

*AN OVERVIEW OF READING MODELS IN LANGUAGE TEACHING*

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**Abstract :**

The present paper describes the different reading models that have influenced reading instruction throughout the history of the research into the nature of the reading process. It reviews the most influential reading theories and puts forward the advantages and drawbacks of each model. Between the bottom-up view and the top-down one, the interactive model of reading appears to be the one that best translates what happens in the mind of a reader while he processes a text using his linguistic knowledge along with his metacognitive strategies to decode the writer's encoded meaning.

<sup>i</sup>**Key-words:** Language teaching- Reading models- Bottom-up processes-Top-down

processes- Interactive Reading.

**ملخص :**

يتناول هذا المقال مقارنة تاريخية بين مختلف النظريات، التي عرفها ميدان البحث في طبيعة القراءة، والتي حاولت فهم ما يحدث في ذهن القارئ من تفاعلات سيكوحسية، للحصول على المعنى المتداول بين القارئ و الكاتب حول مضمون النص. المقال يحاول أن يبين نقاط القوة و نقاط الضعف لكل نظرية. فبين النظرية اللسانية التي تعتمد على اللغة كمفتاح للتوصل الى فهم النص و النظرية التي تعتمد على استعمال المستويات العليا للعقل، للهدف نفسه، فإن النظرية التفاعلية تترجم الى حد ما ماهية و طبيعة القراءة كمحاولة للوصول الى معنى النص باستعمال القارئ لمعارفه اللغوية و استراتيجياته العقلية في آن واحد.

**الكلمات المفتاحية :** تعليم اللغة - نظريات القراءة - المستويات السفلى - المستويات العليا - القراءة التفاعلية.

## **Introduction**

In the context of EFL learning at an intermediate-advanced level (in our case, at University level), one of the most important skills to develop is the reading skill. However, it is essential to note that the concept of reading and comprehension, and therefore, their teaching practices have constantly changed and developed throughout the history of the reading research. Although this research has led to conflicting views on its nature, it has contributed in gaining more insights about the nature of the process and about the role of the reader in it over the last decades. In fact, the early approaches to reading had a simplistic view of its nature. Because it was seen as a product the learner has to arrive to, by the simple decoding of print, the process required no deep research into its internal process. A reader needed only to master the language and its grammar in order to read well. In other words, there was no attempt at identifying what goes on in the mind of a reader while he reads and, no definition of the psychological processes involved in the act of reading was established.

In this paper, we will review the most influential reading models that have contributed in the re-conceptualisation of the reading act so far. We will concentrate on the description of the reading process in relation to different theories, drawn out of these models that have investigated its nature and will attempt to shed light on the advantages and drawbacks of each one.

### **1. The Bottom-up Model of Reading**

At the early stages of the reading research, i.e. in the beginning of the last century, there was still a strong influence of the traditional



*it is encountered. These letters or graphemes are matched with the phonemes of the language (...) the phonemes are blended together to form words.*" The reader thus, decodes language in a linear way, where meaning is said to be the product of this forward decoding. In this way, learners can develop a high grammatical recognition and so, success in reading is measured against how well the graphic representation of a text is matched to its phonic realization.

The pedagogical practices that resulted from this approach led to the teaching of reading as "a vehicle for usage" (Widdowson, 1983). The text is therefore, used as "a dependent exemplification" to use Widdowson's terms again, where the objective is the reinforcement of grammatical points in an artificial text. Thus, learners might become able to decode all words without understanding a text. In the linguistic method the decoding aspect of language is emphasized and no context is provided for meaning comprehension. As a result, comprehension is laid a secondary role. The linguistic method, prevailed, in fact, for a long time, especially in beginning levels instruction. This perspective of reading has, influenced the supporters of "the bottom-up" view of the reading process, where the reader has to make use of the text's linguistic cues only to get meaning, i.e. a mere practice of grammar and vocabulary instruction in a graded sequence. According to Schultz (1983: 127), reading passages consisted in "***Simplified, structurally graded texts, using controlled vocabulary constructed specifically for classroom instruction.***" (Quoted by Young, 1989:755).

Nevertheless, one must say that this method was far from promoting effective reading and constructing a reading competence within each learner. It has, in fact, disregarded the role of the reader, his conceptual knowledge, his cultural understanding, his individual learning styles and active participation. Moreover, a learner cannot learn to read by rote all reading passages he will encounter in his life.

Another major criticism directed to this model was that this kind of serial progression would not be kept by short-term memory. In addition, the reader concentrating on lower-level sources of information would neglect other aspects such as the use of his

background knowledge. Reading by decoding would be a one-way reading since the reader's contribution in the construction of meaning is neglected and this is precisely the point that the top-down model has emphasised. In such reading instruction, the reading passage is not used to teach learners what reading is and how to extract appropriate meaning. Instead, the reading passage is used to consolidate the unique purpose of language decoding at the expense of meaning decoding. Therefore, instead of using a text to exemplify how to get meaning, how to interact with the text to create a 'meaningful discourse', the reading passage is used to illustrate the language systems' parts. In addition, language is not presented in its real context, i.e. in *Use*, but is rigidly and exclusively geared towards illustrating grammatical points. Thus, the only learning that takes place is the learning of language structures, and the reading text has *"something of the character of a display case and its value as discourse is decreased accordingly"*. (Widdowson, 1983:78).

Consequently, with the view of reading as a decoding of language items act, the reading text remains artificial; the reader engages no interaction with the text, nor does he engage his own knowledge and conceptual abilities. Most importantly, it has often been reported that learners might be able to decode all words without understanding a reading text. This fact is strengthened by the argument that a linguistic competence does not always and in all cases lead to a reading competence (Alderson, 1992). Given the view that reading is an act involving the reader's active participation in the creation of meaning, reading by decoding would be a one- way reading.

Later, however, much more evidence has been collected on one of the neglected aspects of reading: higher-level processes like background knowledge and conceptual abilities. These aspects have been emphasized by the top-down view of reading.

## **2. The Top-down Model of Reading**

The idea that reading involves more than what words individually, express and that meaning is not laid only on the page came with the new developments in the field of Psycholinguistics. Indeed, during the period of the 1960's, two influential factors pushed forward the need for research into the reading process. The first factor was the emergence of learners' needs for English for specific purposes at advanced levels of education. The instructional programmes could no more be the standard ones given to all types of English learners. Therefore, the instructional objectives were to respond to those new needs. Henceforth, because empirical research has given new insights into the reading process, researchers viewed the reading skill differently, as they focused mainly on the reader.

In this model, it is the role of the reader, which is central in the process of getting meaning. It is based on the work of Goodman (1967-69-70-75-78) and Smith (1971-73), mentioned in Goodman(1988) that collected data from L1 beginning readers. Goodman characterises reading as a *psycholinguistic guessing game* that involves selection of information, prediction, and anticipation of the coming linguistic clues, interaction, sampling and confirmation of predictions. It stresses the importance of using prior knowledge in predicting and guessing in hypothesis testing while reading. These higher-order sources of information are said to produce meaning. The reader tries to decode the meaning encoded by the writer (Goodman,1968). Goodman's findings influenced several researchers like Eskey (1973); Saville-Troike, Mackey and Mountford (1973), mentioned in (Young, 1989). They all recognized the important contribution of the reader's activated background knowledge in the process of reading. Similarly, Anderson (1977) describes it as "a concept-driven top-down process", where the reader makes use of his conceptual stock to understand a text. In addition, Widdowson (1980) sees the reader as "an active information processor".

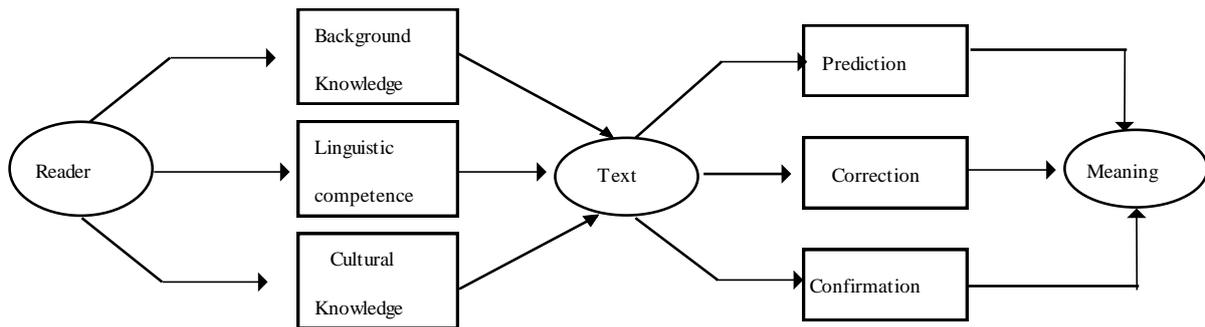
The decoding aspect of reading, according to Goodman, is meaning decoding. In this way, the writer and reader's conceptual worlds meet to produce meaning. It is a negotiation of meaning mediated through the text in the form of "a silent dialogue" for the translation of written

code into meaning code. *“Reading is a long-distance discussion between a reader and an author...there is an essential interaction between language and thought...the writer encodes thought as language and the reader decodes language to thought.”* (Goodman, 1988:12).

The second influential factor was the results of cognitive psychology research that showed the importance of variables such as memory, attention, motivation and perception in language learning. In this respect, research into Schema theory, dealing with the organization of knowledge in the brain, put forward the importance of the reader’s knowledge in the act of reading. Reading, thus, began to be seen as a complex process involving mental or cognitive processes. How information and language are processed in the reader’s mind, were necessary points to investigate when researchers realized that learning does not come solely from the teacher, but is a whole complex process happening in the mind of a learner. The work of Goodman (1967-69-88) and Smith (1971-82), in Goodman (1988) gave a new theoretical direction to the reading concept. Both viewed the act of reading as a psycholinguistic process, where the reader’s own knowledge plays a central role. This characterization drawn from research into L<sub>1</sub> reading led to a reconceptualization of the nature of reading, the role of the reader in it, as well as the importance of reading strategies for its mastery. Moreover, at the same period, there was some claim in favour of socio-cultural knowledge as well as background knowledge as important factors for reading achievement (Rivers, 1968); Eskey, 1973-83). Meanwhile, the development of research into memory showed that reading requires keeping words in memory to have a global sense. Therefore, a learner who reads letter-by-letter and word-by-word would not memorize enough words to get the whole meaning. Rather, he would have lost time decoding every single item.

The psycholinguistic perspective of reading was known as the ‘top-down view’ of reading, where the reader’s own knowledge helps him process text content. Therefore, the importance of the reader’s contribution with his knowledge, matched to the text, showed

evidence against the bottom-up decoding perspective of reading, which, applied on its own, was a sterile one. In that, the reader's role is not limited to a simple form of decoding of language items but is extended to processing information and relating it to his background and conceptual knowledge. Seen from this perspective, the reading act can be illustrated as follows:



**Fig: 2 A Top-down perspective of the reading act.**

As shown on figure two, the reader makes use of his background, conceptual and linguistic knowledge to sample a text. This will result in selecting a possible meaning, i.e. predictions making then correction or confirmation of those predictions. All that, leads to the final product, which is meaning. Decoding is not central but one part of the process according to the Psycholinguistic view of reading.

Nevertheless, although the top-down view was sound enough, since it has directed the attention towards the reader's experience and knowledge contribution in the act of reading, it has many drawbacks. In fact, it has been criticized for providing an explanation for reading that cannot apply to all kinds of readers such as ESL and EFL ones. Moreover, Eskey (1979), Coady (1979) and Clarke (1979) drew the attention on the fact that ESL readers do not have the same profile and characteristics as L1 readers (who were the subjects of Goodman's investigation findings). The top-down model has disregarded the fact that lower-level processes are necessary for the activation of higher-level ones. On the other hand, higher-level processes like background

and conceptual knowledge cannot, on their own, lead to comprehension. In addition, the need to make use of bottom-up strategies cannot be neglected. The reader needs necessarily to make use of his bottom-up strategies as word-identification, grammar use, etc.

As a result, and from another perspective, Stannovich (1980) rejected the assumption that only predictability and hypotheses generation and testing can lead to effective reading. He suggests that a more representative model would be an interactive one that uses simultaneously both bottom-up and top-down strategies. He calls his model “an interactive compensatory model” where one level compensates the deficiencies of the other.

### **3. The Interactive Model of Reading**

As previously noted, the top-down view has tended to disregard the fact that a linguistic competence is a prerequisite for the use of higher-level processes or top-down strategies. Indeed, the drawback of the Goodman theory is that, it has neither provided evidence for all kinds of contexts and purposes of a reading act, nor did it take into account all the variables that interact, from the text, with this act of reading. Proposed by Rumelhart (1977) it incorporated the possibility of parallel processing where the reader is going to select among several sources of information to reach comprehension: *“Reading is at once a perceptual and cognitive process”* (Rumelhart, 1977:573), Accordingly, Rumelhart (1977) and Perfetti (1981), in Young (1989) claim that both top-down and bottom-up processing of the text constantly and simultaneously interact. In this way, the interactive perspective of reading involves both top-down and bottom-up strategies. A reader unable to identify a difficult word or a difficult structure could use his background knowledge of grammatical forms. He could, for instance, identify the grammatical category of a word and recognize its nature. He could also use his knowledge of suffixes to understand an unfamiliar word. The interaction between the

reader's decoding of the text items and his use of his grammatical or linguistic knowledge, could help him get the meaning.

In this way, the interactive model of reading reconsiders the role of bottom-up skills that are essential to successful reading. Such bottom-up skills are, for example, basic word recognition and text recognition skills, i.e. what Nuttal (1982) calls 'word-attack and text-attack skills'. Therefore, the reader has first to understand what the physical aspect of the text is to identify the topic and relate it to his background knowledge. Indeed, the process has a decoding dimension that must not be de-emphasized. The insecure ESL or EFL reader needs grammatical and lexical forms identification before making use of his background knowledge. It is interactive in the sense that it involves the reader's simultaneous use of his higher-level and lower-level processes. Rumelhart's investigation was based on fluent skilled readers who used several sources of knowledge. The model also relies on the findings about Schema Theory, dealing with the organisation of knowledge in the brain. Any reader has a schematic stock built out of his L1, L2 or L3 experiences. Moreover, a reader makes use of his socio-cultural notions that are schematically organized in his brain. Eskey (1992) sees that schemata are culturally determined and that language is a kind of schema too. He considers reading as three-dimensional: an individual act, a psycholinguistic process and a form of socio-cultural behaviour.

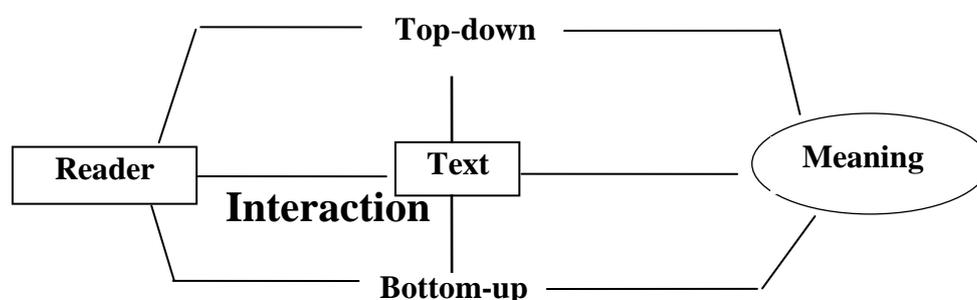
Moreover, Eskey (1988) stresses the importance of bottom-up strategies. Learners have a linguistic knowledge that is schematically organized in their brain, and that they need to make use of, while reading, ***“Successful reading is much more than simple decoding, but decoding is a cognitive process too, involving bottom-up as well as top-down skills and successful comprehension cannot be achieved without it.”*** (Eskey, 1988: 96).

It is essential to note, here, that what is meant by decoding is not a mere word-by-word or letter-by-letter identification, as it was believed in the structural perspective. Rather, it must be viewed as a

completely complex process involving the use of one's knowledge too.

Therefore, reading is interactive in the sense that there is an interplay between the reader and the text. Reading is also interactive in the sense that this complex process involves the reader's simultaneous interaction of both his higher level and lower-level processes. Defenders of the bottom-up perspective assume that lower-level processes such as word recognition have priority over higher-level processes such as the use of background knowledge. Similarly, proponents of the top-down view see higher-level processes as taking priority and being more important than the decoding of print. Nevertheless, it seems more reasonable to assume that both processes interact simultaneously, one compensating the lack of the other. It must be pointed out, here, that later research into second language reading tended to emphasize the importance of bottom-up strategies. Grabe (1991) reviews several researches, (Pollatsek (1989); Perfetti (1990); Stanovich (1990)), undertaken on this point.

Actually, an interactive model of reading appears to be the one where the reader combines both his decoding skills and strategies at a lower level as well as his use of background and conceptual knowledge at a higher-level. It is agreed that reading cannot be successful if it relies on either alone. This may be illustrated in the diagram that follows:



### **Diag 3: The Interactive perspective of the reading act**

Although it remains only an assumption of what the process entails, the interactive perspective of reading appears to be among the most conclusive of all since it involves the interaction of various sub-skills and strategies at all levels.

### **Conclusion**

To sum up, it is worth saying that all the reading models mentioned earlier are a natural development of the concept and view of the reading process. They are, of course, only suggested models of a process that remains incompletely discerned. Each model, however, has been, throughout the history of the reading research, a step forward toward a better understanding of what reading is. Defining Reading is, therefore, not an easy task since the process involves the interaction of various cognitive, metacognitive, linguistic and sociolinguistic variables used in different ways by different readers. It is essential to note here that a reader missing one of these sources of knowledge may misinterpret a text and fail to reach comprehension.

The historical overview and practice of reading models and their pedagogic implication seem to explain to a large extent, the learners' view and practice of reading. Indeed, the early approaches to reading still influence teachers' view and the teaching of reading at different levels of language instruction in our country. In spite of the bulk of empirical evidence collected against it, teachers do not feel any compulsion to abandon it. This is either because of a lack of

knowledge of the reading process, or because of a strong devotion to the already established teaching methods. This may explain the learners' lack of systematic reading in some cases. It is a well-known fact that an effective reading ability is a prerequisite condition to effective English language learning, as it is a key to the bulk of literature written in English.

Therefore, EFL teachers have to consider research into the nature of reading and drive appropriate methodological implications for its teaching. Introducing reading skills and reading strategies, making learners aware of their role as readers and of the interactive nature of the process, would all contribute in enhancing their reading comprehension, making it more systematic and more fruitful and successful.

It appears essential for us teachers to consider our learners as readers with their own differences in knowledge, preferences, perceptions, strategies, difficulties, needs and personal responses. It is according to these differences that teachers can design a reading program and select appropriate texts. Reading should involve students in giving their own evaluation of the content and discuss it with their peers -rather than be a testing activity- where text choice and text genre should encourage them to read different types of texts for different purposes. Moreover, making learners react to text content and participate in the creation of meaning would make their role less passive and more effective in constructing a pragmatic conceptual framework out of their reading. Finally, the best aspect one can transmit to learners would be the love of reading that has become so scarce today and that has so many benefits. Today, more than any time before, and with the challenge of digital technology overuse by our learners, we surely need to investigate new aspects such as mobile reading, and its impact on language learning as well as on knowledge effective acquisition and use.

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