the learners to self-report while reading a foreign language text. The learners were classified into high and low scorers after taking a reading proficiency test. Hosenfeld (ibid) came out with the following characteristics of good and poor readers' behaviours.

Good readers:

- Keep the meaning in mind.
- Read in broad phrases.
- Skip words that they view unimportant to total meaning
- Have positive self-concept as readers
- Do not rely too much on glossaries.
- Identify the grammatical categories of words
- Examine any illustration
- Read the title and make inferences from it
- Use orthographic information (as capitalisation)
- Use their knowledge of the world
- Evaluate their guesses

Hosenfeld (ibid) claims also that successful readers look up words in glossary, too, but they do it after more efficient strategies have failed:

« While looking up words in glossary is a non-successful readers' first and most frequent response it is a successful reader's last and most infrequent response to unknown words »
(Hosenfeld, 1977: 121)

Hosenfeld in another study (1979) presents a detailed case study of a 14-old year student named Cindy. Hosenfeld concludes that Cindy was a 'non-contextual guesser'. After meeting her for eight 45-minute periods, and attempting to teach her inductively effective strategies for coping with unfamiliar words, Hosenfeld concluded that Cindy made some progress, although she would not be termed a 'contextual guesser'. In addition, although she used more strategies after this training, she did not learn certain strategies even she had compared her list of strategies to those listed by Hosenfeld above. Hosenfeld (ibid) concludes that certain strategies can be taught and then offer a guide for discovering student's learning styles.

Nunan (1991) claims that good language learners rely on dictionaries less than poor language learners and that they are more successful at employing contextual guessing strategies. Critcheley (1998) suggests that when students turn to a dictionary for every word, they do not understand, they lose sight of the meanings within the text as a whole. Thus, the result has been a movement toward the explicit instruction of fluency-oriented learning such as guessing from context.

Goodman (1988) argues that ‘good’ readers can construct meaning that they can assimilate or accommodate to fit the text meaning and that they use least amount of efforts to achieve understanding and always seek the most direct path to meaning. They are very selective and rely on prior knowledge with minimising dependence on visual details.

Stanovich (1980) suggests that ‘good’ readers have larger repertoire of compensatory strategies to draw upon than ‘poorer’ readers do. Carrell (1988) claims that ‘good’ readers shift constantly their mode of reading accommodating to the demands of a particular situation whereas ‘poor’ readers tend to rely on one mode.

Pressley and Affterback (1995) list a number of skilled readers behaviours:

- Selectively attentive
- Predict
- Paraphrase
- Back up when confused
- Make inferences
- Integrate across the text
- Do not settle for the literal meaning but interpret what they have read
- Construct images
- Engage in arguments about what a reading might mean
- They firm their understanding and memorise the messages, e.g, by means of summarising the text.
- Use processes needed to meet current reading goals.

Carrell (1998) lists a number of poor readers' behaviours:

- Decode single words
- Fail to adjust for different texts and purposes
- Seldom look ahead or back in texts to monitor and improve comprehension
- Have low motivation: low expectation for success, anxiety about their reading, unwillingness to persevere in face of difficulty.

Block (1986) carried out a study about poor readers' strategies. There were nine subjects for the study who were either native speakers or ESL speakers and all were enrolled in a remedial reading program before beginning their first year at the University of New York. The subjects verbalised their thoughts after each sentence. Four characteristics seemed to distinguish between the more successful and the less successful readers. The successful readers were:

- Integrators (interact with the text)
- Generally aware of the text structure
- Users of personal knowledge.
- Not related affectively or personally to the text: focusing on understanding the author's point of view and ideas and not relating the text to themselves affectively or personally.

Block (ibid) noticed too that the group he called 'integrators' made more progress in developing their reading skills after one semester in college than the 'non-integrator' did. Additionally, Block (ibid) classified the strategies used by the subjects into: general and local strategies. General strategies include comprehension-gathering and comprehension-monitoring strategies. Local

strategies deal with attempts to understand specific linguistic units. J. Throllope (1995) likens the difference between the general and local strategies to the distinction between the top-down (general strategies) and the bottom-up (local strategies). A bottom-up approach is data-driven which therefore reflects the use of word attack strategies such as the use of the dictionary and guessing meaning of the word from the context of the paper. Similarly, general strategies seem to describe the top-down approaches as they are concept-driven, thus reflecting the use of the making prediction, recognising the author's purpose or recognising the genres, recognising text structure and using general knowledge. Block's 'integrators' seem to use the general strategies more than the 'non-integrators' can do.

Some educational writers* arrange these strategies into pre-, in- and post-reading strategies (in fact, this is the terminology we use in classifying the strategies investigated in our research): effective readers come to the printed page expecting what they read to make sense by quickly previewing the text, they identify the type of material and set a purpose for reading. Such readers activate their personal knowledge by considering the title of the text and this enables them to make global predictions about what they will be reading. As effective readers proceed through a selection, they continually monitor their comprehension by assessing and revising their predictions, by asking themselves questions, by making associations, by retaining important parts. If they are uncertain about the meaning of a passage, they utilise certain fix-up strategies such as stopping and going back over the confusing parts or even asking a teacher or a friend to help.

When they finish reading, effective readers are able to summarise the material.

Thus, effective reading involves the use of a variety of strategies:

i. pre-reading strategies (anticipating meaning): These strategies help the reader get an overview of the text structure and the text general meaning before getting started at reading the text for understanding it all. These strategies help to organise the structure of a subject in mind and create a good mental frame work in which readers can fit facts correctly:

- Previewing/Surveying
- Setting a purpose
- Activating personal knowledge
- Making global predictions

ii. in-reading strategies (constructing meaning): these strategies are used during reading and they help the reader for understanding the text and solving difficulties:

- Assessing and revising predictions
- Making associations
- Monitoring comprehension
- Employing fix-up strategies
- Reading fluently

iii. post-reading strategies (reconstructing meaning). These strategies are used by the reader for checking his understanding of the text.

- Retelling what was read

* Handbook of Reading Instructions. (1999). <http://lenape.ucf.k12.pa.us/pssa/READING/pdf/rihn21a.pdf>

- Summarising what was read
- Evaluating what was read

However, and to contradict in some way the previous arguments, Clarke (1988) argues that:

« It may be inaccurate to speak of good and poor readers. Perhaps there are not good and poor readers but merely good and poor behaviours which characterise most readers at different times; when one is confronted with difficult reading, one is likely to revert to poor reading behaviours »
(Clarke, 1988: 20)

Kern's in his very recent report (1997) on a case study of two American university students reading in French as a second language, one a 'good reader of French as L2', one less good, shows that no strategy is inherently a 'good' or 'bad' strategy; that the so-called 'bad' strategies are used by 'good' readers and vice-versa. For example, using prior knowledge may sometimes be an effective strategy for one reader in one reading situation, but not for the same reader in another situation. Kern (ibid) showed that the same can be true of translation as a strategy.

Research reported by Anderson (1991) shows that there is no one-to-one relationship between certain strategies and successful or unsuccessful reading comprehension. His Spanish subjects reading at university-level English as a foreign language reported the strategies they used. Anderson (ibid) found that the same strategies can be successful and unsuccessful and both high and low achievers use the same strategies. However, those who use a higher number of different strategies seemed to score higher on comprehension measures.

Wen and Johnson (1997) carried out a study in China about strategy use. They found that both high and low achievers use equally dictionaries and guessing strategy. The only difference is that high achievers make decisions before consulting the glossary and after having questioned the necessity of turning to it. In addition, they use guessing strategy according to the context; in reading for pleasure, they do not use dictionary but guess meaning from context and in an intensive reading, they check their guessing with a dictionary. However, low achievers were inflexible at dictionary use and rely on guessing strategy in both extensive and intensive reading.

1.3.3/ Metacognitive approaches

Oxford (1993) suggests that the effective readers are not only aware of the strategies they use but know why they employ them, they select strategies that work well together and that are tailored to the requirements of the reading task whereas less effective readers are sometimes not even aware of the strategies they use. However, Oxford (ibid) mentioned that recent research indicated that many of the less effective readers are indeed aware of the strategies they use, can describe them clearly, and actually use just as many strategies as effective readers, but they apply these strategies in a random, even desperate manner, without a careful orchestration and without targeting the strategies to the task. Thus as Anderson (1991) concludes:

« Foreign language reading comprehension is not simply a matter of knowing what strategy to use but the reader must also know how to use it successfully and orchestrate its use with other strategies. It is not sufficient to know about strategies but a reader must be able to use them strategically”
(Anderson, 1991: 4)

O'Malley et al (1985) call this strategic use of the strategies 'metacognition' which they define as:

“ Thinking about the learning process, planing for learning, monitoring comprehension or production while it is taking place, and self-evaluation of learning after language activity is completed. Cognitive strategies are more directly related to individual learning tasks and entail direct manipulation or transformation of the learning material”

(Omalley et al, 1985:506)

According to these authors students without metacognitive approaches are learners without direction or opportunity to review their progress, and accomplishment.

According to Pressley et al (1995) one reason metacognition is important is that if learners are not aware of when comprehension is breaking down and what they can do about it, strategies introduced by the teacher will fail.

Two dimensions of metacognitive ability are generally recognised: (1) knowledge of cognition and (2) regulation of cognition. First, Knowledge of cognition includes declarative knowledge, procedural knowledge and conditional knowledge.

- Declarative knowledge: refers to 'knowing what'. For example the reader may know what skimming and scanning is
- Procedural knowledge: refers to 'knowing how'. For example the reader may know how to scan and how to skim.
- Conditional knowledge: refers to 'knowing why'. For example the reader may know the rational behind using a strategy and when to use it. The reader may know whether a certain strategy is appropriate, and whether or not it is working effectively.

Second, regulation of cognition refers to planning, monitoring, testing, revising and evaluation of the strategies employed during reading. The importance of the regulative function of metacognition appears in the tactics readers use to monitor comprehension. One of the problems of non-strategic readers is often their inability to detect inconsistencies and regulate comprehension.

Because students may have many misconceptions about the nature of reading and incomplete awareness of reading strategies, or of executive processes for monitoring and regulating comprehension, direct instruction in metacognition and reading strategies is needed. Baker and Brown (1984) argue that text comprehension can be improved if the reader can be made aware of:

- Basic strategies for reading and remembering
- Simple rules of text structure
- Differing demands of a variety of tests to which his background knowledge may be put
- The importance of attempting to use any background knowledge that he may have

Carrell (1998) points out:

‘...Teacher explanations of the processes are designed to be metacognitive, not mechanistic. They make students aware of the purpose of the skill and how successful readers use it to actively monitor, regulate, and make sense out of the text’
(Carrell, 1998: 10)

Thus, successful reading strategy instruction involves the development of metacognitive awareness of the strategies.

Winograd and Hare (1988), for example, propose five elements as constituting teacher explanation:

- *What the strategy is*

Teachers should describe critical, known features of the strategy or provide a definition/description of the strategy.

- *Why a strategy should be learned*

Teachers should tell students why they are learning a strategy. Explaining the purpose of the lesson and its potential benefits seems to be a necessary step for moving from teacher control to student self-control of learning

- *How to use a strategy*

Here, teachers break down the strategy, or re-enact a task analysis for students, explaining each component of the strategy as clearly and as articulately as possible and showing the logical relationship among the various components. Where implicit processes are not known or are hard to explicate, or where explanatory supplements are desired, assists such as advance organisers think aloud, analogies, and other attention clues are valuable and recommended.

- *When and where to use a strategy should be used*

Teachers should delineate appropriate circumstances under which the strategy may be employed, (e.g., whether the strategy applies in a story or reading information). Teachers may also describe inappropriate instances for using the strategy. The teacher should not be too prescriptive, but merely lay out possibilities for the learner, and then let the learner experiment for him or herself to see whether the strategy works for them.

- *How to evaluate use of the strategy*

Teachers should show students how to evaluate their successful/unsuccessful use of the strategy, including suggestions for fix-up strategies to resolve remaining problems.

Chapter 2: Methodology

2.1/ The Rationale

As we saw in the literature review, a distinction is always made between ‘effective’, ‘good’, ‘successful’ and ‘non-effective’, ‘bad’, ‘unsuccessful’ readers. And this kind of discrimination seems to be based on the fact that the ‘successful’ readers do use some ‘effective’ strategies that the ‘unsuccessful’ ones do not use. For example, it is suggested that the successful reader contrary to the less successful one 1) relies less on the dictionary, 2) skips unimportant words, 3) guesses meaning of words from the context (Hosenfeld, 1977). But this may be disconfirmed by other researchers’ studies. Wen and Johnson (1997) found that both successful and less successful readers use equally dictionaries and guessing strategy. The difference is not found to be the kind of strategy to use but the way this strategy is used. The successful readers use the dictionary mainly in an intensive reading and rely more on context to guess meaning of words when reading for pleasure; however, the less successful readers are found to be inflexible at dictionary use and rely on guessing strategy in both intensive and extensive reading. This is the reason for which we want in this study to compare subjects’ reading styles and strategies to see if any distinction can be made in terms of reading strategies among EFL learners and mainly between the most and the least successful ones (these were involved on purpose in this study). The purpose of this study, thus, is:

1. To find out whether there are differences and/or similarities in terms of the use of the most common reading strategies among the learners, i.e, to what extent the reading strategies (pre-, in- and post-reading strategies) are used by the learners .

2. To find out whether there can be a relationship between the use and non-use of these strategies and the successful or unsuccessful achievement on comprehension question tasks. The purpose of this is to see if these reading styles and strategies contribute or not to successful comprehension. The terms ‘strategy’ and ‘style’ of reading are defined below.

Terminology:

Kletzien (1991) defines the term ‘strategy’ as ‘ a deliberate means of constructing meaning from text when comprehension is interrupted’. Hosenfeld (1977) views the word as comprising two categories: one category includes the learner’s operations when attributing meaning to text in an uninterrupted manner. The second category includes the learner’s operations when he comes to an unknown word or phrase; that is, what he does when his ‘main meaning line’ is interrupted.

Drawing on Kletziens’ and Hosenfeld’ s definitions, the definition of reading strategy we would wish to propose is that a strategy is a mental action used consciously or unconsciously to facilitate text comprehension.

‘Styles of reading’ as Davies defines are ‘reading behaviours classified through reference to the relative pace and focus of attention during the reading’. Oxford (1993) mentioned that one important key determiner of FL strategy use is the learning style.

This work is particularly inspired from some studies which categorise styles and strategies of reading, and studies that distinguish ‘good’ and ‘bad’ readers according to the use of certain strategies. Studies carried out by Hosenfeld (1977), Stanovich (1980), Carrell (1988), Presseley and Afterback (1995) and Block (1986) generally show that the “successful” readers seem to use the following strategies:

- Reading the title and make inference from it
- Reading in broad phrases
- Skipping unimportant words
- Not relying heavily on the dictionary
- Using context for guessing
- recognising text structure
- Making inferences
- Regressing
- Memorising the message by means of summarising
- Continuing reading even if what is read is not understood
- Skimming to get the gist

On the basis of these same studies, the researchers characterise the “unsuccessful” readers as being too local and word bound in reading. In fact, these strategies are investigated in our study under the categories pre-, in- and post-reading strategies.

On the other hand, other researchers like Kern (1997), Wen and Johnson (1997) and Anderson (1991) show that the so-called “bad” strategies are also used by the “successful” readers and the “good” strategies are used by the “unsuccessful” readers.

As mentioned above we investigate in our study the most common strategies which we classify into pre-, in- and post-reading strategies. In fact, the different categorisations or taxonomies of reading behaviour appear to be unlimited across the studies. For this reason it is impossible to cover all of them in a small research like ours, and this is why the list of styles and strategies in our work is limited and they are:

- **Pre-Reading Strategies:**
 - Relying on the title to anticipate meaning of the text,
 - Skimming to get the general idea of the text or getting the gist,
- **In-Reading Strategies:**
 - Relying on the organisation of the text or the way the writer organises and develops a given subject into different paragraphs which deal with different but related ideas,
 - Skipping the difficult words encountered,
 - Continuing reading even if what is read is not understood,
 - Using context to infer words meaning,
 - Relying on the dictionary for words meaning,
 - Studying syntax,
 - Paying attention to every word and sentence,
- **Post-Reading Strategies:**
 - Evaluating understanding after reading by recapitulating ideas or summarising the text.

Strategies like the use of background knowledge and making inferences were intended to be investigated but the oral interviews with the individual subjects showed that they were difficult to think about or report so they were not taken into consideration.

On the basis of the studies carried out by Lunzer and Gardner (1979) and Harri-Augstein (1984), Davies (1995) and Oxford (1993) we can say that two broad categories of reading styles appear outstanding: receptive reading and reflective reading. The former is rather continuous and ‘approaches the listener behaviour’, the latter is ‘interrupted by moments of reflections’. In fact, the moments of reflections or hesitations can impel the reader to go back or forth to check meaning, go into detail or analyse the text to extract meaning, solve a problem or select parts of the text to focus on more than other parts which can be read briefly. Thus, under the category of reflective reading style we would consider four actions that the reader may undertake: regress in the text, read in detail each paragraph, analyse difficulties and select important parts to reflect on. On the basis of the above categories of styles of reading mentioned in the literature review, we provide five categories according to two criteria:

- Continuous or interrupted reading,
- Points of focus, i.e, reflecting about meaning and content or/and analysing problems .

Thus, our categories of reading styles are (see table 2 of the Questionnaire):

- Rapidly and continuously from beginning to end (a receptive reading)
- Slowly from beginning to end with looking backward to check meaning (regress)
- Organising reading into reading by paragraphs which are analysed in detail (detailed/analytical reading during which a difficult point or important parts such as topic sentences may be analysed).
- Reading from beginning to end with stopping only at difficulties (difficulty analysis).

- Reading from beginning to end with stopping at important parts (selective reading).

In the discussion of the results we shall refer to these categories mentioned in the Questionnaire respectively as receptive reading and reflective reading with its subsequent actions: regress, analytical reading and selective reading.

In the following section, we propose the questions we attempt to answer in this study and show in detail the design of the research.

2.2/ Research Questions: in this research, we seek to find answers to four questions.

As mentioned in the literature some researchers such as Goodman (1988) characterise the FL learners as top-down strategy users, other researchers such as Gough (1972) describe the FL reading as exclusively bottom-up and other researchers such as Eskey (1988) suggest that FL reading is a combination of both bottom-up and top-down strategies. In addition, it seems that as Oxford (1993) suggests learners can use strategies that reflect their general learning style. Thus, learners with a ‘global’ style tend to use more the ‘top-down’ strategies, and learners with a more ‘local’ style tend rather to use the ‘bottom-up’ strategies. In our research, we would like to check whether the individual learners are either categorically global or local readers. This is why our first question will be:

- Can our EFL learners be shown to belong to any of the reading styles discussed?

As discussed in our literature review it seems that there exist ‘good’ strategies which are said to be used by the ‘successful’ readers and ‘bad’ strategies which are used by ‘less successful’ ones (Hosenfeld, 1977; Alderson, 1984; Goodman, 1988; Carrell, 1998) as if there were a clear limit between these learners and as if the learners whether successful or not made use of the same strategies whatever the type or literary genre of text they read. These researchers came out with different categories of ‘good’ and ‘bad’ strategies. In fact, we wanted to know in our study which type(s) of strategies our EFL learners tend to use, for this purpose we used the list of the strategies in which the latter are classified into: pre-, in- and post-reading strategies. We would like to know also if strategy use varies from one reader to another and whether the reader may use different strategies in response to different literary genres. So the next questions are:

- Do EFL learners use some/all of the strategies discussed in our review of the literature?
- Is there a relation between the use of (a) particular reading strategy(ies) and (a) specific literary genre(s)?

As mentioned above, researchers (such as Hosenfeld, 1977; Goodman, 1988; Carrell, 1998) made lists of ‘good’ strategies and of ‘bad’ strategies believing that the former are responsible for successful reading and the latter for the breakdown in reading. So is this true? In our research we involved the ‘most successful’ and the ‘least successful’ readers (according to criteria explained in the rationale) and we would like to know whether there is a difference between them in terms of the reading strategies they use. It is only if we find such a difference that we would be able to say that the use of certain strategies may be

responsible for the successful or unsuccessful achievement in reading. Thus our last question is:

- Is there a relationship between the strategy use and learners' success in the reading task?

2.3/ Research Design: In this section we present the subjects involved in the research, the materials and the procedure of the investigation (comprehension questions, text marking, questionnaires, observation and oral interview).

2.3.1/ The Subjects

Twenty first year university students of English as a foreign language were selected in this study. Because of the large number of the details required in this research it was not possible to study a large number of subjects. The subjects were given three texts to read. After finishing reading each text, they were asked first to answer comprehension questions, then to mark the text and fill in the Questionnaire. Before we began the experiment, the questionnaires and text marking instructions were explained to the subjects; in addition, the subjects were allowed to ask questions if instructions were not clear. In addition, the subjects were free to read the texts at their own pace; time for reading each text was not fixed. After three hours, we collected the texts and the questionnaires. Then, immediately, we held an interview with each subject. The Interview bore on subjects' process of reading; and we relied on data of the Questionnaires to direct the Interview.

In our experiment we aimed at comparing the more successful with the less successful subjects in terms of some aspects of reading process such as the reading styles and strategies suggested in our study. For this reason, we needed to know the subjects' level of reading ability, or text understanding ability. In fact, the teacher of Reading of the classroom concerned with the experiment helped us classify the subjects into more successful, less successful and average readers as regards their capacity to understand a text. The teacher based his judgement on two criteria which are learners' scores on two official tests and subjects' general performance in the classroom. In our experiment, we backed up the teacher's judgement with the subjects' scores on a test of comprehension questions.

2.3.2/ The materials

We used three short texts in the experiment (see Appendix 6):

- The first text is 'narrative': St Valentine's Day from *A Resource Book on American Holidays*,
- The second text is 'descriptive': Hillary Rohdman Clinton from *Parade Magazine*,
- The third text is 'expository' : Dialysis from *Club MJP Magazine*.

We selected texts which cover different genres to see if the type or genre of the text had any influence on the reading process. We selected those genres of texts because they are most likely to be used in teaching and the most probable ones the learners may encounter.

2.3.3/ The Research Procedure: after reading each text, the subjects were first asked to answer comprehension questions; then, mark the text to indicate difficulties (words and sentences) and words they checked for their meaning in the dictionary. After that, the subjects were asked to fill in the Questionnaire about:

- The difficulties in the texts,
- The styles of reading used to read each text and
- The strategies of reading used to understand each text.

Finally, after handing back the texts and the Questionnaires, the subjects were immediately interviewed about the styles and strategies they have used when reading each text. Four subjects were observed while reading and undergoing the experiment.

(i) Comprehension Questions

This Task was used so that all readers got a same purpose of reading which was understanding the text to answer comprehension questions. This, in turn, enabled us evaluate the subjects' understanding. Each text was accompanied by four comprehension questions. The questions were about the main ideas of each paragraph of the texts (see Appendix 6).

(ii) Text Marking (Appendix 8)

After reading the texts, the subjects were asked to:

- Underline parts in the text which were most helpful in understanding the main ideas of the texts and which in turn helped them answer comprehension questions; this is in order to find out if they were efficient or not at selecting the important clues in the text to rely on in understanding the texts (Appendix 9).
- Write at the bottom of the texts the words they looked up in the dictionary and their definitions. This is 1) to see whether the definitions selected correspond to those intended in the texts and 2) to see if the words looked up in the dictionary are important to total phrase meaning (Appendix 5), or/and their meaning is not easy to guess from context.
- Circle the other difficult words that they did not try to understand. This is in order to see if the subjects when dealing with difficult words selected the important or unimportant words to look up in the dictionary if they ever used it, (we consider the importance of words as regards the total phrase meaning and the meaning of the whole text). This is important for this research to see if the subjects used the dictionary when necessary or not. In addition to circling difficult words, the subjects were asked to circle the difficult grammatical structures they encountered (Appendix 4).

We made sure that the subjects got a dictionary when needed by making dictionaries available in the classroom for those who did not bring any.

(iii) The Questionnaires (Appendix 7)

The subjects were given the same Questionnaire with each text. The Questionnaire is in the form of tables in which are presented 1) categories of some text difficulties (vocabulary, syntax, content and type of the text) to see which text they found easy or difficult, and 2) the types and the strategies of reading discussed in the rationale. The subjects were asked to fill in the tables so that they revealed different pieces of information according to the different tables as follows:

In the following table the subjects were asked to report whether they found a particular text easy or difficult and whether the reason of easiness or difficulty was due to one or more of the following items: vocabulary, syntax, content, or genre of the text. This questionnaire is important only in that it may reveal whether or not text easiness or difficulty can influence the use of the styles and strategies of reading discussed in this research.

Is the text easy or difficult and why?	Because of content	Because of vocabulary	Because of syntax	Because of the type of the text (narrative, expository...)
Easy				
Difficult				

Table 1: reading difficulties

Before filling in the next table, the subjects are first asked to mention in the questionnaire how many times they read the texts; this is to know whether they re-

read the texts and how often. This part of the questionnaire (table 2) aims at finding out what reading style(s) the subjects used as shown in tables 3, 4 and 5:

- Reading rapidly and continuously from beginning to end (referred to as ‘receptive reading’)
- Reading slowly from beginning to end with looking backward to check meaning (referred to as ‘regress’)
- Organise reading into reading by paragraphs that are analysed by paying attention to every word and sentence (referred to as analytical’ or ‘detailed’ reading).
- Reading from beginning to end with always stopping at difficulties (referred to as analysis of difficulties : ‘selective’ reading: reading from beginning to end with stopping only at important parts.

Did you read this text in this (or these) way(s)	Put an (x) when it is yes	First reading	Second reading	Other readings
Rapidly and continuously from beginning to end				
Slowly from beginning to end with looking forward and backward to check meaning				
Organising reading into reading by paragraphs which you analyse				
Reading from beginning to end with always stopping at difficulties				
Reading from beginning to end with always stopping at important parts				

Table 2: reading styles

In table 3, the subjects are asked to report whether they used specific strategies. This can also allow to know the way the strategies are used or in which order they are used as it is possible to know from the design of the table below.

Did you use one (or more) of these strategies for understanding and when?	Put an (x) when it is yes	First reading	Second reading	Other readings
Use the organisation of the text				
Pay attention to every word and sentence				
Ignore words which are not important				
Use the dictionary to look up difficult words				
Often guess the meaning of words from context				
Study the syntax to get at the meaning of the text				
Skim the text to get the general meaning idea.				
Look at the title to predict the general sense of the text				
Continue reading even if you do not understand what you read				
Evaluate what you understand through summarising or recapitulating what you have understood even if in mind				

Table 3: reading strategies

These strategies fall into three broad categories but which do not appear explicitly in the questionnaires:

- **Pre-reading strategies:**
 - Look at the title to predict the general sense of the text.
 - Skim through the text to get the general idea.
- **In-reading strategies:**
 - Use text organisation to understand.
 - Pay attention to every word and sentence.
 - Ignore words that are not important.
 - Even if you do not understand meaning you keep going on reading.
 - Often guess the meaning of words from context.

- Use the dictionary
 - Study syntax to get at meaning.
- **Post-reading strategies:**
 - Evaluation of understanding through text summarising or main ideas recapitulation.

Data from this table may show whether the subjects used the same or different types of strategies when reading the same text and whether the same subject used the same or different strategies when reading different texts in terms of literary genres.

In the Questionnaire (Appendix 7), there are some strategies that are listed and were supposed to be investigated; however, during the oral interview, we realised that these strategies were not very easy to report so they have not been included in our study.

(iv) Observation (Appendix 2):

During the experiment, we could observe, unfortunately, only four subjects when reading the texts; because of time constraints we could not observe each subject when reading the three texts. Two subjects are assumed to be successful learners (S3, S4) whereas the others are assumed to be less successful (S18, S20). The reading ability level of these learners was given by their teacher of Reading who based his judgement on their academic grades on two official tests and on their performance in reading in the classroom during the past six months. The

subjects were observed while reading silently. Since silent reading is not open to observation, the subjects were asked to indicate with a pen where they stopped and when they regressed in the text and they were required, too, to speak about the way they dealt with difficulties. We could have asked the subjects to read aloud but this process does not guarantee that the readers are making sense of what they read because of the concentration on the delivery. While reading, the subjects were not questioned on their process of reading (except for the way they solve the problems when they stop reading) to avoid interfering with their reading process. The outcome of their reading process was analysed when answering comprehension questions by asking them to justify their answers from the text. The behaviours that were focused on during the observation are:

- Where the subjects stopped (before or after the end of a meaningful unit such as a sentence)
- How many times they interrupted reading
- Whether they stopped at important or unimportant parts
- Whether they regressed to revise meaning
- The way they dealt with difficulties
- Ability of selecting the right clues that enabled them to infer meaning

(v) Oral Interview (Appendix 1):

After collecting the Questionnaires and the texts we held an interview (based on the data obtained from the Questionnaires) with each subject. The Interview allowed us talking a subject back into his/her earlier process of reading. Such procedure allowed us to sketch out briefly the reading process without a pre-planned design. In fact, the Oral Interview and the Questionnaires bear on the

same points (reading styles and strategies) so the Interview enabled us to check the reliability of the subjects' answers on the Questionnaires on one hand; and on the other hand, allowed us to make the subjects talk about: (1) the way they dealt with difficult words and structures of the three texts, (2) the outcome of using some strategies such as the use of the title, the use of text structure, the use of the dictionary, the study of syntax and evaluation of understanding. Thus the interview was directed towards three main points:

- The way they read each text in terms of the styles and strategies of reading.
- The reason for which they could read the three texts in the same or different way in terms of styles and strategies of reading.
- The way they dealt with the difficulties. The subjects were asked to give examples where they could employ a given strategy to understand the text or part of the text. For example, if a subject talked about studying syntax to understand meaning, we asked him/her to show how he/she studied the structures to understand.

Chapter 3: Results

In this chapter, we give the different results of the experiment which consist in:

- Subjects' scores on comprehension questions
- Subjects' styles and strategies of reading,
- Subjects' dealing with difficult words and structures
- Successful and unsuccessful subjects' styles and strategies of reading.

We organise the results as follows:

- Subjects scores on comprehension questions. This allows us to classify subjects into more and less successful subjects according to the scores obtained (table 1).
- Percentage of difficulty of each of the four textual elements: vocabulary, syntax, content and type of the text (table 2). This allows us to compare the use of reading styles and strategies against text easiness or difficulty. The percentage of difficulty is established from the number of the subjects who reported that a given textual element was difficult.
- Subjects' reading styles and strategies used when reading the texts (table 3, 4, 5, 6, 7 and 8)
- Subjects' dealing with difficult words and structures (table 9,10, 12, 13 and 14).
- Observation data (table15, 16).

3.1/ Subjects' Scores on Comprehension Questions: the

following table shows subjects scores obtained on comprehension questions task after reading each text. The scores are shown in a decreasing order. The maximum score is 4 for each text, and 12 for the three text.

Subjects	Scores on text 1	Scores on text 2	Scores on text 3	Total
S1	3	4	3	10
S2	2	3	3	8
S3	2	3	3	8
S4	2	4	3	8
S5	1	2	3	6
S6	1	2	3	6
S7	1	2	2	5
S8	1	2	2	5
S9	1	2	1	4
S10	1	2	1	4
S11	1	1	2	4
S12	1	2	1	4
S13	0	2	1	3
S14	1	1	1	3
S15	1	1	1	3
S16	1	0	1	2
S17	0	1	1	2
S18	0	1	1	2
S19	0	0	1	1
S20	0	0	0	0
	Mean: 1	Mean: 1.75	Mean: 1.7	Mean: 4.4

Table 1: Subjects' scores on comprehension questions testing

On the basis of the learners scores in two official tests and the learners general performance in the Reading classroom, the teacher judged that his learners could be classified into:

- More successful subjects: S1, S2, S3, S4 and S5 (see table1).
- Average subjects: S6, S7, S8, S9, S10, S11, S12 and S13 (see table1)
- Less successful subjects: S14, S15, S16, S17, S18, S19 and S20 (see table 1)

In fact, to back up the teacher's judgement we tested the subjects reading comprehension through comprehension questions. According to the results displayed in the table above it seems that:

- The most successful subjects (who are from S1 to S5) scored above the mean for each text except S5 who got a score equal to the mean on text1.
- The average subjects (who are from S6 to S13) scored either above the total mean or got scores equal to the total mean except S13 who scored under the mean. However, most of the scores seem to be above the mean for text 2 and text 3 and equal the mean for text 1.
- Whereas all the less successful subjects (who are from S14 to S20) scored under the mean for each text except S14, S15 and S16 who got scores equal to the mean for text 1.

Note: the results do not seem to contradict the subjects' reading ability level determined by the teacher of Reading as referred to before.

3.2/ Texts' Levels of Difficulty

The following data are obtained from the first table in the Questionnaires. The percentages refer to the number of the subjects who found the four levels of the text (vocabulary, content, syntax and genre) difficult.

Texts	Easy	Difficult	Percentage of the subjects qualifying Vocabulary, content, syntax and genre as difficult			
			Vocabulary	Content	Syntax	Genre
Text1	0%	100%	100%	90%	40%	30%
Text2	80%	20%	40%	40%	15%	0%
Text3	90%	10%	20%	20%	0%	0%

Table 2: percentages of difficulty of vocabulary, syntax, content and genre.

According to this table, text 1 turned out to be the most difficult for 100% of the subjects whereas text 2 and text 3 were found less difficult since 80% and 90% of subjects found respectively text 2 and text 3 easy. We can see that the difficulty of all of vocabulary, content, syntax and genre of the text was reported to be higher on text 1 than on the other texts. In addition, vocabulary and content were found to be the most difficult of the four features on the three texts. In fact, text 1 can also be considered to be the most difficult in terms of readability because of the lowest score mean obtained for this text on comprehension questions (see table 1).

3.3/ Subjects' Reading Styles and Strategies.

In the following tables we present the different reading styles and strategies which were used while reading the different texts. These data are obtained from the second and the third tables of the Questionnaires which are, in fact, corroborated by the Oral Interview held with the subjects at the end of the experiment (see Appendix 1). For reason of space we will use letters to refer to the various strategies as follows:

- Pre-reading strategies:
 - (A) refers to 'the use of the title to predict meaning of the text'.
 - (B) refers to 'skim the text to get the general idea'.
- In-reading strategies:
 - (C) refers to 'the use of the structure of the text'.
 - (D) refers to 'pay attention to every word and sentence'.
 - (E) refers to 'ignore difficult words'.
 - (F) refers to 'continue reading even if you do not

understand what was read’.

(G) refers to ‘often guess meaning of words from context’.

(H) refers to ‘the use of the dictionary’.

(I) refers to ‘the study of syntax’.

- Post-reading strategies:

(J) refers to ‘evaluate understanding through summarising or recapitulation of ideas even if in mind.’

Subjects	Reading Styles					Reading strategies										
						Pre-reading strategies		In-reading strategies								
	Receptive	Reflective				A	B	C	D	E	F	G	H	I	J	
Regress		Analytical	Difficulties analysis	Selective												
S1		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		
S2		✓	✓		✓			✓		✓		✓				
S3	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓		
S4	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	
S5	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓		✓	
S6				✓			✓				✓	✓				
S7		✓	✓			✓		✓	✓	✓		✓	✓	✓	✓	
S8		✓		✓		✓			✓	✓		✓	✓	✓	✓	
S9		✓	✓	✓				✓	✓		✓	✓	✓		✓	
S10	✓	✓	✓			✓	✓		✓	✓		✓			✓	
S11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
S12	✓	✓		✓			✓	✓	✓		✓	✓				
S13	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
S14	✓	✓			✓	✓		✓	✓	✓	✓	✓	✓		✓	
S15		✓														
S16					✓					✓	✓					
S17		✓	✓	✓		✓	✓	✓	✓			✓	✓		✓	
S18		✓		✓						✓	✓	✓	✓	✓		
S19				✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	
S20	✓		✓	✓		✓	✓		✓				✓	✓	✓	

Table 3: types of reading and strategies used with text 1

This table shows that all styles of reading were used but two styles appear to have been most recurrent of all: the slow reading with going back and forth to check meaning (regress) and reading which is interrupted by moments of reflection to analyse each difficulty (difficulties analysis). However, all styles of reading were used but with different degrees of frequency as follows:

- Receptive reading by 45%
- Regress by 85%
- Analytical reading by 45%
- Difficulties analysis reading by 75%
- Selective reading by 30%

In fact, the subjects used at least two styles of reading. In addition, no style of reading was exclusively used by successful subjects or exclusively used by less successful ones.

As far as the strategies are concerned, our findings show that all the subjects used all the strategies suggested in our study. Except the use of syntax to understand the text, all the other strategies were intensively used:

- A (use the title to predict meaning of the text) by 55%
- B (skim the text to get the general idea) by 55%
- C (use of the structure of the text) by 65%
- D (pay attention to every word and sentence) by 75%
- E (ignore difficult words) by 60%
- F (continue reading even if meaning is not accessed) by 60%
- G (guess meaning of words from the text) by 85%
- H (use the dictionary) by 80%
- I, (study syntax) by 30%
- J, (evaluation of understanding) by 65%

In addition, no strategy was exclusively used by neither the subjects who scored more on comprehension tasks nor by those who scored less. In most cases most strategies (more than five) were used by 60% of the subjects.

Subjects	Reading styles					Reading strategies									
						Pre-reading strategies		In-reading strategies							Post-reading strategies
	Receptive	Reflective				A	B	C	D	E	F	G	H	I	J
		Regress	Analytical	Difficulties analysis	Selective										
S1	✓	✓			✓	✓				✓		✓	✓		✓
S2	✓				✓	✓				✓					
S3	✓	✓									✓		✓		✓
S4	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓
S5	✓	✓					✓		✓			✓	✓		✓
S6		✓			✓		✓		✓		✓		✓		✓
S7	✓	✓				✓	✓			✓			✓		✓
S8		✓		✓	✓	✓		✓		✓		✓	✓		✓
S9		✓				✓					✓		✓		✓
S10	✓	✓				✓	✓	✓		✓	✓	✓	✓		✓
S11	✓	✓			✓					✓		✓	✓		
S12	✓	✓	✓		✓	✓				✓	✓		✓		✓
S13	✓				✓	✓	✓	✓		✓			✓		✓
S14	✓	✓			✓	✓	✓	✓		✓	✓	✓	✓		✓
S15		✓			✓							✓			
S16	✓							✓		✓	✓				✓
S17	✓				✓	✓	✓			✓		✓			✓
S18	✓									✓	✓		✓	✓	
S19	✓	✓			✓		✓			✓		✓	✓		✓
S20	✓	✓				✓						✓	✓	✓	✓

Table3: Types of reading and strategies used with text 2.

This table shows that 90% of the subjects used at least two styles of reading. In fact, three styles of reading appear to have been more used than others: reading continuously from beginning to end (receptive), reading slowly with going backward and forward to check meaning (regress) and selecting some parts of the text to focus on (selective). The detailed reading and problem analysis styles were less used:

- Receptive reading by 80%.
- Regress by 60%.
- Analytical reading by 10%.
- Difficulties analysis by 10%.
- Selective reading by 65%.

In addition, we observe that the subjects showed differences in terms of the way they combined different styles of reading. For example, some subjects (S4, S7, S12, S13, S17 and S19) used all the styles of reading. Other subjects did not use all the styles; for example, S6 and S15 read reflectively and also tried to analyse all the difficulties they encountered. S2, just read the text continuously and then selected the parts he judged important to answer the questions in order to read them more slowly and reflectively.

Concerning the strategies of reading the table shows that some strategies appear to have been more used than others. Using the title to predict meaning of the text, ignoring difficult words, guessing from context, evaluation of understanding were the most used:

- A (use of the title to predict meaning of the text) by 65%
- B (skim the text to get the general idea) by 45%
- C (use text structure to understand) by 25%
- D (pay attention to every word and sentence) by 10%
- E (ignore difficult words) by 70%
- F (ignore some difficulties and move on) by 50%
- G (guess meaning of words from context) by 55%
- H (use the dictionary) by 80%
- I (study syntax) by 10%
- J (evaluation of understanding) by 80%.

In addition, we observe no exclusive use of any strategy neither by the successful subjects nor by the less successful ones.

Subjects	Reading Styles					Reading Strategies									
	Receptive	Reflective				Pre-reading strategies		In-reading strategies							Post-reading strategies
		regress	Analytical	Difficulties analysis	Selective	A	B	C	D	E	F	G	H	I	J
S1	✓	✓			✓	✓			✓						
S2	✓									✓		✓			
S3	✓									✓		✓			
S4	✓	✓		✓	✓	✓	✓		✓	✓		✓			✓
S5	✓	✓				✓		✓							✓
S6		✓			✓					✓	✓	✓			
S7	✓				✓	✓	✓			✓		✓	✓		✓
S8		✓				✓		✓		✓			✓		✓
S9		✓				✓							✓	✓	✓
S10	✓	✓				✓	✓			✓		✓			
S11	✓	✓			✓	✓						✓	✓		
S12	✓	✓	✓		✓	✓	✓				✓	✓	✓		✓
S13	✓				✓	✓	✓			✓	✓		✓		✓
S14	✓				✓		✓	✓				✓	✓		✓
S15		✓											✓		
S16	✓					✓				✓	✓				
S17	✓				✓	✓	✓		✓	✓		✓	✓		
S18	✓									✓	✓		✓		
S19	✓				✓	✓	✓			✓	✓	✓	✓		✓
S20	✓				✓										

Table5: types of reading and strategies used with text 3.

This table shows that four styles of reading were intensively used: receptive, regressing and selective reading:

- Reading continuously and rapidly from beginning to end by 80%
- Reading slowly from beginning to end with looking forward and backward to check meaning by 50%
- Analysing in detail each paragraph by 50%
- Reading from beginning to end with always stopping at difficulties by 10%
- Reading from beginning to end with stopping only at important parts by 55%

In addition, 80% of the subjects combined at least two styles of reading. 25% of the subjects used all the styles of reading. The rest used different combinations of styles of reading. And we observe no distinction in terms of styles use between the successful subjects and the less successful ones.

As far as the strategies are concerned, we observe that some strategies were more used than others: the use of the title to predict the general meaning of the text, ignoring difficult words, guessing meaning of words from context, the use of the dictionary and evaluation of understanding:

- A (the use of the title to predict meaning of the text) by 65%
- B (skim the text to get the general idea) by 40%
- C (use the structure of the text to understand) by 10%
- D (pay attention to every word and sentence) by 15%
- E (ignore difficult words) by 55%
- F (ignore some difficulties and continue reading) by 30%
- G (guess meaning of words from context) by 55%
- H (use the dictionary) by 60%
- I (study syntax) not used at all
- J (evaluate understanding) by 50%

In addition, we observe that the subjects used different combinations of strategies and that at least two strategies were used and that no distinction was made among subjects in terms of strategies use.

Comparative Analysis: in the following tables (table 6, 7 and 8) we compare data shown in table 3, 4 and 5. We compare the reading styles used by the subjects when reading the three texts.

Types of reading	Receptive	Regress	Analytical	Difficulties analysis	Selective
Text 1	45 %	85%	45%	75%	30%
Text 2	80%	60%	10%	10%	65%
Text 3	80%	50%	5%	15%	55%

Table 6: Percentage of the use of the types of reading on text 1, text 2 and text 3

Data in this table show that:

- The subjects were more reflective and analytical when reading the first text (a difficult text).
- They were more receptive and selective when reading text 2 and text 3 (easier texts), and the difficulties were less analysed.
- Regressing was intensively used in the three texts.

The following table gives the percentage of the subjects who could be categorically either receptive or reflective as shown in table 2, 3, and 4.

Text	Receptive	Reflective
Text 1	0%	50%
Text 2	10%	20%
Text 3	15%	15%

Table 7: Percentage of the use of the receptive or reflective type of reading singly.

Data in this table show that:

- Some subjects could be categorically receptive at reading text 2 and 3.

- Many subjects could be categorically reflective when reading text 1.

This means that some subjects could use just one reading style, and it was more probable to use only a receptive style when reading an easy text than when reading a difficult one. However, the majority of subjects were both receptive and reflective readers.

The following table shows the frequency of the use of each strategy suggested in this research.

Letters Representing the strategies	The strategies	Text 1	Text 2	Text 3
A	Using the title to predict the meaning of the text	55%	65%	65%
B	Skimming to get the general meaning of the text	55%	45%	40%
C	Using the structure of the text to understand	65%	25%	10%
D	Paying attention to every word and sentence	75%	10%	15%
E	Ignoring unimportant words	60%	70%	55%
F	Continuing reading even if meaning is not understood	60%	50%	30%
G	Guessing meaning of words from the text	85%	55%	55%
H	The use of the dictionary	80%	80%	60%
I	Studying syntax	30%	10%	0%
J	Evaluating understanding through summarising the text or recapitulating the ideas even in mind	65%	80%	50%

Table 8: Percentage of the use of the strategies through reading the three texts

Data in this table show that:

- Three in-reading strategies were the least used when reading text 2 and text 3:
 - (a) Using the structure of the text.
 - (b) Paying attention to every word and sentence.
 - (c) Studying syntax.
- All the strategies (except the study of syntax) were extensively used in text 1.
- When reading text 2 and text 3 only five strategies were always extensively used:
 - (a) the use of the title to predict meaning of the text,
 - (b) ignoring unimportant words,
 - (c) guessing words meaning from context,
 - (d) the use of the dictionary and
 - (e) evaluation of understanding.

Concerning each subject's use of reading style(s) and strategy (ies), we observe from table 3, 4 and 5 that:

- From text 1 to text 3, 90% of the subjects changed their styles of reading. Only S4 and S14 read the three texts with the same style(s) of reading.
- However, if we compare the styles of reading used when reading text 2 and text 3, we find that 60% of the subjects read these texts using the same styles of reading. These subjects are S1, S2, S4, S6, S9, S10, S11, S12, S13, S14, S18 and S19.
- The subjects did not use at all the same combinations of strategies from text 1 to text 3.

These findings show that most subjects treated different texts in different ways and that they were more likely to treat texts of the same level of difficulty in

a same way. See that text 1 was read more reflectively by the majority because it was harder to be understood by the subjects, whereas the other two texts were read more receptively since the subjects could get into meaning easily (table 7).

3.4/ The Way(s) Subjects Deal with Difficult Vocabulary and Structures:

Before looking into the way the subjects dealt with difficult words, we give a list of all the difficult words from the most difficult to the least difficult. We mean by the most difficult the words that were reported as such by the highest number of subjects. The least difficult ones are those which were reported to be difficult by the lowest number of subjects.

Difficult words in text 1	Percentage
Pagan	100%
Bay-leaves	100%
Swain	100%
Lore	85%
Betime	85%
Shell	75%
Appeal	75%
Settlers	65%
Diary	65%
Sigh	65%
Shed	65%
X'ed	65%
Pinned	55%
Pillow	50%
Maid	50%
Morrow	50%
'Tis	50%
Inked	50%
Rooted	40%
Conquerors	40%
Contrariwise	40%
Carried	30%

Table 9: Perceived difficult vocabulary in text 1

Difficult words in text 2	Percentage
Stint	100%
Keenly	85%
Aware	80%
Rhodes	45%
Yale	35%
Gift	35%
Vulnerability	35%

Table 10: Perceived difficult vocabulary in text 2.

Difficult vocabulary in text 3	Percentage
Drain into	50%
Drain out	50%
Flow around	40%
Straightforward	30%
Transplant	30%
Waste	30%

Table 11: Perceived difficult vocabulary in text 3.

We observe that many words were reported to be difficult in text 1 and fewer words only were found difficult in the other texts. In addition, we observe that the most difficult words in text 1 (which is found difficult by a higher number of subjects) were reported to be difficult by all subjects; whereas the most difficult words in text 3 were reported to be difficult by only the half of the number of the subjects.

(i) Dealing with Difficult Vocabulary.

Now we shall look at how the subjects dealt with each difficult word: ignored or checked meaning of a word in the dictionary or guessed its meaning from context. Such data are obtained from both Text Marking procedure and the Oral Interview held with each subject at the end of the experiment and during which the subjects were asked to report their reading styles and strategies when reading the texts. From Text Marking we obtained the following data:

- The difficult words. This is because the subjects were asked to circle them.
- The words looked up in the dictionary. Because the subjects were asked to write at the bottom of the text the words they look up in the dictionary as well as their definition.
- The words left unexplained, i.e, the words which the subjects circled but did not check their meaning.
- The words whose meaning was guessed from context. This is obtained from the Oral Interview during which the subjects were asked to refer back to the text and say which words meaning they could guess from the context.

In the following table, we show the way the subjects dealt with the words that they perceived difficult. The strategies are referred to with the first three letters of the name of each strategy:

Dic refers to ‘the use of the dictionary’.

Ign refers to ‘ignoring the words; i.e, letting them unexplained’.

Gue refers to ‘guessing’.

(W) refers to a wrong use of the dictionary (the use of an irrelevant information) and incorrect guessing from the context.

Empty cases mean that the words are not difficult.

subjects	Pagan	Bay- leaves	Swain	Lore	betime	Shell	Appeal	Settlers	Diary	Sigh	shed	X'ed	Pinned	Pillow	maid	morrow	'tis	inked	Rooted	Conquerors	contrariwise	carried
S1	dic	Ign	Ign		Ign	Ign				Ign		Gue	Gue			Gue	Gue	Gue	Gue			
S2	Ign	Ign	Ign						Ign		Ign					Gue	Gue	Gue				
S3	Dic	Dic	Ign		Ign		Dic	Gue	Dic		Gue	Gue										
S4	Ign	Dic	Ign	Ign	Ign	Dic	Dic	Dic														
S5	Dic	Dic	Dic	Dic		Dic				Dic		Gue				Gue	Gue	Gue				
S6	Ign	Ign	Ign	Ign		Ign			Ign		Ign		Ign	Ign								
S7	Dic	Dic	Ign	Dic	Dic	Ign	Ign	Dic	Dic	Dic		Dic	Dic		Ign	Gue	Gue	Gue	Dic			
S8	Dic	Dic	Dic	Ign	Dic	Dic	Dic	Ign			Gue	Ign	Dic	Gue		Gue	Gue	Dic				
S9	Dic	Dic	Dic	Dic	Dic		Dic		Dic	Dic	Gue	Dic	Gue		Dic	Gue	Dic	Gue	Dic	Dic		
S10	Ign	Ign	Ign	Ign	Ign		Ign	Ign			Ign	Ign	Gue	Gue	Ign	Ign	Ign	Ign			Ign	
S11	Dic	Ign	Ign	Dic	Ign	Dic		Dic	Dic		Ign	Dic	Ign	Dic	Dic	Dic	Ign	Dic	Gue	Dic		
S12	Dic	Ign	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Ign	Ign	Dic	Ign	Ign	Ign	Dic	Ign	Gue	Gue	Ign		
S13	Ign	Ign	Ign	Ign	Ign	Dic	Ign	Ign	Gue	Dic	Dic	Ign	Ign	Ign	Ign	Ign	Ign	Dic	Ign		Dic	
S14	Dic	Dic	Dic	Dic	Ign	Ign	Ign	Dic	Ign	Dic	Ign	Ign	Gue	Gue (W)	Gue	Dic	Gue	Ign	Dic	Dic	Ign	
S15	Dic	Ign	Dic	Dic		Dic	Dic		Dic	Dic	Dic (W)		Dic	Dic		Dic	Dic		Dic			Dic
S16	Ign	Ign	Ign	Ign	Ign	Ign	Ign	Ign		Ign	Ign	Ign	Ign				Ign	Ign		Ign	Ign	Ign
S17	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic		Dic	Dic	Dic	Dic	Dic	Gue	Dic	Dic		Dic	Dic
S18	Dic	Ign	Dic	Dic	Ign	Dic	Dic	Dic	Dic	Dic	Dic	Ign		Dic	Dic	Ign	Dic	Dic	Dic	Dic	Ign	Ign
S19	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Dic	Ign	Ign	Ign	Dic	Dic	Ign	Dic		Ign	Ign	Ign
S20	Dic	Ign	Dic	Dic	Ign	Dic	Dic	Dic	Dic	Dic	Dic	Ign	Gue	Dic	Dic	Ign	Dic	Dic	Dic	Dic	Ign	Ign

Table 12: subjects' dealing with difficult vocabulary in text 1.

Data in the above table show that, first, the less successful subjects had more difficulty with vocabulary in that we see from the table that they reported a greater number of difficult words as compared to the more successful subjects. In other words, more lexical items were reported to be difficult by the subjects who scored less on the comprehension tasks than by those who obtained higher scores.

Second, less difficult words or words that were reported to be difficult by fewer subjects represented no difficulty for the successful subjects, i.e, only very difficult words (according to the percentage of difficulty as shown in tables 9, 10 and 11) constituted a difficulty for the successful subjects.

Third, some words such as ‘X’ed’, ‘morrow’, ‘tis’, and ‘inked’ were guessed from context by the successful subjects whereas they were either left unexplained or looked up in the dictionary by the less successful subjects. We have only one example of incorrect guess of words meaning from the context (see table 12). When reading text 1, S14 guessed that ‘pillow’ meant ‘bed’ (see Appendix 1).

Fourth, no difference between the successful and less successful subjects in terms of strategy use when dealing with some difficult words; for example, the same word could be ignored or looked up in the dictionary or guessed from context by both successful and less successful subjects. However, the same strategy (ies) was (were) not used in the same way. For example, less successful subjects tended to use the dictionary for looking up meaning of less important words and ignored more important words as regards the total meaning of the

sentence. In other terms, less successful subjects could use the dictionary when it was not necessary to and spared its use in situations where it was unavoidable. It is necessary to use the dictionary when a word is important for the total phrase meaning, i.e, when the word meaning affects the meaning of the sentence. But we can ignore the meaning of an important word if the latter occurs in a sentence that is not very essential to the general meaning of the text or when it occurs in an unimportant paragraph for instance. The important words for the total phrase meaning in text 1 and which were reported to be difficult are:

- Carried
- Morrow
- ‘Tis
- Bay-leaves
- Betime
- Pinned
- Pillow
- Appeal
- Contrariwise
- Swain
- Sigh
- Shed
- X’ed
- Inked

(See Appendix 5)

However, some words, though important for total phrase meaning, do not occur in very important parts of the text such as:

Morrow, ‘tis, Bay leaves, betime, pinned, pillow, sigh and shed.

Less important words are:

- Pagan
- Conquerors
- Maid
- Shell
- Lore
- Settlers
- Diary

(See Appendix 5)

The less successful subjects tended to use the dictionary to look up meaning of words that could be guessed from context. These words are:

- Morrow
- Betime
- 'Tis
- Contrariwise
- X'ed
- Inked

(See Appendix 5)

We have one example of inappropriate use of the dictionary: S15 wrote before the word 'shed' the following: 'perdre' (a French word which means 'to loose').

SUBJECTS	Stint	Keenly	Aware	Rhodes	Yale	Gift	Vulnerability
S1	Ign	Dic	Dic				
S2	Ign		Ign			Gue	
S3	Ign					Gue	
S4	Ign						
S5	Dic	Dic	Dic			Gue	
S6	Dic	Dic	Dic				
S7						Gue	Gue
S8	Ign	Dic	Ign	Dic			
S9	Dic	Dic	Dic		Dic		Dic
S10	Dic	Dic	Ign	Dic	Ign	Gue	
S11	Ign	Dic	Dic				Gue (W)
S12	Dic	Dic	Dic	Ign	Ign		
S13	Ign	Dic	Ign	Dic	Dic	Dic	Ign
S14	Dic	Dic	Ign	Gue		Ign	Ign
S15	Dic	Gue (W)	Ign	Gue		Dic	Ign
S16	Ign	Ign	Ign	Ign			Ign
S17	Dic	Dic	Ign			Dic	Dic
S18	Dic	Dic	Dic	Dic	Ign	Ign	Dic
S19	Ign	Dic	Dic		Dic	Dic	Ign
S20	Dic	Dic	Dic	Dic	Dic	Dic	Dic

Table 13: subjects' dealing with difficult vocabulary in text 2.

Less difficult words (according to the percentage of difficulty) were reported to be difficult only by less successful subjects.

Successful subjects used the dictionary only when words were important for the sentence and tended to ignore unimportant ones. The important words are:

- Keenly
- Aware
- Gift
- Vulnerability

Less important words are:

- Stint
- Rhodes
- Yale

(See Appendix 5)

Less successful subjects tended to use the dictionary to check the meaning of a word that could be guessed from context easily; i.e, the word 'gift' and used even the dictionary to understand meaning of words representing names of places such as 'Rhodes' and 'Yale'. Successful subjects could guess the meaning of the word 'gift' from context whereas the less successful subjects could not.

In addition, we have two examples of incorrect guessing from the table by two low achievers: S11 guessed that the meaning of 'vulnerability' was 'kind'. S15 guessed that the meaning of the word 'keenly' was 'not very'. In appendix 1 (oral interview report) we have another example of incorrect use of the dictionary: S19 chose the meaning 'cool' for the word 'fresh' which in this text means 'new'.

Subjects	Drain into	Drain out	Flow around	Straightfor ward	Transplant	Waste
S1	Gue	Gue				
S2	Gue	Gue				
S3	Gue	Gue				
S4				Dic		
S5						
S6	Ign	Ign			Gue	
S7	Gue	Gue	Dic	Gue	Gue	Gue
S8					Dic	
S9				Dic		
S10	Gue	Gue			Dic	Dic
S11						Dic
S12	Dic	Dic	Gue		Gue	Gue
S13	Dic	Dic		Dic		
S14	Dic	Dic	Dic	Gue	Gue	Gue
S15	Dic	Dic	Dic	Dic		Dic
S16	Ign	Ign	Ign	Ign	Ign	Ign
S17	Dic	Dic	Dic	Ign	Ign	Ign
S18	Dic	Dic	Ign	Ign	Dic	Dic
S19	Dic	Dic	Ign	Dic	Dic	Ign
S20	Dic	Dic	Dic	Dic	Dic	Dic

Table 14: subjects' dealing with difficult vocabulary in text 3.

All these words could be guessed from the context and they did not constitute a difficulty to the successful subjects. However, these words constituted a difficulty for the less successful subjects.

The less successful subjects tended to use the dictionary for looking up the meaning of words which are easy to guess from context.

(ii) Dealing with Difficult Syntactic Structures:

From Text Marking we obtained also examples of difficult structures. Four structures appeared to be difficult for some subjects. We refer to these structures in table 15 and Appendix 4 by Sentence1, Sentence 2, Sentence 3 and Sentence 4:

Sentence1:

Good morrow! Tis St Valentine
All in the morning betime
And I a maid at your window to be your Valentine (text 1)

Sentence2:

Go little card to Mary ever dear
Breathe the warm sigh and shed a tear (text

Sentence3:

It is not that usual to find people...(text 2)

Sentence4:

I think that it is hard to get to the point of loving someone
wholly until you have some sense of that vulnerability. (text
2)

Sentence 1 was probably difficult (see Appendix 1) because of the old

English; for example, some subjects could not know that ‘morrow’ ‘tis’ were respectively ‘morning’ and ‘it is’. The subjects reported that they could not understand sentence 2 but without explaining the reason, all that we know is that they checked meaning of the words ‘sigh’ and ‘shed’. With sentence 3 the word ‘that’ which occurs between ‘it is not’ and ‘usual’ seemed ambiguous for the subjects. As far as sentence 4 is concerned, it seems that it confused the subjects who misinterpreted it mainly because of its length. The subjects tried to cut it down into small parts that they read as will be shown below.

During the Oral Interview (see Appendix 1), the subjects who found such structures difficult were asked to say the way they dealt with them. The subjects were S3, S4, S5, S7, S8, S9, S11, S13, S15, S18, S19 and S20. In fact, we had the opportunity to know better how S3, S4, S18 and S10 dealt with difficult structures as well as difficult vocabulary since they were observed when reading the texts. The following table shows the way some subjects dealt with the above difficult structures:

	Sent.1	Sent.2	Sent.3	Sent.4
S3	Re-reads. Infers the meaning of 'Morrow' and 'tis'. 'betime' is not understood	Relates 'sigh' to 'breathe' and 'shed' to 'tear'; then, infers that 'sigh' meant air and 'shed' meant to cry.	Not difficult	Re-reads the sentence and stops at 'whole' to read back the previous text.
S4	Infers that 'Good Morrow' and 'tis' meant respectively 'good morning' and 'it is' but without understanding the whole meaning of the sentence.	Ignores this sentence arguing that it is not very important to the whole paragraph.	Reads the sentence 'it is not that usual...' by eliminating 'that' to understand that it means 'it is not usual...'	Not difficult
S5	Reads the sentence in another way: 'In the morning of St Valentine I stand at your window to be your Valentine'	Not difficult	Not difficult	Not difficult
S7	Repeats reading many times to understand that it means that 'Hamlet wanted to stand at the window of Ophelia to be her lover.'	Not difficult	Not difficult	Not difficult
S8	Reads it many times to be able to understand them but in vain.	Checks all the words meaning of this sentence to understand that the latter means: "go to Mary and cry"	Not difficult	Not difficult
S9	Can not understand it and continues reading the text.	Can not understand it and continues reading.	Not difficult	Not difficult
S11	Repeats reading but can not understand.	Repeats reading but can not understand.	Not difficult	Not difficult

S13	Repeats reading but finds it difficult because of the style.	Not diff Table 15: subjects' dealing with difficult structures icult	Not difficult	Not difficult
	Repeats reading but can not understand it.	Looks for the meaning of all the words to understand it.	Reads the sentence word by word and tries to eliminate 'that' to understand that the sentence means 'it is not usual to...'	Not difficult
S18	Looks up for the words 'morrow', 'tis' and 'betime' after failing to guess their meaning from context. But he fails to get the meaning of the sentence.	Repeats reading and looks up for the word 'sigh'. But he fails to understand the sentence.	Can not understand it.	Cuts down the sentence into parts that he reads separately; but gets a contrary meaning to the real meaning of the sentence: '...she does not love someone with a sense of vulnerability'
S20	Looks up for all the difficult words: morrow, tis, betime and maid; and in spite of this can not understand the sentences.	Looks up for all the difficult words: sigh, breathe, shed. However, he can not get the meaning of the sentences.	Reads word by word but without achieving meaning.	Reads word by word, then repeats reading continuously but without achieving meaning.

Table 15: subjects dealing with difficult structures.

2.4.5/Comparative analysis of successful and unsuccessful subjects' strategies of reading.

From the observation procedure (see appendix 2) we could obtain the data shown in the following table:

Subjects		Subjects' reading strategies
	S3	i. Can be flexible at reading different texts: the first text is read reflectively because of its difficulty, the second is also read reflectively for both its difficulty and its interest and the last text is just skimmed because of its easiness. ii. Does not interrupt a sentence to check the meaning of words. iii. Looks up for the majority of difficult words for learning them (both important and unimportant ones). But can ignore unimportant words. iv. Able to guess correctly meaning from context. v. Makes Regresses. vi. Able to scan important parts of the texts. vii. Pays attention to every word and sentence when reading text 1 and text 2. viii. Studies syntax to get at meaning. ix. Continues reading even if the text is not understood.
	S4	i. Can be Flexible at reading the texts: the first text is read slowly because of its interesting content, the other texts are read receptively because of their easiness. ii. Does not interrupt sentences to check the meaning of words. iii. Skips some difficult words but tends to skip the least important ones. iv. Able to make correct guesses. v. Makes regresses. vi. Able to scan the important parts of the texts. vii. Pays attention to every word and sentence when reading text 1. viii. Studies syntax to get at meaning. ix. Continues reading even if the text is not understood.

Unsuccessful subjects	S18	i. Can be flexible at reading texts: the first text is read slowly because of its difficulty, the other texts are just skimmed for their easiness. ii. Does not interrupt a sentence to check for the meaning of the words. iii. Skips most of the difficult words. But when he uses the dictionary he may look up a word that is not important and leave an important word unknown. iv. Makes regresses. v. Generally makes incorrect guesses or can not use the context to guess meaning. vi. Usually unable to scan important parts in the texts. vii. Pays attention to every word and sentence when reading text 1. viii. Studies syntax to get at meaning. ix. Continues reading even if text is not understood.
	S20	i. Can be flexible at reading different texts : the first and the second texts are once read reflectively because of their difficulty, the third is skimmed because of its easiness. ii. Interrupts sentences many times to check the meaning of words. iii. He tries to look up most difficult words but tends to skip the most important ones. iv. Makes regresses. v. Most of the time fails to use context to guess meaning. vi. Pays attention to every word and sentence when reading text 1 and text 2. vii. Studies syntax to get at meaning. viii. Continues reading even if the text is not understood but after a long hesitation. ix. May not be able to scan the important parts of the texts.

Table 16: successful and unsuccessful subjects' behaviours during reading

In the following table, we show the way the observed subjects dealt with difficulties.

DIFFICULTS STRUCTURES AND VOCABULARY	S3	S4	S20	S18
Good Morrow! 'tis St Valentine All in the morning betime And I at your window To be your Valentine (text 1)	Reads the whole sentence, then rereads the sentence and tries to infer the meaning of 'Morrow' and 'tis'. Then, says that the former means 'morning' because the two words look alike and because of 'good'; and that the latter means 'it is' because of intuition. However, the meaning of betime is not inferred.	Underlines the word 'betime' in his first smooth reading then goes back to it after rereading this sentence and reads aloud 'good morning, it is St valentine' and finishes reading the sentence but without the possibility to infer the meaning of 'betime' or understanding the sentence.	Reads the sentence but suddenly breaks his reading to stop at each difficult word (morrow, tis, betime and maid) to look up for their meanings in the dictionary.	Underlines the difficult words (Morrow, tis and betime) in his first smooth reading. Then, he looks up for the meaning of 'morrow' in the dictionary after failing to guess its meaning from context through rereading the sentence.
Go little card to Mary ever dear Breathe the warm sigh and shed a tear. (text1)	Tries to guess meaning of 'sigh' and 'shed' by linking 'sigh' to 'breathe' and 'shed' to 'tear' with arrows and then inferred that the former means 'air' and the latter means 'cry'	Reads the sentence once smoothly and underlines 'sigh' but ignores it for the reason that the sentences are not very important for the text.	Looks up for the meaning of 'sigh', 'breathe', shed and 'tear' in the dictionary.	Underlines the words 'sigh' and 'shed' in his first reading then looks up for the meaning of 'shed' and ignores 'sigh'.
It is just not that usual to find people ...(text 2)	Not difficult	Before finishing reading the sentence, points back to 'it is just not that usual ' and utters 'it is not'.	Affirms that this sentence is difficult, then reads it word by word and even though says that it was difficult.	Points at 'that' and 'usual' and says that it was not clear.
I think it is hard to get to the point of loving someone wholly until you have some sense of that vulnerability. (text3)	Rereads the sentence and stops at 'wholly' to read again, then continues the other part of the sentence.	Not difficult	Reads word by word, then reads the whole sentence without stopping, but affirms his difficulty to understand it.	Cuts down the sentence into two parts as S3 did, and says ' this means that she does not love someone with a sense of vulnerability' (this is the contrary meaning)

Pagan (text 1)	After finishing re-reading the sentence, goes back to this word and looks up for its meaning in the dictionary.	Ignores it because he finds it not important for the sentence.	Stops suddenly at this word and looks up for its meaning in the dictionary.	After finishing reading the whole text, returns to look up for the meaning of difficult words in the dictionary starting by the word 'pagan'
Carried (text 1)	Not difficult	Not difficult	Stops suddenly at this word and uses the dictionary to find its meaning	Underlines it as a difficult word, but ignores it.
Bay-leaves, pinned, pillow and shell (text1)	After finishing reading the paragraph, looks up for the meaning of 'bay-leaves'; says that the word 'pinned' was something like 'put on'; ignores the meaning of 'shell'. The word 'pillow' is not shown to be unknown.	Ignores the meanings of the difficult words 'bay-leaves' and 'shell' because he finds the paragraph not very important in the text.	Looks up for the meaning of all these words in addition to other words such as 'sweetheart' and 'yolk'.	Ignores all these words except the word 'shell' which he looks up in the dictionary.
Keenly, aware (text2)	Not difficult	Looks up for the meaning of 'keenly' but does not indicate that the word 'aware' is unknown.	Looks up for the meaning of 'aware' and 'keenly' in the dictionary.	Looks up for the meaning of the word 'aware' and ignores 'keenly'
Gift (text2)	Looks at the phrases 'extraordinary mind' and 'huge heart' and inferred that 'gift' means something good.	Not difficult	Re-reads only the sentence in which this word occurs (the previous sentence is more helpful to guess meaning of gift) then looks it up in the dictionary.	Ignores it
Waste (text3)	Not difficult	Underlines the first 'waste' when it occurs, then stops at the second. Continues reading then says that this word meant "dechet" (waste in French).	Looks it up in the dictionary as soon as it occurs for the first time.	Inferred its meaning from reading the two sentences in which this word occurs.

Table 17: successful and unsuccessful subjects dealing with difficulties (the observation procedure, appendix 2).

Chapter 4: Discussion and Implications

4.1/ Discussion: in the light of the results obtained from our study, we shall attempt to answer our research questions.

1) Can our EFL learners be shown to belong to any of the reading styles discussed in this study?

Our initial observation concerning the use of the styles of reading (receptive or reflective) is that most subjects did not limit themselves to the use of one style of reading only (see tables 3,4 and 5). In fact, 50% of the subjects used both receptive and reflective style when reading text 1, and 70% of them used both of styles when reading text 2 and text 3. These subjects repeated reading a text at least twice and this enabled them to approach the text in a way that facilitated their understanding of it. For example, one subject in the oral interview reported:

S1: « ...I read first the text in detail with reflecting about the content... after this detailed reading, I reread the text rapidly without interruption to have a better understanding... »

A text is read repeatedly because as Hosenfeld (1977) points out “a foreign language text is a problem-solving process” in which the matter of deriving meaning from it is not straightforward. This is why the subjects needed to employ all possible ways to attain their goal by using sufficient time to repeat the text and process it. In a research about reading process we would be mistaken to observe, for example, subjects reading a text only once and then test their comprehension and describe their reading process. In fact, the subjects did not employ all their strategies when reading the text once. For example, S1 when reading text 1 for

the first time ignored the difficult words and did not use the dictionary which he used later on when reading the text for the third time (see Appendix 1).

Another information we can obtain when we compare the individual subjects' use of the styles of reading when reading the three texts is that the majority (90 %) did not always repeat the same style(s) of reading from text 1 to text 3. The interview with the subjects could show that they could read the three texts differently in terms of the reading styles discussed in the Questionnaire (see Appendix 1). For example because each text is different from another and this from text level difficulty point of view:

S20: “ ...*I read the text (text 1) slowly while trying to understand everything in it ... Then, I repeated reading the text rapidly to get the general idea.*”

Experimenter: Why you did not read the second text and the third text in the same way?

S20: « *These texts are easier* »

However, this does not mean that easier texts were always read once and continuously and that the subjects never plodded through them. For example, as our results show, 70% of the subjects did use the reflective style when reading text 2 and text 3 and this in spite of the fact that these texts were said to be easier than text 1. In fact, we obtained some data from the oral interview showing that personal interest for the text influenced reading. For example:

S3: « ... *I read the text [text1] in detail by thinking about the content and after ... I re-read the text rapidly without stopping to understand it better* »

Experimenter: You found the second text easier but you read it twice and in the same manner. Why?

S3: « ...*I repeated reading it because I am interested in the family of the president Bill Clinton* »

Experimenter: you found the third text easy but you read it once and continuously. Why?

S3: « *It is [text3] very easy and I understood it by reading it once* »

Language learning is also reported by some subjects to have been a reason for which they could reread a text they found easy. For example:

S15: « *I read the first text slowly with paying attention to everything in it and tried to look for some difficult words meaning, then I reread the text to check meaning of the other difficult words* »

Experimenter: Why did you check the meaning of all difficult words?

S15: « *It is my passion to look for the meaning of new English words* »

Experimenter: You read the other texts like this though you found them easier. Why?

S15: « *It is my habit to read in this way* »

Thus, in some circumstances readers could have both comprehension and information or language learning purposes and these influenced their reading. In fact, this is consistent with the role of the message centre in Rumelhart's model (1984) and of the thematic processor in Rayner and Pollack's model (1989) and with the notion of drivers proposed by Hedge (1991) for the analysis of reading. Thus, reading is tied to attitudes such as liking or disliking reading, finding the text interesting, important or not, etc. And these attitudes influence the reading process.

Now if we compare individual subjects' behaviours in terms of reading styles (receptive and reflective), we observe that the styles of reading varied when reading a single text from a subject to another and that 90% of the subjects varied their styles of reading in response to different texts. However, 60% of the subjects read text 2 and text 3 in this same way, i.e, using the same styles of reading. These subjects seemed to be more receptive and selective. This is due to the fact that these two texts have in common the fact that they are perceived as easy by the subjects. We notice also, that there is one style of reading which was most often used by the subjects and through reading the three texts. This style of reading is

the reading marked with regress (a reflective style). This style of reading was strongly used by the subjects even when the latter found the texts easy as was the case with text 2 and text 3. And this again supports Hosenfeld's view (1977) which says that a foreign language text is a 'problem-solving process' even when it appears easy. In other terms, we can say that a foreign language text that is found easy is just a problem which is in fact easy to resolve for the learners.

We observe, however, that the other reflective styles such as the analytical reading of each paragraph and the analysis of all difficulties were less used when the subjects found the text easy. Thus, we can say that the subjects were less reflective on such texts. This can be explained by the fact that these texts were not very demanding and that meaning could be accessed easily with making less strategical efforts. On the other hand, When the subjects were less reflective they tended to be rather more receptive. They read the text without interrupting reading to reflect on the content or the difficulties. Thus, the subjects appear to have adopted a behaviour which is near to the listener behaviour. They released their tight attention to a difficult text marked by hesitations, problems solving and so on to read smoothly a text that is not loaded with breakpoints; thus, their reading has become more or less fluent.

Up to now, we discussed only the behaviour of the majority of subjects whose styles of reading vary from text to another. In fact, 10% of the subjects (S4 and S14) kept always to the same type(s) of reading. The Oral Interview with those subjects revealed that some subjects brought with them a pre-designed plan to approach the texts and which became their style in reading for any text. For

example:

S4: « *I often read in this way* »

S14: « *I always read so in English* » (see Appendix 1)

Finally and to answer the initial question, we can say that we cannot say that learners can be categorically classified into styles of reading according to the style(s) of reading they use when reading in a foreign language.

First, because most subjects changed their styles of reading in response to different texts; so they could adopt one style of reading on reading one text and adopt another when reading another text. Second, the majority of the subjects adopted an interactive behaviour when reading any text. However, we found that most subjects used the same styles of reading when reading the texts they found easy. So, we can say that easiness or difficulty of the text influences strongly reading styles. Thus, most FL learners use a given style of reading according to text level of difficulty: they are more reflective on reading difficult texts and more receptive and selective when reading easier texts.

2) Do EFL learners use some or all the strategies discussed in our study and is there a relationship between the use of particular strategy(ies) and specific literary genre(s)?

Our findings show that all the strategies have been used but with different degrees of frequency. The analysis of table 8 (see page) about the use of the strategies shows that when reading text 1 all the strategies were used extensively. When reading text 2, not all strategies were used and this is probably because this text was found easier than the first one. The strategies which were frequently used are:

- The use of the title to predict text meaning,
- Skimming the text to get the general idea,
- The use of the dictionary, guessing words meaning from context and
- Evaluation of understanding.

The strategies that were more often used when reading text 3 are:

- The use of the title,
- Ignoring difficult words,
- The use of the dictionary and
- Evaluating understanding.

If we analyse the type of the strategies which were more frequently used when reading the texts that were found easy we find that many in-reading strategies were less used such as:

- Analysing the syntax,
- Paying attention to every word and sentence,
- The use of text structure.

And there was more reliance on:

- Predicting meaning of the text through reading the title,
- Skimming the text for the general idea,
- Skipping the few difficult words,
- Using the dictionary,
- Guessing and
- Evaluating understanding.

We observe that the strategies that were less used on text 2 and text 3 were the in-reading strategies. In fact, the pre- and post-reading strategies were always extensively used. Thus, the majority of the subjects seem to have used fewer

strategies when reading the texts they found easier probably because the subjects did not need many strategies to employ for reading texts they themselves found easy.

Thus, the use of the in-reading strategies decreased in number from text 1 to text 2 and text 3 and this can be explained by the fact that an in-reading strategy is more used when a text is very difficult rather than when it is not. Whereas the use of some strategies (pre-reading strategies and post-reading strategies) is not dependent on the degree of easiness or difficulty of the text but is often part of the reading process of any text.

If we compare the individual subjects' use of the strategies when reading a single text we find that the subjects when reading the same text did not use the same combinations of strategies. For example, S2 when reading the first text tended to ignore the difficult words whereas S20 used the dictionary to look up for the meaning of all difficult words. Notice this extract from the oral interview with both of the subjects:

Experimenter: How can you understand the text so full of difficult words without using the dictionary?

S2: *"I tried to guess meaning of words from context if I failed I did not mind"*

S20: *"I read the text slowly to understand everything in it and I used the dictionary to check meaning of all difficult words"*

Experimenter: But some words are easy to guess from context so why did not you try to use the context before?

S20: *"I used the dictionary because I could not guess from context"*

So we can say that the use of the strategies as well as the use of the styles of reading could also be related to a decision-making process about their use or not. But the non-use of a strategy could also be related to another factor such as failing to use the strategy like when one fails to guess from context. Predicting

meaning through the title did not activate any schema about the text; a schema could be activated only when the text was read. For example, for some subjects the title ‘Hillary Rhodman Clinton’ did not help them to guess that the text was about the American president’s wife. Similarly, the title ‘Dialysis’ did not mean anything at first to those who seemed to know what it was in reality until they read the text. (see Appendix 1)

Thus, when reading the same text the subjects did not use always the same strategies and this is due either to a personal choice about using/non using of the strategies or to failing to use the strategies. As far as the strategies are concerned, we can say that all strategies were employed frequently by the subjects when reading a difficult or demanding text; but many in-reading strategies became less used when reading easier texts and only pre- and post-reading strategies were always highly used.

If we study the strategies each subject employed for reading each text (see tables 3,4 and 5), we find that all the subjects did not use the same combinations of strategies when reading the three texts. This is due to various factors as shown through the Oral Interview:

- Finding the text easy or difficult: some subjects used the dictionary on text 1 because they found it very difficult, but did not use it with text 2 and/or text 3 because they were found easier:

S5: “...When I could not understand the text [text 1] I used the dictionary...»
 “...This text [text3] is the easiest...and I did not even use the dictionary”

- Finding the text interesting: some subjects did use the dictionary when reading a text they found easy because they found the vocabulary interesting to learn :

S8: “I read the text [text1] and...used the dictionary to check meaning of the difficult words”, “ I read the texts [text 2 and text 3] which I found easier in

this way and I focused on the meaning of the words because I like learning new English words”

- Using a strategy but failing to understand: this means that accessing meaning can be impossible even after having used a strategy to get at it such as the impossibility to guess meaning of the text through reading the title. For example, some subjects relied on the title for predicting meaning of a text, but with another text they could fail to guess meaning of the text through its title; thus, we can say that the strategy of guessing meaning of the text through the title can be helpless when reading a given text:

Experimenter: In the reading of text 1 and text 2 you report that you relied on the title to predict meaning of the texts but you did not rely on the title when reading text 1. Why?

S13: “ Yes, as soon as I read these titles I guessed what the texts [text 2 and text 3] were about because I know who is Hillary Clinton and what dialysis is...”

In addition to varying the styles of reading from one text to another we found that the subjects used less and less strategies from text 1 to text 3. As we already mentioned above, the number of strategies used is related to the assumed degree of easiness or difficulty of a text for the subjects. This is why when reading text 1 (the text they found difficult) the subjects used more strategies and when reading the other less difficult texts (as they reported) fewer strategies were used to facilitate understanding.

Thus, we can sum up by saying that most subjects varied the strategies they used to understand a text from one text to another. The reasons may be due to:

- Difficulty level as perceived by the subjects: generally, the more difficult a text seemed to be, the more strategies were used. And when a text was perceived to be difficult, it was read more reflectively than receptively with relying on many in-reading strategies, for example.

- Learning motivation or personal choice: the general meaning of the text can be understood without paying close attention to some details that can be difficult to understand, but the subjects chose to understand these details using some strategies like the use of the dictionary to look for the meaning of the unimportant words in the text (see Appendix 5), and this just for the sake of learning new words and not for understanding the whole text.
- Impossibility to exploit a strategy: some strategies could be helpful to understand one text but not when reading another one; this is why those strategies were used with one text but dropped with another text. For example, reading the title could help to know what a given text was about, but when reading another some subjects needed reading the text to understand what it dealt with because its title did not activate any schemata.

In addition, the subjects seem to have used more strategies on a text they found difficult and less strategies on a text they found easy.

3) Is there a relationship between the strategy use and learner' success in reading?

The ultimate goal of this research is to attempt to find any distinguishing element between those who can be considered as successful readers and less successful ones. Thus, this third part will be discussed in details because of the large amount of data found from the comparison of the successful and unsuccessful subjects' reading styles and strategies. Such a comparison, in fact, revealed no significant distinction between the successful and less successful subjects in terms of reading styles and strategies used when reading one genre or when reading different genres as discussed above. If we look at tables 15 and 16, we may find common behaviours between the most successful subjects (S3 and

S4) and the least successful subjects (S18 and S20). In the following table, we compare these subjects in terms of the reading styles and strategies suggested in this research (see Appendix 2).

Reading styles and strategies	Subjects			
	S3	S4	S18	S20
Regress	✓	✓	✓	✓
Analytical or very detailed reading	✓			✓
Analysing difficulties	✓	✓	✓	✓
Scanning or selecting only some parts of the text to concentrate on	✓	✓		✓
Receptive reading	✓	✓	✓	✓
Trying to guess meaning of the text through the title	✓	✓	✓	✓
Skimming to get the general idea	✓	✓		✓
Using the organisation of the text	✓	✓		✓
Paying attention to every word and sentence	✓	✓		✓
Using the dictionary	✓	✓	✓	✓
Ignoring some words meaning	✓	✓	✓	✓
Trying to use the context to guess the words meaning	✓	✓	✓	✓
Studying syntax	✓	✓	✓	✓
Continuing reading even if meaning is not achieved	✓	✓	✓	
Evaluating understanding	✓	✓	✓	✓

Data from this table do not enable us to draw different profiles for the successful and unsuccessful subjects because no reading style and strategy seem to be exclusive for the former. In other terms, we cannot speak of the successful subjects' or the unsuccessful subjects' strategies. We may even find data showing common behaviour between two subjects (see tables 14 and 15) one is successful and the other is less successful. For example:

- Both S3 and S20 read text 1 carefully with paying attention to every word and sentence, using often the dictionary, re-reading sentences before finishing reading the paragraphs...
- Both S4 and S18 read the same text with being less reflective and more receptive with ignoring a lot of difficulties and used the dictionary less than the other two subjects (S3 and S20)

But, what happens when two learners use the same strategy or style of reading to process a text and get a different outcome (one understands the text and the other not)? To answer this question, we examined the way the subjects used the strategies. In fact this question helped us to come to draw a distinction between the successful and less successful subjects.

To know how some strategies are used, we examined the way the 20 subjects dealt with the words and the sentences they found difficult. Text Marking procedures allowed us to notice which words were difficult for the subjects, which words they decided to look up for their meaning in the dictionary and which words they ignored though they were referred to as to be difficult. The Oral Interview helped us to know which words the subjects could guess from context.

Data from tables 12, 13 and 14 show very important pieces of information:

- 1) The less successful subjects encountered more difficult words than the successful subjects who could be more able to guess meaning of words from the context.
- 2) The successful subjects were more able than the less successful ones to use the dictionary when necessary and skip words which are not very important to the whole meaning of the text.
- 3) The successful subjects were better than the less successful ones in dealing with the reported difficult structures.
- 4) The successful subjects could be more able than the less successful subjects in perceiving the general plan of the text in

terms of ideas.

- 5) The successful subjects were better than the less successful ones in selecting the parts of the texts that could help them answer comprehension questions.

We shall now discuss in detail all the above data which helped us draw different profiles for the successful and less successful subjects and this because of different reasons.

First, the successful subjects did not underline (or they did not find difficult) two categories of words:

- 1) Words which represented less difficulty (according to how many subjects found them difficult, see tables 9, 10 and 11) and
- 2) Words which could be guessed from context. And this is in contrast with the less successful subjects who could underline both categories. Examples:

e.g. 1: 'The Roman *conquerors* carried the celebration to England where..'(text 1)

e.g. 2: '*Contrariwise*, people in the gracious nineteenth century... .' (text 1)

The words in italics in these sentences from text 1 have the lowest percentage of difficulty and were not reported to be difficult by the first eight subjects (more successful subjects, see table 1) whereas these words were reported to be difficult mainly by those who scored lower than those eight subjects on comprehension test. Here are other examples from text 2:

e.g. 3: ‘It is just not that usual to find people with both those great *gifts...*’ (text 2)

e.g. 4: ‘I think it is hard to get to the point of loving someone wholly until you have some sense of that *vulnerability*’ (text 2)

The first seven subjects did not perceive the words in italics as difficult whereas they are perceived as such by those who scored lower than these subjects. Consider the following examples from text 3:

e.g. 5: ‘...Blood contains a lot of *waste* products... .’ (text 3)

e.g. 6: ‘A few of them are able to have *transplants...* .’ (text3)

The words in italics in the last two examples from text 3 are the least difficult but they were not reported to be difficult by the first seven subjects whereas they were difficult for the subjects who scored lower than these seven subjects. Thus we can say that the vocabulary knowledge of the successful subjects exceeded that of the less successful ones. For example, words like *carried*, *pillow*, *maid*, *conquerors*, *pinned*, *settlers* were all known by the successful subjects and not by the less successful subjects.

In addition, it was generally those who were well graded that could often guess meaning of words from context (discussion about the ability to use context to find meaning of words can be found in Appendix 5). In the following, we shall consider the subjects’ ability to use context to guess the meaning of the words in italics in each example:

e.g. 7: ‘Breathe the warm sigh and *shed* a tear’ (text 1)

From table 12, we see that meaning of *shed* (cry) was guessed by S3, S8 and S9, but S12, S15, S18, S19 but S20 used the dictionary. (The other subjects knew or ignored it)

e.g. 8: ‘ ... he ‘X’ed out ‘Mary’ and inked ‘Emma’...’ (text 1)

From table 12, we see that S1, S3 and S5 could guess the meaning of ‘X’ed out (replace), but S7, S9, S11, S12, S17 used the dictionary for this.

e.g. 9: ‘Good *morrow*! ‘tis St Valentine’s Day’ (text 1)

From table 12, we see that the meaning of both the words *morrow* and ‘tis’ was guessed by S1, S2, S5, S6, S7 and S8. S9 could guess the meaning of *morrow* only. S14 and S17 could guess the meaning of ‘tis’ only. And see that from S9 to S20 we can have subjects using the dictionary to know meaning of these words whose meaning can be easily deduced from context.

e.g. 10: ‘...He combined an extraordinary mind with huge heart. It is not that usual to find people with both those great *gifts*’ (text 2)

From table 13, we see that S2, S3, S5, S7, S10 could guess meaning of *gift*, but not S13, S15, S17, S19 and S20 who used the dictionary to know this word meaning.

e.g. 11: ‘Blood contains a lot of *waste* products from what we have eaten or drunk in the previous day or two. These *waste* products are removed in the kidneys and then the clean blood is sent back to the body’ (text 3)

From table 14, we see that from S10 only two subjects could guess meaning of *waste* who are S12 and S14, the others either ignored the word (S16, S17 and S19) or used the dictionary for its meaning (S10, S15, S18, S20)

e.g. 12: ‘...Attach a bag of chemicals to the catheter...hold the bag so that the chemicals *drain into* the peritoneal membrane. ... roll up the bag and put it in a pocket for six hours. ... chemicals which now contain all the body waste products have to be removed. ...the patient reconnects the bag to the catheter, holding it down this time so that the chemicals *drain out* of the body by gravity.’
(text 3)

From table 14, we see that meaning of both words in italics could be guessed by S1, S2, S3, S7, S10, but not by S12, S13, S14, S15, S17, S18, S19 and S20.

In addition to using context for finding meaning of words, successful subjects, showed a great ability to use context for making correct guesses. In fact, we have examples of making incorrect guesses with the less successful subjects (see Appendix 1):

- S11 guessed that *vulnerability* meant *kind* in the following sentence: ‘It is hard to get to the point of loving someone wholly until you have that sense of vulnerability’ (text 3)
- S14 guessed that *pillow* meant *bed* in the following sentence: ‘...I pinned them to the corners of my pillow...’ (text1)
- S15 guessed that *keenly* meant *not very* in: ‘[Bill Clinton was] keenly aware of the problems of his home state...’ (text 2)

- S19 guessed that *fresh* meant *cool* in: '[Bill Clinton was] fresh from a two-year stint as a Rhodes scholar at Oxford...' (text 2)

To sum up, we can say that only words with the highest percentage of difficulty did constitute a problem to the successful subjects and these were mainly the most difficult words in text 1. In fact, all the reported difficult words in text 3 were not difficult for the three first successful subjects and were difficult only to the less successful ones. In addition, we can say that the successful subjects were better at using the context to guess word meaning than the less successful subjects. For example, all the reported difficult words in text 3 could be guessed from context by the subjects but the less successful subjects could not do so. The successful subjects, on the contrary, could guess meaning of these words from context.

Second, the successful subjects were more flexible at using the dictionary. They used it mainly when it was necessary to, i.e, according to the perceived importance of the word in the sentence, in the paragraph, or in the whole text (see Appendix 5 for the discussion of the importance of the words within the text). The unsuccessful subjects could show haphazard use of the dictionary. In other terms, they could ignore meaning of words that is crucial for understanding a sentence, and used the dictionary to look for meaning of other words which do not affect meaning of a sentence or a paragraph or a text. In the following we give examples about the ways the subjects dealt with the words they found difficult in each text and which are in italics in the following sentences:

e.g 1: 'The Roman *conquerors* carried the celebration to England where *Pagan* and Christian customs combined to form an enduring tradition' (text 1)

- e.g. 2: ‘Good *morrow!* ‘tis St Valentine’s day
All in the morning *betime*
And I a *maid* at your window...’ (text 1)
- e.g. 3: ‘St Valentine with all its colourful *lore* when taken to the New World
by the English settlers and lost none of its romantic *appeal* through
the journey. The deeply *rooted* superstition continued...’ (text 1)
- e.g. 4: ‘...I got five *bay-leaves*, and *pinned* four of them to the corners of my
... *pillow*.’ (text 1)
- e.g. 5: ‘But to make it sure, I boiled an egg...and filled it with salt and when
I went to bed ate it, *shell* and all...’ (text 1)
- e.g. 6: ‘*Contrariwise*, people in the gracious nineteenth century were often
less sentimental...’ (text 1)
- e.g. 7: Among the valentines...was one created by a young *swain* in 1845.
On a lacy background he has printed:
“Go little card to Mary ever dear,
Breathe the warm *sigh* and *shed* a tear” (text 1)
- e.g. 8: ‘He ‘X’ed out ‘Marry’ and *inked* ‘Emma’ ’ (text 1)

From table 12, we see that:

- S1, S2, S3, S4, S6 relied much little on the dictionary this is because as we have discussed above these subjects used often the context to guess meaning of words. In fact, S1 used the dictionary only once for the meaning of *pagan* (e.g.1) and ignored all other difficult words that we can say are not very important for the general meaning of the text (see Appendix 5) such as *betime*, *bay-leaves*, *swain* *shell* and *sigh*. S2 and S6 spared the use of the dictionary and ignored words that are not important for the general meaning of the text (see Appendix 5) such as *pagan*, *bay-leaves*, *swain*, *diary*, *shed*. S3 and S4 alternated between using the dictionary and skipping words. But no particular comment can be done on their choice for the words to skip and the words to consider since their difficult words are all not very important for the general meaning of the text; so we cannot judge them to be wrong if they have chosen to look for meaning of less important words. S5 never skipped a difficult word, so he resorted more often to the dictionary than the above subjects.

- S7, S8, S9, S11, S12, S14, S15, S16, S17, S18, S19, S20 relied very much on the dictionary for many words that can be ignored. Their (for the most of the subjects) alternating for the use of the dictionary and words skipping was not selective, i.e, some unimportant words were looked up and other more important words were not. For example:

- (a) S11 tried to know the meaning of *morrow* and *maid* (less important words) in the second example without doing the same for *betime* and *'tis* (more important words). The same thing was done with the less important words *shell* and *pillow* (e.g. 5) which were looked up in the dictionary without looking up meaning of two more important words which are *bay-leaves* and *pinned*.
- (b) S12 ignored meaning of more important words like *bay-leaves* and *pinned* (e.g. 4) and looked for the meaning of *shell* (not important).
- (c) S13 ignored many important words such as *bay-leaves*, *pinned* (e.g. 4), *'X'ed out* (e.g. 8) and looked for meaning of less important words or such a *shell* (e.g. 5)
- (d) S14 looked for the meaning of the less important word *lore* (e.g. 3) ignoring meaning of all the other important words which are *appeal* and *contrariwise* in the same sentence. S14 looked for the meaning of the important word *sigh* (e.g. 7) and ignored *shed* and other words meaning that occur in the same paragraph and which are more important than *sigh*, these words are *'X'ed out* and *inked*.
- (d) S18 ignored words that are more important than the words looked up in the dictionary and this in the same sentence: S18 looked up for the meaning of *pagan* and *conquerors* (e.g. 1) but not for the meaning of the most important word *carried*. The important word *contrariwise* (e.g. 6) was ignored but *lore* (less important) was looked up.
- (e) S19 and S20 looked up *pagan* (e.g 1) and ignored *carried* (more

important). They ignored the important word 'X'ed out (e.g. 8) and looked up for less important words in the paragraph such as *swain*, *shed* and *sigh*.

In the following we give examples about the way the subjects dealt with difficult words (according to the subjects) in text 2:

e.g. 9: 'Hillary Rohdman and Bill Clinton met 23 years ago as students at *Yale* Law school in Connecticut. He was fresh from a two-year *stint* as a *Rohdes* scholar at Oxford, University of Britain, *keenly aware* of the problems of his home state of Arkansas...' (text 2)

e.g. 10: 'It is not that usual to find people with both those great *gifts*...' (text 2)

e.g. 11: 'I think it is hard to get to the point of loving someone wholly until you have some sense of that *vulnerability*...' (text 3)

e.g. 12: 'Hillary Rohdman and Bill Clinton met 23 years ago as students at *Yale* Law school in Connecticut. He was fresh from a two-year *stint* as a *Rohdes* scholar at Oxford, University of Britain, *keenly aware* of the problems of his home state of Arkansas...' (text 2)

From table 13, we see that the most successful subjects (S1, S2, S3 and S4) skipped the least important words such as *stint* (e.g. 9) and did not resort often to the dictionary. Whereas the less successful subjects like S13, S14, S15, S16, S17, S18, S19 and S20 resorted more often to the dictionary. In addition, most of them could look up unimportant words and ignored more important ones. For examples, S13 looked up the meaning of *Yale* and ignored the meaning of *vulnerability*. S14 ignored the meaning of the important words *aware*, *gift* and *vulnerability* and looked up the meaning of *stint* (the least important one). S15 looked up the meaning of *stint* and ignored meaning of *aware* and *vulnerability*. S18 looked up the meaning of *stint*, too, ignoring that of a more important word *gift*. S19 ignored the meaning of *vulnerability* (an important word) and looked up

the meaning of less important words like *Yale*. Here are other examples concerned with subjects' dealing with difficult words from text 3:

e.g. 13: '...blood contains a lot of *waste* products... . These *waste* products are removed in the kidneys...' (text 3)

e.g. 14: 'A few of them [people] are able to have transplant...' (text 3)

e.g. 15: 'The method is quite *straightforward*.' (text 3)

e.g. 16: 'What they have to do is to attach a bag of chemicals to the catheter. They hold the bag so that the chemicals *drain into* the peritoneal membrane.' (text 3)

e.g. 17: 'The patients reconnects the bag to the catheter, holding it down this time so that the chemicals *drain out* of the body' (text 3)

From table 14, we see that the most successful subjects S1, S2, S3, S5 and S6 did not use the dictionary at all; S4, S7 and S8 used it once only. Whereas the dictionary was often resorted to by S13, S14, S15, S16, S17, S18, S19 and S20 though the words that were reported to be difficult in text 3 are all able to be guessed from context (see Appendix 5).

When we try to consider the words that the successful subjects tended to skip, we find that they skipped a lot of difficult words that are not important for the general meaning of the text even if these words can be important in the sentences in which they occur. The best example of this is the words occurring in the three less important parts in text 1 (the song in paragraph 1, the extract from the diary in paragraph 2 and the Valentine Card message in paragraph 3) and which are not very important for the general meaning of the text. These words can be ignored since understanding the text itself does not depend on understanding the content of the paragraphs in which they occur. However, we

found that some unsuccessful subjects could look up for the meaning of those difficult but less important words and ignored meaning of more important ones. For example, (S17) ignored the meaning of the important words *Carried* and *'X'ed* (see table 12) and used the dictionary to check meaning of the less important words which occur in the song in the first paragraph and which are *morrow*, *'Tis* and *maid*. The same can be said about S14, S15, S18, S19 and S20.

Third, both successful and unsuccessful subjects could treat difficult sentences in the same way, i.e, they could use the same strategies. However, the less successful ones did not usually achieve understanding or correct interpretation of sentences after trying a strategy, whereas the successful subjects could succeed in understanding the sentences when using the same strategy(ies). In the following we give examples about the way the subjects dealt with the structures they found difficult in the three texts (see table 16 and Appendix 1):

Sentence 1: 'Good morrow! 'tis St Valentine
All in the morning betime
To be your Valentine' (text 1)

Sentence 2: 'Go little card to Mary ever dear
Breathe the warm sigh and shed a tear' (text1)

Sentence 3: 'It is not that usual to find people...' (text 2)

Sentence 4: 'I think it is hard to get to the point of loving someone wholly
until you get that sense of vulnerability' (text 2)

- S1 repeated reading the words *Its* and *Valentine* in sentence 1
- S3 after reading sentence 1 and 2 once, tried then to infer meaning of some difficult words (see table 16). The subject divided sentence 4 into two parts that were read separately. All sentences were correctly interpreted.
- S4 could not understand well sentence 1 even after inferring the meaning of some difficult words. The subject ignored

meaning of sentence 2 because as she said “ it is not very important for the text ”. She read only the key words of sentence 3: ‘it is not... usual’).

- S5 tried to read sentence 1 in another way ‘In the morning of St Valentine, I stand at your window to be your Valentine’
- S7 repeated reading sentence 1 many times to understand that it meant ‘hamlet wanted to stand at the window of Ophelia and tell her that he wanted to be her lover’
- S8 reads sentence 1 and 2 many times but could not understand the meaning of the former, and checked meaning of all the words of sentence 2 to understand: ‘go to Mary and cry’
- S9 and S11 could not understand sentence 1 and 2 so they ignored them and continued reading.
- S13 repeated reading sentence 1 but could not understand it.
- S15 repeated reading sentence 1 but could not understand it. She checked meaning of all the words in sentence 2. Sentence 3 was read word by word then was read again without the word *that* so that the subject could understand ‘it is not usual to find people with...’.
- S18 reread sentence 1 and tried to look for the meaning of *morrow*, then read it again but could not understand it. She read sentence 2 then looked for the meaning of *shed* which was not given the right contextual meaning (Appendix 1) and, in fact, this sentence as well as sentence 3 was not understood. The subject divided sentence 4 into two units that were read separately to be understood: the first unit is ‘It is hard to get to the point of loving someone’ and the second unit is ‘until you have that sense of vulnerability’. However the subject inferred that the sentence meant ‘you cannot love someone when you are vulnerable’ (a wrong interpretation).
- S19 stated that sentence 1 was difficult because of its vocabulary though she repeated reading it. She looked for the meaning of all difficult words in sentence 2 to understand it (interpreted correctly). She repeated reading sentence 4 many times, in one reading she tried to read only key words so she read ‘it is hard of loving someone until you have sense of vulnerability’

- S20 though he repeated reading sentence 1, 2, 3 and 4, he found them unclear.

So as shown in the above examples, the subjects used some strategies to deal with difficult grammatical structures (see Appendix 1) which are:

- Ignoring the difficult sentences and going on reading.
- Keeping rereading until meaning is extracted and if it is not, the attempt to understand is given up.
- Cutting down the structure into meaningful units that are read separately.
- Reading only the key words or reading the sentence in another way using its key words.
- Looking up in the dictionary the difficult words that seem to be responsible for the breaking of meaning.

In fact, these strategies were used by both successful and unsuccessful subjects. For examples: ignoring difficult sentences and going on reading is a strategy used by both the successful subject (4) and the less successful ones (S9 and S11). Repeating reading is a strategy used by both the successful subjects (S1) and the less successful ones (S7, S8, S13, S15, S18, S19 and S 20). Cutting down a sentence into meaningful units is a strategy used by the successful subjects (S3) and the less successful one (S18). Reading only the key words in a sentence was used by both the successful subjects (S5) and the less successful ones (S15 and S19). Checking meaning of difficult words to understand a sentence is the most frequent strategies used by most if not all.

Thus, we can say that, here again, we do not find any distinguishing element in terms of the strategies use. However, success in understanding the studied sentences was rarely achieved by the less successful subjects. For example, Both the successful (S3) and the unsuccessful (S18) fragmented

the difficult structure ‘I think it is hard to get to the point of loving someone wholly until you have some sense of that vulnerability’ into meaningful units (see table 16) but the former achieved understanding of the structures whereas the latter achieved a contrary meaning. See also in the above examples how S8, S9, S11, S13, S15, S18, S19 and S20 had difficulty understanding some sentences in spite of having tried using comprehension strategies. Here we can say that the difference between the successful and less successful ones at the level of sentence interpretation is not the fact that the less successful subjects do not use strategies used by the successful ones, but at this level the difference can be more cognitive than the mere fact of strategy awareness.

Fourth, both successful and unsuccessful subjects tried to perceive the general text structure or the way a text is organised in terms of ideas; however, the less successful subjects often failed to perceive such organisation. Here are extracts from the Oral Interview (Appendix 1) in which the subjects talked about the way they tried to get such general view of the text 1:

- (S3 pointed to the beginning of each paragraph)

Experimenter: Why do you point with your pen to these sentences?
 S3: *“I am trying to organise the text in my mind”*
 Experimenter: How?
 S3: *“I try to know what each paragraph is about”*
 Experimenter: What are the paragraphs about?
 S3: *“...St Valentine in Shakespeare time, St Valentine in the New World, St Valentine in the 19th century”*
 Experimenter: What is the New World?
 S3: *“I do not know”*
- (S4 skipped three less important parts in the text and which are: Shakespeare’s poem, the lady’s diary extract and the young swain’s card message)

Experimenter: Why do you skip these parts?
 S4: *“...they are just examples of the main ideas...”*
 Experimenter: What are the main ideas?
 S4: *“St Valentine in England, St Valentine in the New World and St Valentine in the 19th century”*

- S11: “ *I repeated reading each paragraph slowly by paying attention to the general meaning of each one: Shakespeare and St Valentine, Ophelia and St Valentine, the young swain and St Valentine*”
- S12: “*I read the text continuously to recapitulate ideas by looking mainly the way the text is organised: ...the first two paragraphs are about St Valentine in ancient times, the last paragraph is about St Valentine in the 19th century*”
- S20: “ *The first one [paragraph] is about Ophelia and Hamlet, the second is about the young lady who describes St Valentine, the last is about the young swain’s poem*”

Other examples are to be found in Appendix 1.

We can say that the successful subjects (S3 and S4) were able to know precisely what each paragraph dealt with and thus perceived well the way text 1 was organised. Text 1 deals, in fact, with St Valentine in different periods: in the Shakespearean time in England, in the New World era and finally in the 19th century. However, the less successful subjects (S11, S12 and S20) could not perceive exactly this structure of text 1. This may indicate that they did not understand the general idea of each paragraph perhaps because they did not select from the paragraph those elements that help to construct the main idea. These subjects constructed wrong general ideas that are based on the details. For example, instead of perceiving that the first paragraph is a description of St Valentine in the Shakespearean time and that Shakespeare’s poem for Ophelia is just a means for describing St Valentine practice at that time, the less successful subjects considered this as the main theme. The same can be said about the lady’s diary extract and the young swain’ card message which are just details and not main themes in the paragraphs in which they occur, but less successful subjects perhaps considered them as the backbone of the text. And we need to underline that if the successful subjects could well perceive the way a text is organised is

not because they understood everything in the text. For example, both S3 and S4 did not know that the New World was the present America. In addition, S4 skipped some parts in the text.

Thus we can say that strategy awareness is not a distinguishing element between successful and less successful subjects, but the distinction can be ‘metacognitive’ or beyond the cognitive awareness of strategies. Some successful subjects (S3, S4) used the structure of text 1 to understand the text and both of them could perceive well the way the writer organised it. However some unsuccessful subjects (S11, S12 and S20) tried to know the way text 1 was organised but failed to. The successful subjects were, may be, able to select elements from the text that enabled them draw the ‘big picture’ of it. We can even consolidate this conclusion by some examples from the Oral Interview about subjects’ evaluation of their understanding of the texts. In these examples, we give extracts from the Oral Interview in which the subjects talked about their evaluation of understanding the first text:

- S1: “...people were more romantic in the past in the Shakespearean time and in the New World...but they were not so in the 19th century because they used written cards...”
- S2: “...People in the past centuries were romantic and superstitious, but in the 19th century they were practical...”
- S3: “ people at the time of Shakespeare were sentimental because lovers went to the windows of the beloved and said poems, in the New World people were still sentimental because they were superstitious...but in the 19th century they sent prepared written cards...”
- S4: “St Valentine in England, in the New World and in the 19th century”
- S5: “St valentine did not lose its romantic sense from England to the New World but it lost it in the 19th century”
- S6: “St Valentine before and in the 19th century: people in the past said

poems or ate special thing to dream of their lovers, but in the 19th century people use special cards...

- S7: *"...the different traditions of St valentine in England and in the 19th century..."*
- S8: *"...people were less sentimental in the New World in the 19th century than in the time of Shakespeare..."*
- S10: *"St Valentine when taken to England and the New World. People were more sentimental in England than in the 19th century."*
- S11: *"...Hamlet in love of Ophelia, he wrote a poem for her. She dreams of him. And the young swain sent a card of love to Marry..."*
- S12: *"The text is about the history of St Valentine, St Valentine was taken by the Roman to England, and then by the English to the New World and continued till the 19th century..."*
- S15: *"...comparison between St Valentine in Shakespeare time and in the present..."*
- S16: *"...St valentine description by Shakespeare, by Ophelia and by the young swain..."*
- S17: *"...in the past, the first person you saw on the day of valentine became your valentine, and if you dreamt of a person this became your lover, in the 19th century people sent cards the lovers..."*
- S18: *"...people in the past were very sentimental because they wrote poems, but in the New World they lost their romantic appeal because they did not write poems..."*
- S20: *"...Hamlet wanted to be betime at Ophelia's window, Ophelia wanted to dream of Hamlet, she got five bay-leaves... The young swain before St Valentine day his little corner of his heart was reserved for Mary..."* (this is a written summary that was corrected somehow)

Other examples are to be found in Appendix 1.

All the most successful subjects (S1, S2, S3, S4, S5 and S6) could perceive exactly the 'backbone' of the text in terms of the main ideas. They understood that text 1 deals with three different periods, and that St Valentine is described in each period. They also understood that people were more romantic in the two past first periods than in the 19th century. However, most unsuccessful subjects

did not get exactly the overall plan of that text. For example, some subjects (S7, S8, S9, S10 and S15) reported having understood that the text dealt only with two periods (the past and the present) because they thought that the 'New World' was the present time, other subjects (S11 and S20) thought that the lady describing St Valentine in paragraph 2 was Ophelia thinking thus that the second paragraph was a continuity to the first one; in fact, this can explain why most unsuccessful subjects answered wrongly question 2 on text 1: 'If Ophelia dreams of Hamlet would she become her husband?' (the answer is 'no' because this superstition was part of the New World tradition). In addition, we notice that the unsuccessful subjects' global understanding of the texts when evaluating their understanding could include details or supportive sentences rather than main ideas or topic sentences; this, in fact, can explain why they could not perceive the overall plan of the text. When attempting to get the general meaning they perhaps did not select the elements in the text which gave the general picture of it. Thus, awareness of strategy is not really a problem for the less successful subjects, in other terms it is not the 'what strategy to use' which is really a problem but the 'when' and 'how' it should be used; as we have seen the less successful subjects were aware of strategies such as getting the main ideas and evaluating understanding but failed to understand. One should know how to select clues from the text to get the general idea of it or to have the general plan of its structure in terms of ideas and this means that the learners should distinguish between the main sentences that convey the main ideas and all other sorts of supportive sentences such as illustrative sentences and examples which are just details.

Fifth, the successful subjects were better at selecting the important parts that help answer comprehension questions. Thanks to our Text Marking procedure, we could find that the most successful subjects (S1, S2, S3 and S4) were more able to find in the text the elements that helped them answer correctly comprehension questions than all the other less successful subjects (see Appendix 9). For example, when we observed S3, S4, S18 and S20 when picking up clues from the text to answer comprehension questions, we found that (See Appendix 2) the successful subjects (S3 and S4) were more able to select the important parts of the text for answering comprehension questions than the less successful subjects (S18 and S20). For example, the less successful subjects tended to underline the three less important parts of text 3 and which are Shakespeare's poem, the lady's diary extract and the Valentine card message. In fact, one can ignore totally the meaning of the poem and the message to answer comprehension questions. The extract from the diary can just be skimmed for its general meaning because its details are not directly linked to the answers.

Thus, up to now we can say that we found some elements that may make a difference between the successful and less successful subjects and the first element is consistent with what Carrell (1998) calls the 'strategic use of the strategies'. So the difference between the two groups of subjects does not seem to reside in the fact that one group uses a strategy that the other does not use, but the difference may be in the 'strategic' use of the strategies such as the use of the dictionary when it is necessary and this requires a kind of judgement about the importance of words within the text or the sentences.

Finally, and to summarise this section (related to the fourth research question) on the basis of our findings, we can suggest a list of successful and unsuccessful subjects' characteristics:

Successful readers characteristics:

- Do not treat as equal all words contributing to total phrase meaning or to general meaning of the text.
- Have a greater ability to use context for words meaning.
- Have a greater knowledge of vocabulary.
- Use various strategies to deal with difficult words and structures more successfully.

The unsuccessful readers characteristics:

- Treat as equal all words contributing to total phrase meaning.
- Have a smaller ability to use context for words meaning.
- Have a smaller knowledge of vocabulary.
- Use the strategies to deal with the difficult words and structures less successfully.

Summary and Conclusions: we shall now sum up our discussion in relation to our research questions.

- I. We cannot classify categorically the subjects in terms of reading styles because they varied their reading styles in response to different genres. In fact it is impossible also to classify subjects conclusively into neither receptive or reflective readers exclusively because the majority showed signs of belonging to both styles. The subjects reread the texts to understand them better and this made them use different reading styles. The subjects tended to vary their styles of reading in response to different

genres and this means that they could be reflective when reading one text and receptive when reading another text; this is generally due to text level of difficulty. The reading of a difficult text (as perceived by the subjects) could be marked with much regress and analysis of difficulties but it could be not the case when reading an easier text.

- II. All the subjects used all the strategies suggested in this research. In fact, when the text was found difficult, the subjects used intensively all the three categories of the strategies: pre-reading strategies, in-reading strategies and post-reading strategies. When the text was found easy, the in-reading strategies were less used such as the study of syntax, the use of text organisation and the close attention to every word and sentence . In fact, the subjects always used intensively the pre- and post- reading strategies. The use of the dictionary is an in-reading strategy that was always resorted to regardless of text difficulty and this shows the degree of the importance of vocabulary in understanding the FL text. In fact, vocabulary was reported to be the most determinant factor of the easiness or difficulty of text. Thus, all strategies were used when reading a single text, but in-reading strategies were less used when the text was easy except for the use of the dictionary that was the most frequent in-reading strategy. However, in a few cases, a subject could use less strategies (mainly the in-reading strategies) when reading a difficult text because s/he aimed just at fulfilling the required task (comprehension questions) or because the text was not found interesting enough to be read with more reflection and attention with employing many strategies to resolve all its difficulties. On

the other hand, the same subject could use many strategies even the in-reading strategies when reading a text that was found easy because the topic could be interesting for the subject. Third, some strategies could be used when reading one text but not when reading another, because as some subjects realised some strategies were not helpful in some situations, i.e., they could not help to understand the text (but many strategies were used without achieving the appropriate meaning of the text and the subjects did not realise that such as getting a wrong general meaning of the text even after trying to skimming it and selecting the main sentences.)

- III. Failing to achieve meaning of the text even when appropriate strategies are used is known as the unsuccessful use of the strategies. Using the strategies ineffectively is the characteristic of the less successful subjects who were aware of the different strategies (at least those suggested in our research) but who used them without achieving successful comprehension. This may be due as our findings suggest to the fact that they have a weaker ability (contrary to the more successful subjects) in selecting the appropriate clues they could draw upon to improve their comprehension of the text such as the key words in the sentences to interpret them correctly, the main sentences in the paragraphs to have the general ideas and the most important parts in the text that help getting the big picture of it. Our findings suggest that the successful subjects have larger knowledge of vocabulary than the less successful subjects and this may be one reason for which the latter were less able to select the appropriate clues in the text that help to achieve successful comprehension.

4.2/ Implications for Teaching.

Reading is an important means by which, not only new information is learnt but also new language skills are acquired. For example, new vocabulary can be acquired through reading. Thus, any foreign language reading program for teaching may focus on both 'learning to read' and 'reading to learn' (Davies, 1995). Learning to read includes teaching about the strategies that effective learners may use to compensate for their failure to comprehend a particular passage. Reading to learn includes the use of the text to acquire new language skills such as vocabulary. In this section, we focus on two main points:

- Reading strategies and
- Increasing vocabulary.

In fact, in our study we found that generally speaking (1) most subjects varied their use of strategies (top-down or bottom-up) in response to different genres, (2) but some seemed to have a fixed reading style which did not change when reading the three texts. In addition, we found that (3) the subjects could vary the strategies according to text level of difficulty (a text which was found difficult was read more reflectively than a text which was found easy) and also according to the extent to which a text could be interesting for the subjects (a text which was interesting either for its vocabulary, genre or content was read more reflectively than a text which was found less interesting). Moreover, we could find that (4) some strategies could be used ineffectively such as failing to guess meaning of difficult words from the context, skipping the important words (for the general meaning of a sentence) rather than the less important words, failing to get the main ideas even if the text was skimmed. The less successful subjects seemed

to have difficulty selecting the key words and sentences on which they could rely to understand the text or even to answer comprehension questions. In addition, we found that (5) the less successful subjects seemed to encounter more unknown vocabulary than the successful subjects.

Thus, against such findings we shall mainly suggest that (1) strategy training can help the learners use the strategies effectively such as how to skim and skip portions of the text and how to select those parts which can be more important for the general meaning of the text to read more reflectively. Teachers may also work at (2) helping learners increase their vocabulary knowledge which in turn will enable them to read with less hesitation and more fluency.

When teachers select reading activities they can think of activities that integrate the other skills such as speaking, writing and listening though it is not really our concern in this research. However, since reading is the most available medium for learning about the language in the context of EFL classroom so it would be worthwhile to guide the students in the way to make the most of it in order to acquire other skills.

4.2.1/ Reading Strategies

There seem to be three general implications for the reading activity:

- Some time can be devoted to bottom-up concerns such as the rapid identification of lexical and grammatical forms.
- Some time can be devoted to top-down concerns such as reading for global meaning (as opposed

to mere decoding).

- Teach students about the importance of using each strategy.

In short, both bottom-up and top-down strategies can be developed since both contribute directly to the successful understanding of the text. Both strategies can be developed over extensive reading. Classroom work can point the way but can not substitute for the act itself. We learn to read by reading not by doing exercises. Teachers may provide practice in useful reading strategies for coping with texts in an unfamiliar language. Pre-reading strategies like the SQ3R (which stands for Survey, Questioning, Read, Recite and Review) are important and the teacher may coach the students in their use and induce them to abandon word by word reading by introducing exercises like timed readings which help the students to read faster and read in meaningful chunks. Furthermore, teachers can help students in reading different texts at different rates, and with a greater or lesser attention to detail, for different purposes. They may also provide texts with interesting content and this by involving the learners in selecting the reading materials; it is boring to read materials that are not interesting. Students can be taught to skim for the main idea and to scan for specific kinds of information. In the area of vocabulary, they may be trained to select key vocabulary and in the area of grammar they may be encouraged to draw upon the cohesive devices to understand better the relationships between sentences and paragraphs. The Learners can develop rapid identification skills and read in meaningful units. This is the means to reading real texts successfully or at reasonable rate with comprehension appropriate to the reader's purpose. Reading fast is the major bottom-up skill that readers should acquire. However, the reader often interrupts

reading to use the dictionary this is why guessing techniques should be developed. Such exercises should be effective at helping students become less dependent in using dictionaries. But this strategy also induces the reader to stop reading. In order to develop good reading habits, the best strategy is to keep on reading until the meaning of words begin to make itself plain thanks to the context. Finally, learners can be helped in monitoring their comprehension and evaluating their understanding through recapitulating main ideas or summarising the text.

Learners can become interactive readers by making them use all possible strategies for understanding a text. Overreliance on one mode causes difficulties in reading. Those who try to process a text in a totally bottom-up fashion may be bad decoders and those who attempt to process in a totally top-down may be subject to schema deficiency. Students can stretch beyond their learning styles to use a variety of valuable L2 strategies so strategy training can be useful in helping learners use new strategies.

In our study, we found that the less successful subjects used some strategies ineffectively. So, teachers can not content themselves by exposing the learners to the strategies only, but they should explain to them how and when the strategies may be used by using instructional procedures to foster the use of the strategies. In other words, learners are told overtly that a particular strategy is likely to be helpful, and they are taught how to use it. Blind training, in which students are led to use certain strategies without realising it can be less successful. Here are some suggestions which may help the teacher in making the learners aware of the ‘why’ and ‘how’ to use some strategies:

- *Read different materials for different purposes.* The teacher can help learners realise the different possible purposes for reading, and show that different materials can be read quite differently.
- *Use the title to predict what the text is about.* The teacher may impress upon learners that anticipating what they will read always facilitates understanding. If the learners fail to anticipate meaning of the text through the title, they can read rapidly the text to acquire a general idea. In addition, speeding up reading to look ahead may reveal the writer's overall plan.
- *Use text structure.* Learners can be encouraged to consider the way the writer organises the text into different paragraphs (introduction, development and conclusion), the way a paragraph is organised in terms of topic and supportive sentences and the way the writer creates relationships between words, sentences and ideas through different connectors such as the enumerators (in the first place), the chronological markers (then), contrast indicators (however) and summarisers (finally) etc.
- *Ignore some problems and move on.* Teachers need to impress upon learners that skipping portions of text and reading ahead for clarification is a legitimate way to construct meaning. Keeping reading on allows the reader to fill in the gaps, add information, and clarify confusing points.
- *Hypothesise about word, sentence, and paragraph meaning.* Learners can be encouraged to guess at meanings and keep them in mind long enough to see if their guesses are right.
- *Use the dictionary.* The learners can be encouraged to use the dictionary when necessary or when it is not possible to use context to find meaning of words.
- *Reading rapidly.* The teacher can help the learners increase their reading speed through rapid-reading techniques which do not neglect comprehension.
- *Evaluate understanding.* Teachers may encourage learners to try to recapitulate what they have picked up in the text and try to have a global understanding of the text. Learners can for example

summarise the text on the basis of the main ideas of the paragraphs.

Teachers can provide simulating activities that allow the learners to learn how to fix-up comprehension when they come across unknown words or encounter difficulties and even how to read different materials for different purposes. Examples:

2.6.1.1 Reading different materials for different purposes

A purpose influences the strategies the students use and what they will remember from their reading. If no specific purpose exists, reading tends to be haphazard and may lack any real value. Intrinsic purposes are preferable to extrinsic purposes provided by the teacher. When students set their own purposes for reading, greater interaction occurs between them and the text. Too often reading may be viewed only as a school-related activity that is done to acquire the information or to master skills that will be tested. Class discussion, however, can be used to focus students' attention on the wide range of other possible reading purposes.

The first thing the EFL reader can ask himself is why he is reading the text: 'Am I reading with a purpose or just for pleasure?' 'What do I want to know after reading it?' Where the reader only needs the shallowest knowledge of the subject, he can skim material. Here he reads only chapter headings, introductions and summaries. If he needs a moderate level of information on a subject, then he can scan the text; he can read the chapter introductions and summaries in detail. He may then quickly read the contents of the chapters, picking out and understanding key words and concepts. At this level of looking at the

document it is worth paying attention to diagrams and graphs. Only when the reader needs detailed knowledge of a subject is it worth studying the text. Here it is best to skim the material first to get an overview of the subject. This gives the reader an understanding of its structure, into which he can fit the detail gained from a full reading of the material. SQ3R (Survey, Questioning, Read, Recite and Review) a good technique for getting a deep understanding of a text. When the reader is reading a document in detail, it often helps if he highlights, underlines and annotates it as he goes on. This emphasises information in his mind, and helps him to review important points later. Doing this also helps to keep his mind focused on the material and stops it wandering.

Different sorts of documents hold information in different places and in different ways. They have different depths and breadths of coverage. By understanding the layout of the material the reader is reading, he can extract useful information much more efficiently. For example, there are different sorts of articles in magazines and newspapers and which can be read differently as follows:

- News Articles:

Here the most important information is presented first, with information being sometimes less and less useful as the article progresses. News articles are designed to explain the key points first, and then flesh them out with detail.

- Opinion Articles

Opinion articles present a point of view. Here the most important information is contained in the introduction and the summary, with the middle of the article containing supporting arguments.

- Feature Article

These are written to provide entertainment or background on a subject. Typically the most important information is in the body of the text.

If the reader knows what he wants from an article, and recognises its type, he can extract information from it quickly and efficiently.

As we said before, teachers may think of activities that integrate the other linguistic skills in reading tasks. So here we propose a reading activity based on the use of audio materials (recordings of books read aloud on cassette). In fact, this activity proved very successful with the students in Yemen (reported by T.Bell, 1998). Listening material provides the learners with a model of correct pronunciation which aid word recognition, and expose learners to different accents and speech rhythms. Students confidence in their ability to produce natural speech patterns and to read along with the voice of a recorded speaker is central to maintaining their motivation to master the language.

2.6.1.2 skipping portions of text.

In order to apply the skimming, scanning and selective reading activities effectively, the teacher should help the learners distinguish between more and less important or relevant information in the text. During an intensive reading, the teacher can focus on the structure of the paragraphs and the role of each sentence; the learners can be asked to distinguish between the topic sentence and the supportive sentences that can serve as explanation, elaboration, contrast, enumeration and so on. In fact, the topic sentences are always the most important elements in the text. In order to create an image of the text or get the main ideas

of the paragraphs, the learners scan the paragraphs for the topic sentences and just skim the other supportive sentences which can be reread another time for more details. Such a process enables the learners gain time to get at the meaning of the texts. We can illustrate by giving the following example:

What do our kidneys do? The answer is that they clean all the impurities from our blood. Before it enters the kidneys, blood contains a lot of waste products from what we have eaten or drunk in the previous day or two. These waste products are removed in the kidneys and then the clean blood is sent back to the body. This is the normal process in healthy people. Some people, however, either because of an accident or a disease, have damaged kidneys. A few of them are able to have transplants, but for many the only way to purify their blood is a treatment called kidney dialysis.

Notice that in this paragraph the two underlined sentences are the most important ones because they enunciate the important ideas of the paragraph and they should be read with great attention. What comes after the first sentence is the explanation or elaboration of this sentence. And what comes before the second important sentence is a sort of introduction. The sentences that introduce and explain a subject bear a secondary importance to the whole paragraph; so, they can just be skimmed. In this way learners will have the general picture of the whole text.

2.6.1.3 using some text structures rules:

The teacher may provide also examples or exercises to sensitise the learners to the different ways the words are related to each other to create meaning and establish links and connections across sentences. Such relations are essential in contributing to the coherence of a text such as pronouns and demonstratives. Here are some examples:

- **Pronouns and cohesive devices**

e.g.1. What does the word *one* refer to in the following example?

Among the Valentines in an exhibit at the city of New York was *one* created by a young swain in 1845

e.g.2. Read the following sentence and then answer this question: what is the best way to learn how to use the computer?

The only way to learn how to use a computer is to do so.

- **Demonstratives**

What does the word *this* refer to in this example?

The waste products are removed in the kidneys and then sent back to the body. *This* is the normal process in healthy people.

2.6.1.4 guessing and/or using the dictionary

The teacher may encourage the learners to keep reading until to the end of the sentence (ignoring difficulties temporarily), to look for clues (delaying judgement) and to make a guess based on available information (hypothesising). If the learners still cannot determine the meaning of a word or a sentence it can be suggested that they reread the sentence or previous context slowly (adjusting rate) or read ahead for possible clarification. As a last resort, learners can ask the teacher for help or use the dictionary (seeking assistance). Teachers can also show learners instances where there are not sufficient context clues to signal the meaning of an unknown word, for example, and where no amount of rereading or reading ahead will help. The teacher may have the learners read sentences or paragraphs containing nonsense words. For example:

The enivob was grazing in the pasture. Soon it would be time for it to return to the barn. The farmer was eager to get the enivob's milk to sel at market.

However, sometimes there are not sufficient contextual clues to signal the meaning of an unknown word. Teachers may show the learners instances of that. For example:

‘ The teacher told Mike that his composition was platitudinous.’

The last word is crucial for understanding. If the learners do not have a sense of that word, there is no way of knowing if the teacher’s comment is positive or negative. So in this case learners may use the dictionary as a necessary resource.

The teacher can use another technique to enhance guessing. S/he can ask the students to read a paragraph and cross out any vocabulary words that they don't know. They can re-read the paragraph and guess the meaning of the crossed out words. Students are allowed to use their dictionaries only to look up one or two key words which they feel will help them understand the main idea of the paragraph. Crossing out the unknown vocabulary words enables the students to realise that it is not necessary to look up every word in order to understand the main ideas of a reading passage. It also gives the teacher important information about the readability of the passage.

Now as far as guessing from context is concerned, the teacher can work to show all possible sources of information which learners can draw upon to guess the meaning of unknown words and the best way to do this is to use sentences or paragraphs with deleted words for the learners to fill in the gaps and give them a

table which contains these different sources of information and ask them to say what kind of clues they use to find each word. In return, this will contribute to arise their consciousness to these sources of information which can be for example:

- **Knowledge of content**

e.g. It is the....of July in the United States- the nation birthday (a cardinal number is needed but one should know also the date of the Independence Day anniversary)

- **knowledge of grammar**

e.g..... honours the day in 1977 when the constitution congress.... (a subject in the form of pronoun is needed)

Here are other sources of information in the text which the teacher can explain and encourage their use by the learners in deleted passages:

- A sentence needs a verb, a noun, an adjective, a preposition and so on.
- A preposition can help to find the verb and vice-versa.
- A word usually occur with another word (a verb with a preposition, a noun with a noun).
- A word is used within a fixed expression.
- Use of particular connector according to the function of the sentence : additive, contrastive, illustrative and so on.
- Use a word because it has got a synonym in the text or it has been explained.

2.6.1.5 Evaluating understanding:

After reading, the learners can check their understanding and clarify ambiguities. This can be done through restating the information, clarification of meaning and summarising. We propose exercises for each activity.

(a) Restating the information:

Some activities may be used to assist students restating the main idea of a short passage such as these:

- Give students paragraphs in which the main ideas have been removed.
- Ask them to read the detail sentences and create the main idea statement. This procedure can begin with simple examples such as:

-Tom enjoys baseball
-Tom enjoys football
-Tom enjoys volleyball

(Tom enjoys many sports)

It then can move to more complex examples such as:

-Jason can barely keep his eyes open
-He keeps yawning
-Even though Math is his favourite subject, he can't seem to pay attention
(Jason is very tired)

(b) Clarification of Meaning

Clarifying meaning can be organised around two questions:

- Does this information agree with what I already know?
- Does this information fit in with what the author has

already told me?

Teachers can use short passages with specific mistakes purposely included in order to explain, model and provide practice in the strategies of clarifying. Several illustrative examples follow:

- Provide paragraphs that contain ambiguous words and ask students to detect them

The tennis player refused to continue because the racket was so terrible. It made concentrating on the match impossible...

- Provide paragraphs with sentences not arranged in the best sequence. Ask then students to locate the misplaced sentences and reorder them

The surgeon made a precise cut across the length of the patient's stomach. He searched the area for the fragments of the bullet. The surgeon made sure that the anaesthesia had taken effect. Once the fragments were located, he carefully removed them.

- Provide paragraphs in which information in an earlier sentence contradicts information in a later sentence.

It was an ugly day. Clouds filled the sky completely blocking out the sun. Nedira noticed a shadow moving towards her from behind. She knew it was the killer.

By knowing why comprehension breaks down, the students are able to clarify confusing texts.

(c) Summarising

Summarising is the identifying and condensing of the major themes and important information in one complete selection or a longer passage. Summarising goes hand in hand with paraphrasing which is the rephrasing of the main idea of a

paragraph or a short passage. To assist students in being able to paraphrase and summarise, we suggest the following activities:

- Give students a short passage accompanied by two paraphrases of it. Have them discuss which they think is better and why.
- Have students bring in brief newspaper articles and cut off the headlines. Ask each student to read someone's else article then write a new headline and then compare it to the original.
- Read a passage to the students and ask them to write a title and tell them why it represents the main idea.

Teachers can ask students to summarise books. This is valuable practice because it allows students to assert full control, both of the main factual or fictional content of the book, and of the grammar and vocabulary used to express it.

2.6.1.6 Reading rapidly

It is not sufficient to give only instructions such as “read the following passage as quickly as possible” but the reading rate should be increased without a concomitant decrease in comprehension. Here we propose two activities that work at increasing reading speed and comprehension and which are in fact designed by Anderson (1999).

Rate-buildup reading: in this activity, students have 60 seconds to read as much material as they can. Then they are given additional 60 seconds to read again from the beginning of the text. They must read more material during the second 60-second period than in the first. The drill is repeated up to four times. In fact, the activity does not emphasise moving the eyes quickly, instead, the material

should be processed and comprehended more efficiently.

Repeated reading: Students can read a 100-word paragraph four times in two minutes. In fact, the reading rate increases in each new re-reading. This can improve reading comprehension since students can understand more when reading a material twice at a faster reading rate than when reading it slowly only one time. This activity helps the learners strengthen their metacognitive awareness of the merit of faster reading rates.

4.2.2) Increasing Vocabulary

Since vocabulary is reported to be the most important factor that helps or hinders reading, teachers may encourage their learners to increase their knowledge of vocabulary by reading a same material both intensively (reflectively) and extensively (receptively). Learners may read extensively for the following reasons:

- Acquiring the style of the written language.
- Familiarising with new vocabulary, expressions, structures, ideas and so on.
- Learning within context.

Teachers can encourage them to combine top-down and bottom-up approaches: have students read for meaning and fluency while circling unknown words which can be later checked during an intensive reading. This is to help the learners balance guessing strategies with dictionary use when reading. With this technique learners are first encouraged to read for fluency, but are allowed to circle the words that they feel most troublesome in terms of understanding the text. They can be discouraged from getting bogged down in difficult areas and

not using immediately the dictionary. Although some students may not understand much of what they read, by the time they finish, most will have some understanding of the global context. Then, the learners can analyse the vocabulary they circled. While learners can guess meaning of some words based on contextual clues; they generally need to use the dictionary for most. Since the learners have read the entire text, and have some understanding of global and local context, they are able to build on the dictionary denotations to include context-based meanings. Thus, their analysis is both top-down and bottom-up.

Summary: now we shall sum up all the important recommendations of all this section:

- Reading extensively for fluency with a faster rate, and read intensively for focusing on the details, and balance guessing strategies with dictionary use.
- Being attentive at selecting the key sentences and words when reading extensively and not getting bogged down at difficulties.
- Using the contextual clues to guess meaning from context.
- Using Strategies that allow the learner to anticipate meaning of the text because this facilitates reading and comprehending. Examples of these strategies are the title and skimming.
- Using strategies by which the learner skips portions of the text to continue reading to not getting bogged at difficulties and letting what comes next in the text clarifies meaning. These strategies are keeping on reading and ignoring unimportant parts in the text (words, sentences and paragraphs).
- Using the dictionary when guessing is not possible.
- Evaluating understanding by trying to recapitulate the main ideas or summarising the text.

4.3/ Suggestions for further study:

In our study we could raise many important questions as regards the FL reading and the reading strategies but unfortunately some inconveniences in our research did not allow us to answer them though they are worthwhile to be investigated.

- Observing a great number of subjects when reading different sorts of materials in the same way we did in this study. This is because many valuable data about the reading process and difficulties may be found mainly when the experimenter uses the think aloud procedure or intervenes to ask the subjects about what they are making of the text.
- Trying to know if the subjects hold any background knowledge about the text before they start reading it and finding ways to know whether they do use the background knowledge when reading or check their comprehension of the text against their background knowledge.
- Trying to know if the less successful readers in English are also less successful when reading in the first language Arabic and in the second language French and whether they use the reading strategies ineffectively, too, when reading in these languages.
- Trying to know if the successful and less successful readers in English may differ in terms of their knowledge and awareness of the cohesive devices used to link sentences and paragraphs and of the other ways the writer may use for creating relationships in the text such as punctuation.
- Trying to assess the readers' anticipation of what comes next in the

text through making them stop reading at different points to make hypotheses about what is going to be read. This may reveal valuable information about the reading process and the capacity of guessing.

Conclusion:

In our attempt to understand what EFL learners do with a text, our findings suggest that learners differ from one to another in terms of styles and strategies of reading and this during the reading of the same text as well as in response to different texts. The same learner may be more reflective when reading one type of text and become more receptive when reading another. However, and since a text may be often re-read, most subjects combine both styles during the reading process. In fact, rereading a text can be considered as learners' first strategy to approach a text written in a foreign language in that they, generally, do not limit themselves to read a text once with using one style of reading only. Combining both the reflective and receptive styles allows the learners to get the global and specific meanings of the text.

However, most subjects tend to be more reflective on reading a text that is found very demanding, and are more receptive when reading a text that is found less demanding. In fact, two factors are essentially responsible for the difficulty of a text: vocabulary and content, but vocabulary is perceived as more important in making a text easy or not; so we can assume that the learners will find a text full of unknown words as difficult. When the text appears difficult for the learners, reading is characterised by interrupted moments of reflections about the content and difficulties. On the contrary, when the text appears for the learners because of familiar vocabulary, reading becomes more fluent, i.e, continuous. But this does not imply that an easy text for the learners is well understood just by reading it once and receptively. An easy text for the learners can also be read repeatedly and reflectively. This shows that any text that is written in a foreign

language is always a problem-solving process; this is why the learners use reading strategies to understand even a text which appears easy for them.

When reading an easy text as our findings suggest, most learners appear to be less dependent on the analytical study of the text which is characterised by interrupted moments of reflections on meaning and difficulties. In some cases, difficulty or easiness of the text is not the only reason for learners to be more reflective or more receptive when reading. They can be very reflective when reading a text they find easy because they may find the topic interesting or because they want to learn language through reading.

As far as the strategies are concerned, we can say that frequency of the use of strategies varies from one text to another and this seems to be related to the perceived text easiness or difficulty. Some strategies are less used when reading an easy text. In fact these strategies are in-reading strategies such as the use of text organisation, syntax study, paying attention to every word and sentence. The other in-reading strategies which are always intensively used are rather top-down or global strategies such as guessing meaning of words from context, continuing reading even if what is read is not understood, and skipping unimportant words. However, the pre- and post-reading strategies are used frequently with different texts. In some cases, the learners try to use a given strategy but they may fail to use it or fail to use it successfully. For example, one can fail to guess meaning of the text through the title, or fail to guess meaning of a word from context, or fail to understand a structure even if its syntax is analysed and so on. But in other cases a given strategy and mainly the dictionary is not used because the learners

do not like to.

Concerning the comparison between the so-called ‘successful’ and ‘less successful’ readers, we find that no style or strategy of reading is exclusively used by any of them. We find, however, a difference in the way some strategies are used. For example, the successful achievers are more able to use the dictionary when necessary and skip the unimportant words, use context to guess meaning of words than the less successful achievers may do. In addition, the successful achievers have larger repertoire of vocabulary than the less successful achievers.

Now if we relate our findings and conclusion to the different models of reading reviewed in our study, we can conclude that interactive models seem to be the most appropriate to FL reading situation. However, more bottom-up approach to the text is mainly dominating when readers are faced with difficult situations. On the other hand, top-down approach to the text is more dominating when readers do not face difficulties in understanding. Concerning the notion of ‘good’ and ‘bad’ readers, we can say that what makes a difference is the strategic use of strategies and vocabulary knowledge. We may go further to stipulate that lack of the linguistic knowledge, particularly vocabulary, is a factor that ‘short-circuits’ the unsuccessful achievers’ ability to use the strategies effectively or handicaps their capacities of reading. Thus, EFL learners should be encouraged to increase their vocabulary and monitor their reading by using the strategies effectively.

References :

- Alderson, J.C & Urquhart, A.H (Eds).** 1984. Reading in a Foreign Language. NewYork :Longman.
- Alderson, J.C.** 1984. *Reading in a Foreign Language : A Reading Problem or a Language Problem ?* In Alderson & al (Eds).
- Alderson, J. C., Bastien, S. & Madrazo, A. M.** 1977. *A Comparison of Reading Comprehension in English and Spanish*. Research and Development Unit Report , No 9, mimeo, UNAM, Mexico City.
- Anderson, R. C. & Pearson, P. D.** 1988. *A Schema-Theoretic View of Basic Processes in Reading Comprehension*. In Carrell & al (Eds).
- Anderson, N. J.** 1991. *Individual Differences in Strategy Use in Second Language Reading and Testing*. Modern Language Journal, 75,460-472.
- Anderson, N. J.** 1999: *Improving Reading Speed*. Forum, Vol 37 No2.
<http://e.usla.gov/forum/vols/vol 37// no2/p2htm>
- Baker, L. & Brown, A. L.** 1984. *Metacognitive Skills and Reading*. In Pearson, P. D. (Eds), Handbook of Reading Research (Vol. 1, 353-394). New York: Longman.
- Barnett, M. A.** 1989. More than Meets the Eye: Foreign Language Reading, Theory and Practice. Engelwood Cliffs, NJ: Prentice Hall.
- Bartlett, F. C.** 1932. Remembering: A Study in Experimental and Social Psychology. Cambridge: Cambridge University Press.
- Bell, T.** 1998. *Extensive Reading: Why and How*. The Internet TESOL Journal, vol. IV, No 12.<http://www.aitech.ac.jp/~iteslj/Articles/Bell-Reading.html>
- Berman, R.A.** 1984. *Syntactic Components of the Foreign Language Reading Process*. In Alderson & al (Eds).
- Block, E.** 1986. *The Comprehension Strategies of Second Language Readers*. TESOL Quarterly, 20, 3: 463-94.
- Bransford, J.C., Stein, B.C. & Shelton, T.** 1984. *Learning from the Perspective of the Comprehender*. In Alderson & al (Eds),
- Carrell, P. L.** 1984. *The Effect of Rhetorical Organisation on ESL Readers*. TESOL Quarterly, 18, 441-469.
- Carrell, P.L, Devine, J. & Eskey, D.E.** (Eds). 1988. Interactive Approaches to Second Language Learning. CUP.
- Carrell, P.L.** 1988. *Interactive Text Processing : Implication for ESL, Second Language Classroom*. In Carrell & al (Eds).

- Carrell, P.L. & Eisterhold, J.C.** 1988. *Schema Theory and ESL Reading Pedagogy*. In Carrell & al (Eds).
- Carrell, P.L.** 1988. *Some Causes of Boundedness and Schema Interference in ESL Reading*. In Carrell & al (Eds).
- Carrell, P.L.**1998. *Can Reading strategies be Successfully Taught ?* Document URL: <http://lge.hyper.chubu.ac.jp/jalt/pub/ELT/98/Carrell.html>
- Clarke, M.** 1979. *Reading in Spanish and English: Evidence from Adult ESL Students*. Language Learning, 29, 121-150.
- Clarke, H. A.** 1988. *The Short Circuit Hypothesis of ESL Reading - or When the language Competence Interferes with Reading Performance*. In Carrell & al (Eds).
- Coady, J.** 1979. *A Psycholinguistic Model of the ESL Reader*. In Mackay, R., Barkman, B. & Jordan, R. R. (Eds). Reading in a Second Language. Rowley, Mass.: Newbury House, 5-12.
- Cohen, A.** 1984. *Studying Second Language Reading Strategies: How do We Get the Information?* Applied Linguistics 5, 2: 101-111.
- Cohen, A. D.** 1986. *Mentalistic Measures in Reading Strategy Research: Some Recent Findings*. English For Specific Purposes, 5, 2, 131-45.
- Cohen, A., Classman, H., Rausenbaum, P. P., Ferrara, J. & Fine, J.** 1988. *English for Specialised Purpose: Discourse Analysis and The use of Student Informants*. In Carrell (Eds)
- Collins, A. M. & Quillian, M. R.** 1972. *How to Make a Language User*. In Tulving, E. & Donaldson, W.(Eds) Organisation of Memory. New York: Academic Press.
- Connor, U.** 1997. *Contrastive Rhetoric: Cross-Cultural Aspects of Second Language Writing*.URL:<http://language.hyper.chubu.ac.jp/jalt/pub/tlt/97/apr/connor.html>
- Cooper, M.** 1984. *Linguistic Competence of Practised Readers and Non-Practised Readers Non-native Readers of English*. In Alderson & al (Eds).
- Critcheley, M.P.** 1998. *Reading to Learn: Pedagogical Implication of Vocabulary Research*.DocumentURL:<http://lge.hyper.chubu.ac.jp/jalt/pub/ELT/98/dec/Critchley.html>
- Davies, F.** 1995. Reading. England : London.
- Devine, J.** 1988. *The Relationship Between General Language Competence and Second Language Reading Proficiency : Implication for Teaching*. In Carrell & al (Eds).

Eskey, D.E. & Grabe, W. 1988. *Interactive Models for Second Language Reading : Perspective on Instruction*. In Carrell & al (Eds).

Eskey, D.E. 1988. *Holding in the Bottom : An Interactive Approach to the Language Problems of Second Language Readers*. In Carrell & al (Eds).

Goodman, K. S. 1973. *Analysis of Oral Miscues: Applied Psycholinguistics*. In Smith, F. (Eds) Psycholinguistics and Reading, New York: Holt, Rinehart and Winston.

Goodman, K. S. 1967. Reading: A Psycholinguistic Guessing Game. Wayne State University.

Goodman, K. S. 1988. *The Reading Process*. In Carrell & al (Eds).

Gough, P. B. 1972. *One Second of Reading*. In Kavanagh and Mattingly (Eds) Language by Ear and by Eye. Cambridge, Mass.: MIT Press.

Grabe, W. 1988. *Reassessing the Term 'Interactive'*. In Carrell & al (Eds).

Harri-Augstein, S. & Thomas, L. 1984. *Conversational Investigations of Reading: The Self-Organised Learner and the Text*. In Alderson and Urquhart (Eds)

Hedge, N. 1991. Reading and Learning: An Exploration of Perception, Approaches and Strategies of Overseas Postgraduates Using English for Academic Purposes. University of Liverpool.

Hinds, J. 1987. *Reader Versus Writer Responsibility*. In Connor, U. & Kaplan, R. B. (Eds) Writing Across Languages: Analysis of L2 Texts Reading, MA: Addison-Wesley.

Hudson, T. 1988. *The Effect of Induced Schemata on the 'Short Circuit' in L2 Reading : Non-Decoding Factors in L2 Reading Performance*. In Carrell & al (Eds).

Hosenfeld, C. 1977. A Preliminary Investigation of the Reading Strategies of Successful and unsuccessful Second Language Learners. New York University.

Hosenfeld, C. 1979. *Cindy: A Learner in Today's Foreign Language Classroom*. In Born, W. (Eds) The Foreign Language Learner in Today's Classroom Environment. Northeast Conference Report, Northeast Conference on the Teaching of Foreign Languages, Middlebury, Vermont.

Jolly, D. 1978. *The Establishment of a Self-Access Scheme for Intensive Reading*. Paper presented at the Goethe Institute, British Council Colloquium on Reading, Paris, October, 1978.

Kern, R. G. 1997. *L2 Reading Strategy Training: A Critical Perspective*. A paper presented at the AAAL conference, Orlando, Florida, March 10, 1997.

Kletzien, S. B. 1991. *Strategy Use by Good and Poor Comprehenders Reading Expository Text of Differing Levels*. Reading Research Quarterly, 26, 1, 67-85.

Laberge, D. & Samuels, S. J. 1974. *Toward a Theory of Automatic Processing in Reading*. Cognitive Psychology 6: 293-323

Linderberg, A. C. 1988. Cohesion, Coherence, and Coherence Patterns in Expository and Argumentative Student Essays in EFL: An Exploratory Study. Licentiate thesis, Department of English, Abo Akademi University, Turku, Finland.

Lunzer, E. & Gardner, K. (Eds). 1979. The Effective Use of Reading . London: Heinemann.

Mauranen, A. 1992. *Contrastive ESP Rhetoric: Metatext in Finish-English Economic Texts*. English for Specific Purposes, 12, 3-22.

Nunan, D. 1991. *Language Teaching Methodology: A Text for Teachers*, JALT Journal, 18 (1), B2-144.

Olshavesky, J. E. 1977. *Reading as a Problem Solving: An Investigation of Strategies*. Reading Research Quarterly 12, 4: 654-719

O'malley, J. M., Chamot, A. U., Stewner-Mazanares, G., Russo, R., & Kupper, L. 1985. *Learning Strategies Applications with Students of English as a Second language*. TESOL Quarterly 19, 285-296.

Oxford, R. L. 1993: *Language Learning Strategies in a Nutshell: Update and ESL Suggestions*. TESOL Journal Vol2/2.

Parker, D. H. 1959. SRA Reading Laboratory, Student Record Book . Chicago: Science Research Associates

Paulston, C.B. 1976. *Reading*. In Teaching Second Language Techniques and Procedures. Massachusetts.

Piaget, J. 1961. *The Genetic Approach to the Psychology of Thought*. Journal of Educational Psychology, 52, 275-281

Pressley, M. & Afflerback, P. 1995. Verbal Protocols of Reading: The Nature of Constructively Responsive Reading. Hillsdale, NJ.:Erlbaum.

Pressley, M., Synder, B. & Carglia-Bull, B. 1987. *How Can Good Strategy Use Be Taught to Children? Evaluation of Six alternative approaches*. In Carnier, S. and Hagman, J. (Eds) Transfer of Learning Research and Application. Orlando, FL: Academic Press.

Pritchard, R. 1990. *The Effects of Cultural Schemata on Reading Processing Strategies*. Reading Research Quarterly, 25, 4, 273-91.

- Rayner, K. & Pollatsek, A.** 1989. The psychology of Reading. Engelwood Cliffs, NJ: Prentice- Hall.
- Rivers, W. M.** 1968. Teaching Foreign Language Skills. Chicago: University of Chicago Press.
- Rivers, W. M. & Temperley, M. S.** 1978. A Practical Guide to the Teaching of English as a Second or Foreign Language. New York: Oxford University Press.
- Rumelhart, D. F.** 1977. *Toward an Integrated Model of Reading*. In Dominic, S. (Eds) Attention and Performance. Hillsdale, NJ: Lawrence Earlbaum.
- Rumelhart, D. E.** 1984. *Understanding Understanding*. In James, F. (Eds) Understanding Reading Comprehension. Newark, Dalaware: International Reading Research Association.
- Samuels, S.J. & Kamil, M.L.** 1988. *Models of the Reading Process*. In Carrell & al (Eds).
- Singhal, M.** 1998. *Comparison of L1 and L2 Reading*. The University of Arizona, USA. Meena/azstarnet.com
- Stanovich, K. E.** 1980. *Toward an Interactive-Compensatory Model of Individual Differences in the Development of Reading Fluency*. Reading Research Quarterly, 16,32-71.
- Steffenson, M.S. & Joag-Dev, C.** 1984. *Cultural knowledge and Reading*. In Alderson & al (Eds).
- Stenberg, D. D.** 1982. *Reading Principles and Teaching*. In Psycholinguistics. Longman, London.
- Trollope, J.** 1995. *Reading Strategies*. www.easynet.co/on-off/toc.htm
- Wen,Q.& Johnson, R. K.** 1997. *L2 Learner Variables and English Environment: A study of tertiary-level English majors in China*. Applied Linguistics, 18, 27-48.
- Widdowson, H. G.** 1979. Explorations in Applied Linguistics. Oxford University Press.
- Winograd, P. & Hare, V.C.** 1988. *Direct Instruction of Reading Comprehension Strategies: The Nature of Teacher Explanation*. In Weinstein, C. E., Goetz, E. T. and Alexander, A. (Eds) Learning and Study Strategies: Issues in Assesement Instruction and Evaluation. San Diego: Academic Press.

Appendix 1: Oral Interview

After collecting the texts and the Questionnaires from the subjects. We interviewed each subject about the different data obtained from Text Marking and the Questionnaires. The main questions addressed to the subjects were mainly about: The way they read in terms of reading styles and strategies they used as they reported in the Questionnaires. In the following we try to report the different interviews with the subjects by reporting their own words which were expressed either in French or Arabic but here are reported in English. Here are the main questions of the Interview:

- Say the way the first text was read and say why?
- Say whether the other texts were read in the same or different way in terms of reading styles and strategies and say why?
- Say what words were guessed and what is their contextual meaning?
- Say what difficult structures were studied to understand?
- Say the way understanding was evaluated

In fact, some structures were referred to be difficult and were studied and analysed to be understood. We refer to these structures by Sentence1, Sentence 2, Sentence 3 and Sentence 4 as follows:

Sentence1 refers to

Good morrow! tis St Valentine
All in the morning betime
And I a maid at your window to be your Valentine (text 1)

Sentence 2 refers to

Go little card to Mary ever dear
Breathe the warm sigh and shed a tear (text 1)

Sentence 3 refers to

It is not that usual to find people ...(text 2)

Sentence 4 refers to

I think that is hard to get to the point of loving someone wholly until you have some sense of that vulnerability. (Text 2)

There were other questions asked to the subjects according to data obtained from the Questionnaires on which we based our Oral Interview with each subject.

S1:

A1: “ First, I looked at the title which means the day of love... then I read the text slowly to understand it with ignoring all difficulties and tried most of the time to guess meaning of words from the text and I reread the sentences when I could not understand. After that, I repeated reading the text rapidly without stopping to get the general idea. Then, I read slowly each paragraph and I finally read the whole text with using the dictionary to understand meaning of important words.”

Q2: Which words did you guess their meaning from the text?

A2: “ tis, morrow, ‘X’ed, pinned, rooted, inked ” (correctly guessed)

Q3: “Which structures did you study to facilitate understanding?

A3: (refers to Sent.1)“ I repeated reading the key words (refers to the words ‘Its St Valentine’, ‘I’ and ‘your Valentine’)

Q4: What did you understand?

A4: “ ...I want to be a valentine at your window...”

Q5: According to the Questionnaires, you did not read the other two texts in the same way. Explain.

A5: “These texts are very easy because of their content ...I read them both in the same way. First, I read the texts from beginning to end without stopping at all. Then, I reread them slowly with rereading some sentences when I could not understand. Finally, I read only the important parts that helped me answer the questions. I was not obliged to understand all the words to understand the texts... I could guess meaning of some words and I used the dictionary only when it was important to check the meaning of the words.

Q6: Which words did you guess their meaning from context?

A6: “...drain into, drain out...” (correctly guessed)

Q7: How did you evaluate your understanding?

A7: “I read again the text to recapitulate my understanding of the whole

paragraphs,... People were more romantic in the past at the Shakespearean period in England...and in the New World,...but they were not so in the 19th century because they used written cards to send for their lovers... (text 1). ... Hillary and Bill Clinton met in a law school, ...she abandoned everything to follow him because he was attractive...He was extraordinary and vulnerable...(text 2). Dialysis purifies our blood, but the best way for having blood clean when our kidneys are damaged is the transplant...we can also use the catheter which is not very expensive...(text 3)”

S2

A1: “ when I first looked at the title I understood it but the text was difficult.... I tried to understand the text by reading it slowly and without checking the meaning of the difficult words because I do not like to interrupt reading ...I prefer continuing reading till the end... then I read the questions and repeat reading to stop only at the important parts”

Q2: How did you understand such a difficult text without using the dictionary?

A2: “I tried to guess the meaning of words if I could not I did not mind”

Q3: Which words did you guess from the context?

A3: “ tis, morrow, X’ed and inked ” (correctly guessed)

Q4: Why you did not read the other texts in this way?

A4: “The other texts contain few difficult vocabulary...I read the titles to guess what the texts were about. Then, I read the texts without stopping to get the general idea. Then I reread the texts just to read the important parts that help to answer the questions, and I ignored some difficult vocabulary.”

Q5: What are the important parts?

A5: “ ...[parts that] help answer the questions”

Q6: Which words did you guess their meaning from the context?

A6: “gift, drain into and drain out” (correctly guessed)

Q7: How did you evaluate your understanding?

A7: “I summarised the texts: People in the past centuries were sentimental and superstitious, but in the 19th century they were practical and less sentimental...(text 1). ...Bill Clinton studied in Britain then returned home and entered politics, married with Hillary...he was attractive...She was rich, he was from a poor family and he was vulnerable...(text 2). ... There are three ways for replacing damaged kidneys: dialysis, transplant and catheter... ”

S3:

A1: “ I read first the title to know what the text was about ...I did not guess the meaning of the text through the title ‘St Valentine’ and I did not know its history and I found it [the history] very difficult.... I read the first text first in detail by reflecting about the content and most of the time when I did not understand a sentence I re-read it, and if I still could not understand it I used the dictionary to check the meaning of some difficult words. ...After this, I read each paragraph individually to try to know what each paragraph was about and continued reading even if I could not understand every thing in it. After this, I reread the text rapidly without interruption to have a better understanding”

Q2: Did you check every word meaning?

A2: “...No only those which helped me to understand the sentence but sometimes I liked knowing the meaning of new words even when I could understand the text without knowing them...”

Q3: Which words did you guess their meaning from context?

A3: “tis, morrow, settlers, shed, X’ed, inked” (guessed correctly)

Q4: How did you deal with difficult structures?

A4: “ I tried to guess meaning of difficult words such as ‘morrow’ and ‘tis’ (refers to sent.1), then re-read the sentences. I understood that hamlet wanted to be a Valentine for Ophelia”. I also guessed meaning of ‘sigh’ and ‘shed’ to understand this sentence (refers to sent.1) which mean ‘breath’ and ‘cry’.

Q5: You did not read the other two texts in the same way. Why?

A5: “The second and third texts are easier. However, I read text 2 more slowly with going back in the text to understand better and using the dictionary to look up for some words, and reread it rapidly to have a general idea. Whereas I read text 3 once and without using the dictionary at all.”

Q6: You found the second text easier but you repeated reading it slowly. Why?

A6: “I repeated reading it because of my interest for the Clinton family”

Q7: Why did you use the dictionary since you found vocabulary easy?

A7: “ ...most words are easy to understand but there are some words which are not very important but that I wanted to know for myself”.

Q8: Could you understand every thing in the text by just reading it once and rapidly?

A8: “...well, I jumped some difficult words and I looked for the meaning of the

important words to answer comprehension questions; in addition, I knew many things about the content so it was very easy to me to understand this text”

Q9: Which words did you guess their meaning from context?

A9: “ gift, drain into and drain out ” (correctly guessed)

Q10: How did you deal with the difficult structure in text 3?

A10: ‘The sentence (refers to sent.2) is long, so I tried to read and understand phrase by phrase’

Q11: How did you evaluate your understanding?

A11: “I checked my understanding by rereading the text briefly: ...People were sentimental at

the time of Shakespeare because lovers go to the window of the beloved and say poems...in the New World people were still sentimental because they were superstitious, but in the 19th century they sent prepared written cards ... (text 1). ... After five years of their meeting Hillary and Bill Clinton married, she found him very attractive, extraordinary and vulnerable...(text 2). ...we use dialysis when kidneys are damaged, but the best way is to have a transplant...or we can use the catheter... (text 3) ”

S4:

A1: “ I guessed the content of the text through the title. Then, I skimmed the text. After that, I used the dictionary to solve vocabulary problems. Finally, I read the text slowly with paying attention to every word and sentence and also reread the sentences when I did not understand meaning of the text and used the dictionary only when failed to guess. After that, I reread only those parts that helped me answer comprehension questions.

Q2: How did you use the structure of the text to understand it?

A2: “ ...After finishing reading the text the last time, I tried to recapitulate the main ideas of the paragraphs and I found that each paragraph was about a historical period of St Valentine.”

Q3: “ Which words did you guess their meaning from context?

A3: “ morrow, tis,” (correctly guessed)

Q4: How did you deal with the difficult structures?

A4: “ I tried to re-read the sentences (refers to Sent.1 and Sent.2) I tried to infer meaning of some difficult words such as ‘betime’ and ‘sigh’ but I could not understand them. I did not insist to understand well these sentences because they

are not very important.”

Q5: You seem to have read the other two texts in the same way. Why?

A5: “ I often read the texts in this way”

Q6: How did you deal with difficult structures?

A6: (refers to Sent.3) “ I just read this sentence without ‘that’...”

Q7: How did you evaluate your understanding?

A7: “ I read the text again and took notes of the main ideas: St valentine in England, in the New World and in the 19th century (text 1). ...Hillary and Bill Clinton activities and their meeting, the qualities of Bill Clinton...(text 2). Dialysis and the catheter... (text 3) ”

S5:

A1: “ I first tried to know what the text dealt with through the title and I also read briefly the text without stopping for the same reason. I read the text, then, slowly to understand the details and looked back in the text when losing meaning, but I did not stop to check meaning of difficult words; rather, I tried to guess their meaning in the text. When I could not understand the text I used the dictionary at the end. Finally, I read each paragraph in detail by rereading sentences and using the dictionary.”

Q2: which words did you guess their meaning from context?

A2: “ tis, morrow, inked and x’ed ” (correctly guessed)

Q3: Which structures did you study to understand the text and how?

A3: (refers to Sent.1) “ I tried to read it in another way: In the morning of St Valentine I stand at your window to be you Valentine”

Q4: You started reading the second text slowly and you did not rely on the title to predict text meaning. Why?

A4: “I could not know the meaning of the text when I saw the title and I found the text easy so I started reading it slowly with using the dictionary for difficult words meaning when I failed to guess from context. I read the text rapidly at the end to evaluate my understanding”

Q5: Which words did you guess their meaning from context?

A5: “gift” (correctly guessed)

Q6: You read the last text one time and slowly. Why?

A6: “This text is the easiest one. I just read it once slowly and did not even use the dictionary”

Q7: How did you evaluate understanding?

A7: "...reading rapidly the texts: St valentine did not lose its romantic sense from England to the New World but it lost it in the 19th century...(text 1). ...Bill and Hillary were law students when they met, she found him attractive, extraordinary and then vulnerable and she abandoned her plans to follow him. (text 2) ... people can use dialysis when kidneys are damaged or the catheter but the best way is the transplant... (text 3)"

S6:

A1 " I looked at the title but I did not guess what the text was about. Then I read the text three times. The first time, I just skimmed it, then I read it slowly to solve difficulties by trying to guess the meaning of the words in the text but when I failed I gave up."

Q2: Which words did you guess their meaning from the text?

A2: "Settlers, tis, morrow, X'ed" (correctly guessed)

Q3: You read the other texts differently and you did use the dictionary to check words meaning of the second text only. Why?

A3: "The first text was boring and full of difficult words and sentences. Frankly I did not like it so, I did not want to use the dictionary; I just repeated reading it to try to guess from context. Whereas the second text was more interesting. I read it slowly with rereading sentences when I could not understand, and used the dictionary to check meaning of the difficult words."

Q4: And why you did not use the dictionary when reading text 3?

A4: "This text was the easiest ...I did not need to use the dictionary to understand it"

Q5: Which words did you guess their meaning from the text?

A5: " transplant " (correctly guessed)

Q6: How did you evaluate your understanding?

A6: " I remembered the paragraphs meaning in mind: St valentine before and in the 19th century, in the past people said poems or ate special things in order to dream of the lovers but in the 19th century people used special cards...(text 1). ...the different activities of Hillary and Bill Clinton, the attractiveness of Bill Clinton to Hillary, the environment in which they lived and Bill Clinton's vulnerability (text 2). The function of our kidneys...dialysis use when kidneys do not work, or the use of the catheter instead of dialysis... (text 3) "

S7:

A1: “ I guessed the meaning of the text through the title. I read the text slowly by rereading sentences when I could not understand, and used the dictionary to look up for meaning of the important words. Then, I re-read each paragraph and studied deeply difficult structures.”

Q2: Which words did you guess their meaning from the text?

A2: “tis, morrow and inked ” (correctly guessed)

Q3: Which are the structures you studied deeply and how?

A3: (refers to Sent.1) “ I tried to read it many times to understand it well and it means that Hamlet wanted to stand at the window of Ophelia and tell her that he wanted to be her lover”

Q4: You did not read the other texts in the same way. Why?

A4: “I read the second text to get the general idea by skimming the text and before I could guess the meaning of the text through the title. Then, I read it slowly to understand the whole text. In the final reading I used the dictionary to look for the meaning of important words. I read the last text first slowly after having guessed its meaning through the title, I used the dictionary to look up for some difficult words, and I re-read the text to check the meaning of the important words only. Finally, I skimmed the text for the general idea.”

Q5: Which words did you guess their meaning in the text?

A5: “drain into, drain out, straightforward, transplant and waste” (correctly guessed)

Q6: How did you evaluate your understanding?

A6: “I read again the text...: the different traditions of St Valentine in England and in the 19th century (text 1). ...Bill Clinton was a student at law school where he met Hillary, he was attractive, lived in a poor environment and was vulnerable. (text 2)...kidneys clean our blood from the waste products, dialysis has got the same function...the catheter, too...(text 3) ”

S8:

A1: “ I guessed the meaning of the text through the title. Then I read the text again slowly with paying attention to every word and trying to check meaning of some difficult words”

Q2: Which words did you guess their meaning from the text?

A2: “tis, morrow, shed, pillow” (correctly guessed)

Q3: Which structures did you study to understand?

A3: (refers to Sent.1 and Sent.2) “I read them many times to be able to understand their meaning but I could not understand (refers to the sent.1). I also checked all the words in this sentence (refers to the sent.2). This sentence means: ‘go to Mary and cry’” (correctly guessed).

Q4: You read the other texts in the same way with the difference that you were more selective when reading the last two texts. Explain.

A4: “I read the other texts deeply focusing on the meaning of all the words because I liked learning new English words. When reading these texts (text 1 and text 2), I selected at the end only the important parts for answering comprehension questions which I read more slowly.”

Q5: Which words did you guess their meaning from context?

A5: “gift and vulnerability” (correctly guessed)

Q6: How did you evaluate your understanding?

A6: “ I summarised the text: people were less sentimental in the New World in the 19th century than in the time of Shakespeare... (text 1). Hillary describes the qualities of her husband Bill Clinton who is attractive and strong (text 2). When kidneys are damaged, we use dialysis or the catheter (text 3) ”

S9:

A1: “ I looked at the title [text 1] but understood nothing ... I read then the text slowly and tried to guess words meaning from context and sometimes used the dictionary to check meaning of important words. Then, I read slowly each paragraph with using the dictionary again to check meaning of some words”

Q2: Which words did you guess from context?

A2: “ Shed, pinned, morrow and inked” (correctly guessed)

Q3: You reported having read the other texts in different ways. Why?

A3: “ I read the two other texts continuously from beginning to end only once and without paying attention to everything in it with ignoring difficult words most of the time. I read the third text in this way because I did not like it. And I read the second text with using the dictionary because it is more interesting to me to know about a life of an American president than to know about a scientific matter; thus, vocabulary of the second text is more interesting than that of the third text.”

Q4: How did you evaluate your understanding?

A4: “ I summarised the text”

Q5: Which difficult structures did you studied?

A5: (refers to Sent.1 and Sent.2) “I did not understand them but I continued reading the text without understanding them”

S10:

A1: “ When I read the title I guessed that the text was about a day of lovers. Then, I skimmed the text to get the general idea. I read the text, then, slowly with paying attention to everything in it with going back to check meaning. I repeated reading the text with more concentration on content and without using the dictionary. Finally, I tried to organise my ideas by looking into the structure of the text which is divided into three periods of the history of St Valentine dealt with into three paragraphs”

Q2: Which words did you guess their meaning from the text?

A2: “Pinned and pillow” (correctly guessed)

Q3: You read the other texts slightly in different ways. Explain the difference.

A3: “ The second text is interesting and in spite of the fact that it is easy, I read it twice and used the dictionary to know new words and not to understand the text. The third text was very easy and I read it in the same way as I read text 2 but without using the dictionary because I could guess meaning of the difficult words from context and I ignored some of them because they are not important”

Q4: Which words did you guess their meaning in the text?

A4: “ gift, drain into and drain out ” (correctly guessed)

Q5: How did you evaluate your understanding?

A5: “ I wrote the main ideas: St Valentine when carried to England and the New World, people were more romantic in England than in the 19th century (text 1). Hillary loved Bill Clinton because he was attractive and strong though he was from a poor family... (text 2). Dialysis can be used when kidneys are damaged and it is a kind of a portable machine...(text 3) ”

S11:

A1: “ I guessed the meaning of the text through the title and also through reading rapidly. Then, I read it slowly by using the dictionary to check meaning of some difficult words and by going back in the text to revise meaning. After that, I repeated reading each paragraph slowly by paying more attention to general meaning of the paragraphs: Shakespeare and St Valentine, Ophelia and St Valentine, the young swain and St Valentine. And I used the dictionary only when

failed to guess from context. Finally, I skimmed the text and stopped to reflect about the parts that helped me answer the questions”

Q2: Which words did you guess from context?

A2: “rooted” (correctly guessed)

Q3: Which structures did you study to understand and how?

A3: (refers to Sent.1 and Sent.2). “I repeated reading them but could not understand them”

Q4: You seem that you read the other texts in a different way. Why?

A4: “I read the second and third texts first continuously, then I repeated reading them with rereading some sentences to check meaning. Finally, I read the text rapidly and stopped at the parts that helped me answer the questions to read them slowly.”

Q5: Why did not you predict the meaning of the second text through the title?

A5: “Because I did not know who was Hillary Clinton”

Q6: Which words did you guess their meaning from the text?

A6: “vulnerability, drain into, drain out” (‘vulnerability’ was guessed to be ‘kind’)

Q7: How did you evaluate your understanding?

A7: “I repeated reading the text briefly to recapitulate what I have understood: Hamlet in love of Ophelia, he writes a poem for her and she dreams of him and the young swain who sends a card to Marry (text 1). Bill Clinton became a president when he finished his studies in Britain, then married Hillary who followed him because he was very attractive and strong (text 2). Kidneys clean our blood and dialysis purifies our kidneys (text 3)”

S12:

A1: “I could not predict the meaning of the text through the title because I had no idea about the subject. So, I skimmed the text to get the gist. Then, I read it slowly by paying attention to every word and sentence and then tried to guess difficult words meaning from the text. Finally, I read the text continuously to recapitulate ideas through looking mainly into the way the text is organised: the two first paragraphs are about St Valentine in ancient times, the last one is about St Valentine in the 19th century.”

Q2: Which words did you guess their meaning from the text?

A2: “Inked and rooted” (correctly guessed)

Q3: Why did not you use the dictionary?

A3: "The text was so full of difficult words that I knew if I checked their meanings I would not retain them."

Q4: You did not read the other texts in the same way. Why?

A4: " I read text 2 first rapidly without bothering about the difficulties and just moved on. Before that, I could guess that the text was going to talk about the romantic day of St Valentine. Then, I selected the important parts that helped me answer comprehension questions and used the dictionary at the end to look up for meaning of some important words in the text."

Q5: Why did not you try to guess from the context?

A5: "I tried but I failed to understand"

Q6: you read text 3 more reflectively than text 2 though you found it easier. Why?

A6: " I first guessed the content of the text through the title and the rapid reading of the text. Then, I read this text slowly by going back in the text in order not to lose meaning and tried to move on when did not understand by guessing meaning from context. Then, I read each paragraph slowly to recapitulate the main ideas. Finally, I read only the parts that helped me answer the questions"

Q7: Which words did you guess from context?

A8: " Flow around, transplant and waste" (correctly guessed)

Q8: You seem having read text 2 and 3 with more attention to the difficult words. Why?

A8: "The other texts are more interesting for me and even their vocabulary mainly the scientific vocabulary."

Q9: How did you evaluate your understanding?

A9: " I recapitulated what I have understood in mind: text 1 is about the history of St Valentine, this was taken by the Roman to England, then the English carried it to the New World and it continued to the 19th century...(text 1). Text 2 is about the life of Bill and Hillary Clinton, She describes her husband life... . Text 3 is about dialysis, dialysis is a machine that can work instead of our kidneys when they are damaged"

S13:

A1: " I looked at the title but I could not understand what the text was about. Then I read the text rapidly with ignoring the difficulties to get the general idea. Then, I read it slowly by paying attention to every word and sentence, using the

dictionary and trying to guess words meaning in the text. Finally, I read the parts that helped me answer comprehension questions.”

Q2: Which words did you guess their meaning from context?

A2: “Diary” (correctly guessed)

Q3: Which structures did you study to understand?

A3: (refers to Sent.1) “I repeated reading it but I found it difficult because of the style ”

Q4: You did not read the other texts in the same way. Why?

A4: “Yes, I read them (text 1 and text 2) first rapidly with focusing on meaning of the text and not bothering about difficulties. Then, I read the parts that helped me answer the questions and used the dictionary to look for some words meaning in those parts.”

Q5: In the reading of text 2 and text 3 you reported that you relied on the title to predict meaning of the texts, but you did not do so when reading text 1, and you did not use the dictionary when reading text 2 and 3. Why?

A5: “Yes, as soon as I read these titles (of text 1 and 2) I guessed what the texts were about because I know Hillary Clinton and also what dialysis is and since vocabulary of the two texts is easy I did not use the dictionary”

Q6: How did you evaluate your understanding?

A6: “I repeated reading” (could not report what she understood from the text orally)

S14:

A1: “I could predict the meaning of the first text through its title. Then, I skimmed the text for the general idea. After that, I read the text slowly with ignoring difficulties in order not to confuse myself; then, I looked for the difficult words in the dictionary. Finally, I read the parts which helped me answer the questions”

Q2: Which words did you guess their meaning from the context?

A2: “Pinned, pillow, maid, tis” (pillow was thought to be ‘bed’)

Q3: You reported the same way of reading the other two texts. Why?

A3: “I always read so in English”

Q4: Which words did you guess their meaning from the text?

A4: “Straightforward, transplant and waste” (guessed correctly)

Q5: How did you evaluate your understanding?

A5: “ I reread the text to be sure that I understood the text well ” (this subject could not report her understanding of the text orally)

S15:

A1: “ I could not guess what the first text was about when reading the title; but when I started reading the text, I remembered that I knew about the day of St Valentine. I read the text first slowly with paying attention to every thing in it with trying to look for the meaning of some difficult words. Then, I read the text again to check the meaning of all the other difficult words.”

Q2: Why did you check the meaning of all difficult words?

A2: “It is my passion to look for the new English words in the dictionary”

Q3: Which words did you guess their meaning from context?

A3: “keenly” (guessed to be ‘not very’)

Q4: Which structures did you study to understand?

A4: (refers to Sent.1, Sent.2 and Sent.3) “ I repeated reading the song but could not understand it, I looked for the meaning of all the words of the message to understand it (she understood the meaning of the message), and read the third structure word by word and tried to eliminate ‘that’ and understood that the sentence meant ‘it is not usual to find people with ...’

Q5: You seem having read the other texts in the same way. Why?

A5: “Because it is my habit to read in this way”

Q6: Why you did not rely on the title to predict meaning of the other two texts?

A6: “I forgot that ‘Clinton’ was the name of the American president until I read the text, and I did not know what dialysis meant”

Q7: How did you evaluate your understanding?

A7: “ I tried to remember the main ideas: comparison between St valentine in Shakespeare time and in the present...(text 1). Description of the life of the American president, His studies and his marriage (text 2). Description of kidneys and dialysis which can replace our kidneys when they cannot function, dialysis is a portable machine... ”

S16:

A1: “ I could not guess the meaning of all the texts through their titles. I read the questions and tried to read and stop at the important parts which helped me answering those questions”

Q2: You did not re-read the texts, try to guess the words from the text or use the dictionary. Why?

A2: "I wanted just to answer the questions"

Q3: How did you evaluate your reading?

A3: "...By writing the main ideas of the texts: St Valentine as described by Shakespeare, By Ophelia and by the young swain (text 1). Bill Clinton plans to enter politics, Bill Clinton qualities, Bill Clinton environment and vulnerability...(text 3)"

S17:

A1: " I read the title first and guessed that the text was dealing with the famous romantic day of St Valentine. Then, I read the text slowly from beginning to end with using the dictionary to look for meaning of the difficult words."

Q2: Why you did not read the other texts in the same way?

A2: "Because the other texts are easier than the first one. Thus, I just selected the parts that helped me answer the questions on text 2 and read the third text once and rapidly without analysing difficulties, and I used the dictionary at the end to look for meaning of some words I wanted to learn for myself".

Q3: Which words did you guess their meaning from context?

A3: " Tis" (correctly guessed)

Q4: How did you evaluate your understanding?

A4: "By writing the main ideas on a paper: ...In the past, the first person you saw on St Valentine day would be your Valentine and if you dream of a person this would be your lover, in the 19th century you send cards to the lovers..."

S18:

A1: " I could not guess the meaning of the text when I read the title. Then, I read the text slowly with paying attention to every thing with ignoring difficult words. Then, I read again the text to understand it better with using the dictionary to check some important words meaning"

Q2: Which words did you guess their meaning from context?

A2: "Waste" (correctly guessed)

Q3: Which structures did you study to understand?

A3: (refers at Sent.1, Sent.2, Sent.3 and Sent.4) " I reread the sentence [Sent.1] and looked for the meaning of the difficult word 'morrow' but I did not find it in the dictionary, I tried reading this structure again but could not understand it. I

looked for meaning of the word ‘Shed’ (attributed to it the meaning ‘dechirer’ found in a bilingual dictionary) but I could not understand this sentence [Sent.2] very well. I could not understand also this sentence [Sent.3]. I divided this sentence [Sent.4] into two parts that I read separately: ‘ It is hard to get to the point of loving someone’ and ‘until you have some sense of that vulnerability’ ‘and the whole sentence means: you cannot love someone when you are vulnerable’ (this is not the appropriate meaning of this structure)

Q4: You did not read the other texts in the same way. Why?

A4: “ The other texts seemed easier so I read them the first time rapidly with ignoring some difficult words. Then, I read the questions and read the texts slowly with using the dictionary to focus on the important words.”

Q5: How did you evaluate your understanding?

A5: “ I summarised the texts: ...people in the past in England were very sentimental and used poems on the day of St Valentine, but in the New World people lost their romantic appeal because they did not write poems ...(text 1). Bill Clinton met his wife 23 years ago in a school, he studied in Britain and when he came back he entered politics to become a president. Hillary abandoned her plans and followed her husband. She liked him because he was ordinary and strong (text 2). When kidneys are damaged, dialysis can purify them ...(text 3)”

S19:

A1: “ I looked at the title and guessed the content of the text. Then, I read the text slowly with paying attention to every word and sentence and ignored the difficult words. I repeated reading in the same way, but I used the dictionary for checking meaning of important words and skipped the less important ones. Then, I read the text for a third time to understand the text better and used the dictionary only when I failed to guess from context the meaning of the important words”

Q2: which words did you guess from the text?

A2: “ Pinned” (guessed correctly)

Q3: Which structures did you study to understand?

A3: (referred to Sent.1, Sent.2 and Sent.4) “ I reread this sentence (Sent.1) but did not understand it because of its difficult words. I read this structure (Sent.2) and looked for the meaning of all difficult words in it and understood that someone sends a card to Mary...(correct interpretation). I repeated reading this structure (Sent.4) many times than I read the important words in this sentence to understand

its main meaning, I read it in this way: it is hard of loving someone until you have sense of that vulnerability”

Q4: What did you understand from this sentence?

A4: “You do not love someone until he is vulnerable” (correct interpretation)

Q5: You read the other two texts differently. Why?

A5: “ The other texts are easy so I tried to read them rapidly. Then, I read only the important parts that helped me answer comprehension questions and used the dictionary to look up for meaning of important words only.”

Q6: Which words did you guess from the text?

A6: “ Fresh means cool as in French” (not the appropriate sense in this context), “ in text 3, I guessed meaning of the words ‘dialysis’ and ‘kidneys’. (Correct guessing)

Q7: You did not rely on the title to predict meaning of text2 and you relied on the title at the final reading of text 3. Why?

A7: “I did not know that the text was about the wife of the American president when I first saw the title until I read the text. And I did not know that the machine used in case kidneys are damaged was called dialysis.”

Q4: how did you evaluate your understanding?

A4: “I summarised the text in my mind” (could not report orally her summary)

S20:

A1: “I looked at the title and knew what was St Valentine ...Then I read the text slowly with trying to understand everything in it and used the dictionary to check meaning of all difficult words. Then, I repeated reading the text rapidly to have the general idea”.

Q2: Which structures did you study to understand?

A2: (refers to Sent.1, Sent.2, Sent.3 and Sent.4) “ I used the dictionary to look for all the difficult words in it but yet I found it [Sent.1] unclear. I did the same thing with this structure [Sent.2] and failed to understand it. I also repeated reading these structures [Sent.3 and Sent.4] but could not understand them”

Q3: Some words meaning can be guessed from context. Did not you try to use context?

A3: “I used the dictionary because I failed to guess from context.”

Q4: Why did you read the second and third texts once and rapidly?

A4: “These texts are very easy”

Q5: Which words did you guess from text 2?

A5: “ Dialysis and kidneys” (guessed correctly)

Q6: How did you evaluate your understanding?

A6: “By summarising the text after reading it again: (this is a written summary)

“...Ophelia wanted to be betime at Hamlet window, Ophelia the day before got five bay-leaves...the young swain before Valentine’s day the little corner of his heart reserved for Mary was occupied...(text 1). Hillary and Bill Clinton met at Yale Law school in Connecticut, he entered politics and changed things. She worked in a church...She married Bill Clinton because he was attractive, has extraordinary mind, a huge heart. They were from a different environment and he was not vulnerable. ” (text 3 was not summarised)

Appendix 2: Observation data

Reading Text I

The first non-successful reader (S20)

First paragraph

He starts reading and suddenly stops at the word 'carried' to look up for its meaning. Then continues reading and each time stops suddenly at some words to look up for their meaning in the dictionary: 'conquerors', 'pagan', 'custom', 'Ophelia', 'morrow', 'tis', 'maid', 'betime'. Then re-reads Ophelia's song and says « I do not understand it »

Second paragraph

Reads and stops at 'superstition', 'settlers', 'lore' to ask for their meaning. Then, reads the diary's extract and each time stops immediately at the following words to look up for their meaning: 'bay-leaves', 'pinned', 'pillow', 'sweetheart', 'boiled', 'yolk', 'shell'.

Third paragraph

He reads and suddenly stops at some words to ask for their meaning: 'exhibit', 'swain', 'printed', 'breathe', 'warm', 'sigh', 'shed', 'X'ed', 'inked'. After this first detailed reading, the subject re-reads the whole text rapidly but with stopping a moment to reflect. At this moment, we asked questions:

Experimenter: why do you stop and what are you thinking about?

S20: " I think about the main idea of the paragraph..." (answered in Arabic)

Experimenter: What are the main ideas of each paragraph?

S20: " The first one is about Ophelia and Hamlet..., the second one is about the young lady who describes St Valentine, the last one is about a young swain's poem" (completely wrong)

Answering comprehension questions on text 1

1. Did St Valentine originate in England?

...Yes...(false).....

(he depicts the right sentence that gives the answer: 'The Roman conquerors carried the celebration to England'. However, he refers to 'England' as being his justification)

2. If Ophelia dreams of Hamlet would she become his wife in the same year?

...Yes...(false).....

(He reads the part of the text which mentions Ophelia and refers to it as being the source of his justification to answer 2 but it is wrong)

3. When did St Valentine lose its romantic sense?

...During the journey...(false).....

(He depicts an irrelevant sentence to this answer but which contains the words of the question itself: 'St Valentine' Day ...was taken to the new world and...lost none of its romantic appeal through the journey')

4. Why were people more practical in the 19th century?

...Because they were less sentimental...(false).....

(He depicts an irrelevant sentence to the answer but which contains the words of the question: 'People in the nineteenth century were less sentimental and more practical'.

The second unsuccessful achiever (S18)

First paragraph

Starts reading slowly. After reading the second sentence, returns to the words 'carried', 'pagan' to underline them, then continues reading. After reading the song, returns to the second verse to think a moment and then underlines 'morrow', 'tis', 'betime'.

Second paragraph

Reads the whole paragraph slowly without stopping at all and then underlines some words in it : 'bay-leaves', 'pinned', 'pillow', 'shell'.

Third paragraph

After reading the second sentence, returns to the word 'exhibit' and underlines it. Then continues reading till the end and returns to underline some words: 'contrariwise', 'lacy', 'breathe', 'shed', 'sigh', 'inked', 'x'ed'. After this first reading, she re-reads the text with the use of the glossary to check the meaning of the words 'pagan' 'shed' and 'exhibit' and tries to guess meaning (as he says) of the word 'morrow' from context by re-reading the whole song but says 'I cannot guess it' (notice that these are not very important words in this text).

Answering comprehension questions on text 1

1. Did St valentine originate in England?

Yes ...(false).....

2. If Ophelia dreams of Hamlet would she become his wife in the same year?

Yes...(false).....

3. When did St Valentine lose its romantic sense?

Through the journey...(false).....

4. Why were people more practical in the 19th century?

(No answer)

The first successful reader (S3)

First paragraph

Starts reading then stops after the second sentence to re-read it and said : « I repeat reading because I lost the meaning and because I'd like to guess the meaning of the word 'pagan' ». Then, she looks for its meaning in the dictionary. She continues reading and stops after the fourth sentence then returns to the word 'betime' to ask for its meaning. Then reads Ophelia's song and returns to 'morrow', 'tis' and 'betime' to find their meaning in the text and says : « 'morrow' is morning because of 'good' and 'tis' is an abbreviation of 'it is' I think ».

Second paragraph

Then reads the diary's extract and returns to some words to ask for their meaning : 'bay-leaves' and 'shell' and then says « I look just for the meaning of 'bay-leaves' because it is more important »

Third paragraph

She reads and stops after the second sentence and then asks for the meaning of 'swain'. Then, she reads the whole quotation and said: « I can't understand it because it is full of difficult words ». But then reads it again and draws with her pen arrows linking respectively the words 'sigh' and 'shed' to 'breathe' and 'tear' and says: « 'sigh' is 'air' and 'shed' is 'cry'. Then, she continues reading till the end. After this first reading, she re-reads the whole text rapidly pointing to the first sentences of each paragraph. At this moment we asked questions:

Experimenter: Why do you point with the pen to these sentences?

S3: "... to remember what each paragraph is about " (answers in French)

Experimenter: What each paragraph is about?

S3: " The text is concerned with St Valentine in different periods: in Shakespeare time, in the time of the New word and in the 19th century " (completely true)

Experimenter: What is the New World?

S3: " I do not know "

Answering comprehension questions

1. Did St Valentine's Day originate in England?

...No...(true).....

(She depicts the relevant sentence to the answer)

2. If Ophelia dreams of Hamlet would she become his wife in the same year?

...Yes...(false).....

(She reads both the first and the second paragraph. Then, she paused a moment and then asked: « Is Ophelia the person who wrote the diary? »

3. When did St Valentine's Day lose its romantic sense?

...In the nineteenth century...(true).....

(Depicts the relevant sentence to the answer: 'Contrariwise, people in the ...nineteenth century were less sentimental...' and refers exactly to 'contrariwise' and 'less sentimental')

The fourth question remained unanswered.

The second successful reader (S4)

Reads the whole text slowly first but without stopping at all and just underlines some words : 'pagan', 'bay-leaves', 'swain', 'lore', 'betime', 'shell'. Then re-reads each paragraph slowly with skipping (without reading them) some parts such as Ophelia's song, the diary' extract and the quotation of the card because as he says: « are not important ». At this moment, we asked questions:

Experimenter: Why do you find these parts unimportant?

S4: " Because they are just examples..."

Experimenter: Examples of what?

S4: " Examples of the main ideas"

Experimenter: What are the main ideas?

S4: (showing with her pen to each paragraph and mentioning each main idea)" St Valentine in England, St Valentine in the New World and St Valentine in the 19th century" (true)

Experimenter: ... England in which time and what is the New World?

S4: England in Shakespeare time, the New World is the world after Shakespeare time but I am not sure"

Then, he tries to guess meaning of the word 'betime': he reads the song aloud sounding 'morrow' by 'morning' and 'tis' by 'it is' but cannot guess meaning of 'betime'. He ignores meaning of the other words saying that « these words are not important »

Answering comprehension questions on text 1

1. Did St valentine originate in England?

...No...(true).....

2. If Ophelia dreams of Hamlet would she become his wife in the same year?
...Yes...(false).....
3. When did St Valentine lose its romantic sense?
...In the nineteenth century...(true).....
4. Why were people more practical
...Because they used the less sincere cards...(true).....

Reading Text 2

The first non-successful achiever (S20)

He reads and suddenly stops each time he does not understand the words: 'stint', 'Yale', 'Rhodes', 'keenly', 'aware', 'rural' in the first paragraph. Then, reads the second paragraph continuously and then stops at the structure 'It is not that usual to find people'; he reads it again as says « word by word » but states « I cannot understand it ». Then, continues reading and stops at the word 'gift' ; after rereading the sentence in which this word occurs, he looks it up in the dictionary. Then continues reading and immediately use the dictionary to look up for the meaning of 'staff' and 'Yale' and 'vulnerability'. Then, he re-reads the structure 'I think it is hard to get to the point of loving someone...' and says: «I read it word by word » but then says «It is difficult ». After that, he re-reads the whole text rapidly.

Answering comprehension questions on text 2

1. Did Bill Clinton plan to become the president of USA when he was in Britain ?
...Yes...(false).....
(Refers to the relevant sentence to the answer but without getting the right answer)
2. Did Hillary work in Washington before she married Bill Clinton?
...Yes...(false).....
(Refers to the relevant sentence to the answer but without getting the right answer)
3. Was Bill Clinton an ordinary person for Hillary?
...Yes...(false).....
4. Was Bill Clinton's vulnerability the first thing that made Hillary interested in him?
...Yes...(false).....

The second unsuccessful achiever (S18)

Reads the whole text once rapidly with underlying meaning of the words: 'stint', 'keenly', 'aware', 'suburb' and 'vulnerability'; and after finishing reading, he looks up for the meaning of 'stint', 'aware' and 'vulnerability' and ignores the others because as he says « ..Are not important ». Then goes back to some structures for re-reading them: He says that the structure ' It is just not that usual to find ...' was not clear pointing with his pen to 'that'. Then, he reads again the structure ' It is hard to get to the point of loving someone wholly....' And then cuts it down into two parts that he reads independently (the first part ends at wholly) and says: « This means that we cannot love someone who has a sense of vulnerability » (false)

Answering comprehension questions on text 2

1. Did Bill Clinton plan to become the president of the United States when he was in Britain?

...Yes, he did...(false).....

2. Did Hillary work in Washington before she married Bill Clinton?

...Yes, she did...(false).....

3. Was bill Clinton an ordinary person for Hillary?

...Yes, he was...(false).....

4. Was bill Clinton's vulnerability the first thing that made Hillary interested in him?

...Yes, it was ...(false).....

The first successful achiever (S3)

She reads and underlines only the word 'stint' (does not look for its meaning because as she says ' it is the only word which I do not understand and it is not so important ». Then, stops at the word 'gift' and re-reads both the sentence in which this word occurs as well as the preceding sentence (which is more helpful for guessing the meaning of 'gift'). She referred with her pen to the phrases 'extraordinary mind' and 'huge heart' and says « 'gift' means good things ». Before finishing reading, she reads again the structure ' It is hard to get to the point of ...' and then reads into two parts (the first part ends at 'wholly') then says : « this means that we should love a vulnerable man ». After finishing reading the whole text in this way, she reads it again rapidly.

Answering comprehension questions on text 2

1. Did Bill Clinton plan to become the president of USA when he was in Britain?

.....No...(true).....

(Refers to the relevant sentence to the answer)

2. Did Hillary work in Washington before she married Bill Clinton?

.....No...(true).....

(Depicts the relevant sentence to the answer)

3. Was Bill Clinton an ordinary person for Hillary?

.....No, he was an extraordinary man for her...(true).....

4. Was Bill Clinton's vulnerability the first thing that made Hillary interested in him?

.....No, he was attractive...(true).....

The second successful achiever (S4)

Reads the whole text rapidly underlying the words 'stint', 'keenly'. Then looks for the meaning of 'keenly' and ignores 'stint' because as he says the latter is « more important... ». Then returns to the structure 'It is not that usual....' and points with his pen to 'it is' and 'not' and says « This means 'it is not' ». After this, he reads the questions briefly and then points with his pen to the beginning of each paragraph. At this moment, we asked questions:

Experimenter: Why are you pointing your pen to each paragraph?

S4: "I am trying to organise the text in my mind?"

Experimenter: How?

S4: "I try to know what each paragraph is concerned with"

Answering comprehension questions on text 2

1. Did bill Clinton plan to become the president of the United States when he was in Britain?

.....No, he just planned to enter politics and change things...(true).....

2. Did Hillary Clinton work in Washington before she married Bill Clinton?

....No, she planned to work there...(true).....

3. Was Bill Clinton an ordinary person for Hillary?

....No, she found him a person with great gifts...(true).....

4. Was Bill Clinton's vulnerability the first thing that made Hillary interested in him?

No, she found him attractive first...(true).....

Reading text 3

The first unsuccessful achiever (S20)

Reads the whole text rapidly one time and claimed that it was very easy. However, he looks up for the meaning of the words 'drain into', 'drain out', 'flow around', 'straightforward', 'transplant' and 'waste'

Answering comprehension questions on text 3

1. Does dialysis purify our kidneys?

...Yes...(false).....

(Refers to the relevant sentence to the answer but without giving the correct answer)

2. What is the best way to have blood clean when kidneys are damaged?

...Kidney dialysis...(false).....

(Refers to an irrelevant sentence to the answer but which contains the word 'damaged')

3. Is the peritoneal an artificial filter used to purify our blood ?

...Yes...(false).....

4. Do the chemicals enter the body or remain in the catheter?

...(No answer).....

The second unsuccessful achiever (S18)

Reads the whole text once with checking the meaning of the word 'dialysis', 'drain into', 'transplant', then infers the meaning of 'waste' from reading the two sentences in which this word occurs saying that this meant 'dechets'. He also underlines some words that he does not look up in the dictionary: 'straightforward', 'flow around', in the second paragraph.

Answering comprehension questions on text 3

1. Does dialysis purifies our blood?

...Yes...(false).....

2. What is the best way to have blood clean when kidneys are damaged?

...Kidney dialysis...(false).....

3. Is the peritoneal an artificial filter used to purify the blood?

...Yes...(false).....

4. Do the chemicals enter the body or remain in the catheter?

(No answer)

The first successful achiever (S3)

She reads the whole text rapidly one time and during this reading she infers meaning of the words 'drain into' and 'drain out' saying that « The former means 'enter' because of 'into' and the latter means 'go out because of 'out' ».

Answering comprehension questions on text 3

1. Does dialysis purify our kidneys?

...No...(true).....

(Refers to the relevant sentence to the answer)

2. What is the best way to have blood clean when kidneys are damaged?

...Kidney dialysis...(false).....

(She refers to the relevant sentence to the answer but without giving the correct answer)

3. Is the peritoneal an artificial filter used to purify our blood?

...No, it is natural...(true).....

4. Do the chemicals enter the body or remain in the catheter?

...Enter the body...(true).....

The second successful achiever (S4)

Reads the whole text rapidly one time and during this reading infers the meaning of 'waste' by reading the two sentences in which this word occurs saying that this meant « ...all what our body throw out » .

Answering comprehension questions on text 3

1. Does dialysis purify our kidneys?

...No, it purifies our blood...(true).....

2. What is the best way to have blood clean when kidneys are damaged?

...Dialysis...(false).....

3. Is the peritoneal an artificial filter used to purify our blood?

...No, it is a membrane around the intestines...(true).....

4. Do the chemicals enter the body or remain in the catheter?

...They enter the body...(true).....

Appendix 3: reported difficult words

Subjects	Text 1	Text2	text3
S1	Pagan, bay-leaves, betime, shell, sigh, swain.	Keenly, aware, stint	
S2	Pagan, bay-leaves, diary, swain, shed.	Stint, aware	
S3	Pagan, bay-leaves, betime, diary, appeal	Stint	
S4	Pagan, bay-leaves, betime, lore, swain, shell.	Stint, keenly	Transplant
S5	Pagan, bay-leaves, betime, appeal, shell, sigh	Stint, keenly, aware	Flow around
S6	Pagan, bay-leaves, shell, diary, pinned, pillow.	Stint, keenly, aware	Drain into, drain out, straightforward
S7	Pagan, bay-leaves, betime, diary, pinned, shell, maid, settlers, appeal, sigh, shed, 'x'ed, rooted.	Stint, keenly, aware, Rhodes	Flow around
S8	Pagan, bay-leaves, swain, lore, bet ime, shell, appeal, settlers, sigh, x'ed, pin pinned, inked.	Stint, keenly, aware, Rhodes	Transplant
S9	Pagan, bay-leaves, swain, lore, betime, appeal, diary, sigh, x'ed, maid, tis, rooted, conquerors.	Stint, keenly, aware, Yale, Vulnerability	Straightforward
S10	Pagan, bay-leaves, swain, lore, betime, appeal, settlers, shed, x'ed, maid, morrow, tis, inked, conquerors.	Stint, aware, keenly, Rhodes, Yale	Transplant, waste
S11	Pagan, bay-leaves, swain, lore, beti me, shell settlers, diary, shed, x'ed, pinned, pillow, maid, morrow, tis, inked, conquerors.	Stint, keenly, aware	Waste
S12	Pagan, bay-leaves, swain, lore, Betime, shell, appeal, settlers, diary, Sigh, shed, x'ed, pinned, pillow, maid, morrow, tis, conquerors.	Stint, keenly, aware, Rhodes, Yale	Drain into, drain out

S13	Pagan, bay-leaves, swain, lore, beti me, shell, appeal, settlers, sigh, shed, 'x'ed, pinned, pillow, maid, morrow, tis, inked, rooted, contrariwise.	Stint, keenly, aware, Rhodes, Yale, vulnerability	Drain into, drain out, straightforward
S14	Pagan, bay-leaves, swain, lore, bet ime, shell, appeal, settlers, diary, sigh, she shed, x'ed, maid, inked, rooted, conquerors, contrariwise.	Stint, keenly, aware, Rhodes, gift, vulnerability	Drain into, drain out, flow around
S15	Pagan, bay-leaves, swain, lore, betime, shell, appeal, diary, sigh, pinned, pillow, morrow, rooted, carried.	Stint, keenly, aware, gift, Vulnerability	Drain into, drain out, flow around, straightforward, waste
S16	Pagan, bay-leaves, swain, lore, betime, shell, appeal, settlers, sigh, shed, x'ed, pinned, pillow, tis, inked, conquerors, contrariwise, carried.	Stint, keenly, aware, Rhodes, vulnerability	Drain into, drain out, flow around, straightforward, transplant, waste
S17	Pagan, bay-leaves, swain, lore, betime, shell, appeal, settlers, diary, sigh, x'ed, pinned, pillow, maid, morrow, inked, rooted, contrariwise, carried.	Stint, keenly, aware, gift, vulnerability	Drain into, drain out, flow around, straightforward, transplant, waste
S18	Pagan, bay-leaves, swain, lore, betime, shell, settlers, appeal, diary, sigh, shed, x'ed, pillow, maid, morrow, tis, inked, rooted, conquerors, contrariwise, carried.	Stint, keenly, aware, Rhodes, Yale, gift, vulnerability	Drain into, drain out, flow around, straightforward, transplant, waste
S19	Pagan, bay-leaves, swain, lore, betime, shell, appeal, settlers, diary, sigh, shed, x'ed, pinned, pillow, maid, morrow, tis, inked, conquerors, contrariwise, carried.	Stint, keenly, aware, Yale, gift, vulnerability	Drain into, drain out, flow around, straightforward, transplant, waste
S20	Pagan, bay-leaves, swain, lore, betime, shell, appeal, settlers, diary, sigh, shed, x'ed, pinned, pillow, maid, morrow, tis, inked, rooted, conquerors, contrariwise, carried, sweetheart, yolk.	Stint, keenly, aware, Rhodes, Yale, gift, vulnerability	Drain into, drain out, flow around, straightforward, transplant, waste

Appendix 4: difficult structures

Some structures are found difficult by some subjects:

Good morrow ! tis St Valentine

All in the morning betime

And I a maid at your window to be your Valentine (text 1). This is referred to as Sentence 1

Go little card to Mary ever dear

Breathe the warm sigh and shed a tear (text 1). This is referred to as Sentence 2

It is just not that usual to find people...(text 2). This is referred to as Sentence3

I think that it is hard to get to the point of loving someone wholly until you have some sense of that vulnerability (text 2). This is referred to as Sentence 4

Subjects	Text1	Text2	Text3
S1			
S2			
S3	Sentence1, Sentence 2	Sentence 4	
S4	Sentence 1, Sentence 2	Sentence3	
S5			
S6			
S7	Sentence 1		
S8	Sentence 1, Sentence 2		
S9	Sentence 1, Sentence 2		
S10			
S11	Sentence 1, Sentence 2		
S12			
S13	Sentence 1		
S14			
S15	Sentence 1, Sentence 2	Sentence 3	
S16			
S17	Sentence 2		
S18	Sentence 1, Sentence 2	Sentence 3, Sentence 4	
S19	Sentence 1, Sentence 2	Sentence 3	
S20	Sentence 1, Sentence 2	Sentence 3, Sentence 4	

Appendix 5: important and unimportant words in the texts

In this appendix we present a justification for our classifying the reported difficult words into important, unimportant words and words that can be guessed from the context. We consider the importance of the words as regards the total phrase meaning and the whole meaning of the text.

Vocabulary of text 1

Carried: it is important because it is the only verb in the sentence in which it occurs and it represents the main meaning in it which is the movement of the tradition (St Valentine) from Rome to England: ‘The Roman carried the celebration to England’

Conquerors: it is less important to the sentence in which it occurs because it does not affect the main meaning of the sentence and which is the movement of the tradition (St Valentine) to England.

Morrow: it is important to the phrase which consists in two words ‘Good morrow’ but not very important to the whole meaning of the text since it occurs within a part of the text (the song) which is just a detail included in the first paragraph. This word meaning can be guessed from context for two reasons. First, one can infer that ‘good morning’ and ‘good morrow’ are the same but ‘good morrow’ is an old English because the song (in paragraph 1) is written in the Shakespearean time where English was more or less different.

Tis: this is not very important for the general meaning of the text since it occurs in the song (paragraph 1) which does not carry the main meaning of the first paragraph. And its meaning (‘it is’) can be guessed with the reference to old English as explained just above.

Maid: it is not very important for the meaning of the whole text since it occurs in the song (paragraph 1) which can be skipped since it contains just details. In addition, this word is just an adjective post-modifying the main subject ‘I’.

Betime: it is the most important word in the sentence (the core of the sentence meaning) but it does occur in the song whose meaning does not affect the whole text meaning. In addition, this word can be guessed from context thanks to its synonym ‘Valentine’

Lore: it is not the most important word in the sentence and it is part of the prepositional phrase that post-modifies the main subject ‘St Valentine’

Settlers: it is not very important to the sentence because it does not affect its main meaning which is: St valentine preserving its romantic appeal when taken to the New World.

Diary: its is not very important to the total sentence which is: a writing describing the tradition in the New World.

Bay-leaves: it is important for the meaning of the whole sentence in which it occurs because it constitutes its main meaning, but it is not important to the general meaning of the text because it occurs in the extract from the diary which is only a detail in the second paragraph.

Pinned: it is important to the sentence meaning because it is the main verb. However it occurs in the diary's extract whose meaning is less important to the whole meaning of the text.

Shell: it is not very important since it occurs in a part of the text (the diary) which is just a detail for the main meaning of the second paragraph.

Contrariwise: it is very important both for the sentence and the paragraph in which it occurs because it marks a transition between one idea to its opposite. In addition, its meaning can be guessed from context simply by considering the first part of this word 'contrari' which means 'contrary'

Appeal: it is important because it is part of the main meaning of the sentence in which it occurs and which is: St Valentine preserving its romantic appeal when taken to the New World

Swain: it is important for the main meaning of the sentence which is: a card or a valentine written by a young lover. However, this part of the paragraph has got a role of giving detail about the main meaning of the whole paragraph which is: St Valentine not preserving its romantic appeal through the 19th century. So the word 'swain' is not important for the general meaning of the paragraph.

Sigh and shed: they are both important for the sentence in which they occur but this sentence is part of the written card which constitutes a detail as explained above.

'X'ed: it is important because it is the main verb and also because its meaning is important for the general meaning of the paragraph and the text. In addition, it can be guessed from context as follows: one can perceive that this verb consists in 'x' which means past or old so it can be deduced that in this context "'x'ed" means letting down or drop.

Inked: important because it is the main verb. In addition, its meaning can be inferred since it constitutes from the word 'ink' which means a substance of writing so the verb can be guessed to mean 'to write'.

Vocabulary of text 3

Stint: it is not very important because it does not affect the main meaning of the sentence in which it occurs and which is: Bill Clinton having been a scholar at Oxford University.

Keenly: it is important because it informs about the degree of awareness of Bill Clinton of his home state problems.

Aware: it is important because it is the main word in the sentence in which it occurs.

Rhodes and Yale: they are just names of places (and this can be easily guessed) and one does not need to know them to understand the text.

Gift: it is important for the total phrase meaning since it is its main constituent. In addition, its meaning can be inferred from context because it refers to the following phrases: 'extraordinary mind' and 'huge heart' which mean good qualities.

Vulnerability: it constitutes the main word of the sentence in which it occurs. In addition, by reading forward one can guess its meaning because there its opposite 'a strong character'.

Vocabulary of text 3

Waste: it is an important word in the sentence in which it occurs. In addition, its meaning can be inferred mainly because it is repeated twice.

Transplant: it is important for the total phrase meaning. In addition, its meaning can be guessed from context mainly because it contains 'trans' which means transfer and 'plant' which means put inside.

Drain into, drain out, flow around: they are all important since they show the movement of substances in an important description in the text. In addition, these verbs meaning can be easily inferred from the text thanks to the process description and to the prepositions 'into, out, around' which are part of these verbs and which help to guess the kind of movement or the direction the substances take.

Straightforward: it is important to total phrase meaning. In addition, its meaning can be guessed from context because of its synonym in the following sentence and which is 'simple'.

Appendix 6: the texts used in the experiment

Text 1: Valentine's Day

...Valentine's day has had a long and romantic history. The Roman conquerors carried the celebration to England where Pagan and Christian customs combined to form some of the enduring traditions. One was that the first person you saw on Valentine's day would be your valentine. We know that the custom was well established in Shakespeare's time, for Ophelia wanted to be 'betime' at Hamlet's window. She sang :

Good morrow ! 'tis St Valentine's Day
All in the morning betime
And I a maid at your window,
To be your Valentine !

...St Valentine with all of its colourful lore was taken to the New World by the English settlers and lost none of its romantic appeal through the journey. The deeply rooted superstition continued, in fact, flowered, in the new environment. An extract from a young lady's diary written in 1754 describes some of the practices:

Last Friday was Valentine's Day and the night before I got five bay-leaves, and pinned four of them to the four corners of my pillow, and the fifth to the middle; and then I dreamt of my sweetheart, we should be married before the year is out. But to make it sure, I boiled an egg hard and took out the yolk, and filled it with salt; and when I went to bed ate it, shell and all, without speaking or drinking after it .

Contrariwise, people in the gracious nineteenth century were often less sentimental and more practical than we imagine. Among the valentines in an exhibit at the city of New York Museum was one created by a young swain in 1845. On a lacy background he had printed:

« Go little card to Mary ever dear,
Breathe the warm sigh and shed a tear... »

But sometime before Valentine's Day, that little corner of his heart reserved for Mary was occupied by a girl named Emma. Solution? He 'X'ed out 'Mary' and inked 'Emma' and sped the card off to his new girl.

I) Comprehension question

1. Did St Valentine originate in England?

2. If Ophelia dreams of Hamlet would she become her wife in the same year?

3. When did St Valentine loose its romantic sense?

4. Why were people more practical in the 19th century?

Text 2: Hillary Rohdman Clinton

Hillary Rohdman and Bill Clinton met 23 years ago as students at Yale Law school in Connecticut. He was fresh from a two-year stint as a Rhodes scholar at Oxford, University of Britain, keenly aware of the problems of his home state of Arkansas, speaking openly of his plans to return home, enter politics, and change things. She had increasing involvement in liberal causes, beginning when she worked in a church group to help African-American and Hispanic children in inner city Chicago and families of migrant farm workers in rural Illinois.

Five years after they married, Hillary Clinton abandoned her plans for a career in Washington to follow her husband in Arkansas. I asked what had first drawn her to the man she married.

« He is a very attractive man » She began. « In those

days, he was very attractive, and I knew nothing about him. But what I have learned quickly was that he was unlike anybody I had ever met - and still is - because he combined an absolutely extraordinary mind with huge heart. It is just not that usual to find people with both those great gifts that he has in such abundance. Hillary Rohdman Clinton grew up in Park Ridge, Illinois, a suburb of Chicago. Her family was financially secure, emotionally healthy, and supportive. Her husband, on the other hand, was from a different environment, raised in Hot Springs, in Arkansas, one of the poorest states in the United States. On their first meeting, what did they have in common?

« We were both at Yale law School, » she said.

« ...We shared intellectual interests,

ambition, concern about our country, and concern about the world.... » In talking with White House staff and family friends, they often remarked on Hillary Clinton's extraordinary protectiveness of the president. I asked her if it was because she sensed in him vulnerability.

« I think that is true of any person you really love, » she answered. « I think it is hard to get to the point of loving someone wholly until you have some sense of that vulnerability. And that it is mutual...my husband has one of the most extraordinary character of anyone I have ever met or even read about. But he also has vulnerability, and this is part of what makes him such a great man_ part of the reason that he can look into the eyes of people and see their pain and really feel it »

1) Comprehension questions

1. Did Bill Clinton plan to become the president of the United States When he was in Britain?.....
2. Did Hillary Clinton work in Washington before she married Bill Clinton?
3. Was Bill Clinton an ordinary person for Hillary?
4. Was Bill Clinton's vulnerability the first thing that made Hillary interested in him?.....

Text 3: Dialysis

What do our kidneys do? The answer is that they clean all the impurities from our blood. Before it enters the kidneys, blood contains a lot of waste products from what we have eaten or drunk in the previous day or two. These waste products are removed in the kidneys and then the clean blood is sent back to the body. This is the normal process in healthy people. Some people, however, either because of an accident or a disease, have damaged kidneys. A few of them are able to have transplants, but for many the only way to purify their blood and to stay alive is a treatment called kidney dialysis.

Dialysis means passing the blood through an artificial filter outside the body. A patient is linked to a machine for several hours while this happens. It is not painful but it makes life very difficult for dialysis patients. They have to go to hospital regularly and in between hospital visits they can't travel very far in case they need emergency treatment.

But now, for some patients, there is an alternative to these very expensive and inconvenient kidney machines. It's a kind of portable dialysis machine and this is how it works:

There is a membrane around the intestines called the peritoneal membrane. Its structure is like the artificial filters used in dialysis machines. This means that as blood passes through the intestines to the stomach muscles, it's possible to filter it through the peritoneal membrane and clean it there, rather than in the kidneys. The method is quite straightforward. In a simple operation a tube called a catheter is put into the patient. One end of the tube leads to the peritoneal membrane and the other end is outside the body. The tube isn't large or obvious, so patients can lead perfectly normal lives with the catheter in position. What they have to do is attach a bag of chemicals to the catheter. They hold the bag so that the chemicals drain into the peritoneal membrane. Then they roll up the bag and put it in a pocket for six hours. At the end of that time the chemicals have finished their job. They have drawn the impurities in the blood through the peritoneal membrane. Clean blood is flowing around the body, but the chemicals, which now contain all the body's waste products, have to be removed. The patient reconnects the bag to the catheter, holding it down this time so that the chemicals drain out of the body by gravity.

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I) Comprehension questions

1. Does dialysis purify our kidneys?

 2. What is the best way to have blood clean when kidneys are damaged?

 3. Is the peritoneal an artificial filter used to purify our blood?

 4. Do the chemicals enter the body or remain in the catheter?
-

Appendix 7: Questionnaire

I) Reading difficulties

Is the text easy or difficult and why?	Because of content	Because of vocabulary	Because of syntax	Because of the type of the text (narrative, expository.....)
Easy				
Difficult				

II) Reading process

1. How many times have you read this text? -----

2.

Did you read this text in this or these ways and when?	Put a (x) when it is yes	First time of reading	Second time of reading	Other times of reading
Rapidly and continuously from beginning to end				
Slowly from beginning to end with looking forward and backward to check meaning				
Organising your reading into reading by paragraphs which you analyse				
Reading from beginning to end with always stopping only at difficulties				
Reading from beginning to end with stopping only at important parts				

IV) Reading strategies

Did you use one or more of these strategies for understanding and when ?	Put a (x) when yes	In first reading	In second reading	In other times of reading
Use of background knowledge.				
Use of the organisation of the text.				
Pay attention to every word and sentences.				
Ignore words which are not important.				
Use immediately the dictionary to look up difficult words.				
Often guess the meaning of words from context.				
Use the dictionary only when fail to guess the meaning of words.				
Study the syntax of the text to get at meaning.				
Skim through the text to get the general idea.				
Look at the title to predict the general sense of the text.				
Anticipate information in the text.				
Guess at the meanings of words and sentences and paragraphs and then check the guesses.				
Continue reading even if you do not understand what you read.				
Evaluate what you read through summarising or recapitulating what you have understood even if in mind				
Rely on the main ideas to understand.				

Appendix 8: Text Marking

After you finish reading the text and answering the questions, read carefully the following instructions

- Circle the difficult words that you did not look up in the dictionary.
- Write the words you looked up in the dictionary and their definitions.
- Underline all the important parts which helped you answer comprehension questions.
- Underline in double the difficult structures (or sentences).

Appendix 9: Selection of the parts that help answering comprehension questions

In this table we show if the subjects selected the appropriate parts in the text which help to answer the question (Text Marking procedure). When there is a correct selection, the cells are empty.

Subjects	Text 1	Text 2	Text 3
S1			
S2			
S3			
S4			
S5	Q2: underlined the lady's diary		
S6			
S7	Q2: underlined only the diary's extract. Q3: underlined the wrong part Q4: underlined the card's message (wrong selection)		
S8	Q2: underlined only the diary's report Q4: underlined only the beginning of the third paragraph	Q2: selected only part of the right sentence Q4: underlined the wrong part	Q3: selected the wrong part
S9	Q1: selected the right sentence but without checking the meaning of the important word 'carried' Q2: underlined only the diary's extract Q3: underlined the wrong part Q4: selected only the beginning of the 3 rd paragraph		Q4: selected the right part but without checking the meaning of the important words 'drain into' and 'drain out'
S10	Q2: selected only the diary's extract Q3: selected the wrong part (paragraph 2) Q4: underlined the wrong part (the card's message)		
S11	Q2: selected only the diary's extract Q3: selected the wrong part (paragraph 2)	Q2: selected part of the right sentence	Q4: selected the right part
S12	Q2: selected only the diary's extract Q3: selected the 2 nd paragraph		
S13	Q2: selected only the diary's extract Q4: selected the wrong part (the card's message)	Q2: selected part of the right sentence Q4: underlined the wrong part (last paragraph)	

S14	Q2: selected only the diary's extract Q4: selected only the beginning of the 3 rd paragraph	Q2: selected part of the right sentence Q3: selected the wrong part Q4: selected the wrong part	
S15			
S16	Q2: selected only the diary's extract Q4: underlined only the beginning of the 3 rd paragraph	Q2: selected part of the right sentence	
S17	Q1: selects the right sentence but without checking the meaning of the important word 'carried' Q2: selected only the diary's extract Q3: selected the wrong part (the card's message)		
S18	Q2: selected only the diary's extract Q4: selected only the beginning of the 3 rd paragraph	Q2: selected part of the right sentence	
S19	Q2: selected only the diary's extract Q4: selected only the beginning of the 3 rd paragraph	Q3: wrong selection Q4: wrong selection	Q2: wrong selection
S20	Q2: selected only the diary's extract Q4: selected only the beginning of the 3 rd paragraph	Q2: selected part of the right sentence Q3: wrong selection	

In the following we refer in each text to the different parts which help answering comprehension questions. In addition, we give the answers to the asked questions and the main ideas of each paragraph in the texts.

Text 1

Q1: Did St Valentine originate in England?

A1: No.

The sentence which helps find the answer is: 'The Roman conquerors carried the celebration to England'

Q2: If Ophelia dreams of hamlet would she become her wife in the same year?

A2: No.

The sentences which help find the answer is

'...the first person you saw on Valentine's day would be your valentine' (in the first paragraph) and 'An extract from a lady's diary written in 1754 describes some of the practices:...I dreamt of my sweetheart, we should be married before the year is out' (in the second paragraph).

Q3: When did St Valentine lose its romantic sense?

A3: In the 19th century.

The sentence which helps find the answer is: '...people in the nineteenth century were...less sentimental'

Q4: Why were people more practical in the 19th century?

A4: Because they used prepared written cards.

The sentence which helps find the answer is: '...x'ed out 'Mary' and inked 'Emma' and spent the card to his new girl'

The main ideas of text 1:

- The Roman conquerors carried the celebration to England where their were formed traditions
- St Valentine was carried to the New World without losing its romantic appeal
- In the 19th century, people were more practical than sentimental because they used to send less sentimental cards.

Text 2

Q1: Did Bill Clinton plan to become the president of the United States when he was in Britain?

A1: No

The sentence which helps find the answer is: '... speaking openly of his plans to return home, enter politics and change things.'

Q2: Did Hillary Clinton work in Washington before she married Bill Clinton?

A2: No.

The sentence which helps answer this question is: '[she] abandoned her plans for a career in Washington to follow her husband'

Q3: Was Bill Clinton an ordinary person for Hillary?

A3: No.

The sentence which helps find the answer is: '...he was unlike any person I ever met...he combined an extraordinary mind with huge heart'

Q4: Was Bill Clinton's vulnerability the first thing that made Hillary interested in him?

A4: No.

The sentence which helps find the answer is: 'I asked what had first drawn her to the man she married. "He is very attractive man"'

The main ideas of text 2

When Bill Clinton met Hillary, he was planning to enter politics.

She was first drawn to him because of his attractiveness and then for his extraordinary mind and huge heart.

Hillary's protectiveness of her husband because of his vulnerability.

Text 3

Q1: Does dialysis purify our kidneys?

A1: No.

The sentence which helps find the answer is: '...they clean all the impurities from our blood'

Q2: What is the best way to have blood clean when kidneys are damaged?

A2: kidney transplant.

The sentence which helps find the answer is: ‘..a few of them [people] are able to have transplants, but for many the only way to purify...’

Q3: Is the peritoneal an artificial filter used to purify our blood?

A3: No.

The sentence which helps find the answer is: ‘There is a membrane around the intestines called the peritoneal membrane. Its structure is like the artificial filters...’

Q4: Do the chemicals enter the blood or remain in the peritoneal?

A4: They remain in the peritoneal.

The sentence which help answer the question is: ‘...it’s possible to filter it [blood] through the peritoneal membrane’

The main ideas of text 3:

- Kidneys purify our blood. If they are damaged, people can have transplant but if this is impossible they use dialysis (an artificial filter outside the body).
- An alternative to dialysis is the catheter (a kind of portable dialysis). One end of the catheter is connected to the peritoneal membrane (around the intestines) where blood is cleaned, the other end is attached to a chemical bag: the chemicals draw into the peritoneal membrane to clean the blood.

