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**The Impact of Text Structure Awareness on ESP Learners' Reading
Comprehension**

Case Study: Accounting and Finance at the University of Ghardaia

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Dedication

To the memory of my father and brother Hamza

To my mother

*To my beloved husband, Mohammed and lovely children: Lina,
Hamza and Achraf*

To all my brothers and sisters

To all my nephews and nieces

To all my large family

To all my friends

To all people who care about me

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Abstract

This thesis aims to study of the relationship between text structure awareness and ESP learners' reading comprehension, within a discourse-based approach. 53 Accounting and Finance students from the University of Ghardaia were involved in this study. The researcher adopted a triangulated approach by conducting classroom discussions as a first step for having an idea about the students' learning problems, a questionnaire for the sake of gaining insights on the students' reading habits and experiences: what they read, how they comprehend texts, and whether they use reading comprehension strategies or not. A pre-test was distributed to the students as a third step to check the students' comprehension of a text by answering comprehension questions and doing some tasks related to the text. The subjects, next, received a five-session treatment during five weeks. The intervention consisted of dealing with texts in the content area of the subjects, focusing, in the main, on teaching the text structure awareness strategy which resulted in summarising texts in graphic organisers and, then, in paragraphs. Comprehension questions, True/False and fill in the gaps tasks were also included. After that, the subjects had a post-test including the same items as in the pre-test. The scores of the post-test were higher than the ones of the pre-test. The results showed a significant improvement in the text structure awareness strategy, which proved the efficiency of the suggested approach. We conducted, as a last step, a T-test which confirmed our hypothesis that text structure awareness fosters ESP learners' reading comprehension.

List of Abbreviations

BK:	Background Knowledge
CA (es):	Communicative Approach (es)
CC:	Communicative Competence
CI:	Construction- Integration
CR:	Contrastive Rhetoric
DA:	Discourse Analysis
DBA (es):	Discourse-Based Approach (es)
DC:	Discourse Comprehension
DF:	Degree of Freedom
DK:	Discourse Knowledge
DMs:	Discourse Markers
DPF:	Discourse Processing Framework
EAP:	English for Academic Purposes.
EFL:	English as a Foreign Language
EGP:	English for General Purposes
ESL:	English as a Second Language
ESP:	English for specific Purposes.
FL:	Foreign Language.
IS:	Information Structure
L1:	First language.
L2:	Second Language.
RC:	Reading Comprehension
SD:	Standard Deviation
SK:	Shared Knowledge
t :	T value

TSA: Text Structure Awareness
VET: Verbal Efficiency Theory
VIS: Visual Information Store
WD: Written Discourse
WDC: Written Discourse Comprehension
WDI: Written Discourse Interpretation

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Introduction

Introduction

Reading in English has become a necessity to many people, especially educated ones, since most informational references in many areas of study are in English. For FL learners studying English in ESP settings to read better and comprehend texts in English, they need to use reading comprehension strategies, for English references are written with the native speaker in mind. One of the useful reading comprehension strategies is text structure awareness. This strategy reflects the organisation of ideas selected by an author for transmitting an intended message. For FL students to comprehend English written texts, they should be aware of the English text structures, i.e. English rhetorical patterns of organisation. Text structure awareness strategy should be taught and learnt within an interactive approach to reading which is the most suitable to FL learners and which combines both bottom-up and top-down processing. Furthermore, reading has been undertaken from many perspectives and within many frameworks such as discourse-based approaches. The latter have had a great importance on language teaching/learning processes. Discourse Processing Framework suggested by Celce-Murcia and Olshtain (2000) is one example that combines discourse analysis, pragmatics and other components. Discourse analysis refers to the intended meaning taking into account production process and context, pragmatics to the interpreted meaning which results from linguistic processing and interaction adding contextual factors. In other words, pragmatics deals with what is communicated rather than what is said whereas discourse analysis deals with context, cohesion, coherence and background knowledge. This framework, DPF, goes hand in hand with the communicative approach to language teaching and learning.

As noticed, in DPF (See Appendix A), when top-down processing is activated, there is an integration of prior knowledge, sociocultural and discourse knowledge, and assessment of contextual features. All these components are connected to pragmatic considerations for

producing or interpreting discourse with the essential role of metacognitive awareness. Bottom-up processing, on the other hand, relies on language knowledge of grammar, spelling, phonology, vocabulary, and so on. However, according to the authors, effective users of language combine both types of processing.

Because the focus of the present study is on “reading”, this framework applies to reading as well (See Appendix B). The interactive reading processing allows the combination of both top-down and bottom-up processing. That is, in order to interpret written discourse, a reader combines the purpose for reading with his/her prior knowledge and past experience and considers writing conventions, as top-down processing. Simultaneously, he/she takes into consideration linguistic features and reading strategies. Nonetheless, depending on the reading task, a reader may use top-down processing; at other times, he/she relies on bottom-up processing.

In this research, we have investigated the impact of text structure awareness on ESP learners’ reading comprehension by adopting an approach that relies heavily on this framework, DPF; in that, purpose for reading, discourse knowledge, pragmatics, background knowledge, context, metacognition and reading strategies are the building along with the combination of both top-down and bottom-up processing.

Background to the Study

Discourse has become the basic unit of analysis since the advent of the communicative approach. The motive behind that was that individual sentences separated from their contexts seemed meaningless. Discourse has been defined by a number of researchers. According to Cook (1989), the term discourse refers to meaningful, unified, and purposive stretches of language. Schiffrin (1994) claim that there are two lines for the definition of ‘discourse’.

Formal definitions view discourse as coherent language which consists of more than one sentence whereas functional ones as language in use (Cited in Celce-Murcia & Olshtain, 2000). Discourse has been studied under discourse analysis discipline. The latter, discourse analysis, is defined as the analysis of language in use (Brown & Yule, 1983). This orientation led to a focus on understanding and practising language use through discourse (text). Moreover, there has been a shift towards the focus on discourse features such as cohesive devices, discourse markers, etc. in the types of language activities.

In reading, learners are expected to read and interpret discourse by combining discourse knowledge with reading strategies. One of these main strategies is activating prior or background knowledge (Olshtain & Celce-Murcia, 2001). Background knowledge occupies a very important place in reading. It involves, at the macroprocessing stage, besides activation of contextual knowledge, schematic knowledge as well. The latter is made up of two types of background knowledge: content schemata and formal schemata (Carrell & Eisterhold, 1983). The background knowledge on the topic and sociocultural knowledge make content schemata whereas formal schemata refer to the knowledge of how discourse is organised. The latter is referred to as discourse knowledge. It includes knowledge of syntax, rhetoric and text structure.

Carrell and Eisterhold (1983) and Grabe and Stoller (2001) argue that knowledge of how texts are structured and how discourse is organised facilitate text comprehension. For Silberstein (1994), reading comprehension is achieved when readers are aware of text structure. Authors select text structures that best suit the intended message, and the readers' role is to use besides textual elements, contextual and schematic knowledge, as mentioned earlier, to interpret the conveyed message. The term text structure has many equivalents in the literature: text organisation, discourse organisation, discourse structures, etc. These terms are all taken as synonymous. There are several types of *text structure*:

definition, description, argumentation, problem-solution, process, classification, cause-effect, problem-solution, comparison-contrast and analysis (Aebersold & Field, 1997; Grabe, 2009). These text structures are found mainly in expository texts.

Expository texts which dominate academic reading are informational in nature (Silberstein, 1994), and the primary goal from reading them is to gain information and insights on a given topic (Koda, 2004). For L2/FL students to interpret and comprehend those texts, they should recognise the texts' rhetorical patterns of organisation mentioned above.

Many researchers such as Grabe and Stoller (ibid) call for a strategic ESP reading comprehension instruction in academic settings. In fact, academic texts are difficult and entail the use of a combination of reading strategies. Among these is the use of *text structure awareness*. A great body of research has been conducted to investigate the relationship between *text structure awareness* strategy and *ESP learners' reading comprehension*. Researchers such as Pearson and Fielding (1991) argue that systematic attention to the way authors relate their ideas in expository texts facilitates comprehension of those texts (Cited in Grabe, ibid).

Statement of problem

English for Specific Purposes (henceforth ESP) has been a very important and compulsory module in many Algerian universities. Depending on the students' specialties, ESP courses focus on teaching students technical vocabularies and reading comprehension.

Ghardaia University is one of the Algerian universities which implemented ESP courses in the university curriculum. It has set the ESP course as an obligatory one, mainly in scientific and technical institutes. The argument behind this orientation is that English has occupied an

international status and that the best references in nearly all sciences are in English. ESP students are required, then, to gain the up-to-date insights in their fields of research through these courses.

At the department of Accounting and Finance at Ghardaia University, English is taught for one semester per one academic year during the three years of Licence (Bachelor). However, there are no specialised teachers for the ESP courses. Those who teach in that department are either teachers holding a Magister degree in English language and literature or teachers with a BA in English language and literature, too, often with no training in English for Specific Purposes. Besides, there exist no official syllabi for these courses, nor are needs analyses from students held.

The department of Accounting and Finance at Ghardaia University enroll students to such kind of courses to enable them to have access to their specialities' needs in English references. These students had learnt English for seven years when they came to the university. Nonetheless, they come with an English linguistic deficiency. This deficiency has caused some problems related to reading comprehension. Moreover, it appears that teachers in the Department of Accounting and Finance concentrate on teaching isolated vocabulary and grammatical structures; that is, out of their context. The course does not focus on training students in using reading comprehension strategies such as text structure awareness for getting the right interpretation and so comprehension of texts. Despite the great importance of this strategy, it is not known to these students, and maybe teachers, along with other reading comprehension strategies. This situation made third year students at the department of Accounting and Finance miscomprehend reading texts in their content area though they have been studying English for two years (at the university).

The questions raised are:

1. Does text structure awareness strategy enable Accounting and Finance students to comprehend English texts in their content area?
2. Does text structure awareness strategy enable the Accounting and Finance students to summarise texts in graphic organisers and in paragraphs?

Statement of purpose

The aim of this study is twofold. It investigates the relationship between the text structure awareness strategy and comprehension of texts read by students at the department of Accounting and Finance studying at the faculty of Economics, Commerce and Management at Ghardaia University, within a discourse-based approach, combining the pre-, during- and post-reading strategies since text structure awareness strategy should be taught within a pre-, during-, and post-reading strategies framework. Here we are concerned with the top-level structure without concentrating necessarily on signalling words, combining reading comprehension with the graphic organiser representations and summarisation process as outcomes of reading comprehension. Being conscious of using reading strategies, readers will improve their comprehension of texts. This awareness enables them to repair any miscomprehension and allows them to do any related tasks. The tasks used in this study are: finding the main idea of text, identifying the type of text, the pattern of organisation with an example, who the text addresses (the intended readership), the inferred message, recognising specialised vocabulary, answering comprehension questions, choosing True or False for statements, filling in graphic organisers and writing summaries.

Researching this topic stems from the fact that reading fulfills many functions and purposes to the reader provided that it is accompanied by the use of a number of reading comprehension strategies in combination and within a discourse-based approach . Given this

orientation, investigating text structure awareness strategy has proved its efficiency in various academic settings. Besides inducing insights, text structure awareness strategy enables readers to do any related tasks once they comprehend texts. Nevertheless, it has to be taught with other pre-, during-, and post-reading strategies such as questioning, predicting, skimming, scanning, and the remaining ones. This means that text structure awareness strategy is not to be investigated in isolation of the other reading strategies. It also means that students in Accounting and Finance will benefit from this instruction; in that, they will encounter a number of texts in their content-area including different text structures and a wide range of specialised vocabulary. This permits them to be able to investigate whatever topics when they conduct research in their specialty. More importantly, they will gain confidence and motivation to read in English. Subsequently, this will enable them to locate main ideas and discriminate them from supporting details.

Motivations

As a student at the university, the researcher has come across many problems related to reading comprehension, either with English major students or ESP students. She met many students who needed help in making sense of what they read. These students do not try to read and understand a text or even chunks of text globally; rather, they show no patience and read from the beginning to the end. They attempt to comprehend what they are asked to read by explaining all the words in a text. They favour using a dictionary to find meanings of words, neglecting the use of context where these words appear. These students are not accustomed to read and tend to use bottom-up processing to make sense of texts. This also means that they ignore the advantages of using reading comprehension strategies, for they have not been trained to use them. All that they can do is to try to answer comprehension questions, look for

synonyms and opposites, fill in the gaps and so on. That is to say, they read and comprehend texts superficially. This situation poses many questions about the role of teachers in the classroom. It seems that teachers do not assume responsibility with regard to how to make students approach texts. That is, they do not show and teach students how to comprehend texts because they may themselves not have an idea about reading comprehension strategies. In the majority of cases, teachers who teach in ESP contexts are with no experience in English teaching which means that students are not well directed. Thus, they are not going to benefit from the course given by those teachers. Besides, many teachers teaching in those settings work without any plan or clear objectives. Due to this fact, the researcher became more interested in investigating and trying to look for a solution to help those learners comprehend what they read in an efficient way.

Methodology

➤ Hypotheses

The present study is an attempt to investigate the relationship between text structure awareness strategy and ESP learners' reading comprehension. To this end, we hypothesise that:

1. Being aware of text structure focusing on the rhetorical pattern of organisation used in text, text type, the readership of text and the message conveyed via the text besides recognising specialised vocabulary, answering comprehension questions and True/False statements would foster reading comprehension

Null Hypothesis

Being ware of text structure focusing on the rhetorical pattern of organisation used in text, text type, the readership of text and the message conveyed via the text besides recognising

specialised vocabulary, answering comprehension questions and True/False statements would not foster reading comprehension

2. Being aware of text structure would enable readers to summarise texts in graphic organisers and in paragraphs.

Null Hypothesis

Being aware of text structure would not enable readers to summarise texts in graphic organisers and in paragraphs.

➤ Instruments

We used a number of tools for collecting data. First, we conducted a pilot study. Second, we held classroom discussions. We succeeded in identifying the difficulties encountered by Accounting and Finance students. Third, we distributed a questionnaire of 36 questions to the Accounting and Finance students about their reading habits, academic English reading comprehension and the use of reading comprehension strategies. Fourth, we tested the students prior the intervention during one hour and a half. Fourth, we trained them for five sessions, one hour and a half each. Finally, we conducted a post-test that included the same type of tasks as the pre-test

➤ Participants

Participants in the present study were enrolled at Accounting and Finance department at Ghardaia University. The sample is 53 from a population of 82. They are all Algerians and received the same instruction from primary school to secondary school. They were taught English through a competency-based approach. They were assigned into one experimental group and taught by the same teacher, the researcher, for five weeks.

➤ **Procedures**

This study took place in the first semester of the academic year of 2014-2015 from the middle of October to the middle of December. It is quasi-experimental. The pilot study was conducted at the beginning of October 2014. Questionnaire data were collected at the beginning of the semester, the second session. The pre-test lasted one hour and a half. The intervention as well lasted for five sessions, one hour and a half each. Post-test data were also collected during one hour and a half.

Structure of the Thesis

This thesis is structured as follows: three chapters in the theoretical part and two chapters in the practical part, which makes five chapters.

Chapter One is about L1 and L2 reading. It focuses on reading comprehension (henceforth, RC) definition, reading as process and product, RC models, both traditional and contemporary, variables affecting L2 reading, higher- and lower-level processing, focusing on the role of motivation in language teaching, but particularly in reading. The chapter concludes with L1 and L2 reading differences.

Chapter Two is about discourse-based approaches (henceforth, DBA) and their impact on RC. That is, it deals with the contribution of discourse-based approaches to reading, focusing on discourse competence (henceforth, DC), shared knowledge (SK), discourse analysis (henceforth, DA), discourse comprehension (DC), pragmatics and its components, context and its types, background knowledge (henceforth, BK) and its representations, top-down and bottom-up processing, information structure in discourse, and genre and register. Moreover, this chapter focuses on written discourse comprehension (henceforth, WDC) and written discourse interpretation (henceforth, WDI) which takes into account the building blocks of discourse which are cohesion and coherence.

Chapter Three deals with the relationship between text structure awareness (henceforth, TSA) and RC. This means that the following components such as text structure definition, importance, and historical and modern interventions of text structure, expository texts, their importance and the difficulties they expose, rhetorical patterns of organisation and providing some examples, approaches to text analysis, TSA and comprehension-strategy instruction, contrastive rhetoric, its benefit and criticism.

Chapter Four is about, first, the experimental design of this research including the sample, a description of the instruments, viz. the classroom discussions, the questionnaire, the pre-test, the reading sessions and the post-test. It also provides a description of the present study instruction and the components of the reading sessions. Then, it deals with the research methodology; in that, it exposes the thirty-six questions and the analysis of the questionnaire. Then, the pre-test is described and analysed. The reading sessions are also described and commented on. Next, the post-test is described as well and analysed. Besides, a comparison is made between the pre-test and the post-test's results. After that, a t-Test is conducted to check significance of the results.

Chapter Five deals with some pedagogical implications and components of a strategic ESP RC instruction.

Significance of the Study

This thesis is an attempt to finding a solution to the reading comprehension problem encountered by students in Accounting and Finance Department at Ghardaia University. Text structure awareness strategy will enable students in Accounting and Finance Department at Ghardaia University to comprehend texts in their content area. they will be able to recognise main ideas in texts and distinguish them from supportain details. In this case, they will read and extract insights in their content area from English references. Moreover, this wareness

will allow these students to summarise texts in not only graphic organisers, but in paragraphs as well.

Limitations of the Study

Although the research has reached its aim, it had unavoidable limitations. First, the piloting of the questionnaire did not involve third year Accounting and Finance students due to some exceptional circumstances in the region. Second, the application of this approach would extend to the second semester, but because Accounting and Finance students study English in the first semester only, we could apply it for one semester only. Besides, the five sessions included, in the main, 'definition' and 'descriptive' patterns of organisation. We did not go beyond these two patterns of organisation, for it would need more sessions, which was not possible. Furthermore, we failed at getting extra sessions since students claimed not to have free time since they were having examinations. Finally, two sessions were missed: one because of the students' strike and another one because of the international seminar in the Economics faculty.

Definition of terms

-ESP learners

These are learners enrolled in English Specific Purposes (ESP) courses mainly in academic settings such as universities. ESP is a compulsory module in the Algerian universities such as Ghardaia University.

-Expository texts

Expository texts are informational texts whose main objective is to bring insights and new information to the reader. They are found mainly in academic settings.

-Reading

It is a complex cognitive activity (Grabe, 2006 cited in Usó-Juan & Martinez-Flor). Besides, it is an interactive process which involves a negotiated interaction between the written discourse (text) and the reader for the sake of extracting the intended meaning. According to Rivers (1981), reading is very important, for it provides the reader not only with information and pleasure, but also with a consolidation of his/her knowledge of language as well.

-Reading comprehension

It refers to the ultimate goal behind reading. It involves knowledge of not only grammar, vocabulary, word recognition, and the like, but text structure and discourse organisation as well.

-Reading strategies

Reading strategies are defined as deliberate procedures and conscious plans used by readers to achieve a goal and to solve problems of comprehension.

-Text structure awareness

'Text structure awareness' is a reading comprehension strategy. It reflects the structure and the organisation of ideas by an author in order to transmit and communicate his message to the reader. In other words, it refers to the form of a text in terms of how ideas are presented.

Chapter One:

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Introduction

Reading was considered for a long time as a passive skill. All what the reader could do was to answer comprehension questions and find synonyms and opposites in the text. In that way, reading was seen as a mainly decoding skill. However, this tendency did not last forever. Later, reading has been conceived of as a mental process that involves the eyes and the brain. For many decades, researchers have been studying this cognitive activity and the factors that lead to RC. Moreover, a number of models have been suggested as to how people read and make sense of texts in L1, namely bottom-up and top-down models. However, L2/FL reading differs from L1 reading in many points. Despite this fact, other studies argue that those models can be used by L2/FL readers, too. Many researchers claim that second language reading involves an interactive model, combining both types of processing. Other researchers such as Alderson (1984) argue that L2/FL readers should have a linguistic threshold (cited in Alderson, 2000), *viz.* they should have a certain amount of language mastery if they are to comprehend texts.

In this chapter, we shall have a look at some reading issues: RC, reading definition, reading as process, and reading as product. Besides, we shall find out the L1 reading including reading models both metaphorical and contemporary, variables affecting the nature of reading, lower level and higher level processes and the differences between L1 reading and L2 reading.

1.1. RC Definition

RC has been defined by many researchers. Grabe (2002) argue that the primary goal of reading is comprehension. For Jennings et al (2006), comprehension is “the essence of the

reading act” (p. 15). They maintain that RC requires literal comprehension, BK, the ability to study and learn from text, and higher-level comprehension. According to RAND Reading Study Group (2002), reading comprehension is “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. It consists of three elements: reader, text, and activity or purpose for reading” (P. xiii). Irwin (2007) defines comprehension as “an active process to which each reader brings his or her individual attitudes, interests, expectations, skills, and prior knowledge” (p. 8). For Magliano et al. (2007), RC is “a product of complex interactions between the properties of the text and what readers bring to the reading situation” (p. 111). Cartwright (2011) views RC as “a complex accomplishment that requires readers to coordinate multiple features of text—seamlessly and fluidly—for optimal performance” (p. 115). This definition goes hand in hand with Thorndike’s (ibid). The latter argues that RC is “an elaborate procedure...involving many elements” (Cited in ibid, p. 115). For Goodman and Goodman (2009) and Gavelek and Bersnahan (2009), RC refers to the building of meaning. Pearson (2009) claims that RC is a phenomenon that occurs indirectly.

From above, RC is the ultimate goal of reading and it entails a number of processes. Moreover, the majority of the definitions above focus on BK. But, what is the definition of reading?

1.2. Reading Definition

Reading has been defined by many researchers and from many perspectives. Broughton, Brumfit, Flavell, Hill and Pincas (1980) define reading as a complex skill that entails a number of sub-skills such as recognising stylised shapes and whether the latter are similar or different, correlating the patterned shapes with formal elements of language (words), and

correlating these elements with meanings. However, this view is judged to be traditional since it demonstrates reading as a merely decoding activity. Silberstein (1994) views reading as “an active process” (p. 6). Reading, according to Aebersold and Field (1997), is “a powerful activity that confers knowledge, insight, and perspective on readers” (p. 6). They argue that defining reading implies understanding the act of reading. They continue arguing that reading involves three components: the reader, the text, and the interaction between the reader and the text. For Ur (1991), reading means “reading and understanding” (p. 138).

Reading is seen as a cognitive process which involves both the eyes and the brain. This means that it is silent and private (Alderson, 2000; Davies, 1995). For Davies (ibid), reading is a mental process in which the reader interacts with the writer who is “distant in space and time” (p. 1). Hedge (2000) describes reading as an interactive, selective and critical process. So, for Hedge, reading is a process. However, in the literature, reading is defined as process and product as well.

1.3. Reading as process

By reading as process, it is meant the act of reading which entails, as mentioned earlier, the interaction between the reader and the text. The reader, besides looking at print and deciphering how meaning between words is constructed, thinks about the way he reads; in that, he links what he is reading with what he already knows and with past experiences (Alderson, 2000). Moreover, he thinks about the usefulness of the text he is reading, whether it is interesting or boring. Furthermore, he/she becomes aware of the difficulties encountered when reading that text and of the ways to overcome those difficulties. Nonetheless, he/she may not be conscious of the way he/she is reading.

It has been claimed that, the process of reading is dynamic, variable and even different for the same reader and on the same text, depending on the reader's different purposes at different times. Three kinds of research were held. One has been interested in the eye movement (Cited in Alderson, *ibid*; Davies, 1995). Another one focused on aloud reading (*ibid*). A third one investigated the process of reading through think aloud protocols (*ibid*).

In sum, reading as 'process' refers to the attempt of the reader to make sense of text. However, it is impossible to understand the process of reading since it is silent, internal, and private.

1.4. Reading as product

Reading is seen as product, too. That is, it is the result of the process of reading. By product, some researchers mean the focus on text comprehension whatever differences, among readers, on how they read, there exist. Alderson (*ibid*) states clearly that "although there may be different ways of reaching a given understanding, what matters is not how you reach that understanding, but the fact that you reach it" (p. 4).

Earlier research related results of particular texts comprehension to "variable of interest" (Alderson, *ibid*, p.5). For example, some researchers investigated the relationship between scores of tests and readability, i.e. lexical difficulty of texts. Other researchers explored "reading ability" among readers; in that, they investigated various "levels of understanding" of a text. Researchers such as Gray (1960) distinguished between reading the lines (the literal meaning of a text), reading between the lines (inferred meanings), and reading beyond the lines (reader's critical evaluation of text) cited in Alderson (2000). Others compared summaries done by readers to distinguish one reader from another one in terms of sexes, or in terms of FL readers versus SL readers. However, there have been problems with those

approaches, ones of variation and others of method (Alderson, 2000). The first concerns variation in comprehending texts, which is affected by the readers' abilities to remember what they have read (ibid). In other words, different readers will develop different understandings of the text meaning (ibid). This is due to the meaning potential created through the interaction between a reader and a text (Widdowson, 1979). However, it is not clear which product is correct and which one is not.

The second problem is that of method of reading product assessment; that is, if assessing reading is based on recalling what has been read, then the issue of understanding will be hardly different from remembering (Alderson, ibid). Testing, in its turn, will not be effective if the method is not familiar to the reader (ibid).

In short, though reading as product has those kinds of problems, it is less difficult to be investigated than reading as process. What the reader does is observable and evaluated since he/she answers comprehension questions or summarises the text or whatever tasks he/she performs.

1.5. First Language Reading

Most of the studies available in the reading literature concern first language (L1) reading. Reading researchers have investigated the way readers read in order to reach comprehension. The results obtained have been called "Reading Models", i.e., bottom-up, top-down, and interactive models of reading. In this part of the research, we shall review the literature about the most recognised models. But, before investigating the reading models, we shall define the "model" concept as a first step.

1.5.1. Reading Model Definition

The concept of model has been defined by a number of researchers. Davies (1995) defined a ‘model’ as “a formalized, usually visually represented theory of what goes on in the eyes and the mind when readers are comprehending (or miscomprehending) text” (p. 57). To put it another way, a model could reflect the process of reading. Clarke et al. (2014) claims that “Models of reading comprehension can help us to understand the different skills and processes involved in interpreting text” (p. 4). In this section, we are going to talk about and describe bottom-up, top-down and interactive models of RC. Moreover, we are going to shed some light on specific contemporary models of RC.

1.5.2. Bottom-up Models of RC

Many attempts towards making sense of texts appeared in the 1970s. The first ones were called bottom-up models. The theory of bottom-up reading implies a linear way of reading. It involves decoding texts. That is, the reader constructs messages (texts) by combining smaller units, letters, to words and finally to meaning and thinking. This model is also called data-driven (Silberstein, 1994; Celce-Murcia & Olshtain, 2000). The bottom-up models are established on “phoneme-grapheme” association notions. The most famous ones are Gough’s and La Berge and Samuels’s.

➤ Gough’s Model

Gough (1972) argues that reading is based on decoding graphemic units into phonemic representations. He built this model on insights taken from laboratory studies of adult readers who were examined on letter and word recognition tasks (cited in Davies, 1995). According

to this model, reading is seen as a process that begins with recognising letters, then sounds of those letters, then words and their grammatical properties and finally meaning is reached ; that is, meaning is seen in the text itself (Davies, 1995). Gough's model seems to support phonic approaches which argue that children need to recognise letters before they read words.

Phoneme-grapheme correspondence notions and the information processing view of reconstructing an existing message are key features in Gough's model. In this model, the series of letters are scanned one by one by the visual system (ibid). He states, "I see no reason, then, to reject the assumption that we do read letter by letter. In fact, the weight of the evidence persuades me that we do serially from left to right" (Gough, 1972, p. 335 cited in ibid).

➤ **La Berge and Samuel's Model**

This approach to reading views the reading process as automatic in a linear manner. Its proponents argue that macro-level reading skill becomes automatic as well (Hudson, 2007). This automaticity requires less attention (ibid). The assumption is that we can process many things at a time while we can process only one thing at other times. La Berge and Samuels (1974, p. 299) state clearly:

In the early trials of learning we assume that attention activation must be added to external stimulation of feature detectors to produce organization of the letters into a unit. In the later trials, we assume that features can feed into letter codes without attentional activation, in other words, that the stimulus can be processed into a letter code automaticity (cited in Hudson, ibid, p. 36).

Comprehension, then, takes place only after the reader becomes more automatic at processing. All in all, in a bottom-up approach to reading, the following happens:

1. Eyes look
2. Letters identified and ‘sounded out’
3. Words recognized
4. Words allocated to grammatical class and sentence structure
5. Sentences give meaning
6. Meaning leads to thinking

(Davies, 1995 p. 58)

From above, bottom approaches to reading concentrate on word recognition and rapid processing of text. These approaches are linear, which means that the focus is on the way of reading rather than on comprehension. This paved the way to another view of making sense of texts.

1.5.3. Top-down Models of RC

Top-down models appeared as a reaction to bottom-up ones which relied on making sense of text in a linear manner. In fact, there are two authorities in this model: Kenneth Goodman and Frank Smith. Reading is seen as what Goodman labels the psycholinguistic guessing game (Hudson, 2007). In this model, the reader’s task is to generate hypotheses (Koda, 2004). He/she relies more on his knowledge of syntax and semantics to make sense of a text (Cited in Hudson, *ibid*). In top-down models of reading, there is a tendency to focus on linguistic information over graphemic information (*ibid*). Nevertheless, the reader in this model utilises grapheme-phoneme correspondences.

➤ **Kenneth Goodman's Model**

Goodman built his view by giving priority to semantic and syntactic information over print. Nevertheless, the reader, in this model, uses grapheme-phoneme correspondences to some extent (Hudson, 2007). Moreover, he/she relies not only on the language knowledge, but BK and past experiences as well. Reading, in this way, is an active process in which meaning is based on making guesses while taking into account some textual features. These guesses are either confirmed or rejected as the reader continues reading. Goodman states clearly:

Reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader's expectations. As this partial information is processed, tentative decisions are made to be confirmed, rejected or refined as reading processes (1976, p. 498. Cited in Hudson, *ibid*, p. 38).

In short, in this model of reading, Goodman specifies four stages: predicting, sampling, confirming and correcting.

➤ **Frank Smith's Model**

In this model, Smith (1971, 1994) places a major role on prediction and use of context which means the importance of both short-term and long-term memories (Hudson, *ibid*). There is also less reliance on the visual information (*ibid*). Text meaning is attributed to the role of schemata (*ibid*). This is clearly stated by Smith (1994, p. 15):

Knowledge of relevant schemes is obviously essential if we are to read any kind of text with comprehension. A child who does not have a scenario about farming is unlikely to understand a story about farming or a reference to farming in a textbook (cited in Hudson, 2007, p. 38)

The following happens in a top-down model of reading:

1. Eyes look
2. Thinking-predictions about meaning
3. Sample sentence as a whole to check meaning
4. To check further, look at words
5. If still uncertain study letters
6. Back to meaning predictions

(Cited in Davies, 1995, p. 58)

Smith views reading as purposeful and selective. That is, the reader attends to what is necessary to him/her (ibid). In this manner, he/she selects from the sources of information (visual, orthographic (spelling), syntactic and semantic) depending on the context that surrounds the word (ibid). For example, the sentence, ‘The teacher cleans the b...’ accepts one possibility which is ‘board’ since the context is that of a classroom.

Unlike bottom-up models of reading, top-down models rely mainly on hypothesis testing wherein the reader relies on linguistic information rather than the print. However, top-down models do not explain how readers find the relevant information in a text, i.e., how to make inferences about the text (Grabe, 2009). Moreover, they do not clarify how comprehension takes place through information sampling (ibid). This drawback paved the way to another trend which combines both bottom-up and top-down models.

1.5.4. Interactive Models of RC

Interactive models of comprehension are the alternatives to both bottom-up and top-down models. They are looked at as the combination of both bottom-up and top-down models to reading. Hedge (2000) claims that second language reading requires an interactive model,

combining both types of processing, bottom-up and top-down. Rumelhart (1977) proposed the first interactive model. It is the most influential one and is relevant to both first language and second language reading. In fact, there are other subsequent interactive models.

➤ **Rumelhart's Model**

Rumelhart's model to RC is the first interactive model. It is an alternative to serial models and top-down ones as it allows simultaneous processing of both of them. In other words, there is simultaneous, selective information processing from many sources, with no pre-determined direction for processing. This model relies considerably on visual information. Rumelhart (1977, p. 573-574) says that the reading process.

...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 sensory, semantic and pragmatic information to accomplish his task. These various sources of information appear to interact in many complex ways during the process of reading (cited in Davies, 1995 p. 64).

So, the skilled reader uses all those kinds of information interactively to attain meaning; that is, useful elements from top-down and bottom-up processing are combined to contribute to make sense of a text (Grabe, 2009). For example, inferencing and predictions contribute to make word-recognition efficient.

In this model, as shown below (Figure 1.1.), the process of reading begins with the entrance of graphic information in a visual information store (VIS). This graphemic input is operated by a feature extraction device. Then, a pattern synthesiser uses this information and

all types of knowledge: syntactic, semantic, orthographic, lexical, and pragmatic, so as to make words identification easy and subsequently reach the most probable interpretation (cited in Hudson, 2007). According to this model, a hypothesis can be accepted or rejected (ibid). This hypothesis can even lead to a new hypothesis until the reader comes to the right interpretation (ibid).

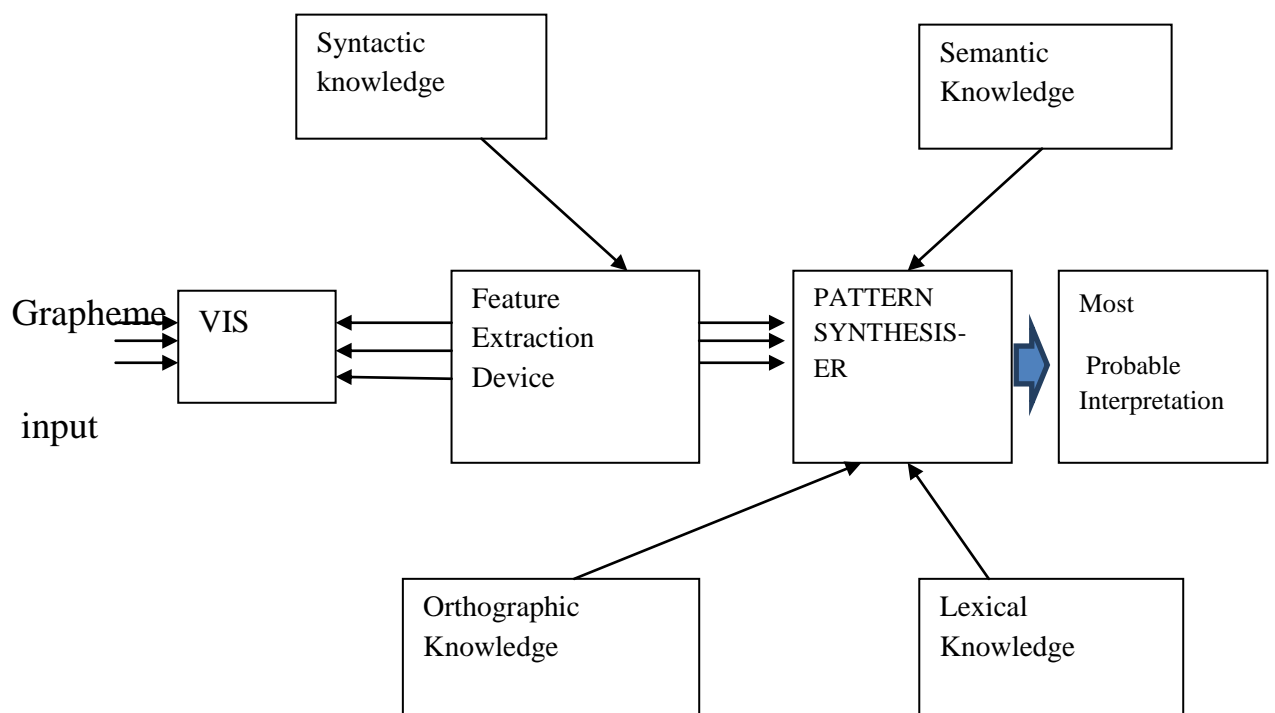


Figure 1.1. Graphic representation of the interactive model of reading (Davies, 1995 p. 64)

The reader uses, throughout the process of reading, in this model, the types of knowledge mentioned above in a non-linear way so as to make sense of a text, bringing together

characteristics of both of the models mentioned earlier, namely the bottom-up and the top-down reading models.

1.5.5. Contemporary Models of RC

Aside from traditional models of reading, the literature provides us with other ones. These have been proposed in the last 27 years (2009). The contemporary models of reading are considered as “empirically driven, descriptive, and psychologically plausible models.”(Grabe, *ibid*, p. 91). They are recognised among applied linguistics and reading researchers. These models are used to account for current research findings. The aim of this section is to describe some of those prevailing models.

➤ The Construction-Integration Model

The Construction-Integration (C-I) model has been used in the literature by Kintsch (1988). However, its roots took place in the early and mid-1970s (as cited in Grabe, *ibid*). The early works of van Dijk and Kintsch (1978; 1983) were very influential, mainly *Strategies of DC* (1983) in which they presented their views on discourse comprehension. In fact, they were the first who distinguished between a text model of comprehension and a situation model of interpretation (These models will be dealt with in 1.7.) (*ibid*). They argued that D) “(a) involves overlapping connections among propositions and (b) requires integration and compression processes for a coherent interpretation of texts” (Grabe, 2009, p. 92).

The C-I Model was developed in other studies, notably in Kintsch’s (1998) book, *Comprehension* (*ibid*). Comprehension, in this model, is the combination of the construction phase and the integration phase, *viz.* bottom-up processes such as word recognition, syntactic

parsing, propositional formation and inferencing are important components in this model (ibid).

➤ **Structure Building Framework**

This model is a complement of Kintsch's C-I model. The fundamental focus in this model is on DC that is built through sentence-by-sentence processing. It argues that discourse comprehension follows five steps:

1. Laying a foundation
2. Mapping on the foundation
3. Shifting to a new foundation
4. Suppressing information
5. Enhancing information

(Cited in Grabe, 2009, p. 93)

In actuality, this model is applicable to all modes of comprehension: reading, listening and visual. It functions as follows: an initial text segment (e.g., the first sentence) is read; the text-building process takes it and lays a foundation for comprehension. When new text segments are processed, key information is mapped onto the foundation by means of referent overlap, pronouns and antecedents, use of definite articles, and the like. When this information is signalled new, the text-building process shifts to a new foundation structure that will be linked later. Unnecessary information will be suppressed and the contextually relevant information will be activated (ibid).

This model has proved efficient; in that, many studies supported some predictions made by Structure Building Framework that poor readers shift most of the time to new foundations, because they do not maintain coherence, and fail at assembling many fragments. Moreover,

they lack efficient mechanisms of suppression and tend to rely on unimportant and irrelevant information. All this leads to weak comprehension.

➤ **The Kintsch and van Dijk Model**

This model is based on comprehension of text in both reading and listening. This comprehension model does not focus on the lower-level processing. Rather, it favours higher-level processing as stated in Kintsch and van Dijk (1978 p. 364):

only concerned with semantic structures...the model only says when an inference occurs and what it will be; the model does not say how [an inference] is arrived at, nor what precisely was its knowledge base (cited in Hudson, 2007, p. 43).

So, the focus in this model is on comprehension but not on how it is attained. The comprehension process begins by organising texts, firstly, in a coherent whole. Then, these texts are condensed into their gist. Finally, new texts and ideas are then generated.

➤ **The Just and Carpenter model**

The model suggested by Just and Carpenter (1980) was based on eye-fixation research. In this model, text comprehension is heavily related to the words being fixated as stated by Just and Carpenter (1980, p. 329-30):

...almost every content word is fixated at least once. There is a common misconception that readers do not fixate every word, but only some small proportion of the text, perhaps one out of every two or three words. However, the data to be presented in this article (and most of our other data collected in reading experiments) show that during ordinary reading, almost all content words are fixated. This applies not only to scientific text but also to narratives written for adults readers (cited in Hudson, 2007 p. 45).

It is noticeable that reading comprehension relies on the number of content words being fixated but not the peripheral ones. Moreover, this model is closely related to the bottom-up model of reading though it permits the influence of each level of processing to other ones.

The Just and Carpenter model includes five stages as stated in (Hudson, 2007): get next input, encoding and lexical access, case role assignment, interclause integration and sentence wrap-up.

➤ **The Interactive Compensatory Model**

Stanovich (1980) suggested this model based on compensating a deficit of one of the component sub-skills of reading (lower-level skills) by higher-level ones. This means that the poor reader uses his/her sources of knowledge which may be orthographic, syntactic, vocabulary, or semantic to compensate any deficiency in comprehension (Cited in Hudson, *ibid*). This view opposes the top-down model of reading which involves more reliance on higher-level processes. To illustrate, a reader may not recognise a word, so he resorts to context clues as a compensatory strategy by slowing reading down.

➤ **The Anderson and Pearson Schema-Theoretic View**

This model emphasises the role of schemata in reading comprehension. In this model, Anderson and Pearson argue that comprehension is the result of interaction of new information and old knowledge. They rely on works of Bartlett (1932) and Gestalt psychology. In fact, their view of reading provides an explanation of the structure of schemata. It includes the following:

1. information about the relationships among the components
2. a major role for inference and
3. acceptance that during language comprehension, people probably rely on knowledge of particular cases as well as abstract (cited in Hudson, 2007)

For Anderson and Pearson, in accounting for comprehending unusual cases, the reader relies on his general schemata rather than specific ones. Moreover, they acknowledge the role of inferences in text comprehension. They identify four types of inferences in the process of reading comprehension:

1. inferences involved in deciding what schemata among many should be called into play
2. inferences involved in assigning roles within a schema
3. inferences that assign default values to a schema, what is typically meant when we say that someone has made an inference
4. inferences that particular events rule out the possibility of a particular interpretation

A coherent interpretation of a text, according to the authors, is made while reading the text. This is particularly done when the topic is familiar, which facilitates the matching of new information and the old one.

➤ **The Pearson and Tierney Reading/Writing Model**

The suggested model by Pearson and Tierney (1984), the composing model, is based on meaning negotiation between the author and the reader via the text. They argue that meaning is created through the medium of text; in that, the author is assumed to write with the intention that the reader will make sense of text, and the reader will read while expecting to find clues that facilitate the reconstruction of the author's intentions. It is clear that this model is derived from pragmatic theories of language which postulate that every speech act or any attempt at comprehending an utterance is an action. The model views the reader as thoughtful and that he or she acts as composer. They state clearly that "the thoughtful reader...is the reader who reads as if she were a writer composing a text for yet another reader who lives within her" (cited in Hudson, 2007). The reader, according to this view, plays four roles:

1. planner (creates goals, uses prior knowledge and decides how to support the text)
2. composer (looks for coherence)
3. editor (examines the development of his/her interpretations) and
4. monitor (decides the role that should dominate in the reading process)

(ibid)

The composing model relies on the interaction between the author and the reader, interaction with the text besides interaction among the four internal roles of the reader.

➤ **Perfetti's Model**

This interactive model is labelled Verbal Efficiency Theory (VET). It is also called restricted-interaction model; in that interactions are restricted to lexical data structures (letters, phonemes, and words). Perfetti (1991, p. 34) points out the following:

Its interactions are restricted to occur only within the specific data structure of lexical formation (i.e. letters, phonemes, and words). It allows no influences from outside lexical data structures, no importation of knowledge, expectancies, and beliefs. Skilled word recognition is context-free (cited in Hudson, 2007 p. 50).

It is clear that VET model holds a bottom-up view of reading. However, this model is a combination of local text processes and text-modeling processes; that is, it is interactive in nature. In the first processes, the reader activates the possible meanings associated with a word; initial propositions are then created. The reader assembles words into propositions and new propositions are integrated with previous ones held in memory. These propositions are integrated in a representation. In their turn, these integrations may depend on pronominal reference, word repetition, and definite articles. In other words, the integration of words into propositions entails cognitive processes such as pattern identification, letter recognition, and word meaning association. Text-modeling processes imply the combination of background knowledge and the text propositions for creating a representation of the meaning. Making sense of texts in VET model is fulfilled through the processes mentioned above.

➤ **The Rayner and Pollatsek Model**

Rayner and Pollatsek (1989) consider their model of reading as bottom-up interactive. It places emphasis on the importance of the visual information (Davies, 1995; Hudson, 2007).

They say that their model is aimed to be as bottom-up as possible, but with the interaction of top-down processes. This model distinguishes observable processes like eye movement and fixation time from memory structures that are not observable. This process begins with the letter and the character of the word that is being fixated, i.e., foveal word processing while the parafoveal processing is attending to the following string of characters to determine where the following fixation will take place.

As mentioned above, this model focuses on eye movements since they relate to the memory, both working memory and long-term memory. In short, it is a serial model in which the reader converts the information into meaning and uses fix-up strategies as active processes when necessary.

➤ **The Landscape Model of Reading**

This model is considered as an extension of Kintsch's and Gernsbacher's models. It is developed by van den Broek and suggests that the comprehension process entails the building of a coherent mental representation (Kucan & Palincsar, 2011). It appears that this model concentrates on discourse processing rather than word recognition. It also accounts for the way readers "build comprehension to meet their own "standard of coherence" for a given task" (Grabe, 2009, p. 94). This model provides a way for levels of activation of all concepts that appear in a text (ibid).

1. Concepts mentioned in the current clause
2. Concepts available from the prior clause
3. Inferred concepts that are required to connect anaphors to prior referents

4. Inferred concepts that are required to make causal connections with concepts in the current clause
5. Concepts that have semantic associations with concepts in the current clause

Each concept has three types of scores:

- a score for its level of activation in all subsequent sentences in the text
- a total activation score; and
- a score for every other word that is co-active with it in a clause

This model, according to Grabe (*ibid*), is important, for it:

- a. shows how each concept can be assigned an activation value, and only the concepts that retain activation over many clauses remain integrated as central ideas in a text model.
- b. adds and adapts activation scores for additional aspects of the clause that might be influential.
- c. provides a clear means for applying discourse analysis principles to an activation model of reading comprehension; and
- d. is easily testable in comparison with many different groups of students, including L2 students.

(Grabe, 2009, p. 94-95)

Nonetheless, according to Kucan and Palincsar (2011), inferring causal-logical relations, for instance, can create difficulties for readers especially when they are complex and numerous and involve extensive BK and need the linkage of several pieces of information

For the current study, we adopt an interactive model of reading which underlies both bottom-up and top-down views of reading. This model takes into consideration discourse analysis and pragmatics, metacognition, reading strategies, to mention a few.

1.6. Second Language Reading

Most of the research on reading, out of L1 contexts, dealt with second language (L2) settings. Few only concentrated on FL contexts. However, many researchers use L2 and FL interchangeably. In this section, we shall depict the variables that affect L2 reading besides other issues that are important in the L2 reading process mainly in ESP/EAP settings.

1.6.1. Variables Affecting Second Language Reading

Reading involves an interaction of a number of variables. Alderson (2000) states that research of the process of reading has been divided according to the factors that affect it. The two factors that have been investigated are respectively the ones of ‘reader’ and the others of ‘text’. What follows will shed light on the two types of factors affecting RC in second and FL contexts.

1.6.1.1. Reader Variables

It is true that reading comprehension involves the writer and the reader besides the presence of the text, but this is not sufficient. There are variables that are connected to and concern the reader him/herself. These include schemata and background knowledge, motivation, and purpose for reading. The following will describe all these variables.

1.6.1.1.1. Schemata and Background Knowledge

Comprehending a text involves an interaction of not only linguistic knowledge but knowledge of the world as well. This knowledge of the world, the BK has been dealt with under schema theory (Bartlett, 1932; Rumelhart, 1980 cited in Carrell & Eisterhold, 1983). The latter stresses that any text does not carry meaning by itself, which means that another element comes into play so as to enable the reader to make sense of text (ibid). This element is referred to as the previously acquired knowledge or the reader's background knowledge, and the structures of this knowledge are called schemata (ibid), as stated clearly: "Efficient comprehension requires the ability to relate the textual material to one's own knowledge. Comprehending words, sentences, and entire texts involves more than just relying on one's linguistic knowledge" (ibid, p. 556-557). According to Moreillon (2007), BK is "what the reader brings to the reading event" (p. 19). Krashen (2004) claims that BK facilitates comprehension. Vitale and Romance (2007) BK is a very important factor in content-area RC.

According to schema theory, making sense of text is an interactive process between the reader's prior or BK and the text. In other words, the reader does not find the meaning of a text just in the sentences themselves, but s/he derives it from "the previous knowledge stored in her /his mind and the process through which the reader tackles it" (Cook, 2008 p. 121). The process of interpretation, then, according to schema theory is guided by bottom-up (text-based) and top-down processing (knowledge-based) (Carrell & Eisterhold, 1983; Silberstein, 1994). Put another way, once the content of a text is recognised by the reader, comprehension is much higher (ibid).

Schemata (plural of schema), in this regard, are organised hierarchically; that is, from most general at the top to most specific at the bottom. According to the literature, there are

two types of schemata: formal schemata and content schemata (Carrell, 1983a; Hudson, 2007). The following accounts for the two types of schemata.

➤ **Formal Schemata**

Formal/rhetorical schemata refer to the linguistic knowledge the reader has acquired. That is, L2/FL learners must acquire the second language (English in this study) before they can read. In the case of ESP learners, they should have access to the language of their disciplines; that is, they should know linguistic and syntactic knowledge before the rhetorical knowledge which comes in the second place. For instance, ESP students who study Economics cannot read English texts dealing with topics related to their specialty unless they have acquired those types of knowledge. In the same line, when students are not aware of how information is organised in texts, they will not be able to comprehend those texts easily. One example is a reading article in which the introduction summarises the whole article. Unless the reader knows how an article is structured/organised, s/he will struggle to make a distinction between the main ideas and the supporting ones and as a result, the comprehension cannot be attained. So, when we investigate formal schemata, we focus on two main elements, namely knowledge of genre/text type and metalinguistic knowledge and metacognition.

-Knowledge of genre/text type

To make sense of texts, L2/FL readers have to know how texts are structured and how ideas are organised. This implies locating information and how it is signalled in a text besides knowing how changes of content are marked. Nonetheless, little has been devoted to the investigation of the reader's knowledge of the text features. Rather, the focus was on the

relationship between those features and text readability rather than on “the state of the reader’s knowledge of such features” (Alderson, 2000 p. 40).

-Metalinguistic knowledge and metacognition

Research in first language has shown the relationship between metacognition and reading. According to Block (1992), metalinguistic awareness is a very useful factor in reading. It has been found that comprehension monitoring is automatic but not observable. However, with L2 readers, Block (ibid) reported that good readers controlled the monitoring process whereas less proficient ones encountered word problems (ibid). That is, proficient readers were strategic; they did not rely on understanding words. Moreover, they had the ability to decide which problems deserved more attention. She concluded that the monitoring process depends on the reading ability rather than on whether the reader is first language reader or second language reader.

Metacognitive processes for comprehension used while reading, mainly in academic settings are:

1. Set (reset) reading goals
2. Expect to build a coherent interpretation of a text and establish the main ideas of a text
3. Make inferences as necessary in line with our goals
4. Monitor comprehension to maintain a coherent of interpretation or the reading output does not match our reader goals
5. Recognize when we are losing coherence of interpretation or the reading output does not match our reader goals
6. Summarize the main ideas of a text
7. Engage various strategies to help repair an incoherent interpretation

8. Evaluate the reading input in various ways beyond simple understanding

(Grabe, 2009, p. 224)

➤ **Content Schemata**

Contrary to formal schemata which refer to the rhetorical and linguistic knowledge, content schemata refer to the familiarity of the text content to the reader, which facilitates the text comprehension and makes the text better recalled. Content schemata consist not only of knowledge of the subject matter —the topic of the text— but knowledge of the world and cultural knowledge as well (Carrell & Eisterhold, 1983). The following explains all these types of knowledge.

-Knowledge of subject matter/topic

Research has shown that reading becomes easier when reading texts are familiar to the readers. This means that subject matter familiarity is a facilitating factor for making sense of texts (Alderson, 2000). A study conducted by Alderson and Urquhart (1985) showed that reading tests in the subject area of the testees were easily processed (Cited in *ibid*).

-Knowledge of the world and Cultural knowledge

Content schemata consist not only of knowledge of the subject matter -the topic of the text- but knowledge of the world and cultural knowledge as well. Knowledge of the world, background knowledge, is crucial in making sense of a text (*ibid*). The following example shows the importance of BK activation.

- *The policeman held up his hand and the car stopped.*

(Rumelhart, 1985:267 cited in Alderson, *ibid*)

This sentence poses no difficulty when the BK is being activated. Here, the logic suggests that the policeman orders the car to stop which means that the policeman holds up his hand. Cultural knowledge is also important to understanding texts (Rueda, 2011). However, this depends on the shared culture between the reader and the text.

Research in the reading process has stressed the role of both types of schemata. Formal schemata comprise the knowledge of rhetorical patterns of organisation; content schemata refer to the knowledge of subject matter and culture. In other words, to comprehend written texts in English, readers are supposed to have acquired not only linguistic knowledge and rhetorical knowledge, but knowledge of subject matter and culture as well.

1.6.1.1.2. Reader Purpose in Reading

A number of researchers have found out that the purpose of reading plays a major role in the process and control of reading. Research findings have demonstrated that different readers read with different purposes. So, the way of reading depends on the reason of reading. For instance, if one is reading for getting the text content, they will not pay attention to the text details. Davies (1995) and Alderson (2000) argue that there is a strong relationship between the reading purpose and the types of reading such as skimming, scanning, skipping details, etc. In academic settings, L1 and L2 learners read for a specific number of purposes (Grabe & Stoller, 2001). Study reading, according to Shanahan (2009) “is very different from casual pleasure reading” (p. 240). Grabe (2002) lists four functions for reading in academic settings:

- a- Reading to find information: scan or search text for a specific topic, word, or phrase
- b- Reading for general understanding: get the main ideas and at least some supporting ideas and information
- c- Reading to learn: understand the main ideas and store meanings and supporting details in a coherent organizational frame
- d- Reading to critique and evaluate: in addition, reflect on text content, integrate it with prior knowledge, and judge quality and appropriateness of texts in relation to what is already known about the topic

(As cited in Saville-Troike, 2006, p. 157)

From above, beginning L2 readers scan texts for a specific topic or word, and intermediate ones can comprehend the main ideas and get some supporting information (ibid), but it is only the advanced L2 readers who achieve both ‘reading to learn’ and ‘critical/evaluative reading’ (Saville-Troike, ibid). ESP learners, in effect, read to learn content and evaluate that content and critique it.

1.6.1.1.3. Reader motivation

Motivation has been of a great importance in learning in general and in reading in particular. Day and Bamford (1998) define motivation as “what makes people do (or not do) something” (p. 27). As a matter of fact, the affective factor has had a considerable attention in second language acquisition in that it has been proved that whenever the learner is in good psychological conditions, s/he will perform better. The L2/FL students’ commitment, enthusiasm and persistence, according to Dörnyei (2001), are “key determinants of success or failure” (p. 5). He argues that the lack of sufficient motivation may lead even the best learners

fail at reaching their objectives to better acquire language (ibid). Takeuchi et al. (2007) argue that “learners who are more motivated tend to use a wider range of learner strategies and to use these strategies more frequently” (p. 71). In general, motivation can be extrinsic, brought to the language classroom, or intrinsic, “generated inside the classroom through the choice of instructional activities” (Ellis, 2004, p. 536). A great body of research has taken place since the 1980s on the importance of motivation not only for understanding language learning, but maximising its success as well (Ellis, ibid).

Researchers recommend that teachers are invited to develop the students’ motivation to reading. Paratore et al. (2011) argue that motivation is a key factor to successful reading. Other researchers point out that it is ignored in reading instruction (Grabe and Stoller, 2001). Developing motivation can be achieved by conducting discussions on the importance of reading and the reasons for different activities used in class (Grabe & Stoller, ibid). According to Grabe (2009), L2 reading motivation can be promoted through content-based reading instruction which combines language, reading, and content learning in a coherent way in a course.

All in all, although motivation is important, it is complex; in that, it is associated with other notions such as interest, involvement, self-concept, etc (Ellis, 1997; Grabe & Stoller, ibid).

1.6.1.1.3.1. Factors Supporting Reading Motivation

Researchers such as Guthrie, Wigfield and others have listed some factors that support reading motivation. These factors are outlined below:

1. Opportunities for learning success and gains in conceptual knowledge
2. Real-world interactions (demonstrations, data collection, observations, etc.)

3. Autonomy support, student self-direction
4. Interesting texts for instruction
5. Opportunities for extended reading
6. Strategy instruction
7. Social collaboration and relationship building for academic tasks
8. Evaluation and feedback that support learning

(Cited in Grabe, 2009, p. 191)

Teachers can play a major role in the motivation growth of their students. They should check what interests students and why, create a good classroom atmosphere. They should also build their students' self-confidence, make the curriculum appropriate to them and clarify tasks and assignments. Moreover, it is advisable that they diversify the reading materials and encourage students to do extensive reading in and outside school.

Here are some other practices that teachers should.

1. Share personal examples of motivated task engagement.
2. Promote effective goal setting and expected outcomes.
3. Communicate the importance of schoolwork and tasks.
4. Increase students' expectancy of success in particular tasks.
5. Promote the development of group cohesiveness.
6. Have good lead-ins to all texts and tasks to build initial interest.

7. Match student skills with challenges.
8. Promote effective learning strategies.
9. Involve learners in decision-making related to reading tasks and goals.

(Grabe, *ibid*, p. 192)

All in all, it has been noticed that ESP learners are, in many cases, learning for the sake of getting grades in order to move from one level to another. Only few of them have the thirst to acquiring the English language and recognise the benefit of using it in their research.

1.6.1.2. Text Variables

The other factors that affect the reading process are those of text. It has been argued that a text includes many linguistic variables that either facilitate its comprehension or make it difficult. We are concerned here with ‘text topic and content’, ‘text type and genre’, and ‘text organisation’.

1.6.1.2.1. Text topic and content

It has been proved that text content will affect the way the readers process it. Interesting and concrete topics are judged to be readable. Moreover, familiar texts are likely to be easier to process. Empirical studies, as a matter of fact, show that non-specialist texts in the arts and humanities and in social sciences are easier for processing than scientific texts. However, in ESP classes, specialised texts are required in that they include the topics in the students’ area of study, which makes information processing easier.

1.6.1.2.2. Text type and genre

Genre is a conventionalised category and type of discourse. Martin (1984) defines a genre as “a staged, goal-oriented, purposeful activity in which speakers [or writers] engage as members of our culture.” (Cited in Davies, 1995, p. 91). In his book, ‘Genre Analysis’, Swales defines genre as it “comprises a class of communicative events, the members of which share some set of communicative purposes.” (p. 58). It is obvious that both definitions stress the importance of purpose. All in all, it has been claimed that different genres are characterised by different functions requiring different patterns of organisation.

1.6.1.2.3. Text organisation

Text organisation assists readers to comprehend written texts. According to Grabe (2009), “texts convey a considerable amount of discourse information at multiple levels” (p, 244). He argues that this information assists readers in building “coherent representations of texts” (ibid, p. 244). Silberstein (1994) states that most second language reading curricula are dominated by expository prose which is central for EAP settings. For her, once students recognise the structure of a text in terms of how arguments are structured, and in terms of grammatical/lexical features, they will comprehend the text easily (ibid). Confirming this, Grabe (ibid) mentions that good readers are able to comprehend what they read by making use of text structure which is supported by some linguistic systems such as surface-level signals (cohesion), information structuring, lexical signalling, anaphoric signalling, text coherence, etc. In their turn, Aebersold and Field (1997) point out that rhetorical structures “describe the organization of information in texts” (p. 11), and they are conventional, including “description, classification, comparison, contrast, cause and effect, process, argument, and persuasion” (ibid, p. 12). In the same line, Irwin (2007) argues that the writer’s

pattern of organisation assists readers in better recalling text information and in organising “their own internal summary” (p. 4).

Students in ESP settings are asked, for example, to read articles, papers and textbooks related to their field of study and which they are supposed to know their structures. In case students fail at recognising how texts are structured and organised, they will encounter difficulties in spotting the information and so text comprehension.

Studies carried out by Mandler (1978) and then by other researchers demonstrate that when the rhetorical patterns of organisation have been changed while the content is constant, L1 students found difficulty in comprehending the text. This study has been replicated by Carrell (1983a) on L2 students. She found that those students might know how texts are organised, but they are unaware of this knowledge, which means that much research is needed in this area of study.

With regard to what has been aforementioned, if students are guided to see how texts are structured and how discourse is organised, they will acquire stronger comprehension skills (Grabe & Stoller, 2001; Thornbury, 1997). All these factors ensure text comprehension.

Reader variables and text variables together influence and make text comprehension easier. Comprehension, then, relies on both factors related to the text and ones to the reader himself/herself.

1.7. Higher- and Lower-Level Processing

In the RC literature, two levels of processing are recognised: lower and higher. In this section, we shall shed some light on the two levels of processing. We begin, first, by describing components of lower-level processing. Then, we move to the higher level one.

1.7.1. Lower-Level Processing

Fluent reading implies recognising the role that lower-level processes play in the reading process. The latter are mainly word recognition, syntactic parsing and semantic proposition encoding (Grabe, 2009; Hudson, 2007).

1.7.1.1. Word Recognition

It is agreed among researchers that word recognition is the most important process in RC. Gough (1984) defines word recognition as “the foundation of the reading process” (p. 225. Cited in Roberts et al., 2011, p. 229). Jennings et al (2006) claim that in order to read a text, readers need to recognise words in an accurate way. That is, fluent RC depends heavily on rapid and automatic word recognition, on the part of readers (Grabe, *ibid*). For many researchers, word recognition is unique to reading in the sense that reading implies that readers are able to activate comprehension “specifically from graphic symbols and their combinations” (Grabe, *ibid*, p. 23). Readers focus on almost 80 percent of content words and on about 50 percent of the small function words (Adams, 1990; Perfetti, 1999; Pressley, 2006; Stanovich, 2000 as cited in *ibid*). In fact, the ability to recognise words takes less than 100 milliseconds (Ashby & Rayner, 2006; Breznitz, 2006; Jackson & McClelland, 1979 as cited in *ibid*). Moreover, as readers, we notice very quickly in 200 to 250 milliseconds (Perfetti,

1999; Rayner & Pollatsek, 1989 as cited in *ibid*). Given these statistics, a fluent reader has the ability to read a text at 250-300 wpm in a comfortable way (Grabe, *ibid*). In actuality, fluent word recognition involves interaction of four types of information: orthographic, phonological, semantic, and syntactic (*ibid*). Grabe (*ibid*) states in a clear way:

In order for fluent word recognition to occur, a reader must recognize the word forms on the page very rapidly, activate links between the graphic form and phonological information, activate appropriate semantic and syntactic resources, recognize morphological affixation in more complex word forms, and must access her or his mental lexicon (p. 23).

Davies (1995) affirms that automatic identification is partially influenced by “the thematic processor in which lexical, syntactic, semantic and background knowledge interact” (p.70). She concludes by saying that the evidence presented by the model of Rayner and Pollatsek (1989) that “comprehension cannot proceed without attention to visual information and words” (*ibid* p. 71) and that “Reading occurs during fixations of the eyes...not when the eyes are moving, or skimming, over text...there is a limit to how much text can be seen (about fifteen characters) and processed during a fixation” (*ibid*).

1.7.1.1. Orthographic Processing

Orthographic processing is one of the sub-skill processes in RC. These processes refer to the visual recognition of word forms (Cunningham, Perry, & Stanovich, 2001 cited in Grabe, 2009). The latter include ‘letters, letter groups, visual word shapes and key shapes that are letter parts such as ‘l’ or ‘b’ (long vertical line) or the right-hand curve in ‘b’, ‘o’ or

“p”. Current connectionist theories of word recognition focus on the information processing in ‘word groups’ instead of letter by letter. Nonetheless, word recognition depends on the length of the words. Moreover, orthographic processing is crucial in recognising more complex words which have one or more morphological affixes such as un-, -ful (ibid). This means that it is important for readers to know how words are put together to form derived words.

1.7.1.1.2. Phonological Processing

As an important word recognition sub-skill, too, phonological processing has had a great attention among researchers. It is considered as a major factor contributing to RC. This is clearly stated in Koda (2004):

Ability to obtain phonological information is vital to successful comprehension, and in all probability is causally related to reading proficiency. One might wonder why phonology is critical in silent reading, where overt vocalization is not required. The best answer, perhaps, lies in the ways phonology facilitates comprehension (p. 33).

Phonological decoding includes accessing, storing, and manipulating phonological information (Torgeness & Burgess, 1998 Cited in (ibid)).

The importance of phonological codes lies in enhancing the storage of information in working memory and “affording quick access to oral vocabulary in lexical memory because it is stored in phonological forms” (ibid, p. 33).

Phonological processing is a universal aspect of reading; in that, it is not found in alphabetic languages only, but also exists even in non-alphabetic languages such as Chinese and Japanese (Grabe, 2009; Koda, *ibid*).

1.7.1.1.3. Semantic and Syntactic Processing

The role of semantic and syntactic processing has been studied for nearly 30 years. The issue raised has been “whether or not semantic information contributes to lexical access” (p. 25). The answer is that semantic and syntactic information take place only after word recognition (Grabe, 2009). However, this processing has a little effect, through automatic mechanisms of spreading activation (*ibid*). That is, recognised or activated words spread some activation to the neighbouring words having the same meaning “in the lexical network when they are accessed” (*ibid*, p. 26) and once accessed, the related word will be activated by being with a previously activated word.

1.7.1.1.4. Lexical Access

This processing occurs after the orthographic and phonological processes have taken place. The latter activate the reader’s mental lexicon by storing the letter shapes, the syllable rhyme unit and so on. Nonetheless, according to some researchers, lexical access is similar to word recognition whereas other ones such as Perfetti point out that lexical access includes word recognition and recall.

1.7.1.1.5. Morphological Processing

Morphological processing has received importance among researchers for 15 years. Studies show that readers who know the affixes and recognise words improve their RC better (Grabe, 2009). So, morphological processing facilitates text comprehension.

1.7.1.1.6. Automaticity and Word Recognition

Automaticity is crucial in fluent reading ability. For Hoffman (2009), automaticity is “processing without attention” (p. 57). The aforementioned processes for efficient word recognition are closely related to the concept of automaticity, i.e., for fluent reading to take place, those processes should be automatic and rapid. This means that we have to distinguish between rapidity and automaticity. While the first one is related to speed, the second, to automaticity, *viz.* it is related to the on-going and the non-examination of the process while reading.

Automaticity is the result of a long time of meaningful input and accompanies word recognition. Cunningham et al. (2011) claims that “Automaticity with word recognition plays a fundamental role in facilitating comprehension of text...” (p. 259). Davies (1995) argues that the eye fixation which is limited to a (universal) perceptual span

leads to the identification of about one to three words and their meanings either directly, from visual information, or indirectly through reference to grapho- phonic rules’. This latter option allows for the activation of inner speech. Whichever the route is chosen, with fluent adult readers it typically leads to the automatic identification of words, which is calculated from experiments to be as rapid as 60-70 msec (p. 70).

Automatic word recognition is very important in RC. It has been claimed that contrary to good readers, poor readers do not make sense of what they read in an automatic and rapid way. In this case, we argue that automatic word recognition is a characteristic of good readers.

1.7.1.1.7. Context Effects

Context effects help the reader in activating the most appropriate meaning of a word among many meanings as it becomes active in working memory. Contextual information, in normal reading conditions with fluent readers, makes a useful support for recognising words when readers encounter processing difficulties (Grabe, 2009). That is, fluent readers recognise so many words in about 200-250 milliseconds using the processes mentioned above (ibid). This means that the use of context is a good strategy to be used not only by good readers, but by poor readers as well.

According to Grabe (ibid), context assists students in developing a text model of comprehension and a situation model of interpretation and recognising word by means of automatic spreading activation, helps readers choose the most appropriate meaning once the word is recognised. Context supplies readers with information to help them comprehend a difficult text. It also plays a role in the development of vocabulary through many words' encounters.

As aforementioned, context is very important in RC; in that, it contributes to the integration of the new proposition and BK.

Word recognition is of a great importance in making sense of texts. Sub-skills processes such as orthographic processing, phonological processing, semantic and syntactic processing,

lexical access, morphological processing, automaticity and context effects are all essential in this process.

1.7.1.2. Syntactic Parsing

Syntactic processing is a contributing factor to RC. In actuality, the reading literature provides us with a great body of research in both theory and practice which support the relationship between grammatical information and RC. In fact, determiners, word order, tense, modality, subordinate clauses and others have a strong impact on text comprehension. Fender (2001 as cited in Grabe, 2009) and others have noticed that complex and ambiguous grammatical structures affected the reading processing time.

1.7.1.3. Meaning Proposition Encoding

Since understanding is the ultimate goal behind reading, a question arises: ‘How does meaning of words occur?’ To answer this question, researchers such as Perfetti and Britt (1995) argue, due to consistent research findings, that semantic propositions occur simultaneously with word recognition and syntactic parsing (cited in Grabe, *ibid*). They are considered as the building blocks of text comprehension.

1.7.1.4. Working memory

Working memory is one of the major components of memory. In the reading case, research has demonstrated a strong relationship between measures of working memory and comprehension (Paris & Hamilton, 2009). Working memory includes the information that has

been activated and that is available for comprehension processing. It plays a major role in consolidating the extracted lexical information into larger, meaningful chunks such as sentences and paragraphs.

Lower level processes are very crucial in making sense of text. They are considered as the building blocks of the reading process. Despite this fact, making sense of texts implies higher level processes as well.

1.7.2. Higher Level Processing

Since the early 1980s, there have appeared terms such as text model of comprehension and situation model of interpretation. Actually, they have been introduced by DC researchers such as van Dijk and Kintsch (Grabe, 2009). These models are not seen as specific models to reading, but as DC networks, as the term is widely used by cognitive psychologists (ibid).

1.7.2.1. Building a Text Model of Comprehension

Comprehending a text entails not only lower-level processes mentioned earlier, but a text model of comprehension as well. The latter “requires the use of “bridging” inferences...to connect new propositions to the network of already active propositional ideas” (cited in Grabe, ibid). The idea is that text comprehension is a combination of new information with existing information (network). So, the propositional representation of a text (text base) is one of the critical representational levels outcomes of DC.

New information may be an extension of already existing information. It may be linked by a discourse proposition which indicates causation (e.g. “because”), contrast (e.g. “however”)

and so on. The operations involved in building a text model of comprehension are: linkages into a network, overlap of elements, simple inferencing, and summary restructuring.

1.7.2.2. Building a Situation Model of Interpretation

While reading, the reader constructs a situation model. According to Goldman, Golden and van den Broek (2007), the situation model is the integration of BK and textbase information (cited in Grabe, *ibid*). Readers, when they read, they bring various types of knowledge. BK, includes our understanding of how discourse is structured, past reading experiences, the genre and so on. This process involves, then, activation of BK. It begins with deciding on the purpose for reading since the latter influences the building of the situation model. Reading informational texts, for example, entails activating information so as to attain a suitable interpretation.

To build a situational model for the purpose of reading to learn or reading to integrate information, questions will be raised on whether or not the reader understands the information, on whether this information integrates with another one found in other texts, and on how the information is structured and organised; whether or not the information is interesting, and the like.

The reader builds a situation model by combining BK with text information, depending on his goals.

1.7.2.3. A Two-Model Account of Comprehension

This model combines the two views mentioned above. That is, it incorporates an author's meaning and a reader's construction of text meaning.

Research has shown that students reading descriptive texts tend to demonstrate text-model constructions contrary to literary texts in which they build situation models. Research has also shown that readers with minimal BK produce summaries, multiple choice tasks, and the like, whereas the ones with extensive BK show high-levels of recall and produce evaluative commentaries. Certain tasks require building both a situation model and a text model such as in expository texts. The two-model approach of comprehension accounts for the complementary roles of text organisation and reader resources.

A two model account of comprehension allows the reader to do both models with the emphasis on either of them depending on tasks types. It assists students when they encounter difficult texts. In fact, the dual model provides an explanation to the discourse signaling importance as comprehension processing support, mainly with expository texts. It implies the use of background knowledge during comprehension as an alternative to schema-theoretic explanations of comprehension, the use of strategies, inferences, goal setting, and comprehension evaluation in a reasonable way, and difficulties of learning encountered and implications for improving comprehension instruction.

1.7.3. Additional Higher-Order Processing Components

RC involves 'attentional processing' mainly when students read difficult texts. Attentional processing is essential in reading when in Grabe's (2009) words, "reading difficult materials

and when learning or evaluation goals are crucial” (p. 50). These attentional processes include goal setting, strategy use, metacognitive awareness, metalinguistic awareness and comprehension monitoring (ibid). All these processes are going to be described in what follows.

1.7.3.1. Goal Setting

It is a cognitive process that is driven by attentional processing. It provides causes for reading. In academic settings, students read for a variety of purposes and plan for attaining those purposes. The latter can range from, for example, checking facts to summarising a text. Research has shown that goals can affect comprehension results in both L1 and L2 contexts (cited in Grabe, ibid).

1.7.3.2. Strategy Use

Strategies (plural of strategy) are important in reading. They are intentional actions used by readers to “facilitate reading at any level of processing” (Erler & Finkbeiner, 2007, p. 189). According to Oxford (2002), “Research indicates that appropriate use of language learning strategies... results in improved L2 proficiency overall, or in specific language skills areas” (p. 126). This cognitive process, strategy use, is very essential to text comprehension. Fluent reading involves words identification during reading, information drawn from syntactic parsing, and the like (Grabe, ibid). Nonetheless, informational texts and academic learning expectations require the readers to be aware of the use of reading strategies which assist them in generating main-idea comprehension (ibid).

The reading strategies recognised in the literature and so often used are: identifying a purpose for reading, previewing, activating background knowledge, predicting, forming questions, skimming, scanning, recognising text organisation, repairing miscomprehension, inferencing and so on. These strategies can be taught (Farrell, 2001) as we shall see in Chapter Six). In sum, findings from L1 and L2 reading-strategy use are summarised below:

1. All readers use many strategies.
2. All readers engage in more basic and more local strategies when reading frustration-level texts.
3. Good readers and poor readers use the same types of strategies.
4. Good readers use strategies more effectively than do poor readers.
5. Good readers are more metacognitively aware of strategic responses to text difficulties.
6. Good readers use repertoires of strategies in combination rather than overusing single strategies.
7. Good readers automatize certain combinations of strategies as routine effective responses to reading-comprehension needs.
8. Good readers are actively engaged in reading comprehension.
9. Reading strategies can be taught effectively.
10. Strategy instruction can improve reading comprehension.
11. Strategy instruction should be a central component of reading-comprehension instruction.

(Grabe, 2009, p. 227)

To be strategic, readers need skill and will (Baker & Beall, 2009; Miller & Faircloth, 2009). The latter represents “the motivational intent to become engaged with reading, to continue reading to reach goals, and to persist through difficulties” (Miller & Faircloth, 2009, p. 308).

In a nutshell, strategic reading implies that readers select the most convenient strategy, monitor their reading so as to check whether they have met their goals (ibid).

1.7.3.3. Metacognitive Awareness

Metacognitive awareness is no less important in reading. It refers to the reader’s controlling of his/her reading through strategy use (Caccamise et al., 2007). Metacognition is defined as “conscious awareness and control of one’s own cognitive processes or thinking about thinking” (Irwin, 2007, p. 5). So, the aspect of metacognitive awareness is the use of strategies to regulate cognitive processing, as in comprehension monitoring and repairs (Carrell et al., 1989; Koda, 2004; McNamara, O’Reilly, Boonthum & Levinstein, 2007). This, in reading, involves the selection of strategies to be used by the reader, the way some strategies are combined, and when they are used. Garner (1987) claims that “self-regulated learners are metacognitively aware when something... has disrupted their understanding and they know how to select and use a repair strategy to remedy their comprehension” (Cited in Almasi & Garas-York, 2009, p. 473). Massey (2009) believes that metacognition is influenced by motivation and student learning.

On the whole metacognitive awareness entails the reader’s knowledge of strategies and tasks’ requirements. It is a characteristic of good readers.

1.7.3.4. Metalinguistic Awareness

Metalinguistic awareness is also important in making sense of texts. Koda (2004) and Grabe (2009) argue that metalinguistic awareness refers to the understanding of language in a more general sense. That is, it is the use of linguistic information, in an expandable way, at a metacognitive level. Metalinguistic awareness is, in Koda and Zehler's (2008) words, "the ability to identify, analyze, and manipulate language forms" (p. 4). It is a factor that supports the development of academic reading abilities.

In summation, metalinguistic awareness includes an awareness of word-learning skills, syntactic structuring, and discourse organisation which led many researchers to argue that learning to read is in the essence metalinguistic.

1.7.3.5. Comprehension Monitoring

Comprehension monitoring contributes to RC. Casanave (1988) states that "Successful reading comprehension depends not only on readers' ability to access appropriate content and formal schemata. It also depends on their ability to monitor what they understand and to take appropriate strategic action" (p. 283). Comprehension monitoring, then, is a fundamental human cognitive process which depends on attentional processing and metacognitive awareness. Text comprehension, mainly at a deep level, 'requires readers to be aware
Alexander and Fox

Comprehension monitoring, in the reading process, is an essential factor in forming a suitable text model and situation model mentioned earlier (Grabe, *ibid*). To give an illustration, monitoring written texts, contrary to oral interactions, is challenging, for written texts are complex (Guthrie et al., 2007) in general, which means that they include less

common vocabulary. Moreover, they contain new information that does not exist in our prior knowledge, and this situation urges the reader to take action if he is to comprehend the text at hand. To put it differently, depending on the goals of the reader and the requirements of the reading tasks, the reader uses some strategies to overcome comprehension difficulty. In this way, the reader is monitoring comprehension. Irwin (2007) argues that “Good readers are more effective comprehension monitors than are poor readers” (p. 125) illustrating that the former have the ability to find out any inconsistency in a passage and to seek for previous and subsequent information rather than the latter (ibid).

In sum, RC is the result of combination of both lower level and higher level processes. Depending on the reading tasks, readers may rely on either of them.

1.8. L1 and L2 Reading Differences

Reading in a second language differs in many ways from reading in first language. In the main, second language reading involves both L1 and L2. This, according to many researchers, called “a dual-language reading”. In Grabe’s (2009) words, “L2 reading is an ability that combines L2 and L1 reading resources into a dual-language processing system” (p. 129). Nevertheless, there exist some differences between L1 and L2 at the linguistic level as well as at the processing one. The following makes a number of factors that influence L2 reading.

1.8.1. Linguistic and Processing Differences

Generally speaking, L2/FL readers have weaker linguistic skills and a limited vocabulary compared to L1 readers. They lack awareness of the L2 structures and do not have the cultural knowledge that is in L2 texts (Grabe, *ibid*; Grabe and Stoller, 2001; Koda, 2004). Besides, they may not know how texts are structured and how discourse is organised, which affects their understanding of texts (*ibid*). So, because it takes years for L2/FL readers to develop implicit knowledge of the L2 morphology, syntax and phonology, they are invited to develop these linguistic resources simultaneously with the RC development (*ibid*).

L1 transfer is another factor affecting L2 reading, depending on the L1 and L2. Though transfer of L1 reading skills may facilitate L2 RC, both languages may not be the same in phonology, morphology, orthography, grammar, and so on (*ibid*). In actuality, these linguistic differences may affect text processing.

1.8.2. Developmental and educational differences in L1-L2 reading

Besides the linguistic differences, there exist some other ones that are more contextual in nature called developmental and educational differences. These are not related to the two languages (Grabe, 2009). Rather, they relate to L1 and L2 reading experiences, the amount of exposure to print, motivations, text difficulty or easiness, kinds of texts encountered in academic settings, and the like.

To explain more, reading and making sense of a text involve the use of a number of reading strategies and higher-level reading abilities such as main-idea identification, relating main ideas to supporting ones, and others. Moreover, the reality tells us that the majority of L2/FL learners are not exposed too much to the print, say, English texts, in their classroom

contexts contrary to the great amount of L1 print exposure. The next difference concerns motivations for reading. It has been noticed that students read more for academic purposes and these motivations vary from one student to another whether in L1 or L2.

Other developmental and educational differences lie in the fact that EFL learners are exposed to difficult texts.

1.8.3. Sociocultural and Institutional Differences

Besides the differences mentioned above, L2/FL reading development is influenced by the societal and cultural contexts. L1/L2 difference stems from students' social and cultural backgrounds (Grabe, 1991, 2001, 2009). In reality, a great number of students, at least in the present study, read very little. Besides, some families do not motivate their children to read. Moreover, reading materials are most of the time inaccessible. To put it differently, social and cultural backgrounds and academic institutions and settings do not encourage reading, which affects L2/FL reading. Grabe and Stoller(2001) states this in a clear manner:

Some families read very little, have few reading materials available, and do not encourage independent reading. Some social settings do not encourage reading. For example, prior schooling may not have emphasised reading, other community institutions may not have encouraged reading, and libraries may have been scarce or inaccessible. Some cultures and social groups place more emphasis on spoken communication for learning, and reading plays a more limited role there (p. 189).

From above, reading is greatly associated with the sociocultural background of the students in the sense that when they are accustomed and encouraged to read, they will gain experience and foster their reading comprehension skills, and will have the thirst to read.

1.9. Universals of Reading Development

There exist some cognitive and linguistic universals found with any reader. These are:

1. carry out phonological processing while reading
2. use syntactic information to determine text meaning and text comprehension
3. set goals, engage in reading strategies
4. apply some level of metacognitive awareness to text comprehension
5. engage a capacity-limited working-memory system
6. draw on a long-term memory (background knowledge) to interpret text meaning
7. carry out very rapid pattern recognition and automatic processing skills

(Grabe, 2009, p. 123)

When a reader does not acquire the above cognitive and linguistic universals, it means that he/she cannot read in an acceptable way even in his L1.

Conclusion

Accounting and Finance students, at an upper level of studies and after spending seven years learning English in middle and secondary schools, are expected to have acquired the decoding skills in addition to the components mentioned earlier such as vocabulary

knowledge, grammar knowledge, text structure awareness, and the like. However, in case students fail at making sense of a text, they should use some plans to overcome miscomprehension problems; that is to say, they should be equipped with a number of reading strategies.

As mentioned earlier, the interactive model of reading fits the students in this study since it is relevant to both first and second language reading. This model allows them to process information simultaneously, but selectively. Celce-Murcia and Olshtain' s (2000) DBA is the one chosen for this study and concepts such as discourse analysis, pragmatics, background knowledge and context are the building blocks of this approach. This is what will be dealt with in the following chapter.

Chapter Two:

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Conclusion

Introduction

In this chapter, we are going to explore the effectiveness of DBA (es) in RC. We argue that RC requires both DA and pragmatics besides other components that will be investigated in the course of this chapter. So, we shall talk about DBA (es)' origin and their contribution in language teaching in general, and in the reading skill in particular including the term 'discourse'. To this end, the building blocks of DBA, viz. 'DA', 'pragmatics', 'BK representation', and 'context' will be discussed. We shall also talk about other concepts such as bottom-up, top-down and interactive processing, information structure in English, and genre and register. Furthermore, we shall shed some light on interpretation and comprehension of WD, focusing on cohesion and coherence.

2.1. The Importance of Discourse Competence

In effect, discourse has taken a central role since the advent of communicative language teaching (CLT) and ESP. Pennycook (1994 a) argues that "today it is rare to find people involved in language teaching who are unaware of the significance of discourse for teaching reading, writing, intonation or spoken language, and for the evaluation of students' communicative competence" (cited in Trappes-Lomax, 2004, p. 152).

Communicative competence (henceforth, CC) includes all the types of competence: grammatical, discourse, sociolinguistic, pragmatic and strategic. All of them are considered as discourse competences since they "account for the ability of members of speech communities to put language to use" (ibid). In the same vein, Celce-Murcia and Olshtain (2000) argue that the main competency in the CC framework proposed by Canale and Swain (1983) is discourse competency, claiming that it is "in and through discourse that all of the other competencies

are realized. And the manifestation of the other competencies can best be observed, researched, and assessed” (Celce-Murcia and Olshtain, 2000, p. 16). McCarthy and Carter (1994) state clearly:

... an integrative view wherein the over-arching perspective of language as discourse will affect every part of the syllabus, including any conventional system components and functional/speech act components, however they are treated, whether as a series of layers of language, or as realizations within general specifications of discourse strategies (cited in Trappes-Lomax, *ibid*, p. 12).

In this essence, discourse should be implemented in the syllabus design, methodology, language assessment, and so on, let alone the learning objectives and the other components of language.

2.2. The emergence of DBAs

DBAs have sprung from work on DA and CA (es) to language teaching and language learning (Celce-Murcia & Olshtain, 2005). A DBA to language teaching in general and ESP in particular involves the interaction of a number of elements such as DA, pragmatics, and context besides other ones. The emergence of the CA has been accompanied by the DA framework (Olshtain & Celce-Murcia, 2001). In fact, DA, as stated by the authors, “should provide the main frame of reference for decision-making in language teaching and learning” (*ibid*, p. 707). DA has been defined and explained by many scholars and researchers. As mentioned by McCarthy (2001), DA emerged in the 1970s where additional elements were taken into consideration in the process of creating meaning in real situations as texts alone were not sufficient.

Olshtain and Celce-Murcia (2001) stress the importance of DA in language teaching and argue that DA concerns the intended meaning of the discourse producer whereas the interpretation of discourse is dealt with pragmatics.

2.3. Discourse Definition

The term discourse appeared in the second half of the second century as the basic unit of analysis. Discourse has been defined from different angles. Celce-Murcia and Olshtain (2000) define it as:

... an instance of spoken or written language that has describable internal relationships of form and meaning that relate coherently to an external communicative function or purpose and a given audience/interlocutor. Furthermore, the external function or purpose can only be determined if one takes into account the context and participants (i.e., all the relevant situational, social, and cultural factors) in which the piece of discourse occurs (p. 4).

Nunan (1993), in his turn, defines discourse as “a stretch of language consisting of several sentences which are perceived as being related in some way” (p. 5). As opposed to this definition, Celce-Murcia and Olshtain (ibid) argue that discourse can be as little as one word as ‘stop’, for example. Other definitions consider discourse as ‘language in use’, which is very general and can be meaningless (ibid). Others view discourse as coherent language that consists of more than one sentence, which is not always true since discourse can be spoken as well.

Discourse takes many forms. It can be written or spoken and planned or unplanned (Ochs, 1979 in Celce-Murcia & Olshtain, ibid). Unplanned discourse refers, for example, to informal conversations and letters whereas planned discourse to prepared speeches and carefully

published written work. In addition, discourse can be transactional or interactional (Brown & Yule, 1983). The former entails transmitting information or exchanging goods and services while the latter plays an important role in maintaining social relations and expressing the speaker's/writer's attitude about the topic or about the involved participants.

The discourse producer provides a number of clues for the listener/reader to facilitate the discourse understanding, of course, with reliance on the world knowledge and the knowledge of the language code conventions besides the SK (Widdowson, 1978). So, discourse involves language, the individuals producing the language, and the context within which the language is used (Nunan, *ibid*). In producing discourse, people express propositions and perform illocutionary acts (Widdowson, *ibid*).

2.4. Discourse or Text?

It has been noticed that there exists no fixed definition to the term 'discourse'. Authors have provided many definitions to both discourse and text. According to Crystal (1992), discourse is "A continuous stretch of (especially spoken) language larger than a sentence, often constituting a coherent unit, such as a sermon, argument, joke or narrative" (p. 25 as cited in Nunan, 1993, p. 5) whereas text is "A piece of naturally occurring spoken, written, or signed discourse identified for purposes of analysis. It is often a language unit with a definable communicative function, such as a conversation, a poster" (p. 72 as cited in *ibid*, p. 6). So, for Crystal (*ibid*), both terms are synonymous and used interchangeably. However, other researchers have provided other definitions. Cook (1989), for example, argues that discourse refers to "stretches of language perceived to be meaningful, unified and purposive" (p. 156) while text is "a stretch of language interpreted formally, without context" (p. 158). It is clear that for Cook (*ibid*), discourse is language in context whereas text without.

Trappes-Lomax (2005) believes that text is “the product of a speech event, especially in the form of visible text, whether originally spoken and subsequently transcribed or originally written”. For him, text can be either spoken or written. He adds that “Text is both something produced by interactants in the process of making discourse and something consumed by linguists in the process of making analyses... Both are meaningful”. Apparently, text is the product of discourse and whether it is produced by interactants or used by a linguist, it is meaningful. It appears that all the definitions above agree that both terms, text and discourse, are meaningful and coherent.

In the same way, Halliday and Hasan (1976) state:

A text may be spoken or written... A text is a unit of language in use. It is not a grammatical unit, like a clause or a sentence; it is not defined by its size. A text is sometimes envisaged to be some kind of super-sentence, a grammatical that is larger than a sentence but is related to a sentence in the same way that a sentence is related to a clause, a clause to a group and so on... A text is best regarded as a SEMANTIC unit: a unit not of form but of meaning. Thus it is related to a clause or sentence not by size but by REALIZATION... A text does not CONSIST OF sentences; it is REALIZED BY, or encoded in, sentences (p. 1-2).

So, for the authors, a text, spoken or written, is larger than a sentence. It is a unit of language in use, a unit of meaning realised by sentences. There is no mention of discourse in their work, for text deals, in the main, with textuality.

Other researchers such as Nunan (1993) view text as the written record of a communicative event whereas discourse as the interpretation of that communicative event. And this is what we consider in this study. To put it differently, DI involves the interaction between the producer of discourse and the reader or interpreter of that discourse.

2.5. The Contribution of Discourse-Based Approaches to Reading

As mentioned earlier, applied linguists shifted their attention towards discourse (text) as the basic unit of analysis rather than the sentence. This tendency revealed the necessity to producing meaningful stretches of discourse. Cook (2003) argues that DA is “crucial to applied linguistic analysis in areas involving the development or assessment of language proficiency... and successful communication” (p. 52). Many approaches to language teaching and learning have incorporated discourse as a framework, mainly the CA. Widdowson (1978; 1979) is one of the authorities in teaching language as communication who criticised the traditional teaching of language by saying that

... language teachers have tended to take their cue from the grammarian and have concentrated on the teaching of sentences as self-contained units...this assumption is of very doubtful validity indeed. It has been found...that students entering higher education with the experience of six or more years of instruction in English at the secondary, have considerable difficulty coping with language in its normal communicative use..., a knowledge of how the language functions in communication does not automatically follow from a knowledge of sentences. This role for English requires a new orientation to its teaching...What this orientation amounts to is a change of focus from the sentence as the basic unit in language teaching to the use of sentences in combination (1978 p. 87-88).

These new approaches made learners concentrate on various discourse features within any specified language activity. As a matter of fact, DA facilitates the negotiation of meaning and language processing. Moreover, in any type of discourse, we have to use our BK. It has been proved that effective communication is achieved when students study under an approach that combines both schematic and systemic knowledge. This can only be realised when students are given a full account of the socio-cultural dimension of the target language so as to enable them to make sense of themselves linguistically when they meet native speakers of that

language. This is referred to as CC which is the paramount objective to language teachers.

Widdowson (1978) points out:

Once we accept the need to teach language as communication, we can obviously no longer think of language in terms only of sentences. We must consider the nature of discourse, and how best to teach it. Language teaching materials have in the past been largely derived from the products of theoretical sentence grammars. We now need materials which derive from a description of discourse; materials which will effect the transfer from grammatical competence, a knowledge of sentences, to what has been called communicative competence (p.88).

To clarify more, teaching language via the CA implies the reliance on DA by creating suitable contexts for interaction, illustrating speaker/hearer and reader/writer exchanges, and providing learners with opportunities to process language within a variety of situations. To this end, there has been a focus on sociolinguistic features since they accompany any natural interaction (Olshtain & Celce-Murcia, 2001). They have been added to language materials and classroom activities. For this reason, there has been a focus on the participants in any communicative event. If real-life interactions are represented in the classroom, then, age, social status, and other personal characteristics of the interactants cannot be ignored, and learners are expected to develop awareness of the linguistic choices which are related to such features. Simulated speech events represent real speech events that occur in natural interaction. In written texts, there has been a focus on the intended audience and the intended message of the author, to be deciphered by the reader.

➤ **Shared Knowledge**

Another notion is the one of shared knowledge (SK). A DBA to language teaching relies heavily on this notion. SK refers to the knowledge to which participants in an interaction can appeal before, during and after a communicative event, i.e., one's general knowledge of the

world. SK must include both general knowledge of the world and socio-cultural knowledge related to the target speech community whose language the learner is trying to acquire. Research in this field has shown that though the reliance on world knowledge is not always conscious, it impacts the communicative interaction by either making it easy or even blocking it.

Celce-Murcia and Olshtain (2001) claim that while processing a text, readers rely on their BK. It is considered as the conceptual knowledge that permits the interactants to communicate via the written text. BK refers to knowledge about everything a person knows: events, persons, etc which makes a conceptual framework for the interaction with the world (Marr & Gormley, 1982; Schallert, 1982 in *ibid*; Widdowson, 2007) including domain and discipline knowledge which is part of general content knowledge and knowledge of syntax, rhetoric and text structure as part of DK (*ibid*).

In the case of written language, SK between both readers and writers includes besides writing conventions, familiarity with types of genre and rhetorical traditions (*ibid*). For this reason, language curricula planning should take into consideration the cross-cultural differences since students may come from different backgrounds, without forgetting the age factor.

In short, SK should be incorporated in modern language pedagogy. Any DBA should concentrate not only on linguistic and content knowledge, but also on context and DK as well. Effective communication implies these types of knowledge and more.

➤ **Form and Function**

It has been agreed among researchers that readers should understand a piece of WD both propositionally and illocutionary, combining form and function interactively. In other words,

readers should master and be aware of the formal and functional aspect of any piece of discourse. This is what Austin (1962) argued for in his lectures entitled '*How to do Things with Words*'. He stated that words are produced to do things, to fulfill some functions. The linguistics literature provides us with many insights in how to use language. At the beginning, the focus was on 'form'. Then, it shifted to function. However, there has been another shift towards the interpretation of grammatical forms depending on the linguistic or situational factors (McCarthy, 1991).

The building blocks of DBAs are DA, pragmatics, BK and context besides notions such as bottom-up and top-down processing, information structure, thematisation and rhematisation, and genre and register. The following sections is going to deal with these components explicitly.

2.5.1. Discourse Analysis

DA has been defined in different ways. For Stubbs (1983, p. 1), DA "refers to attempts to study the organization of language above the sentence, or above the clause, and therefore to study larger linguistic units, such as conversational exchanges or written texts" (Cited in Widdowson, 2004, p. 1). It is clear that DA, according to the author, is about studying larger linguistic units, spoken or written. According to Brown and Yule (1983), DA refers to the analysis of language in use. Similarly, Nunan (ibid) defines DA as the study of language in use, and claims that the discourse analyst's aim is showing and interpreting the relationship between regularities and patterns in language and the meanings and purposes expressed through discourse. In her turn, Nuttall (1996) defines DA as the study of the way discourse is produced and organised. All the aforementioned authors maintain that DA relates to language in use, discourse.

Jordan (1997) describes DA as follows:

It examines the communicative contexts that affect language use, for example, in social transactions, the relationship between the discourse and the speakers and listeners. It looks at how, for example, the choice of verb tenses or other grammatical features affect the structure of the discourse. The analysis also looks at the relationship between utterances, for example, aspects of cohesion, and the discourse markers or cohesive devices that are employed (p. 229).

Though Jordan (*ibid*) describes discourse as spoken only, DA also deals with and is applicable to WD which is the focus of this study.

2.5.2. The Contribution of Pragmatics in Discourse

At the beginning of this chapter, we have dealt with making sense of texts from a discourse perspective which takes into consideration both DA and pragmatics. The first, according to Olshtain and Celce-Murcia (2001), is related to the intended meaning of the discourse (text) producer whereas the second to the interpretation of the reader. So, in this section, we shall first talk about the speech act theory (SAT). Then, we shall define pragmatics and explain what it implies. But, let us have a look at pragmatics definition as a first step.

Pragmatics has been defined by many scholars. It differs from syntax and semantics, for the latter do not take the user of the forms into consideration. While the first studies the relationship between linguistic forms, the way they are arranged in sequences, and which sequences are well-formed, the second, semantics, is concerned with the relationship between linguistic forms and entities in the world. However, pragmatics is the study of the meaning intended by the writer/speaker. In Yule's (1996a) words, it is "the study of 'invisible' meaning, or how we recognize what is meant even when it isn't actually said (or written)" (p.

127). For Leech (1983), pragmatics is “the study of meaning in relation to speech situations” (p. 6). Cook (2003) maintains that the main concern of pragmatics is what a speaker intends to do with words and not the literal meaning. Smith (2003) argues that

Successful communication results from a tacit negotiation between speaker or writer and receiver, based on shared assumptions about communication. Speakers try to give enough information so that receivers can understand their intentions. In order to do this, receivers must often work out the semantic and pragmatic meanings of a communication (p. 50).

Nonetheless, as stated earlier, there is a distinction the semantic and pragmatic meanings. Even it is so, as Smith put it, “Semantic meaning is the input to pragmatic meaning” (ibid).

2.5.2.1. Pragmatics and its Components

Pragmatics, as mentioned above, includes a number of subdomains such as reference, inference, presupposition, and implicature. Some of them are applied to both spoken and written discourse such as inference whereas others most of the time related to spoken discourse.

2.5.2.1.1. Reference

Reference, according to Yule (1996a), denotes the linguistic forms used by a writer to enable a reader to identify something. These linguistic forms are called referring expressions and can include proper nouns (e.g. William Grabe), noun phrases which are definite (e.g. **the** university) or indefinite (e.g. **a** school), and pronouns (e.g. he, their). Brown and Yule (1983) argue that reference, in DA, is an action on the part of the writer/speaker.

What referring expression to be used depends on what the speaker assumes the listener to know. In shared visual contexts, it suffices to use deictic expressions such as “It's there” (Yule, 1996). However, these referential expressions are not essential in WD as in spoken discourse. Nonetheless, un-skilled readers may resort to deictic expressions to make a mental representation of a text. Brown and Yule (ibid) provide an example (a conversational fragment).

A: my uncle's coming home from Canada on Sunday + he's due in +

B: how long has he been away for or has he just been away?

A: Oh no they lived in Canada eh he was married to my mother's sister

+ + well she's been dead for a number of years now + (p. 28)

It is clear that speaker A uses “my uncle” and 'he' to refer to the same individual and “she” and “my mother's sister” to another.

All in all, reference is related to the speaker's goal and belief in using language. And to be successful in occurrence, reference should be accompanied by inference.

2.5.2.1.2. Inference

Inference occurs when there is no connection between words and entities. The reader is seen as to infer and identify the hidden meaning. In this case, inference is any additional information used by the reader to match what is written to what is meant and communicated.

An inference is a process held by the reader to decipher the intended meaning of the writer from the literal meaning of words (Brown & Yule, 1983). In reading, we are provided with only few insights on how readers interpret what they read. Brown & Yule (ibid) claim that most readers infer from the following example:

- John was in his way to school (p. 34),

that John is a schoolboy. And when they read the following of the above sentence:

“Last week he had been unable to control the class” (p. 34),

readers change their inference to, for example, “John is a schoolteacher”.

All in all, in this type of inference, we need to rely on socio-cultural knowledge in order to understand the sentence.

2.5.2.1.3. Presupposition

A presupposition is defined as “a relationship between two propositions” (Yule, 1996b, p. 26). Presuppositions refer to what the speaker assumes to be known or true by the hearer (Yule, 1996a). Readers also can infer information that is not explicit in discourse (Renkema, 2004). Brown and Yule (1983) argue that speaker A (see 2.5.2.1.1) views the information that she has an uncle to be presupposed and that B’s question shows that she ‘has accepted this presupposition’ (p. 29). In the same way, Portner (2006) argues that the sentence “John is crying again.” (p. 158) presupposes that John has cried before. He maintains that presuppositions take place when the choice of words on the part of the speaker that he/she takes for granted. So, in the above example, the word again indicates that the speaker is taking for granted that something being talked about occurred before. Yule (1996b) provides a number of types of presuppositions: potential, existential, factive, non-factive, lexical, structural, and counterfactual. The author summarises the meaning of these presuppositions as follows:

Type	Example	Presuppositions
existential	the X	>> X exists
factive	I regret leaving	>> I left
non-factive	He pretended to be happy	>> He wasn't happy
lexical	He managed to escape	>> He tried to escape
structural	When did she die?	>> She died
counterfactual	If I weren't ill,	>> I am ill

Figure 2.1. Potential presuppositions (p. 30)

2.5.2.1.4. Implicature

The term implicature refers to an additional conveyed meaning. It was used by Grice (1975) to reflect what the speaker/writer means through his/her literal production. As such, implicature, one can say, facilitates the creation of pragmatic meaning without the reliance on the code only. The term implicature is generally accompanied by the term 'cooperative principle' which will be described next.

2.5.2.1.5. The Cooperative Principle

Grice (ibid) introduces the notion of cooperative principle or maxims of cooperation. Widdowson (1996) states:

A major concern of pragmatics is how discourse is managed, what the ground rules for negotiation are, and how (and how far) the different parties cooperate in this joint enterprise. Clearly, when people seek to communicate, they enter into a kind of contract that they will work towards some convergence of intention and interpretation, that is to say, they subscribe to a **cooperative principle**... Cooperation does not preclude conflict. Indeed, it is only by subscribing to the cooperative principle that people can express disagreement or create conflictual situations' (p. 66).

So, the participants in any type of communication share common ground rules. The participants adhere to four maxims. Grice (ibid) argues that these maxims are (as stated in Brown & Yule, 1983) as follows:

Quantity: Make your contribution as informative as is required (for the current purposes of the exchange). Do not make your contribution more informative than is required.

Quality: Do not say what you believe to be false.

Do not say that for which you lack adequate evidence

Relation: Be relevant.

Manner: Be perspicuous.

Avoid obscurity of expression.

Avoid ambiguity.

Be brief (avoid unnecessary prolixity).

Be orderly.

As a matter of fact, these maxims are not found only in conversations, but even in writing. Moreover, they are not rules that should be followed, but assumptions which we use to figure out what people (writers and speakers) mean.

2.5.2.2. Speech Act Theory

Indeed, Austin (ibid) was the first who developed, among other linguistic philosophers, what is called speech act theory (SAT). This theory provides the discourse analyst with an account of the way unconnected utterances form a coherent discourse (Brown & Yule, 1983). Austin (1962) argues that sentences report state of affairs, but utterances are produced to perform an act. One famous example is:

- I bet you sixpence it will rain tomorrow.

- I do (take this woman to be my lawful wedded wife) – as uttered in the course of the marriage ceremony.

- I name this ship the *Queen Elizabeth*.

(Austin, ibid, p. 5)

All the sentences above contain a performative verb that “realizes a particular action... when uttered in a specific context” (Schiffrin, 1994, p. 50). Austin (ibid) called these utterances performatives and the specified circumstances which ensure their success felicity conditions. Performatives require both the appropriate circumstances and the appropriate language. For example, the performative verb in the preceding examples is in the present simple and all of them begin with the first person singular “I”. All in all, Austin stresses four conditions:

1. There must exist an accepted conventional procedure, having a certain conventional effect, that procedure to include the uttering of certain words by certain persons in certain circumstances.
2. The particular persons and circumstances in a given case must be appropriate for the invocation of the particular procedure invoked.
3. The procedure must be executed by all participants both correctly
4. and completely.

The utterances cited above are not only just a collection of words, but they are said to perform an act that is explicit. Implicit utterances may contain one word and no performative verb as follows:

- Out!
- I'll be there at 5 o'clock. (ibid, p. 232)

The performative hypothesis is advantageous in that it clarifies the elements being involved in the production and interpretation of utterances.

Any utterance has a **locutionary act** (the production of sounds and words with meanings) which is "the basic act of utterance" (Yule, 1996b). An utterance such as "Out" has an **illocutionary act**, the issuing of an utterance with conventional communicative force achieved "in saying". In Austin's words, an illocutionary act is "a linguistic act performed in uttering certain words in a given context" (in Coulthard, 1977, p. 18) that is accompanied by the **illocutionary force** of the utterance. This 'force' expresses the performative act as promise, offer, explanation, or warn. Also, while uttering a sentence, a speaker performs a **perlocutionary act** (the actual effect achieved "by saying") which means that the utterance has an effect on the listener. For example, when a speaker says: "I've just made some coffee" (Yule, ibid, p. 48), he/she makes an effect on the hearer to get him/her drink some coffee.

Searle, as a linguistic philosopher, followed his predecessor, Austin. He built, as Schiffrin (1994) argues, upon the work of Austin by proposing a systematic framework for the goal of incorporating speech acts in the linguistic theory. For him, Austin, “the speech act is the basic unit of communication” (ibid, p. 54). He introduced the principle of "*expressibility*". He argues that this principle allows us to

equate rules for performing speech acts with rules for uttering certain linguistic elements, since for any possible speech act there is a possible linguistic element the meaning of which (given the context of the utterance) is sufficient to determine that its literal utterance is a performance of precisely that speech act (Searle, 1969, p. 20-1 cited in ibid, p. 54).

So, Searle associates speech acts with the study of language and meaning since he considers them as “the basic unit of communication”.

Searle classified the speech acts as follows: declarations, representatives, expressives, directives, and commissives.

- **Declarations**

These are speech acts, also called performatives (Celce-Murcia & Olshtain, 2000), that “change the world via their utterance” (Yule, 1996b, p. 53); that is, via words since they have been performed.

- I now pronounce you husband and wife

- **Representatives**

These speech acts ‘state what the speaker believes to be the case or not’ (ibid) such as statements of assertions, conclusions, descriptions, and fact. Actually, in this kind of speech acts, the speaker ‘makes the words fit the world’ (ibid).

- **Expressives**

These speech acts make the speaker express his feelings of joy, sadness, satisfaction, likes, dislikes, and the like:

- I'm so sorry!
- Great!
- Congratulations!

So, in using expressives, speakers make their utterances (words) fit the world of feeling (Yule, 1996b).

- **Directives**

They are the kinds of speech acts used by speakers to get someone else to do something. They take the form of orders, commands, suggestions, requests, and they can be negative or positive, as illustrated below.

- Stop talking!
- Don't go there!

In this kind of speech acts, the speaker makes the world fit the words (utterances) via the hearer.

- **Commissives**

These speech acts are used by the speakers to "commit themselves to some future action" (ibid p. 54). They reflect the intention of the speaker, and they take the form of threats,

promises, refusals, and pledges (ibid). The speaker can perform them alone or as a member in a group.

- We'll be back.
- We'll be there soon. (ibid)

In commissives, as illustrated in the above examples, the speaker makes the world fit the utterance (words) via the speaker.

Overall, the five general functions of speech acts are summarised in the following table.

Speech act type	Direction of fit	S=speaker; X= situation
Declarations	words change the world	S causes X
Representatives	make words fit the world	S believes X
Expressives	make words fit the world	S feels X
Directives	make the world fit words	S wants X
Commissives	make the world fit words	S intends X

Table 2.1. The five general functions of speech acts (following Searle 1979) (cited in Yule, 1996b, p. 55)

2.6. Background Knowledge Representation

As already mentioned in the course of this chapter and Chapter One, BK plays a major role in RC. To this end, many attempts have provided “conventional or stereotypic representations of ‘knowledge of the world’ as a basis for the interpretation of discourse” (Brown & Yule, 1983, p. 236). These representations, found mainly in psychological and computational approaches to DC, provide an explanation to the predictable information that a writer assumes his reader has in a particular described situation (ibid). To illustrate, the writer should not inform the reader that in a text about a “restaurant”, for instance, there are “tables” and

“chairs”, for this type of knowledge is generally assumed by the reader (ibid). Conventional aspects of a situation, in representations of this knowledge, such as “tables” and “chairs” are conceived of as “default” elements. They are assumed though not mentioned (ibid). Knowledge of this type is treated as “stored in memory as a single, easily accessible unit” (ibid p. 236). Understanding discourse is a process that combines stored information retrieved from the memory and the discourse encountered. However, it is not clear how this stored information is learnt. In this section, we shall describe available kinds of background representation such as frames, scripts, scenarios, schemata, and mental models.

2.6.1. Frames

One kind of BK representations is found in Minsky’s frame-theory. Minsky (1975) suggests in his theory that the humans’ knowledge is stored in memory in the form of data structures called frames. Frames are stereotyped situations which are made out of past experiences (Nunan, 1993). The latter “provide a framework which we use to make sense of new experiences’ (ibid, p. 69). In brief, Minsky (1975) explains his theory as follows:

When one encounters a new situation (or makes a substantial change in one’s view of the present problem) one selects from memory a structure called a Frame. This is a remembered framework to be adapted to fit reality by changing details as necessary (cited in Brown & Yule, 1983 p. 238).

Yule (1996b) defines frames as fixed, static patterns to the schema. For the reader to interpret what is not mentioned in the text, he/she uses a pre-existing knowledge structure.

2.6.2. Scripts

A script is “a pre-existing knowledge structure involving event sequences” (Yule, 1996b, p. 86). They are used for constructing interpretations of accounts of what happened (ibid). When this concept is applied to the understanding of a text, it includes an understanding of language suggested by Schank (1972) as conceptual dependency.

In this approach, Schank (1972) argues that an aspect of our knowledge of the world is incorporated of our understanding of sentences. He provides the following examples taken from Schank (1973) as cited in Brown and Yule (1983):

- John ate the ice cream with a spoon.
- John ingested the ice cream by transing the ice cream on a spoon to his mouth. → (conceptual version)

We notice that a part of our understanding of the sentence which is not explicit is represented in Schank’s conceptual version.

Riesbeck and Schank (1978), nonetheless, developed the conceptual analysis approach. They argue that our understanding of what we read is based on expectation. In other words, when we read a sentence, we can, conceptually, expect what follows. To illustrate, the authors state an example:

- John’s car crashed into a guard-rail.
- When the ambulance came, it took John to the *x*.

They point out through the above example that ‘our expectations are conceptual rather than lexical and that different lexical realisations in the *x*-position (e.g. *hospital, doctor, medical centre, etc.*) will all fit our expectations’ (Brown & Yule, ibid, p. 242). This means that our understanding is based on expectations. For more about conceptual dependency, see Shank 1972, 1973 and Riesbeck & Shank 1978).

2.6.3. Scenarios

The term ‘scenario’ has been used by Sanford and Garrod (1981) in interpreting written texts (cited in Brown & Yule, 1983). They attempted to describe the ‘extended domain of reference’ holding in mind that situations and settings knowledge assists text interpretation, highlighting the efficiency of the scenario account as a psychological theory as opposed to the proposition-based theory suggested by Kintsch (1974) (ibid). In short, a scenario-based comprehension relies heavily on the contribution of the producer of the text in activating appropriate scenarios. To illustrate, and as mentioned earlier, a text about Going to a Restaurant automatically brings a waiter slot into the representation contrary to the proposition-based approach in which a waiter should be explicitly mentioned in the text. To be more explicit, without the appearance of the word waiter, the reader assumes that there are waiters in any restaurant.

2.6.4. Schemata

Schemata (plural of a schema) are pre-existing knowledge in memory (Yule, 1996a). They are ‘higher-level complex knowledge structures’ which function as ‘ideational scaffolding’ (cited in Brown & Yule, 1983). For Brown and Yule (ibid), schemata can be deterministic as in the following example:

A: There's a party political broadcast coming on- do you want to watch it?

B: No – switch it off – I know what they're going to say already. (ibid, p. 247)

Schemata can as well be viewed as “the organised background knowledge which leads us to expect or predict aspects in our interpretation of discourse” (ibid, p. 248). Tannen (1980) argues that different schemata about particular events can be yielded by different cultural

backgrounds. She attained this conclusion after the description of two different groups who watched the same film: Americans and Greeks. The former described the actual events and the techniques employed whereas the latter added details to the events and described in detail the characters' feelings.

Another study by Anderson et al. (1977) revealed that the interpretation of a text on the part of a female group differs from that of a male group; in that, the former with musical interest interpreted as a musical evening whereas the latter, weight-lifting people, as people playing game. The authors came to a conclusion that people's interests affect the higher-level schemata which, in their turn, affect the way they understand the message.

2.6.5. Mental Models

A mental model is "a representation in the form of an internal model of the state of affairs characterised by the sentence" (Brown & Yule, 1983, p. 251). This approach proposed by Johnson-Laird deals with the DI from a perspective which does not take into consideration the stereotypic knowledge. In other words, Johnson-Laird (1981a) argues for an approach to the meaning of sentences which does not depend on a decomposition of word-meaning. As an example, he says that the sentence "This book fills a much needed gap" is immediately interpreted as a praise for the book as understood by most people.

Johnson-Laird (*ibid*) claims that

a major function of language is to enable one person to have another's experience of the world by proxy: instead of a direct apprehension of a state of affairs, the listener constructs a model of them based on a speaker's remarks (p. 139 in Brown & Yule, 1983, p. 252).

However, this approach has been criticised though it is not stereotypic. The term internal causes theoretical problems. Moreover, Johnson-Laird (ibid) points out that words are used in sentences as “cues to build a familiar mental model” while the term familiar is unclear.

2.7. Context

Context has been defined by many researchers and scholars depending on their schools of thoughts and trends. One of these definitions considers context as the situation that is given to the discourse and within which the discourse takes place. For Celce-Murcia and Olshtain (2000), context, in DA, refers to the non-linguistic and non-textual factors and elements which affect written or spoken communicative interaction. Widdowson (2007), again, views context as situations which are referred to as circumstances of time and place. He states clearly “When people talk to each other, they will naturally make reference to what is present in such situations-present in the sense of both place (here) and time (now)” (p. 19). He provides examples such as “The chalk is over there” (ibid). In this example and other ones, according to the same author, people comprehend what is said by relating the language to the physical context of utterance.

However, context, in written communication, is what is conceived of as relevant, and that situational factors may have no relevance at all. This is because the place and time of reading the text is a bit different from the place and time of its production (ibid). Nonetheless, there must be a “common context of shared knowledge” (p. 21) if not communication will take place. “Text does not in itself establish context but serves to activate it in the reader’s mind. And once activated, it can be extended by inference.” (p. 22). Widdowson (ibid) summarises what has been said so far as follows:

Context is a psychological construct, a conceptual representation of a state of affairs. In communication, what happens is that a first-person party (a speaker or writer, p1) produces a text which keys the second-person party (the listener or reader, p2) into a context assumed to be shared. Once the context is keyed in, then it can be extended, or modified, by means of more text: once a degree of contextual convergence (p. 22).

In case context is not available in WD, readers rely heavily on the text itself and on their BK. According to Celce-Murcia and Olshtain (2000), “[r]elevant prior knowledge can create the appropriate context within which it is possible to understand and properly interpret the discourse.” (p. 12).

2.7.1. Types of context

Nunan (1993) and Yule (1996a) divide context into two: linguistic and non-linguistic. The former, also labelled co-text, refers to the language that surrounds the piece of discourse under analysis; the latter to the type of communicative event, the topic, the purpose of the event, the setting (location, time), the participants and the relationship between them and the BK. The co-text affects discourse to a great extent in that it assists in identifying the intended meaning. For example, Duranti and Goodwin (1992) state four types of context:

- setting (physical and interactional)
- behavioral environment (non-verbal and kinetic)
- language (co-text and reflexive use of language)
- extrasituational (social, political, cultural, and the like)

(cited in Celce-Murcia and Olshtain, 2000, p. 12)

2.8. Top-down and Bottom-up Processing in Reading

The reading literature provides us with insights on how readers process WD. Two ways have been investigated, namely top-down and bottom-up processing besides their combination, viz. interactive processing. The following shall spot some light on both of them.

2.8.1. Bottom-up Processing

In the reading case, bottom-up processing proceeds as follows. The reader relates letters to sounds then combines letters to recognise words then combines words to form sentences and these are combined to form paragraphs. Finally, he/she combines these paragraphs as complete texts to comprehend discourse.

Though this approach has been criticised as similar to phonics-based approaches, it remains preferable especially to language teachers. Bottom-up processing embodies exactly the steps that happen when one begins reading. It is based mainly on decoding. This means that readers do not focus on understanding what they are reading. Another criticism lies in the fact that, in English, grapho-phonemic correspondences are unpredictable and complex. This is because in English, there are twenty-six letters but more than forty sounds. Moreover, the processing of each letter slows reading down; in that, a reader may spend more time in identifying and assigning the suitable sound to a given letter which means that a reader may read and comprehend only a fifth of the amount of words (a minute) that he/she is supposed to recognise.

2.8.2. Top-down Processing

Unlike the bottom-up approach which assumes moving from the lowest unit to the highest, the top-down assumes the reader makes sense of discourse in the opposite way. A

diagrammatic representation of how top-down processing operates in reading (Cambourne, 1979 in Nunan, 1993).

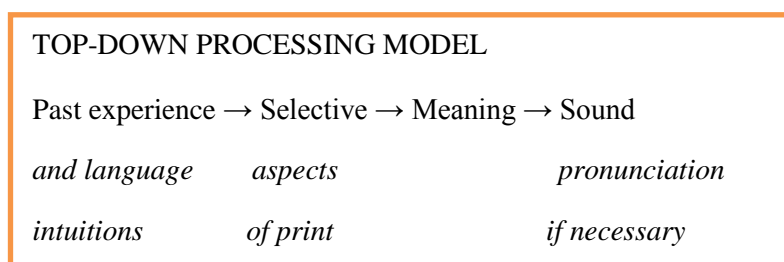


Figure 2.2. Top-down Processing Model

From the above representation, it is clear that the reader activates his/her BK of the topic, the text structure and linguistic information besides the context in which the text occurs in order to comprehend discourse. So, the top-down approach implies that the reader forms hypotheses which will be either confirmed or revised in the course of reading. Some of top-down strategies used by a good reader are as mentioned in Nunan (1993, p. 82):

1. Using background knowledge as an aid in making sense of a text
2. Previewing the text by having a look at any headings, drawings, pictures...
3. Skimming the text for the main idea by reading the first and the last paragraphs and the topic sentence of each paragraphs
4. Identifying the genre of the text
5. Distinguishing important information and supporting details

Empirical evidence stresses the importance of BK in DC. It has been argued that readers, in processing discourse, combine the world knowledge and language knowledge. This means that understanding a text is related to the predictable sequences in it. However, this type of processing has been criticised in the teaching of reading, for the failure of distinguishing fluent readers from beginning readers. Moreover, the notion of making predictions prior to reading has been criticised too.

2.8.3. Interactive Processing

This type of processing combines both types mentioned above. DC in interactive processing implies using information from many sources and levels. That is, it holds the idea that a deficiency at one level, say, lower-level processes, can be compensated by higher-level ones. This means that readers who have poor reading skills, for example, can compensate deficiencies at lower levels by relying on other factors such as knowledge of the syntactic class of a given word or higher-level semantic knowledge (Nunan, *ibid*).

2.9. Information structure in discourse

Information structure (henceforth IS) plays a significant role in DC. This is due to and depends on the communicative intention behind this discourse taking into account that, according to van Dijk (1997), word order is not arbitrary. He argues that the order of words depends on the “various functions in relation to other sentences in discourse” (p. 8). Interestingly, IS concerns the presentation of **known** versus **unknown** information (Celce-Murcia & Olshtain, 2000). The discourse literature tells us about two ways of information structure: **given/new** and **theme/rheme**. Celce-Murcia and Olshtain (2000) point out that European researchers tend to refer to old and new information respectively as **theme** and **rheme** whereas in North America **topic** and **comment**.

2.9.1. Given and New Information

IS is a very important area in DA. Halliday (1967), who adopted the Prague School view, argues that in any piece of discourse, there are two types of information: given and new (in

Brown & Yule, 1983). The first refers to the information that is known by the reader whereas the second refers to the information introduced for the first time. According to Kintsch and van Dijk (1978), “To help their readers make sense of a text, authors link new and old information within sentences and paragraphs” (Cited in Renkema, 2009, p. 113). It is the writer who decides how to structure the discourse, by either beginning with given or new information. The theme, as Widdowson (2007) argues, represents common knowledge, and languages may not all have the same structuring of the information. Nonetheless, English language information structure is as follows:

Given...New. Given...New. Given...New. (Cook, 1989; Nunan, 1993; Ward & Birner, 2001)

This means, also, that what was new in the first sentence becomes given in the following one. This type of IS is closely tied to grammar and word order.

Example:

Given *New*
↓ ↓
The cat ate the rat.

(Cited in Nunan, 1993, p. 44)

2.9.2. Thematisation and Rhematisation

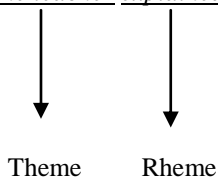
Another type of information structuring is the notion of theme and rheme. These terms have been proposed by Halliday (1985a). The latter defines theme and rheme as follows:

The Theme is the element which serves as the point of departure of the message; it is that with which the clause is concerned. The remainder of the message, the part in which the Theme is developed, is called in Prague school terminology the Rheme. As a message structure, therefore, a clause consists of a Theme accompanied by a Rheme; and the structure is expressed by the order — whatever is chosen as the Theme is put first (p. 38).

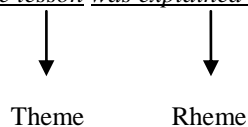
According to Widdowson (2007), theme and rheme are identified as a feature of a text. In English, theme is called the point of departure of a clause whereas rheme is what follows the ‘theme’ or the rest of the clause. For Brown and Yule (1983) theme is used to refer to “a formal category, the left-most constituent of the sentence” (p.126). They argue that theme is the starting point of the utterance and rheme is the remaining part of that utterance. Again, depending on the communicative intention and the discourse function, the writer structures his/her discourse.

Brown and Yule (1983) state that ‘*Thematic organisation appears to be exploited by speakers/writers to provide a structural framework for their discourse, which relates back to their main intention and provides a perspective on what follows*’ (p. 143). They claim that there are many syntactic forms for conveying the same propositional or cognitive content. The following examples makes it clear:

1. The teacher explained the lesson.



2. The lesson was explained by the teacher.



Grammatically speaking, the first sentence is in the active voice whereas the second in the passive. From a thematical point of view, the two sentences are not the same. In the first sentence, the ‘theme’ is ‘the teacher’ and ‘explained the lesson’ is the ‘rheme’. The theme is in the primary position which means that the teacher and what he did is the most important thing in the sentence. In the second sentence, it is the the lesson that is of primary interest. That is why, it is in the first position.

According to Halliday (ibid), the theme may be a nominal group, as in the above examples, adverbial group or prepositional phrase. He exemplifies as follows (p. 39):

Once	I was a real turtle
Very carefully	she put him back on his feet again
On Friday night	I go backwards to bed
Theme	Rheme

Figure 2.3. Themes other than nominal groups

Overall, the theme is considered as very essential since it is the main point of departure that will influence the reader's DI. Then, the writer is invited, depending on his purpose, to select the most appropriate words.

2.10. Genre and Register

Johns (2003) claims that a “text” functions at the level of “register” and “genre”. Biber (2006) argues that the majority of the authors use either of terms and disregard the other one. Genre is defined as a type of text (Montgomery et al., 2007). Functional linguists used the term “genre” to refer to various types of communicative events (Swales, 1990). According to them, language is used to achieve a number of functions, and the generic structure of discourse will be determined by these functions (Nunan, 1993). This structure includes

predictable stages and since each piece of discourse carries a communicative purpose, the latter will be reflected in words and grammatical structures (ibid). This also means that different types of communicative events yield different types of discourse (ibid). An article, for example, is different from a recipe which is, in its turn, different from a casual conversation. The difference may be in terms of structure, grammar and physical appearance. An article, as an example, has a quite consistent structure and includes the following sections:

1. Introduction: identifies a problem and states the purpose of the text
2. Materials and methods: describes how results have been attained
3. Results: describes what has been found out
4. Discussion: analyses the importance of the results and their implications

Swales (1981, 1985, and 1990) and Bhatia (1993) point out that the communicative purpose of the text is “the most important feature related to genre” (cited in Celce-Murcia & Olshtain, 2000, p. 6) which validates what has been stated before.

Johns (2003) claims that

In the case of written discourses, many factors, including the purposes or functions of a text, the roles and relationships of readers and writers, the context in which the text is produced and processed, the formal text features, the use of content, and even what the text is called are determined in and by the culture or community in which these texts are produced or processed (p. 196).

As noticed, there is no agreement on the genre definition. Each school has provided a specific definition depending on their foci.

Register, on the other hand, reflects the level of formality of an instance of discourse. Johnstone (2002), for example, defines a register as “a set of lexical (vocabulary) and

grammatical features that accompany and help to identify discourse that occurs in a particular recurrent situation” (p. 147). Crystal (1991) refers to register as “a variety of language defined according to its use in social situations” (Cited in Biber, 1994, p. 4). In light of this, the term register relates types of discourse to particular situations. However, the term register is sometimes used as synonymous to style while for some sociolinguists such as Labov (1972a) the two terms are different (cited in Johnstone, 2002). He claims that a person’s style while speaking among peers is different from his style when reading aloud in front of a stranger. Others such as Chrystal and Davy (1969) favour the term style rather than register (Cited in Allen & Corder, 1973).

Register entails knowing the linguistic structures that occur only in a situation, ones that occur frequently in a situation and those that co-occur there.

All the above components come into play in the process of comprehending WD. This comprehension is the result of DI. The following section is going to shed some light on WD interpretation and comprehension.

2.11. Comprehending Written Discourse

When reading any WD, one has to rely on his/her knowledge of language which is cohesion; that is, cohesive devices such as reference, substitution, and the like in order to be able to comprehend texts. Nonetheless, this is not sufficient. Texts should also be coherent for allowing the readers to make mental representations. According to Kress et al. (1997), a text “requires at least an equal degree of work from the reader as from the maker” (p. 269). In this section, we shall focus first on WD in general and in Accounting and Finance in particular and its interpretation that involves the two components of DK, namely cohesion and

coherence. Moreover, we shall shed light on top-down and bottom-up processing besides other elements such as context and its types besides other components.

2.11.1. Written Discourse

Language, according to functional linguists, fulfills a number of functions (Halliday, 1970, 1985a, 1985b). However, written language is different from spoken language (Halliday, 1985b). While utterances may be incomplete in spoken text, written text includes complete well-formed sentences which reflect the time allotted to its production. Written texts, according to Duke and Carlisle (2011), “mark sentences and paragraphs, use paralinguistic cues such as italicization, and provide other forms of visual representation of ideas and information (e.g., pictures, graphs)” (p. 201). They do not allow immediate interaction which means that interpretation on the part of the reader is delayed. Schiffrin (2006) claims that writers and readers of WD, as opposed to spoken discourse, interact differently, and that writers design their discourse for their intended readers. Hinkel (2005) argues that in writing, DA provides explanation of the global features of text and the organisation of ideas.

2.11.2. Accounting and Finance Written Discourse (Text)

FL textbooks, according to Hatch (1992), include descriptive, procedural, compare and contrast and argumentative text genres and that each genre “gives writers and speakers considerable flexibility in structuring text. To express their intent, writers and speakers typically employ certain syntactic structures.” (p. 164/165). In Accounting and Finance Department, students deal with written texts that revolve round topics in their content area such as accounting, finance, etc. These texts can be short and long articles, fact sheets and the like. They are found in textbooks such as Market Leader, English for Banking and Finance,

etc. In this thesis, there has been a focus on short texts extracted from Richey (2011): *English for Banking and Finance: Vocational English Course Book 1*.

For processing a written text in Accounting and Finance, readers should perform some tasks. They have to decode the text by identifying the written signs, interpret the text by recovering the meaning of groups of words, recognise specialised vocabulary and figure out, as a last step, the intended message of the author. In the interactive reading process, as mentioned in Chapter One, there are at least three participants, namely the author, the text, and the reader. This view holds as a premise that during reading, the reader relies, besides the textual information, on the knowledge that he/she brings to the text. In brief, negotiation of meaning entails both systemic knowledge and schematic knowledge (Hedge, 2000; Widdowson, 2007).

2.11.3. Interpretation of Written Discourse

In order to assist readers in understanding texts, writers tend to use lexis, discourse markers (henceforth DM), and rhetorical patterns of organisation. The readers' task, then, is to interpret the larger organisational structures signalled by the writer Grabe (2002). Indeed, well-written texts should be cohesive and coherent. These two important features ensure and facilitate text interpretation and comprehension. The first has to do with the connectedness and the unity at the surface level of a text whereas the second refers to the connectedness at the level of meaning. It has been claimed that in the process of interpretation, the reader combines linguistic knowledge and knowledge of the world, past experiences, etc. as stated by Celce-Murcia and Olshtain (2000):

In the process of interpreting a written text, the reader assesses his or her specific purpose for reading and then recruits his or her knowledge of the world, previous experience in reading, and familiarity with writing conventions and different types of genres to arrive at that degree of interpretation deemed necessary (p. 718).

Similarly, McCarthy (1991) argues that

Making sense of a text is an act of *interpretation* that depends as much on what we as readers bring to a text as what the author puts into it. Interpretation can be seen as a set of *procedures* and the approach to the analysis of texts that emphasises the mental activities involved in interpretation can be broadly called *procedural* (p. 27).

So, as mentioned earlier, text interpretation entails the cooperation of both the author and the reader. In other words, the author utilises ties and the role of the reader is to interpret them if he/she is to make sense of text. To make sense of a text, a reader has to actively build the world of the text, relying on his knowledge of the world and past experience. To this end, McCarthy (ibid) stresses that

Procedural approaches emphasise the role of the reader in actively building the world of the text, based on his/her experience of the world and how states and characteristically manifested in it. The reader has to activate such knowledge, make inferences and constantly assess his/her interpretation in the light of the situation and goals of the text as the reader perceives them (p. 27).

All in all, DI on the part of the reader involves besides cohesion, coherence and context, reliance on BK to make appropriate inferences. So, the following section deals with procedures of interpreting WD.

2.11.2.1. Procedures of Interpretation

The reader, as mentioned earlier, should discover the relationship between propositions (cohesion) and the relationship between illocutionary acts (coherence) ‘*as a result of rational procedures*’ (Widdowson, 1978). The latter argues that

Meanings do not exist, ready-made, in the language itself: they are worked out. We are given linguistic clues to what propositions are expressed and what illocutionary acts are performed, and on the basis of these we make of the sentences (p. 31).

He explains that when we produce discourse, we provide as many clues as possible so as to allow the reader to figure out the writer's message. However, it is not necessary for the writer to provide all clues. Rather, we rely on the world knowledge, the conventions of the language and SK; that is, we make assumptions about what the person we are addressing can infer from what we say. The following section, then, will tackle the two terms, cohesion and coherence. Moreover, the way the reader processes information and the concept of genre will also be developed.

2.11.2.1.1. Cohesion

Cohesion refers to surface-level signals which assist the reader in connecting ideas in a text. Moreover, it reflects the organisation of discourse in the text and the intention (s) of the writer (Johnstone, 2002; Grabe, 2009; Nunan, 1993; Nuttall, 1996; Yule, 1996). Widdowson (1978) defines cohesion as “the overt, linguistically-signalled relationship between propositions” (p. 31). This overt feature provides surface evidence for the unity and connectedness of the text (Celce-Murcia & Olshtain, 2000). Cohesion, then, is realised by grammatical and lexical devices that are part of language, which means that readers who do not acquire these cohesive devices, they will find difficulties in text interpretation (ibid). Widdowson (2007) states clearly:

These **cohesive devices**, then, serve to link parts of a text together. It is important to note, however, that they (i.e. link parts of the texts together) so that new content is understood in relation to the context that has been established in the reader's mind by what has been said before. That is to say, the text design has a discourse function- it is designed to key into context so as to express the message the producer has in mind (p. 47).

For Hatch (1992), cohesive ties make the discourse more explicit. Supporting this, Yule (1996a) argues that cohesive devices assist readers in identifying the structure used in a text, which makes text interpretation easier. He states this in a clear manner:

Analysis of...**cohesive links** within a text gives us some insight into how writers structure what they want to say, and may be crucial factors in our judgments on whether something is well-written or not. It has also been noted that the conventions of cohesive structure differ from one language to the next and may be one of the sources of difficulty encountered in translating texts (p. 141).

There are five types of cohesion: reference, substitution, ellipsis, conjunction, and lexical cohesion (Halliday & Hasan, 1976). In actuality, Halliday and Hasan's (ibid) was the first work that investigated the concept of cohesion explicitly. They consider cohesion as part of language and define it as follows: "The concept of cohesion is a semantic one; it refers to relations of meaning that exist within the text, and that define it as a text." (ibid, p. 4). This means that what gives a quality of text is cohesion.

2.11.2.1.1.1. Interpreting Cohesive Devices

As mentioned earlier, WDI implies interpreting cohesive devices. Towards this end, what follows will investigate the five types of cohesion and their interpretation.

➤ Interpreting Referential cohesion

Reference has been defined from different perspectives. Traditional semanticists such as Lyons (1968) view reference as "the relationship which holds between words and things" (p. 404). This means, simply, that words refer to things without any role given to the language user. However, this tendency has been revised by Lyons (1977) himself. He states clearly that "it is the speaker who refers (by using some appropriate expression): he invests the expression

with reference by the act of referring” (p. 177 in Brown & Yule, 1983). This claim proves reasonable since it is the speaker/writer who makes the action of referring.

In WD, the writer uses some linguistic devices in order to allow the reader to better understand and interpret the piece of discourse at hand. Reference is one of these devices. It refers to “the specific nature of the information that is signaled for retrieval” (Halliday & Hasan, 1976, p.31). Celce-Murcia and Olshtain (2000) argue that

Reference needs to be maintained throughout a written message of any sort in order to ensure both cohesion and coherence. The reader relies on grammatical features that provide indications of reference such as the pronoun system, the article system, or demonstratives (p. 130).

Two types of reference viewed as important in building meaning are endophoric reference and exophoric reference. The first relates to anaphoric (backward) reference and the second to cataphoric (forward) reference within the text (Celce-Murcia & Olshtain, 2000; Halliday & Hasan, 1976; Nunan, 1993) whereas the second relates to context outside the text (ibid). The latter is very important in top-down processing whereas the former makes down-processing easy. As mentioned above, reference can be personal, demonstrative or comparative (Halliday & Hasan, 1976; Nunan, 1993).

In “The bank continues to develop and expand **its** international operations...” (Corbett, 1990), **its** refers to “The bank”. This is called personal reference.

Another type of reference is demonstrative. In the following example:

Falls in oil prices have opposite effects on the pound and the Yen, as Japan needs to import nearly all its considerable energy requirements. **This** has meant that the Yen has continued its steady climb, leveling slightly towards the end of the week (ibid, p. 31).

it is apparent that **This** refers to all what has been said previously, i.e., “Falls in oil prices... its considerable energy requirements”.

The other type is comparative as follows: “... The bank which provides a trust fund does not provide the company with custodian services. The same bank, however, provide the company with an overdraft facility with a limit of £5 million” (ibid, p. 45). It is obvious that **The same bank** refers to “the bank which provides a trust of fund”.

However, as Celce-Murcia and Olshtain (ibid), EFL readers might face difficulties in recognising links between referential ties and their antecedents. This is due to the fact that English may seem ambiguous to those readers in terms of elements such as case and gender which are not always available, and even if they are available, they allow for multiple possible antecedents. The authors provide us with this example: “Bob talked to Hans and then drove his car to Berlin” (ibid, p. 131). There is ambiguity in this sentence, in the sense that it is not clear to whom **his** refers to: Bob or Hans?

In her turn, Nuttall (1996) argues that readers may encounter problems with proforms interpretation. To exemplify, she introduces the following example:

James glared at his brother, took the money from the box and threw it angrily into the fire, where it crackled swiftly into flame. This appeared to amuse him, for he burst out laughing and walked towards the door, which did not improve matters. Mary marvelled that he could be so nonchalant. Surely its loss could not leave him unmoved? (p. 87).

It appears that references in this piece of writing are ambiguous. First of all, it is not clear whether the *money* or the *box* is actually thrown into flame. Second, a reader finds a problem in finding referents to ‘him’ and ‘he’ respectively in the second sentence, i.e. it is not clear whether they refer to **James** or **his brother**. Another problem is with **This** and **which**. It is

not clear to which part of the text they refer to. **This** at a first sight refers to the whole incident and not to the fact that an object. Moreover, logically speaking, “which did not improve matters” does not refer to the door. Rather, it may refer to the second part of the same sentence (2), i.e., “for he burst out laughing and walked towards the door” or, simply, to “for he burst out laughing”.

A third problem concerns **its loss**. Clearly, **it** refers to either **the box** or **the money**. Nevertheless, some readers may fail at identifying the right referent. Complex sentences, as well, cause some problems with interpreting proforms. This is due, in the main, to the fact that the meaning of the sentence is not certain. Furthermore, the reference being anaphoric or cataphoric may cause the reader not to find the right referent.

EFL readers should be exposed to activities which train them on how to locate both types of reference: apparent and obscure.

➤ **Interpreting Substitution**

Substitution, contrary to reference, is a grammatical relation of wording not of meaning (Halliday & Hasan, 1976). The list of items that occur as substitutes is: “one/ones/same”, “do”, and “so, not”. So, substitution can be nominal, verbal or clausal. It has been noticed that the majority of DA references include more examples of spoken discourse than of WD as follows:

1. I’ve bought new references. These **ones** aren’t mine. → **nominal**
2. A: I write poems.

B: So **do** I. → **verbal**

3. A: It's going to rain.

B: I hope so. → **clausal**

➤ **Interpreting Ellipsis**

Ellipsis is very similar to substitution. It refers to the omission of grammatical elements assumed obvious, by the writer, from the context (McCarthy, 1991). According to Nunan (1993), “ellipsis occurs when some essential structural element is omitted from a sentence or clause and can only be recovered by referring to an element in the preceding text” (p. 25). It is, as confirmed by Halliday and Hasan (ibid), “substitution by zero” (p. 142). It can be nominal, verbal or clausal as follows:

1. Grabe (2009) and Koda (2004) are Reading references. Both (0) are beneficial. → **nominal**
2. Though the United States held less than 5 percent of the world's population, it accounted for more than 25 percent of the world's economic output. Japan, the world's second largest economy, produced about half (0) as much.

(Adapted from “Outline of the U.S. Economy” by Conte and Carr with permission from the U.S. Department of State)

3. Banks use interests whereas post-offices do not (0). → **verbal**

Nuttall (1996) argues that the writer besides using proforms to avoid repetition may omit some information leaving the reader to use his/her common sense. This grammatical form which is **ellipsis** “directs the reader to supply information from elsewhere; something

necessary to the sense (and often to the structure) is left unsaid” (Nuttall, *ibid*, p. 89). She gives some examples:

- The days are hot and the nights ▲ cool. (= the nights are cool)
- They came although they were asked not to ▲. (= not to come)
- I looked everywhere for apples but I couldn’t find any ▲. (= any apples)
- The most expensive ▲ was selected. (The most expensive what?) (*ibid*)

➤ **Interpreting Conjunctions (Discourse Markers)**

According to Nunan (1993), a conjunction is not a device for reminding the reader of previously mentioned entities. Rather, it is a cohesive device. Halliday and Hasan (1976) outline a list of cohesive devices which hang a text together. It includes the following ties:

- **adversative**: but, however, on the other hand, nevertheless...
- **additive**: and, or, furthermore, moreover, in addition...
- **temporal**: first, then, after that ... (relationships in terms of the timing of their occurrence).
- **causal**: so, consequently, because, for ... (relationship of cause and consequence).

The cohesive devices make the relationship in the text explicit. They are also called discourse markers (henceforth DM).

DM, then, are cohesive devices that assist in making sense of difficult texts, i.e., understanding the plain sense of text (Nuttall, 1996). Most of them show relationships between different parts of discourse and between the author and his/her message (*ibid*). Moreover, these DMs are easy to understand and most of the time “indicate the functional

value of the sentence in which they occur” (ibid p. 94). The writer often uses them to link two parts of the text. In short, from the reader’s viewpoint, DMs fall into three classes:

1. Markers which signal the sequence in which reported events occurred.
2. Markers which signal the writer’s manner of organizing the discourse.
3. Markers which indicate the writer’s view of the facts, etc written about. (ibid)

➤ **Markers for sequence events**

Markers used for sequence events are: first, then, next, after that, etc. They answer the question ‘When?’ with reference within the text.

➤ **Markers for discourse organisation**

These markers, unlike the first ones, do not relate to the text. Rather, they are used by the writer to indicate the relationship between clauses or sentences and other parts of the discourse. According to Nuttall (1996), these markers are classified, depending on their function, as follows:

- **Sequencing** first of all, next, at this point, in conclusion, etc
- **Re-expressing** that is to say, or rather, to put it another, ie, etc
- **Specifying** namely, that is to say, viz, to wit, etc
- **Referring** in this respect, in that connection, as we said, apart from this, etc
- **Resuming** to resume, to return to the previous point, getting back to the argument, etc
- **Exemplifying** to illustrate this, thus, for example, eg, etc

- **Summarizing** to sum up, in short, to recapitulate, etc
- **Focusing** let us consider, we must now turn to, I shall begin by, etc

(ibid p. 95)

➤ **Markers signalling the writer's viewpoint**

This class of markers is used by the writer to indicate the relationships between the ideas of the text as perceived by him/her. These markers, according to Nuttall (1996), are:

- Additive

These markers present more items, facts and/or ideas to previously mentioned ones. The main additive marker is “and”. Other ones have slight different functions such as comparing a previous point with an additional one (likewise, similarly, etc), introducing and emphasising a further point (moreover, furthermore, etc), and de-emphasising a further evidence (incidentally, in passing, etc)

-Adversative

This class of markers introduces contrary information to what has already been mentioned. The principal adversative marker is “but”. Sub-group markers cover other meanings. “Denying expectation” is used with however, yet, nevertheless, though, in spite of, and so on; contrasting with “on the other hand”, “at the same time”, etc.; “dismissing” with “either way”, “in any case”, “at all events”, “anyhow”, and the like; “admitting the unexpected” with “in fact”, “actually”, “as a matter of fact”, etc and “correcting from expected to unexpected” which is used with “contrariwise”, “instead”, “on the contrary”, etc.

-Causal

Causal markers show the relationships of cause, purpose (intention), effect, and condition. As stated in Nuttall (1996), these relationships are possibly between parts of the writer's argument or external facts. Anyway, these markers include the following:

- **General** so, hence, therefore, for, thus, consequently, etc
- **Reason** for this reason, on account of this, it follow, because, etc
- **Result** as a result, arising from this, so... that, etc
- **Purpose** with this in mind, to this end, in order to, so that, etc
- **Condition** if, unless, otherwise, in that case, that being so, etc (ibid, p.96)

-Disjuncts

In order to convey their attitudes either to content or style, writers use disjuncts, i.e. content disjuncts and style disjuncts (ibid):

- ✓ The **content disjuncts** are used by writers for expressing their degree of commitment to the truth of what they say, or to the judgment about it. For the first, they may use admittedly, presumably, doubtless, obviously, and certainly whereas for the second, more importantly, surprisingly, rightly, and fortunately.
- ✓ The **style disjuncts** are used for commenting on the language used or the writer's way of using it. These include: generally, put simply, strictly speaking, briefly and to be precise.

➤ **Interpreting Lexical Cohesion**

It occurs when two words are semantically related in some way. There are two categories: reiteration and collocation. From a DA point of view, collocation includes all the semantically related items, which can cause major problems (McCarthy, 1991; Nunan, 1993). Collocation refers to

the probability that lexical items will co-occur, and is not a semantic relation between words...we shall consider the term 'lexical cohesion' to mean only exact repetition of words in creating *textuality*, that property of text which distinguishes it from a random sequence of unconnected sentences. We shall consequently ignore collocational associations across sentence boundaries as lying outside of these semantic relations (p. 65).

Reiteration means "either restating an item in a later part of the discourse by direct repetition or else reasserting its meaning by exploiting lexical relations" (McCarthy, *ibid.*, p. 65). It includes repetition, synonym, near synonym, hyponymy, superordinate, and general word. As has been pointed out, despite the fact that lexical collocation is a problem, as it includes an open class of items, it is very essential in text coherence. Lexical cohesion remains the most interesting cohesive device.

Though cohesive devices including lexical cohesion are very crucial in connecting ideas in texts, they are not sufficient for making sense of those texts as Yule (1996a) points out:

However, by itself, cohesion would not be sufficient to enable us to make sense of what we read. It is quite easy to create a highly cohesive text which has a lot of connections between the sentences, but which remains difficult to interpret (p. 141).

In practice, L2/FL readers encounter some reading problems while trying to interpret lexical items and other parts of the WD at hand. This is due, in the main, to the use of different lexical items that refer to the same thing. It has been common in English that writers

use what is called elegant variation (Nuttall, 1996). The following examples illustrate what has been mentioned so far.

➤ **Synonymy**

The **house** stood at the end of a quiet neat street. **The little dwelling**, however, looked neglected and cheerless.

As Nuttall (ibid) argues, **house** and **dwelling** refer to the same building. So, a reader who is unable to recognise this is not likely to relate little, neglected and cheerless to the house.

➤ **Hyponymy**

There are many examples of hyponymy. Rose and flower are related by hyponymy, i.e., rose is a hyponym of flower (McCarthy, 1991).

The boy heard **his mother** calling: **the poor woman** was crying with pain.

It is clear enough that asymmetrical relationship poses more problems than symmetrical synonymy. As argued by the author, a mother is a woman. However, a woman is not necessarily a mother, which can be an obstacle to an EFL reader.

The main concern here is with the problem encountered by readers when they fail at interpreting the “relationship between a lexical item and other parts of the discourse” (ibid, p. 91). This is due to the use of various lexical items on the part of writers to refer to the same thing. This tendency is common in English and is related to the writers’ preferences in order to avoid repetition. We have been concerned so far with synonymy and “hyponymy”. There are other lexical words such as “superordinates”.

➤ **Superordinates**

Superordinates are common in English discourse. The EFL readers find a lack of direct repetition of words and variation from sentence to sentence, which complicates the interpretation process. McCarthy (ibid) provides an example:

There was a fine old *rocking-chair* that his father used to sit in, a *desk* where he wrote letters, a nest of small *tables* and a dark, imposing *bookcase*. Now all this *furniture* was to be sold, and with it his own past (p. 66).

So, a superordinate can be a general word as furniture. He states:

In the case of reiteration by a superordinate, we can often see a summarising or encapsulating function in the choice of words, bringing various elements of the text together under one, more general term...writers and speakers make conscious choices whether to repeat, or find a synonym, or a superordinate (p. 66).

For McCarthy (ibid), writers use synonyms rather than repetition to re-enter important topic words into the discourse; that is, to foreground them again.

Nuttall (1996) proposes other lexical relations such as text-structuring words and pin-down words as follows:

➤ **Text-structuring words**

These words assist the reader in filling out their meaning from information elsewhere in the text. As an example,

- ‘**The issue** will not be resolved by **such methods**.’,

cannot be understood unless the reader recognises what **the issue** is and what the **methods** are.

➤ **Pin-down words**

These are words the reader relies on to work out the meaning of the unstated subject, etc. They should “make readers stop and ask themselves questions as in “think aloud” reading” (ibid, p. 93).

Though cohesion is important in text interpretation, it is not sufficient for acquiring the meaning of any piece of writing and as Cook (1989) argues, discourse is coherent. In this case, what is coherence and what does it imply? This is what we are going to investigate next.

2.11.2.1.2. Coherence

For Halliday and Hasan (1976), any piece of writing is considered meaningful only when it is cohesive. However, this logic has been argued by many researchers such as Carrell (1982) as cited in Celce-Murcia & Olshtain (2000) and Widdowson (2007) and others. Widdowson (ibid) considers cohesion as solely an aid of making a discourse coherent:

Cohesive devices are only aids to understanding and can only be effective to the extent that they enable readers (or listeners) to construct meaning that makes contextual sense to them, in other words to the extent that the cohesion in the text enables them to derive a coherent discourse from it (ibid, p. 49).

In this case, one can argue that cohesion is in the service of coherence; in other words, cohesion is one aspect of coherence. Widdowson (ibid) continues arguing that a text can be cohesive, but not coherent as in the following example:

The process may seem complicated but actually it is not really, so long as you prepare things in advance and know what has to be done in what order. Some of the things you need you may already have, but others, of course, you may need to get. They are not always readily available and when they are they can be quite expensive. But the final result will make all the effort and cost worthwhile (ibid, p. 50).

Though this piece of writing is cohesive, that is to say, it comprehends co-textual connections; it does not make any sense. The point is that coherent discourse depends on the extent to which “it can be related externally to contextual realities, to ideational and interpersonal schemata that readers are familiar with in the particular socio-cultural world they live in” (ibid, p.51). Celce-Murcia and Olshtain (2000) state

Coherence contributes to the unity of a piece of discourse such that the individual sentences or utterances hang together and relate to each other. This unity and relatedness is partially a result of a recognizable organizational pattern for the propositions and ideas in the passage, but it also depends of linguistic devices that strengthen global unity and create local connectedness (p. 8).

The reader cannot make coherent sense of a text if he has no schematic frame of reference of the text. Once the frame is provided, making mental representation of a text will be easier. To be more explicit, coherent WD entails both bottom-up and top-down processes.

However, WD may include no cohesive devices, but still coherent. Nuttall (1996) illustrates this:

“Suddenly from the dark road ahead came a terrible screaming. Gerard’s hand tightened on his dagger” (p. 25)

In order for a text to be well interpreted, it should be both cohesive and coherent. The first criterion ensures the textual connections between sentences whereas the second one the

logical connections between ideas. Nunan (1993) argues that “cohesion is neither necessary nor sufficient for the creation of coherent discourse” (p. 61). However, WD must be both cohesive and coherent, and we can conclude by arguing that cohesion is one aspect of coherence.

2.12. Recognising functional value

WDC is totally connected with the meaning expressed on the part of the writer. Contextual meaning and pragmatic meaning are the corner stone in discourse comprehension (Nuttall). In this essence, DC depends on recognising the functional value of the text.

Nuttall (1996) argues that recognising functional value on the part of the reader is done when this functional value is signalled by a discourse marker such as **nonetheless, however** and the like, or expressions like **it can be assumed, let us define it as**, and so on. It is even recognised when it is not signalled by a discourse marker, i.e., it can be inferred. In other words, the reader's job is to work out the writer's intention whether it is a hypothesis, a definition, or an example.

There are three types of functions: independent, text-dependent, and interaction-dependent. These functions are associated with propositional, contextual, and pragmatic meanings respectively. It is worth noting that a single sentence can perform the three kinds of meaning.

2.12.1. Independent functions

The function of a sentence is sometimes signalled without referring to the context, through the form and the signification of the sentence. These functions are numerous such as defining, describing, predicting, classifying, and so on as follows:

4. **Defining** A thermometer is an instrument that measures temperature.
5. **Describing** The north of Iran is mountainous and well watered.
6. **Predicting** If water is added to Dettol, the liquid will become cloudy.
7. **Classifying** There are two types of acid: organic and inorganic.

(Nuttall, *ibid*, p. 101)

It is obvious that the functions in the above sentences are very explicit.

2.12.2. Text-dependent functions

These functions are recognised through the relationships between sentences of the same text. Nuttall (1996) exemplifies using a text that is split into sentences and each sentence carries a specific function as follows:

1. **Asserting** There is great danger to wildlife in the population of water.
2. **Exemplifying** A good illustration of this is the oil released from tankers at sea.
3. **Explaining** It kills all kinds of sea animals, including fish, plankton and other forms of marine life.
4. **Reinforcing** Birds are also frequent victims, for they become oiled.
5. **Explicating** That is to say, their feathers become covered with oil and they are unable to fly.

6. **Hypothesizing** Certain tankers are believed to regularly flout the regulations governing the discharge of oil at sea.
7. **Commenting** If this could be proved, we should be in a better position to take action.
8. **Concluding** As it is, the authorities are almost powerless and the slaughter continues unchecked.

(ibid, p. 101)

From above, we notice that each sentence plays a role in the text. For example, the function of sentence 2 is exemplifying the ‘great danger’ in sentence 1.

2.12.3. Interaction-dependent functions

In this type of functions, the writer assumes the reader to interact with him/her through the text and decipher the elliptical message which is not explicitly stated. Here we are concerned with pragmatic meaning. Nuttall (ibid) gives the following examples:

1. **Conceding** Admittedly the facilities are not completely ready.
2. **Evaluating** Not surprisingly, several of the clients have complained.
3. **Inviting** Let us now consider some methods of classifying metals.
4. **Instructing** Calculate the difference before proceeding to the next stage.
5. **Apologizing** Unfortunately, I cannot at present offer any explanation for this.
6. **Suggesting** If time permits, we could consider making the journey by boat.
7. **Complaining** The authorities refused to issue the necessary permit, so we were obliged to cancel the show.
8. **Complimenting** You will, of course, easily follow the reasons for this.

(Nuttall, ibid, p. 102)

So, the reader can interpret these functions only when there is a kind of interaction between him/her and the writer.

In sum, DC involves recognising the functional value of the sentences in a text. This requires both contextual and pragmatic meaning.

Conclusion

A discourse perspective to RC within an interactive approach to reading implies relying on two interfering areas, i.e., DA and pragmatics besides the BK of the reader and the context of discourse. Other notions such as bottom-up and top-down processing, information structure, theme and rheme and genre and register are also important in comprehending English WD. Nonetheless, this is not sufficient. The reading literature tells a lot about the efficiency of RC strategies and as mentioned in the Introduction, one of these strategies is text structure awareness (TSA) strategy. It has been argued that reading teachers should teach students different rhetorical patterns of organisation so as to be aware of text structure. The latter is the concern of Chapter Three.

Chapter Three:

Text Structure Awareness and Reading Comprehension

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Introduction

The major aim of this chapter is to shed some light on TSA strategy and its relationship to ESP learners' RC. To this end, we shall define text structure and talk about its importance in RC. Next, we shall have a look at research on TSA and RC. Moreover, we shall talk about expository texts, their types, their rhetorical patterns of organisation and the like. Finally, we shall have a look at how text structure is taught.

3.1. Text Structure Definition

Text structure refers to the structure of a text. In other words, it refers to the form of a text in terms of how ideas are presented. For Carrell (1992), text structure refers to the way ideas in a text are "structured to convey a message to a reader" (Cited in Hudson, 2007, p. 179). Klingner et al (2007) define text structure as "the way a text is organized to guide readers in identifying key information" (p. 76). This means that there are important ideas and less important ones. This also means that the latter are related to the former. The term text structure has been equated with other terms such as discourse structure, discourse organisation and even text structure and discourse organisation (Grabe & Stoller, 2001).

3.2. Text Structure Importance

Research has shown that all texts have structures. This issue has been investigated by many researchers such as Jiang and Grabe (2007) who asserted that "all texts have structures above the level of the sentence" (p. 35). A great body of research, actually, has called for making the readers aware of text structure. This cannot only be achieved by drawing their attention to the different types of text structure, but also by exposing them to a number of tasks that raise their awareness. In other words, readers should recognise that text has

structure, be familiarised with the cues that exist in text, and be provided with enough practice for the purpose of being able to respond to those cues while reading (Williams, 2007). Meyer et al (1980) claim that “Readers who use a “structure strategy” seek to identify and use the author’s organization to organize their own understanding” (cited in Meyer and Ray, 2011, p. 128). Researchers such as Koda (2004) argue that “knowledge of text structure should enhance text-meaning construction in measurable ways” (p. 154). Grabe (2009) points out that being aware of how discourse is structured assists readers in comprehending texts. This awareness is most of the time associated with one strategy or a number of strategies, for, as mentioned in Chapter One, reading strategies should be used in combination. Moreover, as argued, expository text structures are more challenging because ideas are not easily connected as in narratives and that only few of content-area textbooks are easy to access (Cited in Klingner et al, 2007). Meyer (2003) points out that “most textbooks lack coherence” (Cited in *ibid*, p. 87). Nonetheless, the goal is not to learn text structure only, but the content and how ideas are logically connected as well. Meyer and Wijekumar (2007) state clearly:

Learning the structure strategy is not only about structure (Duke & Pearson, 2002) but also about understanding the logical structure connecting ideas in a content domain. The content is important, too, and the purpose of learning the strategy is to increase understanding and comprehension of such content (p. 348).

So, adopting a structure strategy is promising; in that, it allows the students to acquire not only the structures of texts, but also the content of texts and the logical connection of ideas. In short, teachers’ job is to make readers aware of text structure strategy.

Since the learners in the present study are from an ESP setting, a Business one, specifically, they are in need of this type of instruction. They are judged to be between

intermediate and very good learners, and the type of texts which are exposed to is the expository one. Taking into account that these texts are difficult, these learners need some special instruction. Grabe states that clearly:

In many instructional settings, when considering older students and more advanced L2 students, a strong emphasis is typically placed on expository prose processing for learning purposes. Students need to understand the more abstract patterns of text structuring in expository prose that support reader's efforts at comprehension. While advancing learning texts are typically denser and present more complex information than texts of a more general nature, they are, nevertheless, assumed to be understandable with relatively little ambiguity when assigned in school setting (p. 288).

This shows that understanding text structures affect comprehension of expository texts. To achieve that, students, mainly older and more advanced ones, are required to be aware of text structure patterns, for expository texts include more complex information than other types.

Meyer and Ray argue (2011) for the impact of the structure strategy by saying that

The power of teaching students the structure strategy is that it enables them to a) follow the logical structure of text to understand how an author organized and emphasized ideas; b) use processes parallel to these structures to increase their own learning and thinking (e.g., comparing, finding causal relationships, looking for solutions to block causes of problems); and c) use these text structures to organize their own writing, such as written summaries, recall, and essays (p. 128).

It is clear enough that teachers and students should be aware of the text structure strategy; that is, teachers are required to train students to use this strategy to comprehend expository texts. The advantages of teaching and learning the structure strategy include the recognition of

the way authors organise their ideas, the use of processes that resemble those structures, and the use of the same structures to write summaries, recalls, etc.

3.3. Research on Text Structure and RC

Text comprehension requires besides word knowledge, knowledge of the topic, syntactic knowledge and cohesion, knowledge of text structure. Now, it is time to find out the relationship between the awareness of text structure and text comprehension, and to have a look at some research which “demonstrates the importance of discourse structuring for improved comprehension” (Grabe, 2009, p. 252).

Meyer and Ray (2011) state the following:

Use of text structure to understand how the important ideas of a text are inter-related increases readers’ meaning making. Readers who use text can mentally examine how ideas in text are inter-related through the use of such relationships as sequence, comparison, causation, or problem and solution. These readers also may use external aids that show the top-level structure of a text to reduce memory demands. These aids include templates, text structure patterns, graphics, matrices, outlines, knowledge maps, or tree structure (e.g., Meyer, young, & Barlett, 1989)’ (p. 128).

So, good readers make use of text structure and consider interrelated ideas in order to build mental representations of text. They do that by utilising diagrams, matrices and the like to help them identify the structure of the text.

3.3.1. Historical Overview of Text Structure

The first body of research about text structure goes back to the works of Meyer and her colleagues (e.g. Meyer & McConkie, 1973; Meyer, 1975; Meyer & Freedle, 1984; Meyer & Rice, 1982). It focused on text structure and the effects it had on learning and memory. Meyer's first work aimed at identifying the hierarchical, logical structure of two articles from a scientific magazine. She examined the relationship between the structure and what students remembered from the text. The effects of the logical structure were noticed in:

- the kinds of idea units that were remembered
- the stability of the idea units in consecutive recalls and
- the tendency for clustering on the basis

Meyer (ibid, p. 130)

The results obtained showed that “the logical structure of a passage is related to certain aspects of the cognitive structure that the participant constructed” (ibid).

In subsequent studies, Meyer (1974, 1975) combined her above approach, logical structure, with Joseph Grimes's (1975) work in linguistics. This text analysis approach was also called Meyer's system. The above combination “provided methods for studying naturally occurring texts and ways to control aspects of text structure and signaling for future experiments” (ibid). Other methods of text analysis were seen in the works of Crothers (1972) and Frederiksen (1972, 1975). Meyer (1975) manipulated a cause-effect paragraph in the same serial position in two texts. In one of the texts, the paragraph was at the top third hierarchical, logical structure whereas the paragraph in the second text was located at the bottom third of the text structure. This manipulation was repeated with a text with a different content but with the same structure. She found that the structure and type of relationships

among concepts in text affected comprehension when occurring at the top third of the structure, contrary to when they occurred at the bottom third of the structure. This finding was considered as very important as it encouraged future text structure research to concentrate on main ideas in texts rather than details.

Because of this finding, Meyer (ibid) came to a hypothesis that text structures such as causation, problem-solution and comparison allow better recall than the description one. This hypothesis has been tested by other works (Meyer & Freedle, 1979, 1984). More other works showed that older adults who used the structure strategy and who had high vocabulary skills (Meyer, Meyer et al., 1989) benefited from the comparison structure rather than the collection of descriptions, contrary to the ones who had no training in the structure strategy including younger ones, yet recalled the description structure better than the comparison one (Vincent, 1985).

Kintsch et al., (1975) developed another model of text analysis, i.e., hierarchical, text base analysis based on argument repetition (repetition of words from the text) whereas Meyer's system was based on the semantic relations among ideas represented by text structures.

In 1976, a great body of research was conducted to strengthen Meyer's approach of top-level structures in text. This type of investigation focused on the differences in the strategy structure use with varying proficiencies in reading and vocabulary. Also, it investigated how the use of text structure strategy increased when the text, the task or the reader changed.

Meyer, Brandt, and Bluth (1978, 1980) assessed good and poor 9th-grade readers in terms of their use of text structure used by the author in recalling texts. They identified good and poor readers by scores on a standardised RC test. They found that readers who used the default strategy simply tried to remember some ideas with no interrelation among them. What they recalled was just a kind of a list of descriptions. Meyer et al. (1980) studied the effects of

signalling words for problem-solution and comparison text structures. The result was that “underachievers” benefited from signalling words; in that, they got scores on vocabulary test closer to good readers. These readers could use the structure strategy relying only on signalling words.

The conclusion Meyer et al. (1980) drew from this finding was that good readers recalled more ideas and more frequently used the structure used by the author to organise their recalls. They also found that underachievers’ text processing was influenced by text signalling which made them use the author’s text structure while good and poor readers were not affected by signalling words. In fact, good readers used the top-level structure in recalling texts whereas poor readers did not.

Due to these findings, Meyer and her colleagues (Meyer & Freedle, 1979, 1984; Meyer, 1984; Meyer & Rice, 1982) designed a processing model for text comprehension by storing text information into organised schemata based on text structures as follows:

1. readers determine whether they are interested in communicating with the writer of the text and following the writer’s thesis and rationale. If not, readers should use a different reading strategy rather than the structure strategy.
2. readers select the structure strategy. If readers cannot use this strategy, the default/list strategy by default would be used.
3. the end point in the model is a reader using the identified working schema, corresponding to a text structure, as an organizing framework to differentially select, encode, and organize ideas from the text into a long-term memory representation.

(Meyer & Ray 2011, p. 132)

These empirical studies of text structure and its effect on text comprehension and processing had many implications for intervention research in the future. These implications can be summarised in three points. “First, they provided evidence that text structure indeed exerted an influence on readers’ mental representations of texts. Second, they suggested that readers vary in their ability to use the structure strategy, and this variability may be related to their overall reading ability and vocabulary. Finally, the findings from Meyer et al. (1978, 1980) suggested that many readers may be lacking in their knowledge of text structures” (Meyer & Ray 2011, p. 135). In short, the early text interventions took place between 1978 and 1990.

3.3.2. Early Text Structure Interventions

Early text structure interventions started in the 1970s with projects under Meyer’s supervision and many doctoral theses. These as Brandt’s (1978), Jessen’s (1981) and Meyer et al.’s (1978) focused on examining instruction text structure strategy use in favour of middle school to junior college students. To begin, Bartlett’s dissertation (1978) was the first work that studied explicitly, in extended multiple sessions, the structure strategy instruction. He taught Meyer’s structures of problem-solution, causation, comparison and collections of descriptions to 9th grade students. Students were asked to identify the main idea of texts and the structure used by the author. The focus was not on signalling words for writing main ideas or recall. His explicit instruction to use the top-level structure strategy included 6-steps to follow before, during, and after reading to be modelled and practised. Texts increased in complexity across the five sessions.

Students’ ability in identifying and using the text’s top-level structure were increased, and the amount of information recalled from the text nearly doubled over students in control

group who dealt with the same texts but with a punctuation instruction. The results reported by teachers showed significant performance among students who received the structure strategy training rather than the punctuation instruction.

Armburster, Anderson and Ostertag (1987) taught the problem and solution structure in 11-day direct instruction to 5th-grade students. They assigned randomly one of two classrooms to structure strategy training with the problem/solution structure while the other classroom to traditional instruction. Students examined thirteen (13) authentic texts of 100 to 500 words from 4th- and 5th- grade textbooks. The instructors used problem/solution frames and accompanied them with blank lines for writing passage summaries. They trained students by modelling how to identify the problem/solution structure and how to write a summary by providing guidelines. These guidelines focused on writing the problem, the solution, and the result of the solution with no emphasis on problem/solution signalling words. The result obtained showed that students in the structure strategy class wrote 50% more main ideas in an essay exam and included them in written summaries than the control group class. Nonetheless, both classes showed no difference on a short-answer fact test (ibid).

Other interventions investigated structure strategy interventions with adult learners. Carrell's (1985) conducted a study with students from different language backgrounds. She trained them with the four structures outlined by Meyer with the same reading materials but with a focus on cohesion, sentence combining, and vocabulary. Like in Bartlett's (1978), she found that the text structure strategy group witnessed a significant comprehension of texts than the control group. Meyer and Ray (2011) assert that Meyer's study was the first to "show that direct instruction with the structure strategy instruction increased reading of ESL students" (p. 136).

Cook and Mayer (1988) following Meyer's (1975) and Meyer et al.'s (1980) conducted two studies. They added other important components such as "a sorting task to measure text structure awareness", "the application of text structure to passages taken from students' chemistry textbooks", and "specification of descriptive text structures that occur in science textbooks". In the first work, they provided 16 from 32 undergraduate university students in a 5-page instructional pamphlet about five text structures found in science textbooks, namely, generalisation, enumeration, sequence, classification, and compare-contrast. Moreover, they added two signalling words for each structure: "there are two types" for classification, "in contrast to" for compare-contrast, "and then" for sequence. As a result, the experimental group sorted 4 texts per 5 text types correctly 79% of the time whereas the control group sorted them correctly 61% of the time.

In the second study, Cook and Mayer (1988) provided junior college students with instruction that included three of the five text structures. Students were required to fill out three worksheets for the generalisation, enumeration, and sequence structures using nine passages from their content area textbooks. As an example, the sequence structure had three steps:

1. identify the passage topic;
2. name each step in the sequence and outline the details of each.
3. say what varies from one step in the sequence to the next.

(Cited in Meyer & Ray, 2011, p. 136)

The findings obtained revealed that students who received training increased their memory of the most important information and were able to answer application questions. However, they did not increase recall for facts. In sum, the structure strategy proved valuable

using an outlining format with listing, description, and sequence structures mainly in a science class context.

Another line of research examined reading comprehension through k-maps by Dansereau and his colleagues (e.g. Dansereau et al., 1979; Holley, Dansereau, McDonald, Garland, & Collins, 1979). This kind of intervention has similarities with the structure strategy; in that, to make a k-map from a text, there is a need to identify and use text structures. Four links in k-maps are “part of”, “type of/example of”, “characteristic of” and “evidence for”, considered as subtypes of the description text structure. Two other links that correspond to causation and comparison structures are “leads to” and “analogous to”. Holley et al. (1979) trained college students with 5.5 hour-sessions about the links applied to sentences, texts and even to their own textbooks. Trained students performed better than students with no training on multiple measures of RC associated with understanding main ideas. Geva (1983) developed a flowcharting of expository text which combined text representations by Meyer et al.’s (1980) and Holley et al.’s (1979). She trained community college students to “represent text in node-relation flowcharts” (Cited in Meyer & Ray, 2011, p. 137). These relations were represented by different types of lines in a flowchart which match a key with relations of cause/effect, example, sequence, elaboration, detail, and process besides topic and conclusion. Training with k-maps approach made less skilled readers to be more careful in reading expository texts and resulted in increase in their RC.

Text structure strategy was also applied to adults in non-academic settings to examine its efficacy. To this end, Meyer, Young, and Bartlett (1989) trained a randomly assigned group of adults, utilising and changing Bartlett’s earlier approach by adding signalling words to assist them in identifying structures in simple advertisements to magazine articles, etc (Cited in Meyer & Ray, *ibid*).

In sum, Meyer and Ray (ibid) summarise early interventions as follows:

... the early work on structure strategy instruction showed its potential for increasing reading comprehension. Positive effects for using the structure strategy were noted from work with elementary school children to retired adults. Most of the research involved 6th graders, 9th graders, high school students, college students (including junior college and ESL student) and adults, rather than early elementary school children. Most instruction program involved modeling, practice, direct instruction, scaffolding, and multiple instructional sessions of increasing complexity of text materials (p. 138).

Besides the early work on text structure instruction, reading researchers continued to investigate it in various contexts and with different types of learners. This is what we shall investigate in the following section.

3.3.3. Recent Developments in Structure Strategy Interventions

Recent text structure interventions have taken various angles. We are going to find out the main studies held in different contexts, i.e., across cultures and languages.

➤ Text Structure Instruction Across Cultures and Languages

Recent intervention research has investigated text structure instruction with non-English speaking people such as French, Spanish, and Dutch. Raymond (1993) used texts from Meyer et al. (1989) translated into French. Moreover, he used Bartlett's (1978) and Carrell's (1985) studies, and randomly assigned two groups to either text structure strategy or a control group that have the same texts as the experimental group but with no training on text structures. The control group focused on answering questions about the texts whereas trained students were

given articles to be read for the pre-test and post-test in French, but remembered them in English. The trained group outperformed the control group in terms of the ideas recalled in the post-test.

Leo and Carretero (1995) taught the structure strategy to Spanish high school learners aged between 14 to 15 years old with adaptation of Meyer et al.'s (1989) instruction and a dependent measure from Meyer (1984). What they did was to explore the effect of RC skills, the structure strategy intervention in Spanish, signalling, and post-testing time. The effect of the interaction among these variables resulted in improvement in RC among the experimental group over the control groups who read the same materials but with no instruction in the structure strategy.

Broer, Aarnoutse, Kieviet, and Leeuwe (2002) taught two text structures through the 'making schematics' strategy. The schematics were graphics about the classification structure and the cause/effect structure. The schematic for cause/effect structure, for example, was exemplified in a table containing four rows. The first row was for the topic of a text; the next for signalling words such as 'causes', 'cause', 'result'; the third row was divided into three: a column for cause (s), a box for a causal arrow, and a column for result (s) (Meyer & Ray, 2011); the following row to be filled in by students with causes and effects mentioned in the text; and the last row for writing the main idea organised with cause/effect structure. Overall, this approach has similarities with classroom applications about the structure strategy.

Broer et al. (2002) selected randomly pairs of classes in The Netherlands to the structure strategy or traditional Dutch reading and answering questions approach. The schematic/structure strategy increased their "recognition of text structure, ability to make schematics, ability to formulate and deduce main ideas, and transfer of deducing main ideas

from text with different top-level structures than those explicitly taught in the instruction” (Cited in Meyer & Ray, *ibid*, p. 139). This study, according to the authors, was useful.

Schwartz and colleagues (Mendoza & Schwartz, 2011; Yeh, Schwartz, & Baule, *in press*) used the structure strategy in two interventions by using Meyer et al.’s (1989) training and testing materials with bilingual college students. A new aspect of this study is the examination of the effects of the text structure instruction on the eye-movement patterns. This study, eye-tracing measures, focused on examining online processing while learning from texts. They tell about what the learner looks at, how long he/she stays looking at a point and how the eyes move over the text. This study revealed that the participants remembered more text information and their eye-movement patterns changed. Moreover, ESOL learners made more fixations on the signalling words. This study showed that the structure strategy was also effective for ESOL students.

Mendoza and Schwartz (2011) conducted an intervention with bilingual college students using the structure strategy. Their research demonstrated that the Spanish students could benefit from the structure strategy in English too. They were able to transfer the knowledge of text structure of English and their signalling words to equivalent Spanish structures and signalling.

Text structure interventions across languages were conducted with both elementary and college students. This type of research proved that the structure strategy assists RC for students in various cultures and bilingual students as well.

➤ **Structure Strategy, Signalling, and Transfer to Everyday Learning**

Researchers examined the interaction between signalling in text and structure strategy instruction. Meyer and Poon (2001, 2004) extended the earlier work of Meyer et al's (1989). They taught both younger and older adults, focusing on writing patterns for main ideas or recalls with each text structure. According to the researchers, the pattern for writing a comparison top-level structure recall would include

1. an introductory sentence with a comparison signaling word contrasting two ideas or political candidates;
2. a paragraph or more about the first idea describing the issues for this idea or candidate;
3. a transitioning signaling word such as "in contrast", as a new paragraph is started to describe the second idea or candidate.

(Cited in Meyer & Ray, 2011, p. 140)

Both younger and older adults took part in nine hours of either interest strategy or structure strategy training or no training. They were also assigned randomly to texts with or without signalling for pre-tests and post-test. The texts ranged from magazine articles, medical decision-making, Internet articles and an informative video on nutrition. The result showed improvement in reading in both training groups. Nonetheless, it is only the structure strategy group which increased in remembering texts. The text structure strategy intervention had an impact on the recall organisation across various expository texts. Additionally, the structure strategy instruction assisted learners in making use of signals in text in an effective way. Structure strategy training had a strong effect on RC. The study also revealed that signalling had an effect on encoding processes rather than retrieval processes. It demonstrated the transfer from training on structure strategy with texts to multimedia learning and recalling

medical information “during a simulated decision-making scenario” (Meyer & Ray, 2011. p. 140).

In sum, this type of research, Meyer et al.’s (1989) and Meyer, Talbot, Poon and Johnson’s (2001) showed that effective instruction on strategy structure could be conducted in various educational contexts both formal and informal.

3.3.4. Structure Strategy Interventions in Elementary Schools

Interventions related to text structure have been conducted with adult learners as well as with young and very young learners. These interventions included even Web materials.

➤ Web-Based Structure Strategy Instruction

Web-based interventions have taken place at the beginning of 2000s. Meyer et al. (2002) used a Web-based delivery of the structure strategy intervention for 5th-grade readers based on Meyer et al. (1989) programme. They introduced five text structures sequentially, for other studies such as Meyer et al. (2000) had found that adults with less working memory resources learnt the text strategy better when trained with one or two text structures per session. Meyer et al. (ibid) taught, as a first step, the comparison and problem and solution structures then cause/effect, sequence and description. They tested whether the fifth grade students can learn the text structure strategy through the Internet provided with feedback and support from their own personal human tutor. To this end, two approaches to the Internet strategy structure were examined. One approach entailed both Internet instructors and tutors. The other approach involved the Internet with no tutors.

Meyer et al. (ibid) compared the two structure strategy groups with a control group that had extra sessions of regular classroom reading. Students were randomly assigned to three

groups, i.e., structure strategy with tutors, structure strategy with no tutors and a control group. After the instruction training, the groups that received instruction on text structure strategy outperformed the control group; in that, they remembered more information. It has been found that, “The average reader receiving structure strategy training had a total recall score equal to a reader in the control group who scored at the 77th percentile on the immediate posttest (effect size=0.74)” (p. 141).

The conclusions drawn from the above study was that the text structure strategy with tutors made significant gains in self-efficacy than the other students, and that the majority of the students in the two strategy groups benefited from the structure strategy despite the fact that they did not show great consistency after training.

Other web-based systems have been introduced as well. Meyer and Wijekumar (2007) developed a Web-based system called Intelligent Tutoring of the Structure Strategy (ITSS) in order to teach the text structure strategy to students in 5th-and 7th-grade (Meyer & Ray, 2011). In many studies, they examined the impact of ITSS with 5th- and 7th-grade students. In this programme, feedback, topic choice, and individualization were examined. Moreover, Meyer et al. (2010) tested whether 5th- and 7th-grade students could learn the text structure strategy within six months for 90 minutes per week. They examined, in the main, feedback and motivation conditions in delivering ITSS with a 2×2 pre-test/post-test approach where they compared “type of tutor immediate feedback” (minimal feedback vs substantial and specific feedback) from the Intelligent Tutor and “motivational condition” (programmed sequence of practice versus student choice of practice examples).

Students were randomly assigned to the conditions after being stratified on RC. The result obtained was that the students’ choice of practice texts had an effect on their performance as they completed instruction on the comparison structure.

Meyer and Wijekumar (2011) conducted another research using a pre-test/post-test design with 4th and 5th struggling readers with ITSS. After the intervention, their reading teacher claimed that they “showed a 20 to 70 point gain on the state language arts assessment between 2010 and 2011” (Cited in Meyer & Ray, 2011, p. 144) which means that they benefited from the strategy instruction.

➤ **Classroom-Based Interventions in the Primary Grade**

There has been a new interest in text structure teaching in early grades mainly in elementary school and preschool years. According to Meyer and Ray (ibid), many interventions were conducted such as Culatta, Hall-Keyon and Black (2010). The latter administered a pre-test/post-test pilot study project with 71 children aged between four and five years old. They focused on comparison and problem/solution structures. Participating teachers indicated that they “had learned to value expository texts and explicit instruction about them” (ibid, p. 145).

Williams et al. (2005, 2007) reported direct instruction with 128, 2nd grade students using the compare/contrast structure. They combined the work of Meyer, Armbruster et al. (1987) and Williams et al.’s previous work with strategies, concept of learning, narratives, and reading with disabled learners. The intervention included clue words such as “both”, “however”, “contrast”, “and”, “than”, “alike”, “compare”, and “but”, general text structure questions which are:

- What is this paragraph about?
- How are they the same?
- How are they different?

Williams et al. (ibid) also used graphic organisers such as ‘matrix’ and ‘text analysis’ and paragraphs that include the characteristics of each text structure. The use of well-structured

texts was for the purpose of strengthening the children's mental representation of a specific structure by increasing the structure's familiarity. The beginning was with sentences reflecting the text structure, then other sentences were added about the topic but which do not reflect the structure. The result was that the strategy group students transferred strategy knowledge to new contexts.

The text structure strategy has had many effects with different learners in different contexts. All the interventions on text structure proved their efficiency in RC whether it be with young learners or older ones. Meyer and Ray state clearly:

There is substantial and consistent evidence over 30 years that instruction with the structure strategy increases recall from expository text and the organization and quality of readers' recalls. Additionally, there is evidence that structure strategy instruction can increase understanding and use of signaling words, production of good main ideas and summaries, standardized reading comprehension test scores, and answers to questions. Additionally, structure strategy instruction changes the type of ideas readers underline as important, readers' think-aloud protocols, and their eye movement patterns while reading (2011, p. 148).

Despite this great body of research on text structure awareness strategy, there are still areas to be investigated such as the length of instruction with each structure with different ages and with what types of texts, etc.

Dymock (2005, p. 177) summarises the findings of the research about the difficulties that students encounter in comprehending written texts, mainly expository ones in the following.

- Many students experience problems comprehending expository text. There are many reasons for this, one being that they can't see the basic structure of text. Some students get lost in the words and can't see the big picture (Dymock, 1998; Dymock & Nicholson, 1999).

- Some students require direct instruction in how to go about comprehending more complex expository text structures (Moore, Bean, Birdyshaw, & Rycik, 1999; Pressley, 2002; Vacca, 1998).
- Teachers play an important role in assisting students to develop reading comprehension strategies including expository text structure awareness (see Dymock, 1997, for a review of text structure research; Dymock & Nicholson, 1999; Pearson & Duke, 2002; Smolkin & Donovan, 2002).
- Students who have a good understanding of expository text structure have fewer problems with comprehension (Dymock & Nicholson, 1999).
- Teaching expository text structure awareness has a positive effect on reading comprehension (Dymock & Nicholson, 1999; Pearson & Duke, 2002).
- Expository text structure awareness is one reading comprehension strategy that should be explicitly and systematically taught (Sweet & Snow, 2003).
- The Literacy Experts Group's report (1999) to the New Zealand Secretary for Education recommended that, "Especially from year 3, more attention should be paid to the teaching of comprehension skills, across a range of text types, including **expository texts**" (p. 6; emphasis added). Some suggest that explicit teaching of comprehension strategies, to enhance comprehension of exposition, should begin during year 1 (Duke, 2000; Pearson & Duke, 2002).

Following this summary, it is necessary to take these findings into account. That is, reading teachers should teach and train students in how to take advantage of text structure strategy among other RC strategies to help them comprehend expository texts.

Now, what is an expository text? And what are its characteristics? This is what we are going to investigate in what follows.

3.4. Expository/Informational Texts

Expository texts, also called informative, are informational texts whose main objective is to bring insights and new information to the reader. This view has been claimed by Johns and Davies (1983) who claimed that text is a vehicle for information. For Jennings et al (2006), expository text “conveys information, explains ideas, or presents a point of view” (p. 294). However, these texts are difficult and require that readers should be equipped with, as mentioned above, a number of reading strategies to be used in combination. McNamara, Ozuru, Best, and O’Reilly (2007) argue that

Expository text differs from narrative text in many ways. Perhaps the most salient way is that the vocabulary tends to be less familiar and the concepts more challenging. Expository structure also differs from that of narrative structure in that expository texts typically consist of a variety of abstract and logical relations (e.g., division of information into main headings and sub-sections) organized around a variety of discourse structures... In addition, many key concepts in informational textbooks are highlighted in boldface or italic text, which means they are important to understanding a particular topic area. Understanding the organizational structure and features of expository texts is critical for processing contents (p. 481-482).

From above, unlike narrative texts, expository texts are difficult and have different organisational patterns (Dymock & Nicholson, 2010) which should be recognised so as to facilitate the text content comprehension.

This has been claimed by Grabe (2006) when he says:

Texts have numerous signaling systems that help a reader to interpret the information being presented. Most importantly, texts incorporate discourse structures, sometimes understood as knowledge structures or basic rhetorical patterns in texts... Discourse structures have functional purposes (e.g., to compare two ideas, to highlight a cause and effect relationship), and these purposes are recognized by good readers and writers, if only implicitly in some cases. These functional purposes are supported by well recognized conventions and systems that lead a reader to preferred interpretations (ibid, p. 288).

From above, good readers are assumed to understand the text structures encountered in an expository text. However, poor ones, as some of the students in this study, are unlikely to understand this type of texts unless they are taught how to read them.

3.5. Importance of Expository/Informational Texts

Expository texts are of great importance nowadays. Jennings et al (2006) argue that students must understand and be familiar with informational texts since we are living in the Information Age. Teachers, according to the author, must encourage students to read both print and digital texts, for most of the texts on the web are informational, which necessitates the recognition of their text structures (Moss, 2004). So the subjects in our study are required to read informational texts in order to get insights in their content area.

3.6. Types of Expository/Informational Texts

Expository texts are various. In our study, they can be articles, memos, etc. and organised in a varied number of patterns. According to the reading literature, there are many types of expository (informational) texts. Meyer has proposed six of them: description, sequence, listing, compare/contrast, cause-effect and problem-solution. Grabe (2009) suggests description, definition, sequence, procedure, problem-solution, cause-effect, and compare-contrast.

3.7. Learning from Expository Texts

As mentioned previously, the main goal of reading expository texts is to gain insights on given topics. Insight generation means establishing new relationships among existing knowledge. It is realised in a two-step process which is composed of “building a mental structure, and then extracting a critical, or insight, proposition, which induces conceptual restructuring” (Britton, 1994 cited in Koda, 2004, p. 166). Koda (ibid) claims that

in addition to conveying content information, the objective of expository texts is to induce new insights. Through capitalizing on structural regularities, the goal of comprehension is to construct the text representations conveyed by the author, by following explicit and implicit devices signaling regularities (p. 168).

From above, one can deduce the importance of expository texts in providing and conveying content information.

She continues arguing that

Early research focused on formalizing text-structure properties and the relatively static relationships between those properties and comprehension. More recent efforts, however, concentrate on the specific ways text-structure properties affect the processes involved in building coherent text representations. In the current aspirations, gaining new insights- the critical aspect of expository comprehension – is viewed as establishing new relationships among existing knowledge substructures (p. 168).

How expository text is structured affects its comprehension. And this results in constructing coherent mental representations of texts.

3.8. Difficulties with Expository/Informational Texts

Though expository/informational texts are important, they are difficult to approach. This difficulty stems from a number of factors such as:

- Recognizing and using the author's organizational patterns is a complex task. Such patterns are not always explicitly signaled.
- Informational text is less personal than narrative text.
- In reading informational text, students are often required to demonstrate their understanding by taking tests, which can be very stressful for any student.

- Informational text usually contains more difficult vocabulary and technical terms than narrative text.
- Informational text tends to be extremely concept dense. Four to five new ideas may be included in a single paragraph. For example, a sixth-grade paragraph on weather includes the following concepts: humidity, water vapor, evaporation, relative humidity, condensation, and dew point.
- Reading informational text often requires extensive background information. If that background is lacking, comprehension becomes more difficult.
- Informational text tends to be longer than narrative text. This length may simply overwhelm students with reading problems.
- The reading level of school textbooks is often well above the frustrational level of students with reading problems.

So, from above, expository texts need a certain effort from the reader to be comprehended, and it is through training that students will be aware of text structure that will assist them in comprehending those texts.

3.9. Grammar of Exposition

Grammar of exposition has been under investigation by certain researchers. According to Koda (2004), Britton (1994) proposed a grammar of exposition within the structure-building framework. He claims that the author of an expository text “makes particular, characteristic moves for advancing the discourse, signaling how the structure can be reconstructed” (ibid, p. 164). When a reader perceives the moves properly, these can act as instructions that guide the reader’s structure-building processes (ibid). He maintains that expository texts “are

systematically coded for structural regularities, and therefore the grammar of exposition can be formulated as a set of rules to capture these regularities” (p. 164).

The grammar proposed by Britton (*ibid*) is made up of five fundamental mandates that signal the key moves: expand, enlarge-on, move-on, unitize, and stop. The first two ones denote the topic expanding which is the most important step in exposition.

When the topic to be enlarged is the overall text theme, EXPAND is used to indicate the operation occurring at the topmost discourse level. At all lower levels, ENLARGE-ON means that the topic to be expanded is the text subsection. Expansion at the lowest level, also signaled by ENLARGE-ON, pertains to the newly introduced element in the previous sentence (*ibid*, p. 165).

So, authors **expand** the major theme, and then **enlarge-on** the topic into subsections. Britton (*ibid*) compares this process with what a teacher does in a classroom. He maintains that teachers assist students when they encounter difficulties by explaining the content through examples and illustrations (*ibid*). The expanding move is used by the author until he gets certain that the topic is clear to the reader. This move is followed by operations such as **UNITIZE** and **MOVE-ON**. The first one means integrating the content of active memory while the second signals the advancing to the next subtopic. There are also implicit clues used such as the linguistic recurrence. As an example, the presence of a content word already existing in a previous sentence helps the reader to make use of this overlap in connecting the two sentences. Actually, this is a signal to the reader that the overlapped element is the enlarged-on target. Besides linguistic repetition, there is the syntactic clue which cues the reader that syntactic prominent element can be a topic for expansion. A third clue which is of great importance relates to how new information is monitored. New information drives the discourse forward; however, problems may occur when more elements are in one sentence.

Koda (*ibid*) argues that placing new information to be enlarged at the end assists the reader in determining “which new element is most likely to be expanded in what follows” (p. 165). The effectiveness of the structure-building instructions lies in the sensitivity to the structural regularities in expository texts on the part of both authors and readers. In other words, authors should be aware of the process of structuring texts so that to allow readers, mainly novice ones, to construct the intended structure.

3.10. Approaches to Text Analysis

After having had a look at the text structure interventions in 3.3, it is time to have a look at approaches to text analysis. According to Koda (2004), two models of text analysis have been recognised in the literature: Kintsch and his colleagues (Kintsch & van Dijk, 1978) and Meyer and her associates (Meyer & Rice, 1984). Other approaches appeared in the early 1990s such as Gernsbacher’s. The following accounts for the three models.

3.10.1. Propositional Analysis

This approach proposed by Kintsch and his colleagues considers propositions as the basic unit of analysis. Propositions, as Koda (2004) defines, are “the smallest text unit that can logically be falsified” (p. 161). The function of propositions is “to preserve text meaning, but not necessarily their surface linguistic forms” (*ibid*, p. 161).

According to this model, a text can be broken down into a number of propositions which can be combined later to represent the underlying meaning of text. This model relies more on top-down processes giving priority to the macrostructure. These processes include summarisation rules such as deletion, generalisation, and construction. All in all, Kintsch’s

model calls for laying importance to text structure. It points out that higher level information is better recalled and accessed than lower level one. Moreover, constructing macrostructure requires not only “surface text analysis for proposition generation but also conceptual manipulations, such as generalization and synthesis” (ibid, p. 162).

3.10.2. Text Structure Analysis

Text Structure Analysis is also called Meyer’s system. It calls for hierarchical representation as in Kintsch’s model. However, this model is based on the idea unit as the basis of text-structure analysis rather than the proposition. Nonetheless, idea units and propositions show some similarities as well as differences. Both models ‘represent explicitly text content’ (p. 162). However, idea units, unlike propositions, incorporate ‘inferred relations inherent in text ideas’ (p. 162). Hierarchical representation of the text structure is then generated through the convergence of these inferred relations. The top-level structure of Meyer is no different from Kintsch’s macrostructure.

The five basic forms of top-level relationships according to Meyer and Rice are:

1. An antecedent/consequent or covariance rhetorical relationship shows a causal relationship between topics.
2. A response rhetorical relationship includes the remark and reply, question and answer, and problem and solution formats.
3. A comparison relationships points out differences and similarities between two or more topics.
4. A collection relationship shows how ideas or events are related together into a group on the basis of some commonality.

5. A description relationship gives more information about a topic by presenting attributes, specifics, explanations, or settings.

(Meyer & Rice, 1984, p. 326-327)

So, Meyer and her colleagues confirm that readers who acquire top-level structures will recall and comprehend texts better. They also claim that training readers to identify top-level structures ameliorates their performance recall.

3.10.3. Structure-Building Framework

The two models above are mainly concerned with text-structure variables and their relationship with text recall. Other approaches appeared in the 1990s in an attempt to explain, in the main, the characteristics of mental text representation and the processes used in its construction (Koda, 2004). One of these approaches is that of Gernsbacher (1990). It claims that the purpose of comprehension is to construct mental representations that are coherent. These are referred to as structure. This structure is made up of memory nodes. The processes used in the construction are: foundation laying, structural mapping, and substructure progressing. In other words, when readers begin reading, background knowledge is activated. This activation makes laying a foundation. Then, this previous information coheres with the coming one, resulting in a developing structure as a second step. In case the new ideas do not fit the current structure, the reader initiates a new structure.

3.11. Structural Hierarchy in Texts

A number of researchers point out that there are text structure levels and that they have a strong impact on reading comprehension (see Alexander & Jetton, 2000; Duke and Pearson,

2002; Goldman & Rakestraw, 2000). In fact, research has shown that readers ‘focus on and remember information at higher levels in the text hierarchy’ (Grabe, 2009).

It has been demonstrated that top-level structures can be taught in order to allow the students to recognise this structure of texts and use it to help them comprehend the text (see Meyer, Brandt, & Bluth, 1980; Meyer & Poon, 2001; Taylor, 1982). Indeed, Meyer and her colleagues showed that students who are aware of higher-level text structuring ‘recall more information from the texts and recall more top-level, main idea information’ (see *ibid*).

In summary, students who make use of text structure in their comprehension processing are likely to recall more information and understand better.

3.12. Research on Text Structure Awareness

In 3.3., we have provided a general overview of text structure interventions and deduced that research on text structure awareness has been investigated through three lines of research:

- teach direct signaling of discourse (text) structures in texts
- teach the use of graphic organizers to display rhetorical structures, and
- teach comprehension-strategy instruction that highlights discourse-structure awareness. (Grabe, 2009)

The first line has been studied, for example, by Meyer and Poon (2001), as mentioned in 3.3.3. It demonstrated the significance of structure strategy training on better recall of texts. This study comprehended both younger and older adult learners. The second line tended to develop students’ text structure awareness through the use of graphic organisers, semantic maps, outline grids, tree diagrams, and hierarchical summaries (Tang, 1992; Trabasso and Bouchard, 2002). This research shows that students read and comprehend better when the information is organised visually including the linguistic clues that signal the organisation.

The last line, according to Grabe (ibid), stems from a strategy-based reading instruction which focuses on teaching reading strategies including “text structure awareness”. For improving the latter, this training includes the following strategies: semantic mapping, predicting, forming questions from headings, etc. The three lines of research will be explored later.

In this study, we are going to approach this topic by combining the second and third types of research together. That is to say, we are going to focus on teaching text structure within comprehension-strategy training and summarising the text not only in a graphic organiser, but in a form of a paragraph as well.

3.12.1. Discourse –Structure Awareness and Discourse Signalling in Texts

It is through direct instruction that readers should be explained that text can take different structures and how these assist readers in identifying the main ideas in the text. In fact, direct instruction raises the students’ awareness of text structures. Students can look for the top-level organisation of a text. Students can:

- circle various types of discourse signals and transition markers to explore how these signals help connect information in texts.
 - examine headings, subheadings, paragraphing, pictures, visuals, sentence-initial phrases, and subject nouns to examine the way the text provides clues to comprehension.
 - identify main ideas and determine what aspects of discourse structuring help them identify these main-idea sentences.
 - underline anaphoric signals and find the antecedents, then discuss those that are more difficult to identify.
- (Grabe, 2009)

3.12.2. Text Structure Awareness and Graphic Organisers

Another line of research studies text structure awareness through the use of graphic organisers. According to McShane (2005), graphic organisers are “diagrams or charts that visually represent the relationship of ideas and information. Most often they are used to illustrate the organization and structure of a text” (p. 83), such as concept maps, tree diagrams, anticipation guides, semantic maps, and discourse-based graphic organisers (Cited in Grabe, 2009). Research conducted by Alvermann (1986), Armbruster, Anderson, and Meyer (1991), Berkowitz (1986), Guri-Rosenblit (1989), Jiang and Grabe(2007, 2009), Tang (1992), Taylor (1992), Taylor and Beach (1984), Trabasso and Bouchard, (2002), Vacca (2002), Vacca and Vacca (1999) (cited in Grabe, *ibid*) shows that when students see the way information in a text is organised along with the cues that signal it, they comprehend it better (*ibid*). This is clearly stated by McShane (*ibid*) when she says that “Graphic organizers may help readers to become familiar with these common text structures and to understand the flow of information and ideas within a particular structure” (p. *ibid*). She adds that “Organizers are most often used with nonfiction, especially content-area texts like science and social studies, and adult learners may find graphic organizers most useful for analyzing and summarizing content they need to learn” (p. *ibid*). Nonetheless, these graphic organisers are to be used depending on language proficiency and level of maturity (*ibid*).

There are a number of graphic organisers in the literature. Grabe (2009) illustrates nine graphic organisers as follows:

1. Definitions

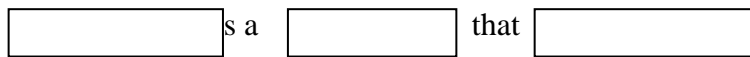
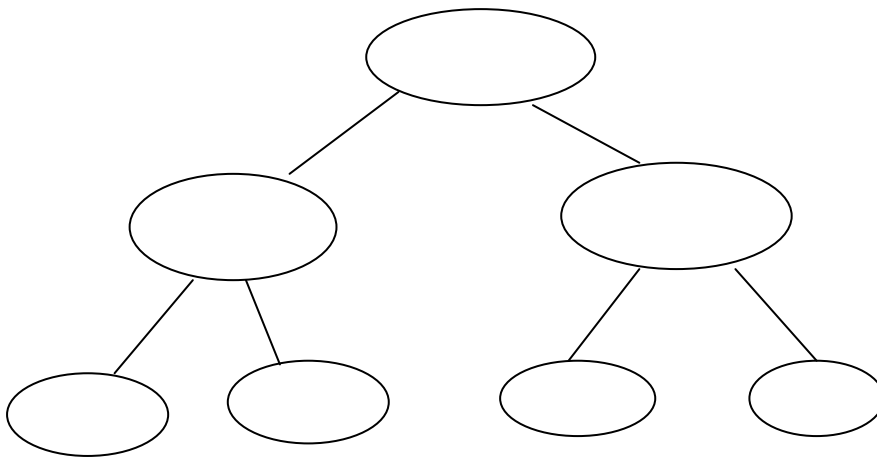


Figure 3.1. Definitions graphic organiser

2. Description / classification



Or

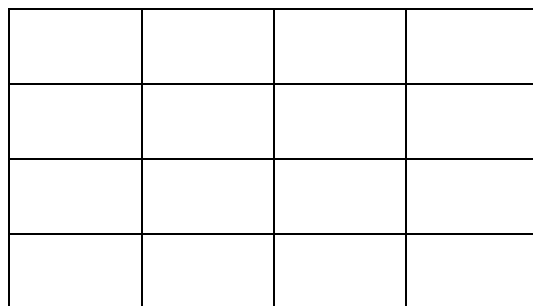


Figure 3.2. Description/Classification graphic organiser

3. Compare-Contrast

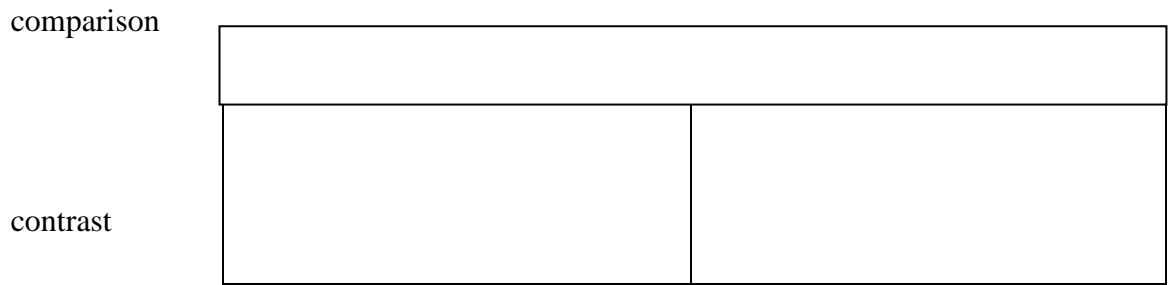


Figure 3.3. Compare-contrast graphic organiser

4. Cause-Effect

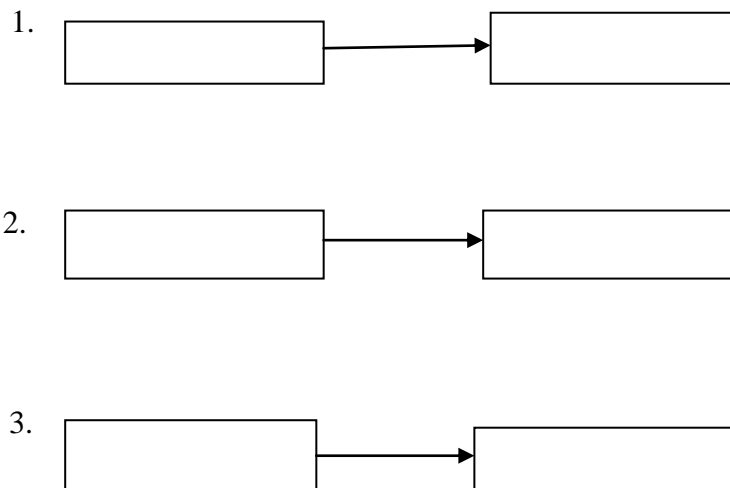


Figure 3.4. Cause-effect graphic organiser

5. Process / Sequence

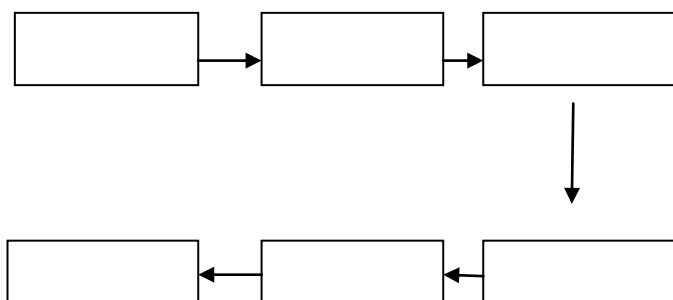


Figure 3.5. Process/Sequence graphic organiser

6. Problem-Solution

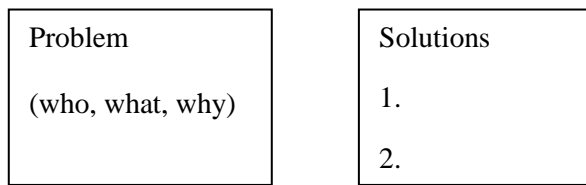


Figure 3.6. Problem-solution graphic organiser

7. Argument

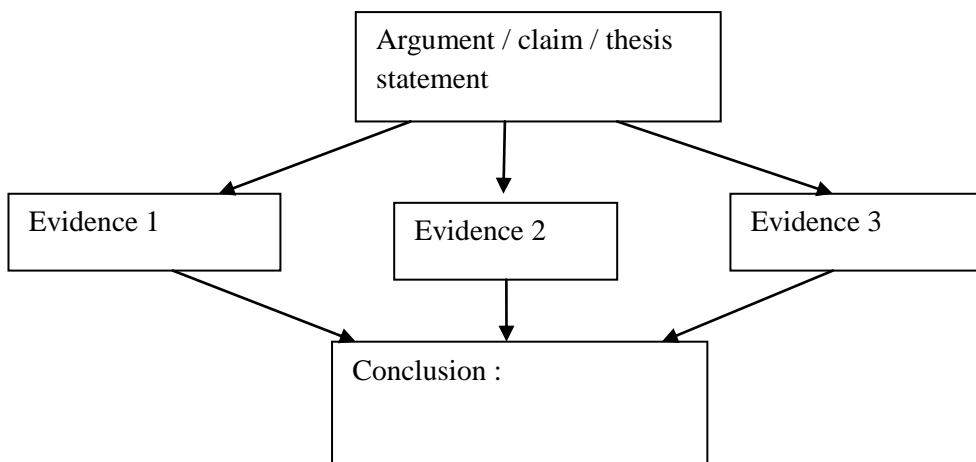


Figure 3.7. Argument graphic organiser

8. For / Against

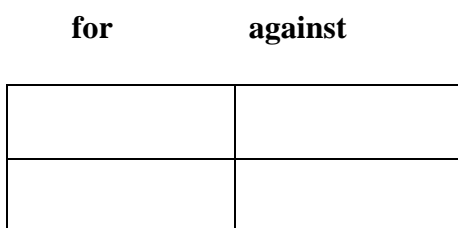


Figure 3.8. For/Against graphic organiser

9. Timeline

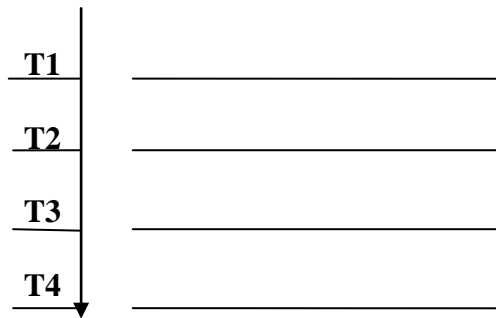


Figure 3.9. Timeline graphic organiser

There exist other types of graphic organisers such as Venn diagram, KWL charts, semantic maps. Venn diagrams are used to represent the ideas of a text in terms of similarities and differences as shown below.

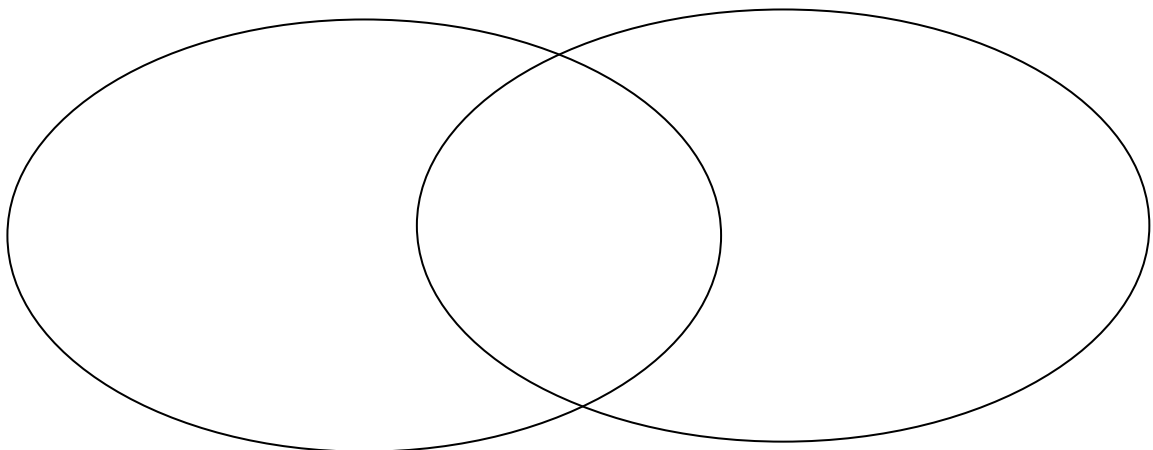


Figure 3.10. Venn Diagram (Cited in Klingner et al. 2007, p. 64)

KWL charts allow the reader to organise their pre-reading and post-reading knowledge and information as follow:

- In the first column, the student writes what he/she already knows about a given topic.
- In the second column, he/she writes about he/she wants to learn about the topic.
- In the third column, the student writes what he/she has learnt after reading.

Name:		
Topic:		
K-W-L		
<i>What I already know</i>	<i>What I want to learn</i>	<i>What I learned</i>

FIGURE 3.12.K-W-L chart. Adapted from Ogle (1986, 1989). Copyright 1986, 1989 by The International Reading Association. Adapted by permission. (Cited in Klingner et al., 2007, p. 106)

3.12.3. Text Structure Awareness and Comprehension-Strategy Instruction

This third line of research combines both a strategic reading comprehension instruction and a text structure awareness instruction. In this case, using strategies such as establishing a purpose to reading, identifying main ideas, predicting, forming questions, and the like, and connecting information text raise text structure awareness and improve text comprehensio

TABLE 3.1. Text Structures, Formats, Signals, Reading Objectives, and Study Strategies

Structure	Format	Signals	Reading objective	Study Strategy
Main idea	Focus is on a single topic, with supporting details	Definitions, principles, laws	To understand the main idea and be able to explain it using supporting details.	Identify and restate the main idea. Select and list at least three supporting details.
List	Focus is on a general topic, with a list of facts or characteristics	Semicolons, numbers, or letters in parentheses	To recognize the general topic and be able to list specific characteristics.	Identify and restate the topic. Select and list at least four characteristics.
Order	Focus is on a general topic, with a connected series of events or steps in order	Words such as <i>first, second, third, then</i>	To identify the topic, describe each step in sequence, and tell the difference among steps.	Identify and restate the topic. Select and list the steps. Tell what is different from one step to the next.
Compare-contrast	Focus is on the relationships (similarities and differences) between two or more things	Phrases such as <i>in contrast, the difference between</i>	To identify the topics and discuss the similarities and/or differences.	Identify and restate the topic. Use a graphic organizer (e.g., a table with two columns, a Venn diagram) to write what is the same and/or different.
Classification	Focus is on grouping information into categories.	Words such as <i>can be classified, are grouped, there are two types</i>	To identify topics, list class or group factors, understand how they differ, and classify new information.	Identify and restate the general topic. Write down the categories and related information in a table with columns.

(Cited in Klingner et al., 2007, p. 91)

The aforementioned lines of research argue that instruction which stresses the use of text structure increases comprehension. This means that students should be shown how authors structure their ideas. To this end, it is necessary to have a look at the different rhetorical patterns of organisation found in expository prose.

3.13. Rhetorical Patterns of Organisation

Nuttall (1996) argues that text structure is crucial in the process of reading. She claims that “Knowing how the text is organized enables a student to follow the argument better, read more selectively and locate more readily information needed for a specific purpose” (p. 106). Text structures or rhetorical patterns, according to Jiang (2012, p. 84) are “the frameworks that writers employ to convey information in an organized coherent way”. These can be taught through direct instruction. This structure strategy is beneficial to students; in that, it, according to Meyer and Ray (2011),

enables them to a) follow the logical structure of text to understand how an author organized and emphasized ideas; b) use processes parallel to these structures to increase their own learning and thinking (e.g., comparing, finding causal relationships, looking for solutions to block causes of problems); and c) use these text structures to organize their own writing, such as written summaries, recalls, and essays (p. 128).

Each text structure conveys a purpose and is signalled by certain transition words. The following makes some of the most used rhetorical patterns, their purposes, and their transition words.

➤ **Definition**

This type is concerned with the explanation of a concept’s meaning and provides examples of it. It is introduced with verbs such as to “be” (is/are), to “mean”, etc.

Investment means using money to buy something (an asset) with the aim of making a profit by selling that asset at a higher price some time in the future. There are many different types of investments. Some people put their money in art, stamps, or collectibles. Other people invest in shares and become part owners of a company (Richey, 2011, p. 36).

The first sentence includes the definition of “investment”. The second sentence explains that there are types of “investment”. The third and fourth sentences give examples of “investment”.

➤ **Description**

Description is used to describe something, to tell its characteristics. The author uses descriptive adjectives which help the reader visualise the topic at hand.

UBCS International is a leading international bank. We provide an excellent range of products and services, including current accounts, savings accounts, mortgages, insurance, loans, foreign exchange services and investment advice. We have 2,000 employees in our head office in Frankfurt and 38,000 in our 320 branches in Europe, the Middle East and Asia (Richey, 2011, p. 13).

So, it is clear that the main structure of this piece of writing is the descriptive one. The first sentence is just for telling the reader what “UBCS International” is. The following sentences describe this bank: the services it provide, the number of employees and branches.

The descriptive pattern of organisation requires the use of adjectives as well as in “excellent”

➤ **Sequence**

Sequence is another type of text structure which aims at listing something in terms of time. Transition words such as first, next, later, after, then, and finally besides dates are used to show how events are related to one another. In the following short text, we are going to see how a list is organised.

There are two fundamental problems of knowledge at the centre of the book. First, we have the problem of induction, that is the fact that although we are only able to observe a limited number of events, science nevertheless advances unrestricted universal statements. Second is the problem of demarcation, which demands a separating line between empirical science and non-science' (p. 116).

From above, the text is organised round one idea which is describing the two problems in books. So, it starts with the first problem by saying "First" and the second problem with "Second".

➤ **Cause and Effect**

The purpose of this pattern of organisation is to say why something has happened and to mention the effects of that cause. Transition words used in this text structure are: cause, because, because of, effect, as a result, since, as, so, so that, etc.

It is worth noting that it happens that one text may include more than one cause and effect. Nuttall (1996) claims that "not all paragraphs display a clear pattern of organization; and within some paragraphs, it is possible to identify more than one organizing principle" (p. 106).

All in all, we can present the following extract:

The walking school bus concept originated in 1998 in St Alban's, England, **as a result of** parental concerns over speeding vehicles and children's safety... walking school bus programs have not caught on as quickly. Hopefully the number of such programs there will multiply as people recognize their **numerous advantages**.

Perhaps the greatest advantage of the walking school bus is **the health benefits of regular exercise**... The 15 to 20-minute walk each morning and afternoon also **provides children with time to socialize before and after their school day**... fewer parents are driving their children to and from school, which improves the quality of the urban environment by **reducing traffic congestion and pollution** in the area...**the image of young learners walking to and from school affects all those who witness it'** (p. 13).

So anyone can deduce from the extract above that “as a result” means that “the walking school bus” is a solution to the problem of “parental concerns over speeding vehicles and children's safety” (See 5 below). Moreover, because of “the walking school bus”, there have been many effects (advantages) which are: “provides children with time to socialize before and after their school day”, “reducing traffic congestion and pollution”, “the health benefits of regular exercise”, “the image of young learners walking to and from school affects all those who witness it”.

➤ **Problem and Solution**

This type of text structure is used to talk about a problem and to provide solutions. Transition words that can be used in problem-solution structure are problem, solution, solve, solved, etc.

Water is essential to life and we depend on it, yet many people take water for granted. As the population of the world increases, and with it the demand for water, there is growing concern that our water supplies will not prove adequate. In areas near the coast, an obvious solution to this problem is to find ways of utilizing the abundant supply of water from the sea (Philpot & Curnick, 2007, p. 28).

So, it is clear that the author begins with mentioning the importance of water (Water is essential for life...), then, states the problem (As the population of the world increases, and with it the demand for water, there is growing concern that our water supplies will not prove adequate). Straight after, there comes the solution (...an obvious solution to this problem is to find ways of utilizing the abundant supply of water from the sea).

➤ **Compare and Contrast**

This pattern of organisation is used to compare and/or contrast between two things. Common transitions words found in the literature are: like, unlike, in comparison, in contrast, despite, although, similar, on the other hand, look like, etc.

Compared to the national central banks, the ECB will be relatively small. **While** the bank of France and the Bundesbank each employ more than 10,000 staff, the ECB will have to do with only 500 employees. The **comparison** is not entirely fair because the ECB's staff will be primarily engaged in research, security and payments systems, **while** most of the staff at NCBs are involved in areas such as logistics and administration (Johnson, 2000, p. 29).

There are other transition words in this pattern of organisation. It is clear, from above, that there is a comparison between the ECB and the national central banks. In the second and third

sentences, there is the use of “while” for pointing to a difference between the aforementioned banks.

The following example is extracted from Focus on IELTS (p. 90):

As a general rule, 80litres of water per person per day are enough for a reasonable quality of life, but the regional **differences** are considerable. An American uses 400 litres, **while** an inhabitant of Burundi may have to survive on 10 litres or less

In the above example, there is a comparison between an American user of water and a Burundi one. We can see the words “differences” and “while” which undoubtedly present a difference between two people.

➤ **Chronological**

In this rhetorical pattern of organisation, events are stated in a chronological way. Dates and expressions referring to them are used as in the following example extracted from “Focus on IELTS” (2010, p. 31).

Our distant ancestors led pretty simple lives. Until around **10,000BC**, all humans were hunterer-gatherers and lived a nomadic life... Around **3500BC**, small towns began appearing in Mesopotamia... **In the thousand years that followed**... fewer people were needed to produce food...Rome, became the world’s first city of more than one million people **around 100AD**.

It is obvious that the author has explained how people began to live in groups to form cities chronologically; that is, by stating specific dates (10,000BC, 3500BC) or by providing specific periods of time such as “In the thousand years that followed” and “around 100AD”.

Rhetorical patterns of organisation, **text structures**, are linked with studies related to contrastive rhetoric (henceforth, CR). It has been a subject of inquiry whether comprehension of texts on the part of second language readers is culture or language specific. The concern was “whether and to what degree similar discourse communities, such as biologists and jurists, differ in different linguistic and cultural environment” (Hudson, 2007, p. 213).

3.14. Contrastive Rhetoric

According to Connor (1998), CR is an area of research in second language acquisition that identifies problems in composition encountered by second language writers. It is a pedagogical solution to the problems of L2 organisational structures, suggested by Robert Kaplan (Kaplan, 2005; Matsuda, 1997) in his famous article entitled ‘Cultural Thought Patterns in Inter-Cultural Education’ published in 1966. The article was intended to English as a Second Language (ESL) teachers in order to be aware of the unfamiliar organisational patterns used by students in, mainly, EAP settings. Kaplan used a theoretical framework that is affected by the Whorfian hypothesis, a weak version, which claims that language influences thought. This field of inquiry witnessed a remarkable interest among researchers who published a number of books (e.g. Connor, 1996; Connor & Kaplan, 1987; Kaplan, 1972, 1983; Martin, 1992; Purves, 1988). In addition, many articles have investigated and written on this topic. In the 1980s, CR showed an improvement in research (e.g. Enkvist, 1987; Leki, 1991) due to the advanced research on DA and text linguistics. This resulted in the study of organisational structures L1 and L2 written discourse (Martin, 1992). This era and what follows contributed to a great body of research which included not only the organisational patterns (Connor, *ibid*; Ostler, 1996). According to Connor (2002),

Contrastive rhetoric examines differences and similarities in ESL and EFL writing across languages and cultures as well as across such different contexts as education and commerce. Hence, it considers texts not merely as static products but as functional parts of dynamic cultural contexts. Although largely restricted throughout much of its first 30 years to a fairly rigid form, student essay writing, the field today contributes to knowledge about preferred patterns of writing in many English for specific purposes situations. Undeniably, it has had an appreciable impact on the understanding of cultural differences in writing, and it has had, and will continue to have, an effect on the teaching of ESL and EFL writing (p. 493).

3.14.1. Kaplan's Contrastive Rhetoric

As mentioned above, CR has been an issue raised by Robert Kaplan's article in 1966. The article was written for ESL teachers for the sake of making them aware of the reasons of unfamiliar discourse patterns used by students. He, in fact, studied texts written in English by non-native speakers of English. He argued that "logic and rhetoric are interrelated and culture specific" (ibid, p. 214). This view maintains that each culture develops its unique rhetorical structures. In this seminal work within an applied linguistic framework, Kaplan suggested that since language and writing are cultural phenomena, then "different cultures have different rhetorical tendencies" (Cited in Connor, 2003, p. 218). Additionally, he claimed that linguistic patterns and rhetorical conventions of L1 transfer to L2 cause interference (Connor, ibid; Matsuda, 2003).

After he had analysed the organisation of ESL student essays, Kaplan identified five types of paragraph development which reflected different rhetorical tendencies. Due to this finding, he provided a diagram (see Figure 3.12 below) including some cultural rhetorical structures such as Oriental, Russian, Romance, semitic, and English. Kaplan claimed that English

rhetorical structures were represented as linear as English texts begin with topic sentences followed by supporting details. Oriental languages are indirect in their approach while Romance and Russian include digressions.

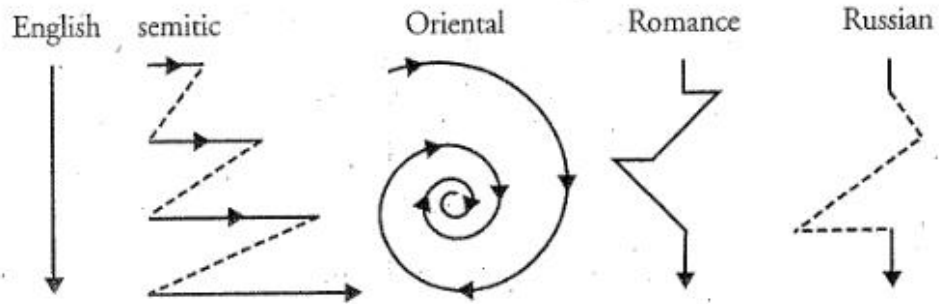


Figure 3.12. Kaplan's (1966) diagram of cross-cultural differences in paragraph organization (from Hudson, 2007)

Kaplan's work has been considered as a pedagogical solution to the problem of L2 students' organisational structures. It has been called "the paragraph-pattern approach" and focuses on teaching "the English features of a piece of writing" (ibid). The students in this approach,

copy paragraphs, analyze the form of model paragraphs, and imitate model passages. They put scrambled sentences into paragraph order, they identify general and specific statements, they choose or invent an appropriate topic sentence, they insert or delete sentences (Raimes, 1983, p. 8 cited in Matsuda, ibid, p. 46)

As a matter of fact, contrastive rhetoric (CR), besides being a tool for studying second language writing (Kachru, 1995), it has been beneficial for dealing with second language reading as well (Hudson, 2007). In fact, CR is a cultural phenomenon which means that

different cultures develop different rhetorical argument patterns that may interfere in second language writing and reading (ibid).

3.14.2. Kaplan's Contrastive Rhetoric Criticism

Kaplan's model has been criticised by many researchers. Though it was useful in accounting for cultural differences in essay writing of students of academic purposes, it has been subject to criticism (Kachru, 1999). His view is considered as simplistic (ibid). In two issues of *TESOL Quarterly* (1997), three papers criticised CR (Scollon, 1997; Spack, 1997; Zamel, 1997) for being insensitive to cultural differences. Kubota (1999, 2001) criticised Kaplan's privilege of English writing. It has been argued that composing English texts on the part of second language does not necessarily reflect the rhetorical structures. Moreover, one cannot say that one rhetorical structure represents all composition in any culture or language. More importantly, Kaplan himself said that the insights gained from scientific analyses of language produce interesting results (cited in Matsuda, 1997). Nonetheless, they may not become useful to language teachers immediately because "the needs of the language analyst are quite different from the needs of the language user" (p. 59 cited in ibid). Consequently, Kaplan changed his position later claiming that languages are likely to include various rhetorical structures.

Conclusion

Throughout this chapter, we have investigated the relationship between the text structure awareness strategy and RC. The aforementioned text structure interventions, both old and new, served as a good tool for approaching this study; in that, they permitted the researcher to

be aware of the major studies and findings related to this strategy and to select the most appropriate line (s) that suit (s) this research. All in all, as the major aim of this study is to investigate the impact of text structure awareness on ESP learners' RC, it should be advisable to take all the above and previous points into account. Thus, to approach this topic, the present research will concentrate on teaching text structure awareness in a pre-, during-, and post-reading framework combining eleven elements. To investigate the impact of this strategy on RC, we have to adopt a specific design. It is triangulated in nature; that is, it includes classroom discussions, a needs analysis questionnaire, a pre-test, five reading sessions, and a post-test. In sum, this is what we are going to find out in the following chapter.

Chapter Four:

**The Experimental Design and Research
Methodology**

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Conclusion

Introduction

This chapter introduces the experimental design and research methodology used in this study in order to test the research hypotheses, including the tools of research that best served it. These include: the classroom discussions, the pilot study, the questionnaire, the pre-test, the reading sessions and the post-test. The discussions were used as a first tool for collecting data about the English language learning and difficulties encountered by students. The pilot study aimed at testing the validity and reliability of the questionnaire. The questionnaire after being revised was distributed and analysed. The pre-test was held after the analysis of the questionnaire had been done. Next, students were taught during five weeks. Finally, the post-test was administered, then, analysed.

4.1. The Sample

The target population is that of Economics and the study population is that of Third Year Accounting and Finance students at Ghardaia University. A convenience sampling technique has been selected. The subjects in this study are 53 ESP students at the University of Ghardaia from a population of 82, which makes the sample representative to some extent. They are pursuing a three-year Bachelor (Licence) degree in Accounting and Finance in Faculty of Economics, Management and Commerce at the University of Ghardaia.

The number of students who got below average scores in the pre-test exceeds that of those who got above average scores; that is, 42 for the former and 11 for the latter. These results are going to be compared with the post-test ones after the intervention.

4.2. Data Collection

This research is a triangulated one. That is, a number of tools has been selected to carry out this study. Nonetheless, before handling the experiment, a description of all those tools including the pilot study is required.

4.2.1. Classroom Discussions

We had the opportunity to discuss the problems faced by students concerning the module of English. Randomly, we asked some students on the needed language skill and the cause of any problems related to that skill or any other aspect of language. The discussions aimed at gaining insights that may help the researcher in having a comprehensive view about the module of English. The questions involved in the discussions were as follows:

1. How do you find studying at the university?
2. What are the difficulties that you face in your studies?
3. Do you like to learn the English language?
4. How many English sessions do you have per week?
5. Do you study English in both semesters?
6. What are the tasks that you have been doing in the English sessions?
7. Are these tasks beneficial to you?
8. What do you need in learning English? Grammar? Vocabulary?
9. Do you need the reading skill in your English sessions?
10. Have you ever dealt with texts in English?
11. What is the benefit of reading in English in your studies?
12. What kind of texts have you read?
13. Have you been taught how to read?

14. What type of questions have you been dealing with?
15. How do you find the main idea of a text?
16. Does the teacher ask you to summarise texts after reading them?

The analysis of the above questions revealed that the students lacked many important skills as students at the university though they are required to analyse and critique many pieces of information. Moreover, they claimed indirectly that they do not have RC in the English sessions which poses many question marks. As we saw previously, the first skill needed in academic studies is 'reading'. And since students are supposed to prepare theses in their specialty, they are required to read a sizable number of references in at least three languages: Arabic, English and French. According to the literature, the best references are in English. This means that they should be taught and trained to read texts in English.

The conclusion drawn is that the most needed skill in the English sessions is reading. This confirms the idea that we already have and which says that ESP students in academic settings such as Accounting and Finance face difficulties in RC. To this end, it was necessary to design and administer a needs analysis questionnaire in order to have more insights and information about the students' habits in reading, how they read in English in their content area and whether they use reading strategies for RC. By reading strategies, we mean pre-, during- and post-reading comprehension strategies.

4.2.2. Questionnaire's Description

Questionnaires are important sources of information. According to Nunan (1992), “the questionnaire is a relatively popular means of collecting data. It enables the researcher to collect data in field settings, and the data such as free-form fieldnotes, participant observers’ journals, the transcripts of oral language” (p. 143). The questionnaire was composed of three parts: the reading habits, the academic reading comprehension in English and the reading comprehension strategies. The first part included nine questions; the second, seven; and the third, twenty, which made thirty-four questions. The questions are closed ones and carefully worded. These closed questions, according to Nunan (ibid) are easy to quantify and analyse particularly when a researcher uses computer statistics packages such as SPSS.

- **Reading Habits**

The questions in this part aimed at getting insights on whether students read in Arabic and other languages, what they read in those languages (reading materials), how they find reading in those languages (easy, difficult, ...), whether the reading skill is important in their academic studies or not and what they read in these studies (text types). This part includes nine questions.

- **Academic Reading Comprehension in English**

This part includes seven questions on “reading in English” in their speciality. The questions were organised as follows: how they find reading in English, whether they make extra reading outside their teacher’s assignments, whether they read academic texts for the

purpose of comprehending them or not, what they read exactly in a text, how they comprehend a text and what factors that assist them in comprehending a text.

- **Reading Comprehension Strategies**

The last part of the questionnaire contained twenty questions related to the use of some reading strategies used by students in reading texts. These were about pre-reading strategies such as previewing, background knowledge activation, predicting, forming questions, skimming, scanning, and about during-reading strategies such as what is important for comprehending a text, what they focus on for comprehending a text (grammar, vocabulary, word order, ...), what they do for understanding a word (guessing the meaning from the text, looking at affixation, ...), what they do for comprehending a sentence (reading every word, looking for the subject, ...), how they comprehend a paragraph, whether the structure of the text helps them in comprehending it, whether each paragraph has a purpose and carries a sub-idea, whether they reread difficult parts of a text and underline words and phrases that occur frequently in a text. Finally, the last questions concern the post-reading strategies such as note-taking, inferring, writing comments using the notes taken and summarising a text in a paragraph or in a graphic organiser.

4.2.3. Pilot Study

In order to investigate the set hypothesis, we have opted for checking the reliability and validity of the experiment by conducting a pilot study on a number of students. This process aimed to show us the strengths and the weaknesses of the questionnaire. To this end, the questionnaire was distributed to ten volunteer students in the department of Accounting and

Finance not involved in this experiment. These were from the second year Marketing in Faculty of Economics, Management and Commerce at the University of Ghardaia.

According to McCarthy (2001), “Piloting of questionnaires is essential to identify ambiguities and other problems before the questionnaire is administered” (p. 60). Mackey and Gass (2005) claim that “A pilot study is an important means of assessing the feasibility and usefulness of the data collection methods and making any necessary revisions before they are used with the research participants” (p. 43).

➤ **Discussion of the Findings**

After analysing the questionnaire that was distributed to 10 students, we came to the following conclusion that the questionnaire should be extended to one hour and a half. We also found out that the respondents needed assistance in clarifying some ambiguous questions and instruction.

4.2.4. Administering the Questionnaire after the Pilot Study

After analysing the pilot study, there were some modifications. First, the duration of the questionnaire was extended to one hour and a half and two questions were added, namely 6 to know what they read in other languages and 24 to check the type of processing they use while reading. In short, the questionnaire took place in the tutorials’ classroom. The teacher distributed the questionnaire which is composed of five pages including three sections. Then, she explained to them how to proceed in the answer by following the instructions. She also told them to enquire about anything they miscomprehend.

A number of students asked questions about some words and terms that seemed to be unfamiliar to them. Others claimed that it is the first time that they meet such kind of questions and other ones stated that they did not have an idea about reading comprehension strategies. It was also new to them that academic texts include hidden messages.

In sum, the questionnaire itself was a kind of an interactive activity that allowed the students to enlarge their thoughts concerning the reading process and reading comprehension strategies. The students answered all the thirty-six questions.

The next step after the questionnaire was to test the students through a reading comprehension test (pre-test). To this end, the researcher prepared a test of eleven items round four sections to be done during one hour and a half.

4.2.5. The Pre-Test

The pre-test was designed according to the objectives assigned to this study. To this end, the test included eleven (11) items organised round four sections and ranged from recognising the main idea up to the text summary to be accomplished within 90 minutes. Students' answers were rated using scores.

➤ The Selected Text

“Investing your money” is a text in Richey (2011, p. 36). This text includes one paragraph with 202 words. It has been selected for a number of reasons. First, it is related to Economic Sciences in general (content area), taking into account that students in this study belong to Economics. Second, it includes, in the main, the “definition” and “descriptive” patterns of organisation. According to the literature, the first pattern of organisation that should be taught

is “definition”. These patterns are very important and useful at the beginning of any tuition as found extensively in expository/informational texts.

➤ **Pre-Test Items:**

The most important items investigated in this study are: main idea of text, type of text, pattern of organisation used in the selected text and providing an example, the audience of text, filling a graphic organiser in, summarising the text in addition to other ones such as answering comprehension questions, filling gaps in with specialised vocabulary, and answering a True/False activity.

The first part of the pre-test aimed at checking to what extent the subjects can grasp the main idea of the text through the following question: “What is the main idea of the text?”. The second question aimed at checking to what extent the students can identify the text structure of the text and give an example (the text structure awareness strategy). Then, there was another question about who the text addresses and why. This question aimed at testing whether the subjects can decipher the intended readership and message (the inferencing strategy). The remaining questions were related to the text comprehension.

The second part (2) investigated more the text comprehension through a true/false task. The aim was to check whether students understood to a greater extent or not.

The third part (3) was about specialised vocabulary. That is to say, it provided seven (7) words (specialised vocabularies) to be added in seven (7) sentences. The aim was to see how well the respondents recognise the seven vocabularies.

The fourth part (4) was about filling in a graphic organiser. This graphic organiser summarises the main idea of the text (the graphic organiser strategy).

The last part (5) concerns the summarisation of the text in a paragraph. This part reflects the full comprehension (summarisation strategy).

The results obtained showed that forty-two students got grades **below** ten out of twenty (10/20) (see Appendix F) which means that the majority of the subjects failed at comprehending the text. Only one type of tasks was achieved by 58.49% of them. This concerns the True/False activity and the result can be due to chance.

After analysing the results, the Mean obtained was 6.75 and the standard deviation (SD) was 3.92.

Students	Pre-test scores	Post-test scores
1	03.5	07.5
2	14	18.25
3	03.5	12.5
4	06	16
5	02.5	11.5
6	04.5	06.5
7	16	19
8	05	12.5
9	04.5	11.75
10	06.5	07
11	05	07.25
12	09.25	18.25
13	07.5	17
14	05.75	14.75
15	06.5	17
16	02.5	16.75

17	04	08.25
18	14	12
19	05	17
20	08.5	17
21	14	18.5
22	04	12.5
23	04.25	10.25
24	02	05.25
25	07	09
26	05	06
27	02.5	10.75
28	11.75	15
29	07	13
30	04.5	11.75
31	06	09.5
32	09	13
33	06	12.5
34	05.5	11.25
35	03	02.5
36	01	07.25
37	15.5	18.25
38	05	13.25
39	06	05
40	03.5	09
41	04.5	13.25
42	04.5	11
43	04	11

44	06	17.25
45	10	12.25
46	12	14.25
47	04.5	09.75
48	04.5	10.5
49	14.25	15.25
50	05	07.25
51	12	14.5
52	15.25	14.75
53	05	19.25

Table 4.1. Students' pre-test and post-test scores

The researcher also made the percentage of the correct answers of the eleven items investigated in the pre-test as follows:

Pre-test items	Correct answers
1. The main idea of a text	41.50%
2. Type of text	16.98%
3. Pattern of organisation	39.62%
4. Example of pattern of organisation	30.18%
5. The readership (who the text addresses)	13.20%
6. The message conveyed via the text	9.43%
7. Comprehension questions	47.16%
8. Filling in gaps (vocabulary)	30.18%
9. True/False	58.49%
10. Filling in a graphic organiser	28.30%
11. Text summary	13.20%

Table 4.2. Pre-test's correct answers' percentages

From above, the percentages are between the ones which are low (the main idea of text, pattern of organisation, example of the pattern of organisation, comprehension questions, filling in gaps (vocabulary) and filling in a graphic organiser) and the ones which are very low, viz., type of text, the readership (who the text addresses), and the text summary.

All in all, the obtained results urged the researcher to begin an immediate intervention. This took the form of five reading sessions of one hour and a half each.

4.3. Teaching Text Structure Awareness

After this entire journey, there is an urge to focus on how to teach text structure awareness strategy. We have claimed earlier that we are adopting and combining the two second lines of research mentioned in Grabe (2009) which are:

- teaching comprehension-strategy instruction that highlights discourse-structure awareness,
- and
- teaching the use of graphic organisers to display rhetorical structures

In other words, we are concentrating on teaching text structure for RC and combining it with the process of summarisation both visually in graphic organisers and in paragraphs. But, before introducing the approach adopted in the present study, we shall see two approaches to text structure, namely Meyer et al's and Amburster and Anderson's.

4.3.1. Meyer et al.'s Approach

Readers are required to recognise types of text structures and the purposes of the author. To this end, Meyer et al. (1980) (as cited and adapted by Klingner et al., 2007) provided five basic text structures with the signalling words and phrases. Table 4.3 summarises this finding.

TABLE 4.3. Five Basic Text Organizational Structures and Their Signals

Text structure	Signal words and phrases
<p><u>Description</u> Describes the attributes, specifics, and/or setting. The main idea is the "who, what, where, when, and how."</p>	for example, for instance, this particular, specifically, such as, attributes of, properties of, characteristics of, qualities of, in describing
<p><u>Sequence</u> Groups ideas by order or time. The main idea is the procedure or sequence of events related.</p>	first, next, then, afterward, later, last, finally, following, to begin with, to start with, as time passed, continuing on, in the end, years ago, in the first place, before, after, soon, recently
<p><u>Causation</u> Presents causes or cause-and-effect relationships between ideas. The main idea is organized into cause-and-effect parts.</p>	if/then, as a result, because, since, for the purpose of, caused, led to, consequences, thus, in order to, this is why, the reason, so in explanation, therefore
<p><u>Problem/solution</u> Portrays a problem and solutions. The main idea is organized into two parts: a problem part and a solution part, or a question part and an answer part.</p>	<p><i>problem:</i> problem, question, puzzle, enigma, riddle, hazard, issue, query, need to prevent, the trouble</p> <p><i>solution:</i> solution, answer, response, reply, rejoinder, return, to satisfy the problem, to take care of the problem, in answer to the problem, to solve the problem, to set the issue at rest</p>
<p><u>Comparison</u> Relates ideas on the basis of differences and similarities. The main idea is organized into parts that provide a comparison, contrast, or alternative perspectives on a topic.</p>	<p><i>compare:</i> alike, have in common, share, resemble, the same as, is similar to, looks like, is like</p> <p><i>contrast:</i> in contrast, but, not everyone, all but, instead, however, in comparison, on the other hand, whereas, in opposition to, unlike, differ, different, difference, differentiate, compared to, whereas, although, despite</p>
<p><u>Listing</u> Occurs with any of the above structures (i.e., when descriptions, sequences, causation, problems/solutions, or comparison views are presented).</p>	and, in addition, also, include, moreover, besides, first, second, third, subsequent, furthermore, at the same time, another

Note. Adapted from Meyer (2003). Copyright 2003 by Erlbaum. Adapted by permission. (Cited in Klingner et al., 2007, p. 89)

4.3.2. Armburster and Anderson's Approach

Another approach for teaching learners how to identify expository text structure was the one offered by Armbuster and Anderson (1981). In their approach, they encourage the reader to think about the purpose of the author for presenting information. The following table represents the type of structure and the author purposes (adapted from Armbuster and Anderson, 1981 cited in Klingner et al., 2007, p. 90).

TABLE 4.4. Types of Text Structures and Author Purposes

Structure	Imperative form	Interrogative form
Description	Define A Describe A List the features/characteristics of A	What is A? Who is A? Where is A?
Temporal sequences	Trace the development of A Give the steps in A	When did A occur (in relation to other events)?
Explanation	Explain A Explain cause(s) of A Explain the effect(s) Predict/hypothesize	Why did A happen? How did A happen? What are the effects? What will the effects be?
Compare-contrast	Compare and contrast List the similarities and differences	How are A and B alike? How are A and B different?
Definitions/examples	Define and give examples	What is A? What are examples of A?
Problem/solution	Explain the problem and the solution	How is B a problem? What are its solutions?

Note. Data from Armburster and Anderson (1981). (Cited in Klingner et al., 2007, p. 90)

4.4. Conducting Explicit Instruction

In order for the ESP learners to be aware of text structure, they need training in how to make sense of texts using text structure awareness strategy

. According to the literature, one of the ways of providing explicit instruction on text structures is the seven-step procedure recommended by McGee and Richgels (1985) as follows:

1. Select a textbook passage that is a good example of the structure you want to teach.
2. Prepare a graphic organizer showing key ideas and how they are related (the structure).
3. Introduce students to the text structure and show them the organizer.
4. Have students use the information in the organizer to write a passage.
5. Encourage them to use key words to show the relationships among ideas.
6. Have them read the textbook passage and compare what they wrote with the actual passage.
7. Help students visualize patterns and the ways ideas are connected

(Irwin, 1991 as cited in Klingner et al., 2007)

Other researchers provided other methods and as we saw previously, the reading teacher may teach text structure without focusing on signaling words. There exist texts which do not contain signal words and phrases. In this case, it is up to the teacher to select the types with or without signaling words.

➤ **Text Structure Awareness Activities**

Some of the activities that make readers aware of text structure suggested by Grabe (ibid) are:

1. Preview texts and highlight key words that signal text structure.
2. Highlight a paragraph (or multiple paragraphs) and decide its (their) function in the text.
3. Make predictions about the information in the next section of the text.
4. Use semantic mapping to identify conceptual and thematic linkages.
5. Fill in an outline of the text and determine the main units of the text. Decide what makes each section identifiable as a separate unit.
6. Write summaries of texts that can be used for more complex postreading tasks and projects.
7. Reread a text, identify main-idea sentences, and discuss why these sentences are good candidates for presenting main ideas.
8. Match main ideas and supporting information across two columns.
9. Examine a subsection of a text, identify the discourse pattern, and describe how it is organized. Identify specific words that signal this pattern of organization.
10. Choose a main idea that incorporates information from more than one part of the text. Ask students to identify multiple parts of the text that contribute to the main idea in one way or another (a definition, a description, an example, a problem, etc.)
11. Reorganize scrambled paragraphs and scrambled sentences to reassemble a text or to make a good summary.
12. Remove sentences that do not belong in a summary or a paragraph.

Depending on the goal of the reading instruction, the teacher may choose some or all of the above activities. They may select some of the activities in one session and other ones in another one.

➤ **Present Study Instruction**

In this study, we are concerned with the top-level structure of texts. The focus is on dealing with texts that do not include such a load of signal words. The researcher has designed a method of teaching text structure awareness strategy as follows:

1. Prepare the students to the text by using some pre-reading strategies such as previewing, predicting, skimming, ...
2. Distribute the text and ask them to get its gist.
3. Ask them to give the evidence.
4. Ask them to identify the pattern of organisation used in the text.
5. Once they recognise it, ask them to justify their answers by extracting an example from the text.
6. Ask them to pick out any signalling words or phrases that reflect the pattern of organisation.
7. Ask them about the objective behind writing the text and assist them in recognising that.
8. Ask them to decipher who the text addresses (the readership).
9. Ask them why the author has written the text; that is the conveyed meaning (inferring).
10. Ask them to make an outline to the text reminding them to focus on the main idea, then the details.
11. Meanwhile, draw a graphic organiser that suits the structure of the text, or ask the students to provide one.
12. Give the opportunity to the students to fill in the graphic organiser individually or in pairs.

13. Discuss the answers with students and let them fill in the graphic organiser that is drawn on the board.
14. Once they finish, ask them to write a summary of the text using the graphic organiser information, insisting that the topic sentence which comes at the beginning of the paragraphs is the main idea of the text and the following are supporting details.
15. Invite the students to read and discuss their summaries.
16. Finally, both students and you agree on a final summary.

The training sessions should focus on making the subjects in this study aware of using the text structure strategy to comprehend texts. The latter strategy cannot be dissociated of the pre-, during- and post- reading strategies framework. In other words, to be aware of this strategy, students also need to use the other reading strategies. They need to skim and scan the text, and the like. Before and during the training sessions, students should be motivated towards reading by reminding them of the advantages of being able to read efficiently in order to comprehend, get insights and grasp the right message of the author.

In order to comprehend expository texts, readers are required to identify the text structures. To do this, they should recognise how the author organise the ideas and how these are interrelated. So, the role of the teacher is to draw the students' attention to the importance of text structure; that is, he/she has to make them aware of text structure.

4.5. Components of the Reading Sessions

Each reading session included four sections. The first one consisted of the following elements:

- The main idea of text
- The type of text
- The pattern of organisation of text
- An example of pattern of organisation
- The readership of text
- The message conveyed via the text

The second section includes a number of activities related to comprehension. These take various types of tasks such as:

- Read the text, the answer the following questions.
- Read the text, and write true 'T' or false 'F'.
- Read the text, then combine each paragraph to its corresponding sub-idea.

Section three deals with specialised vocabulary, in the main. The questions take the following forms:

- Match the following words to the definitions.
- Complete the sentences with the following words.

The last section, four, concerns the organisation of the main idea of text in a graphic organiser. It also includes the summary writing of the same text. The teacher may direct the students' attention towards the topic of the text under study by providing some clues while leaving the rest of the information empty. The summary of the text is composed of three main elements:

- Keeping the main idea

- Suppressing unimportant ideas
- Providing examples and illustrations

So the main tasks to be done in the last section are:

- Fill in the graphic organiser.
- Summarise the text in few sentences.

The five reading sessions changed the students' view towards reading. In other words, students became more aware of the RC process. They benefited from the TSA strategy and learnt that authors send messages through texts and the role of readers is to grasp that message. They did that by recognising the patterns of organisation used in texts, and by providing an example of that pattern. Moreover, they could identify the readership of texts and infer the intended meaning.

They also learnt how to make use of different reading strategies; that is, pre-reading, during-, and post-reading strategies. That is, they were trained to skim the text for getting its gist, scan the text for looking for specific information. They were trained to take advantage of the information in texts to answer comprehension questions and do tasks related to 'vocabulary'.

The last part of each reading session proved that subjects became more aware of text structure; in that, they could fill in graphic organisers and summarise texts in paragraphs. This means that they comprehended what they read.

After spending five sessions of instruction, it was time to test the students again to compare their performance before and after the intervention.

4.6. The Post-Test

After the training sessions, students were tested once again to check to what extent the intervention was beneficial. To this end, the post-test included the same items as the pre-test. That is to say, the test contained a text followed by a variety of questions on the main idea of the text, providing a title to the text, the text structure used by the author, an example that shows the text structure, the type of text, the readership of the text, cohesive devices such as reference, and other tasks such as completing sentences with words, saying whether sentences are true or false, filling a graphic organiser in, and summarising the suggested text.

The post-test took place in the tutorial's classroom in the department of Accounting and Finance. It lasted one hour and a half. The students worked seriously and at ease. There was no test anxiety. Students made use of the text. They studied the text in a different manner as they did in the pre-test. Two students came late, but tried to do their best.

The students appreciated the test and thanked the researcher for the sessions they shared with her as the post-test session was the last session in the semester.

The analysis of the post-test indicated that there was an improvement in the students' answers. All the eleven items witnessed a progress and the students' scores were higher than the pre-test ones in general except the ones of student number 14 and student number 52. It appears that there was an evolution in the way of reading on the part of students. The difference was immense. The Mean of the post-test was 12.29 and the standard deviation was 4.14. The following table shows the percentages of the eleven items.

Post-test items	Correct answers
1. The main idea of a text	69.81%
2. Type of text	56.60%
3. Pattern of organisation	83.01%
4. Example of pattern of organisation	67.92%
5. The readership	45.28%
6. The message conveyed via the text	77.36%
7. Comprehension questions	50.94%
8. Filling in gaps	58.49%
9. True/False	66.03%
10. Filling in a graphic organiser	84.90%
11. Text summary	67.92%

Table 4.5. Post-test's correct answers' percentages

4.7. Research Methodology

The main goal of this study is to investigate the impact of text structure awareness on ESP learners' RC. The focus in this methodology is on assisting students in engaging interactively in communicative activities likely to help them in comprehending texts using the text structure awareness (TSA) strategy. This strategy cannot be taught in isolation, for it is a reading strategy among other ones. For this reason, we are going to train students through a pre-, during-, and post-reading framework while focusing on TSA strategy within a discourse-based approach which takes into account all the elements described in Chapter Two. That is to say, we are going to explain to the subjects that any text carries a message that is not made explicit, but should be recognised by the reader. The author organises his text in a way that suits the objective.

In this part of the research, we are going to explore the relationship between the use of text structure strategy and expository text comprehension. More specifically, we are going to test the extent to which TSA affects ESP learners' RC. So, this part will be dealing with what to be taught, how to be taught and how to be evaluated; that is materials, teaching methodology and assessment procedures.

4.7.1. The Method

For the hypothesis investigation, a quasi experimental method has been selected to describe the reading course and describe and analyse the questionnaire, the pre-test, and the post-test. A pre-test/post-test approach has been used to consider the extent to which the subjects would improve their RC. Nonetheless, a qualitative analysis is included mainly after each reading session.

4.7.2. Data Analysis

English is a compulsory module, which means that it may suit some students, but not others. Nonetheless, we made discussions through which we could investigate the common needs among students. And accordingly, we handled a needs analysis questionnaire.

These students were exposed, next, to a questionnaire of 36 questions, a pre-test, a five-session training, and a post-test. This experiment focused mainly and only on the relationship between the use of text structure awareness reading strategy and expository text comprehension.

4.7.2.1. Classroom Discussions

The discussions were the first kind of data collection. The results of the discussions revealed that the most needed aspect of language is the reading skill since the majority of the subjects hope to continue their studies. They say that they can answer what is apparent only; that is, what is superficial. They do not distinguish the main idea from details. Moreover, they do not care about who the text addresses or how it is structured. All in all, the following is the questions and the varied answers.

1. How do you find studying at the university?

The majority of the students mentioned that studying at the university is good, but there are many modules. Few of them said that studying at the university is amazing.

2. What are the difficulties that you face in your studies?

Some of the students mentioned that their studies are challenging. Others claimed that they find what they study is very interesting, but they need time since they work outside the university. They cannot make a choice since both are essential.

3. Do you like to learn the English language?

All the students appeared to like to learn the English language. They also mentioned that they are facing some problems concerning the language proficiency. Some of them argued that they are obliged to like it since it is a compulsory module.

4. How many English sessions do you have per week?

All of the respondents said they have one English session per week. Some added that they need another extra session, for they wish to continue their studies and they will be required to prepare questionnaires, write welcoming letters, etc. in English.

5. Do you study English in both semesters?

Some of the students were not aware of the fact that they have English in only the first semester beginning from the academic year 2014-2015. They became astonished when they knew the news.

6. What are the tasks that you have been doing in the English sessions?

Some of the students were able to remember what they were doing and learning in the English sessions whereas other ones seemed to have no idea. In short, those who remembered mentioned that they did a number of tasks and activities such as learning vocabulary in English, reordering words of sentences, putting verbs in the correct

form. They also mentioned that they had occasionally texts to be read and they had to answer comprehension questions related to those texts.

7. Are these tasks beneficial to you?

Few of the students said that those tasks are beneficial. However, others said that they needed much focus on other features of language. They claimed that they cannot even write a letter of application or a business letter.

8. What do you need in learning English? Grammar? Vocabulary?...

All the respondents claimed they need to know all the aspects of English in order to be able to use it correctly. They stated, actually, that they need to enlarge their English proficiency. Some of them said that English is very important in the world of Business and communication.

9. Do you need the reading skill in your English sessions?

Almost all the students agreed on the importance of the reading skill in the English sessions. They claimed that what they had been doing from their first year at the university until the second year was activities about vocabulary and terms to be translated either from Arabic to English or vice versa.

10. Have you ever dealt with texts in English?

As they mentioned earlier, they used texts just occasionally. They added that they were in need to be exposed to more English texts in their specialty.

11. What is the benefit of reading in English in your studies?

Some of the students claimed that they need English for preparing their theses. They asserted that they are required to look for information that is related to their domain of specialty when asked to prepare exposes.

12. What kind of texts have you read?

Some stated that the texts they dealt with are related to their specialty and they took the form of business letters, etc whereas others seemed not to have any idea.

13. Have you been taught how to read and get the main idea of texts?

At the beginning, the question was not clear to the students. So, we tried to make it more explicit by reformulating it in the following way: does the teacher show you how to read and get the main idea of texts? At this time, all of them said 'no'. They added that all what they were asked to do was to read silently and answer the questions.

14. What type of questions and tasks have you been dealing with?

The main types of questions and tasks, according to the students, are:

1. Read the text and pick out the main idea.
2. Read the text and answer the following questions.
3. Find the synonyms and the opposites of the following words.

15. How do you find the main idea of a text?

Most of the students kept quiet while few other ones replied that they read the whole text in order to pick out the main idea of a text.

16. Does the teacher ask you to summarise texts after reading them?

The students said they were never asked to summarise texts. And even if they were asked to do so, they could not, for they were not accustomed to such type of activities and that the sessions, most of the time, do not allow students to accomplish all the reading tasks.

4.7.2.1.1. Analysis of the Classroom Discussions

After this discussion, it appears that students are facing problems in their academic studies in general and in the English module in particular. In the latter, students claim indirectly that they need assistance in acquiring the English language. Moreover, it seems they have not been trained to how to read and get the main idea of texts nor have they been shown how to summarise texts. This situation reflects the deficiency of the ESP course in the Accounting and Finance department. This means that there should be a rethinking process concerning the students' needs.

And since students stated that they need the reading skill, it is advisable to conduct a questionnaire to know more about the reading habits, the English academic reading comprehension and the reading strategies.

4.7.2.2. The questionnaire Analysis

The questionnaire has been primarily chosen only for gaining insights from the subjects about their viewpoints on academic reading and their ways and experiences of reading. Rating scale questions of “yes-no”, “easy-difficult”, a 3-scale of “easy-fairly easy-difficult” and on a 4-scale of “never-sometimes-frequently-always” have been used. The questions were selected so as to reflect the present study. That is to say, they revolve round three sections: the reading habits, the English academic reading comprehension and the reading comprehension strategies.

The questionnaire lasted one hour and a half and took place in the tutorial’s classroom. It is composed of three parts: reading habits, the academic reading-comprehension in English, and the reading-comprehension strategies. The results have been analysed using SPSS software.

I. Reading Habits

Q1. Do you read in Arabic?

- Yes
- No

Table 4.1. Reading in Arabic

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	53	100.0	100.0	100.0

According to the table, all the respondents (100 %) read in Arabic. All of them have studied in Algerian schools, which means it is obvious that they read in Arabic. What is more essential is that they read.

Q2. What do you read?

- a- Newspapers
- b- Magazines
- c- Articles
- d- Books

Table 4.2. The types of reading materials in Arabic

	Frequency	Percent	Valid percent	Cumulative percent
a + d	36	67.9	67.9	67.9
b+c	14	26.4	26.4	94.3
Valid B	3	5.7	5.7	100.0
Total	53	100.0	100.0	

The answers of the respondents varied between the ones who read magazines and articles, but more than half of them (67.9 %) read books and newspapers. Reading a variety of materials enriches the students' habits for reading. The result is logical since they are educated people.

Q3. How do you find reading in Arabic?

- Easy
- difficult

Table 4.3. Easiness/Difficulty of Reading in Arabic

	Frequency	Percent	Valid percent	Cumulative percent
Valid Easy	53	100.0	100.0	100.0

All the respondents, according to the table above, find reading in Arabic 'easy'. The result is reasonable since they have been instructed in Arabic. They means that they have been trained to read a number of types of reading materials in Arabic, which makes the process of reading easy.

Q4. Do you read in another language?

- Yes
- No

Table 4.4. Reading in another language

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	28	52.8	52.8	52.8
No	25	47.2	47.2	100.0
Total	53	100.0	100.0	

As shown in the table, 52.8 % of the subjects read in another language whereas 47.2 % do not. This obtained result shows that not only do they read in Arabic, but in other languages as well. This means that they are aware of the importance of reading in other languages. This enriches their reading habits.

Q5. If the answer is ‘yes’, what is it?

Table 4.5. Reading with what language

	Frequency	Percent	Valid percent	Cumulative
Valid (French+English)	10	18.9	35.7	35.7
(French+Tamazight)	10	18.9	35.7	71.4
(English+French+Tamazight)	4	7.5	14.3	85.7
(French)	4	7.5	14.3	100.0
Total	28	52.8	100.0	
Missing Missing system	25	47.2		
Total	53	100.0		

Fifty-two point eight percent of the respondents read in other languages such as French, English, and Tamazight. Those who read in French only make 7.5% of those who read in another language. The ones who read in French and English make 18.9% equally with the ones who read in French and Tamazight, taking into account that there are some students whose first language is Tamazight. 7.5% read in French, English and Tamazight. Nonetheless, there are few students whose mother tongue is Arabic, but read in Tamazight.

Q6. What do you read in that language?

- a- Newspapers
- b- Magazines
- c- Articles
- d- Books
- e- Other: reading on the Internet

Table 4.6. Reading materials in another language

	Frequency	Percent	Valid percent	Cumulative percent
	a +c +d	10	18.9	35.7
	b + c	4	7.5	50.0
Valid	A	5	9.4	67.9
	B	2	3.8	75.0
	D	7	13.2	25.0
	Total	28	52.8	100.0
Missing	Missing system	25	47.2	
Total		53	100.0	

The answers of the respondents varied between the ones who read newspapers, magazines, articles (18.9 %), but less than half of them (32.1 %) read books. Moreover, some of these read on the Internet. Reading books only (13.2%) or newspapers only (9.4%) or magazines only (3.8%) is not sufficient.

Q7. How do you find reading in that language?

- Easy
- Fairly easy
- Difficult

Table 4.7. The easiness/difficulty of reading in the other language

	Frequency	Percent	Valid percent	Cumulative percent
Easy	3	5.7	5.7	5.7
Fairly easy	27	50.9	50.9	56.6
Difficult	23	43.4	43.4	100.0
Total	53	100.0	100.0	

Fifty point nine percent of the respondents (50.9 %) who read in other languages find reading fairly easy and 5.7 % easy whereas 43.39% find it difficult. Half of the respondents find reading **fairly easy**. However, only 5.7% of them find it **easy** and 43.4% **difficult**.

What is important is that those students read despite the fact that they find it **fairly easy**, **easy** or **difficult**.

Q8. Is “reading” very important in your academic studies?

- Yes
- No

Table 4.8. The importance of Reading in academic studies

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	53	100.0	100.0	100.0

As the table indicates, all the respondents agree that the reading skill is very important to their academic studies. According to Grabe (1991; 2009) and Saville-Troike (2006), reading is the most needed skill in academic studies and it is through reading that students gain insights and knowledge and expand their thinking.

Q9. What do you read in your academic studies?

- a- Books
- b- Chapters of books
- c- Articles
- d- Papers

Table 4.9. The types of academic reading materials

	Frequency	Percent	Valid percent	Cumulative percent
	a-b-c-d	4	7.5	7.5
	a-b-c	12	22.6	30.2
	b-d	13	24.5	54.7
Valid	b-c	10	18.9	73.6
	B	4	7.5	81.1
	C	10	18.9	100.0
	Total	53	100.0	

Twenty-four point five percent of students read chapters of books and papers, 22.6% books, chapters of books and papers, 18.9% chapters of books and articles whereas 7.5 % read books, chapters of books, articles and papers. This result reflects the role of assignments given by teachers. Most of the time, teachers ask students to read chapters of books or even books to be summarised or discussed. Nevertheless, reading books is also favoured by a number of students.

II-The Academic Reading Comprehension in English

Q10. How do you find reading in English (in your specialty)?

- e- Easy
- f- Fairly easy
- g- Difficult

Table 4.10. The easiness/difficulty of reading in English

	Frequency	Percent	Valid percent	Cumulative percent
Valid Easy	4	7.5	7.5	7.5
Fairly easy	25	47.2	47.2	54.7
Difficult	24	45.3	45.3	100.0
Total	53	100.0	100.0	

Forty-five point three percent of the respondents find reading in English **difficult** whereas 47.2% find it **fairly easy** though the majority of them have studied English for at least nine years including the university. This situation poses many questions. The students' specialty, Accounting and Finance, is related to the world of business and commerce which means that they are expected to be aware of the English language importance.

Q11. I make extra reading outside your teacher's assignments.

- h- Always
- i- Frequently
- j- Sometimes
- k- Never

Table 4.11. Extra reading outside the teacher' s assignment

	Frequency	Percentage	valid Percentage	Cumulative Percentage
Valid Frequently	1	1.9	1.9	1.9
Sometimes	30	56.6	56.6	58.5
Never	22	41.5	41.5	100.0
Total	53	100.0	100.0	

Fifty-six point six percent of the respondents **sometimes** read outside the teacher's assignment and 1.9 % read frequently whereas 41.5 % never do it. This result indicates the lack of awareness among students about extra reading. All information given by teachers in class is not sufficient. For this reason, students are provided with lists of references to investigate more in their area of study.

Q12. Do you read academic texts for the purpose of comprehending them?

- Yes
- No

Table 4.12. Reading academic texts for comprehension

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	34	64.2	64.2	64.2
Valid No	19	35.8	35.8	100.0
Total	53	100.0	100.0	

Sixty-four point two percent of the respondents read academic texts for the purpose of comprehending them whereas 35.8 % do not. The major aim of academic reading is on the part of readers is to extract information to accomplish a number of tasks such as making comments, evaluating, summarising, and the like.

Q13. If you do not read for comprehension, why do you read then?

Table 4.13. The purpose for reading if not for comprehension

	Frequency	Percent	Valid percent	Cumulative percent
Valid -Obligated to do the homework	16	30.2	84.2	84.2
Valid -For pleasure	3	5.7	15.8	100.0
Total	19	35.8	100.0	
Missing Missing system	34	64.2		
Total	53	100.0		

Thirty-five point eight percent of the respondents do not read texts for the purpose of comprehending them. Among them, 30.2% say they are obliged to do their homework. The remaining ones, 5.7%, read only for pleasure. The result shows that the students are not aware

of the importance of reading for comprehension. It is by comprehending what they read that they can answer questions, infer the intended meaning or do any related tasks.

Q14. What do you exactly read in an article, a chapter...?

- a- The introduction only
- b- The body only
- c- The conclusion only
- d- The introduction, the body and the conclusion
- e- The introduction and the conclusion

Table 4.14. The parts read in a text

	Frequency	Percent	Valid percent	Cumulative percent
a	2	3.8	3.8	3.8
b	2	3.8	3.8	7.5
Valid d	37	69.8	69.8	77.4
E	12	22.6	22.6	100.0
Total	53	100.0	100.0	

Sixty-nine point eight percent of the participants read the whole text including the introduction, the body and the conclusion whereas 22.64 % read the introduction and the conclusion. Besides, 3.8% of them read the introduction only and 3.8% read the body only.

The reading literature tells us that to get the main idea of a text, suffice it to read the introduction and the conclusion. However, when details are needed, reading the whole text including the body becomes a necessity. That is, the purpose of reading specifies what to be read.

Q15. What are the factors that help you comprehend a text in your specialty?

- a- Discourse markers (however, moreover, but, ...)
- b- Content words (adjectives, adverbs, nouns, ...)
- c- Function words (pronouns, articles, prepositions, ...)
- d- Technical and academic vocabulary
- e- The tense of the verbs

Table 4.15. The factors helping the text comprehension

	Frequency	Percent	Valid percent	Cumulative percent
a+b+c+d+e	31	58.5	58.5	58.5
a+b+c+d	12	22.6	22.6	81.1
Valid a+b+c	6	11.3	11.3	92.5
a+b	4	7.5	7.5	100.0
Total	53	100.0	100.0	

Fifty-eight point five percent of the students find discourse markers, content words, function words, technical and academic vocabulary and the tense of verbs important for comprehending a text whereas 22.6 % make use of the four first factors. 11.3 % of them rely on discourse markers, content words and function words while 7.5 % make use of discourse markers and content words only.

This result shows that more than 80% make use of discourse markers, content and function words and technical and academic vocabulary, which is important and helpful to text comprehension.

Q16. What is important for comprehending a text in your opinion?

- a- The topic of the text
- b- The organisation of the text (descriptive, cause-effect ...)
- c- The type of text (article, letter, ...)
- d- Whether sentences are long or short
- e- Whether sentences are simple or complex
- f- Word order
- g- Spelling of the word
- h- Recognising individual words
- i- Reading groups of words
- j- Combining the main ideas of paragraphs
- k- All of them

Table 4.16. The factors contributing to text comprehension

	Frequency	Percent	Valid percent	Cumulative percent
a+b+c+i+j	9	17.0	17.0	17.0
d+e+f+g+h	8	15.1	15.1	32.1
Valid a	34	64.2	64.2	96.2
J	2	3.8	3.8	100.0
Total	53	100.0	100.0	

Sixty-four point two percent of the respondents mention that the ‘topic of the text’ is important for comprehending a text whereas 17.1 % comprehend a text by considering the “topic of text”, the “organisation of the text”, the “type of text”, “reading groups of words” and ‘combining the main ideas of the paragraphs’ are important for comprehending a text. Moreover, 15.1 % of them find the “length of text”, the “complexity/simplicity of text”, “word order”, “spelling of the word” and “recognising individual words” contribute to the text comprehension as well while 3.8 % rely on ‘combining the main ideas of paragraphs’ to comprehend a text.

What is noticeable is that the majority of the respondents use top-down processing for comprehending a text; in that, they consider the topic of the text whereas the remaining ones use bottom-up model for making sense of a text.

III- The Reading Comprehension Strategies

Readers use a number of reading comprehension strategies, pre-, during- and post-reading. For this reason, we have asked the students about those strategies and now, we are to analyse their answers.

A- Pre-reading Strategies

Q17. Before reading a text, do you look at any headings, graphs, drawings...?

- Yes
- No

Table 4.17. Previewing pre-reading strategy

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	50	94.3	94.3	94.3
No	3	5.7	5.7	100.0
Total	53	100.0	100.0	

The majority of the respondents (94.3%) in the above table preview the text before reading it. This means that they consider the title, drawings, etc to determine the topic of texts.

Q18. Do these headings, graphs, etc. activate your background knowledge (depending on the topic) and help you predict the content of the text?

- Yes
- No

Table 4.18. Background activation and prediction pre-reading strategies

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	51	96.2	96.2	96.2
No	2	3.8	3.8	100.0
Total	53	100.0	100.0	

The majority of the students state that headings, graphs, etc. activate their background knowledge, which help them predict the content of text. This strategy assists readers in better comprehending texts.

Q19. Do you read the text quickly to know the main idea?

- Yes
- No

Table 4.19. Skimming strategy

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	25	47.2	47.2	47.2
No	28	52.8	52.8	100.0
Total	53	100.0	100.0	

Forty-seven point two percent of the respondents use the skimming strategy (reading quickly) to get the main idea of the text though it is very essential at the beginning. This result poses a question on the way these students get the gist of a text.

Q20. How do you get the main idea of a text?

- a- I read the title
- b- I read the topic sentence of each paragraph
- c- I read the introduction and the conclusion
- d- I look at the source of the text
- e- I look at pictures, illustrations... (if available)

Table 4.20. How getting the main idea

	Frequency	Percent	Valid percent	Cumulative percent
a+b+c+d+e	14	26.4	26.4	26.4
a+b+c+d	13	24.5	24.5	50.9
a+b+c	12	22.6	22.6	73.6
a+b	11	20.8	20.8	94.3
C	3	5.7	5.7	100.0
Total	53	100.0	100.0	

Twenty-six point four percent of the respondents make use of all of the pre-reading strategies to know the gist of the text and 24.5 % use all of them but one which is ‘looking at pictures, illustrations, etc.’ whereas the remaining ones use one or more pre-reading strategies. Only 5.7 % make use of only one pre-reading strategy which is ‘looking at pictures, illustrations, etc’.

Though some references in Accounting and Finance include pictures as in **Financial Times** articles, the latter strategy, ‘looking at pictures, illustrations, etc’, is not sufficient. Second, there is a contradiction in the respondents’ answers: one time 47.2 % of them use the skimming strategy; in another, 73.5% read the first and the last paragraphs. It means that those students ignore that to skim and get the main idea of a text is to read the first and last paragraphs besides, of course, reading the topic sentences of each paragraph.

Q21. If “Yes”, do predictions challenge you to form questions on the topic and, then, motivate you to read the text?

- Yes
- No

Table 4.21. Forming questions pre-reading strategy

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	51	96.2	96.2	96.2
No	2	3.8	3.8	100.0
Total	53	100.0	100.0	

Ninety-six point two percent of the respondents form questions on the topic after predicting the content of the text, which motivates them to read it. The result shows that the majority of the respondents are aware of the strategy of forming questions, which is very important in questioning the text before reading it.

A- During-reading Strategies

Q22. If “yes”, will those predictions be either confirmed or revised during reading?

- Yes
- No

Table 4.22. Predictions confirmation and revision

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	45	84.9	84.9	84.9
No	8	15.1	15.1	100.0
Total	53	100.0	100.0	

Eighty-four point nine percent of the respondents who predict the text before reading confirm or revise their predictions during reading and this is a characteristic of good readers. That is, during reading the text, the readers check whether their predictions made before reading the text were correct or not, so to be revised.

Q23. Do you read the whole text for looking for specific information?

- Yes
- No

Table 4.23. Scanning strategy

	Frequency	Percent	Valid percent	Cumulative percent
Yes	33	62.3	62.3	62.3
No	20	37.7	37.7	100.0
Valid Total	53	100.0	100.0	

Sixty-two point three of the respondents read the whole text for looking for specific information whereas (37.7%) do not, which reveals a lack of awareness of the importance of the scanning strategy on the part of the students. Moreover, most of the time, students are asked to look for specific information which involves reading just parts of the whole and gaining time.

Q24. How do you find specific information?

- a- I read quickly and stop when I find the specific information
- b- I try to spot the specific information without reading from the beginning

Table 4.24. How looking for specific information

	Frequency	Percent	Valid percent	Cumulative percent
A	24	45.3	45.3	45.3
Valid B	29	54.7	54.7	100.0
Total	53	100.0	100.0	

Fifty-four point seven percent of the students find specific information without reading from the beginning whereas 45.3% read quickly then stop when they find the specific information. In fact, both ways are effective in looking for specific information. Sometimes, we need to read from the beginning when the specific information is about, for example, concepts, and at other times, depending on the nature of that specific information such as dates, we may spot it at once without reading from the beginning.

Q25. What do you do for understanding a word?

- a- I guess the meaning from the context
- b- I look at affixation (prefix/suffix)
- c- I use a dictionary

- d- I see a dictionary
- e- I see whether it is technical or academic
- f- I use a glossary
- g- I ask a colleague

Table 4.25. The factors helping word comprehension

	Frequency	Percent	Valid percent	Cumulative percent
a+f	10	18.9	18.9	18.9
d+e	18	34.0	34.0	52.8
Valid a+d	8	15.1	15.1	67.9
b+c+d	17	32.1	32.1	100.0
Total	53	100.0	100.0	

Eighteen point nine percent of the respondents guess the meaning of a word from the context and by asking a colleague. 15.1% guess the meaning of words from the context as well and consider whether it is technical or academic. 34% say that they use a glossary and consider whether the word is technical or academic. 32.1% understand a word by looking at the affixation, use a dictionary, and see whether it is technical or academic.

This result on the one hand strengthens what has been investigated in the theoretical part. In other words, one characteristic of good readers is that they do attempt to comprehend difficult or unknown words from the context (52.9%). On the other hand, the results obtained reflect a contradiction among students in how to understand a word. It has been noticed that some students say they guess a word's meaning from its context, and at the same time, they use a glossary and ask a colleague.

Q 26. What do you do for comprehending a sentence?

- a- I read every word
- b- I skip unimportant words
- c- I look for the subject
- d- I look for the verb
- e- I look for the object
- f- I read globally

Table 4.26. The factors helping the sentence comprehension

	Frequency	Percent	Valid percent	Cumulative percent
A	18	34.0	34.0	34.0
b+f	28	52.8	52.8	86.8
Valid c+d+e	7	13.2	13.2	100.0
Total	53	100.0	100.0	

Fifty-two point eight percent of the respondents skip unimportant words in a sentence and read globally for comprehending it whereas 34% comprehend by reading every word and 13.2% comprehend by recognising the subject, the verb and the object, which is a characteristic of poor readers.

According to the reading literature, good readers comprehend sentences globally, and skip unimportant words meanwhile. The results also show a contradiction in their answers. One time, they say they read every word, and another time, they read globally, which means that those students are poor readers and do not know how to read and, consequently, cannot

comprehend a sentence. Those who look for the subject, the verb and the object are slow readers.

Q27. Does each paragraph in the text have a purpose and carry a sub- idea?

- Yes
- No

Table 4.27. The sub- idea of a paragraph

	Frequency	Percent	Valid percent	Cumulative percent
Valid Yes	49	92.5	92.5	92.5
No	4	7.5	7.5	100.0
Total	53	100.0	100.0	

Ninety-two point five percent of the respondents agree that each paragraph has got a purpose and carries a sub-idea. Taking into account that an ESP/EAP text is a collection of paragraphs, this means that each paragraph develops a sub-idea which coheres with the other ones to form the main idea.

Q28. How do you comprehend a paragraph?

- a- By reading the topic sentence

b- By focusing on details (examples, statistics, ...)

c- By reading all the sentences

Table 4.28. How to comprehend a paragraph

	Frequency	Percent	Valid percent	Cumulative percent
A	23	43.4	43.4	43.4
B	10	18.9	18.9	62.3
C	20	37.7	37.7	100.0
Total	53	100.0	100.0	

Forty-three point four percent of the subjects comprehend a paragraph by reading the topic sentence, 37.7% by reading all the sentences, and 18.9% by focusing on details. This is contrary to the fact that a paragraph in English usually begins with a topic sentence which summarises the whole paragraph whereas the remaining sentences include details, illustrations, etc.

Q29. Do you re-read the difficult parts of the text?

- Yes

- No

Table 4.29. Re-reading difficult parts of a text

	Frequency	Percent	Valid percent	Cumulative percent
Yes	42	79.2	79.2	79.2
No	11	20.8	20.8	100.0
Total	53	100.0	100.0	

Seventy-nine point two percent of the respondents use the re-reading strategy for difficult parts of the text, which is essential when the interaction between the text and the reader breaks down. Readers, because of a variety of reasons, may need to re-read difficult parts for better comprehension.

Q30. I underline words and phrases that occur frequently in the text.

- a- Never
- c- Sometimes
- d- Often
- e- Always

Table 4.30. Underlining re-occurring words and phrases that occur frequently in a text

	Frequency	Percent	valid Percent	Cumulative percent
Never	13	24.5	24.5	24.5
Sometimes	27	50.9	50.9	75.5
Valid Often	3	5.7	5.7	81.1
Always	10	18.9	18.9	100.0
Total	53	100.0	100.0	

Fifty point nine percent of the respondents *sometimes* underline or highlight words and phrases that occur frequently in the text though this strategy is very important in identifying the topic and the content of the text. These words and phrases make the most important keywords that represent the topic of the text and facilitate its comprehension. This result shows that 24.5% of the students ignore this strategy.

Q31. What do these words represent?

- a- The topic
- b- New vocabulary
- c- New ideas

Table 4.31. What re-occurring words and phrases represent

	Frequency	Percent	valid Percent	Cumulative percent
a-The topic	32	60.4	60.4	60.4
b-New vocabulary	10	18.9	18.9	79.2
c-New ideas	11	20.8	20.8	100.0
Total	53	100.0	100.0	

Sixty-point four of the students enquired say that the re-occurring words represent the topic whereas the remaining ones consider them as new vocabularies (18.9%) and new ideas (20.8%). In short, re-occurring words reflect the topic that may be new to the respondents and not new ideas since the latter are expressed in sentences. These re-occurring words may also be new vocabularies.

Q32. I take notes while reading.

- f- Never
- g- Sometimes
- h- Often
- i- Always

Table 4.32. Note-taking strategy

	Frequency	Percent	valid Percent	Cumulative percent
Never	12	22.6	22.6	22.6
Sometimes	26	49.1	49.1	71.7
Valid Often	4	7.5	7.5	79.2
Always	11	20.8	20.8	100.0
Total	53	100.0	100.0	

Seventy-seven point four percent of the respondents take notes whether *sometimes*, *often* or *always*, which characterises academic reading. One of the strategies used in assisting learners in comprehending ESP/EAP texts is note-taking, for most of the time these texts are long and contain many ideas, which calls for splitting the text into parts so as to make text comprehension easier.

Q33. Can you infer the message transmitted by an author during reading?

- Yes
- No

Table 4.33. Inferring an Author's Message

	Frequency	Percent	valid Percent	Cumulative percent
Yes	18	34.0	34.0	34.0
Valid No	35	66.0	66.0	100.0
Total	53	100.0	100.0	

Sixty-six percent of the respondents are unable to infer the implicit meaning of the text despite the importance of inferencing strategy in academic reading comprehension. The readers are supposed to read the lines and read between the lines so as to decipher the intention of the author and this is achieved by inferencing, which involves using the information used in the text besides prior knowledge, of course.

C- Post-reading Strategies

Q34. After reading, will you be able to write a comment on the text by using those notes?

- Yes
- No

Table 4.34. Writing a comment on the text by using those notes

	Frequency	Percent	valid Percent	Cumulative percent
Valid Yes	19	35.8	35.8	35.8
No	34	64.2	64.2	100.0
Total	53	100.0	100.0	

Sixty-four point five percent of the participants cannot write a comment on the text using the notes taken while reading contrary to good readers who have the ability to critique and evaluate texts after reading and taking notes. This shows a lack of comprehension of texts.

Q35. At this stage, will you be able to summarise the text in a paragraph or in a form of a graphic organiser?

- Yes
- No

Table 4.35. Summarising the text in a paragraph or in a form of a graphic organiser

	Frequency	Percent	valid Percent	Cumulative percent
Valid Yes	29	54.7	54.7	54.7
No	24	45.3	45.3	100.0
Total	53	100.0	100.0	

Fifty-four point seven percent of the respondents say that they can summarise the text in a paragraph or in a form of a graphic organiser. This result is doubtful since students cannot infer the intended meaning and are unable to comment on the text. Summarising is one of the main post-reading strategies which reflects the comprehension of the text.

Q36. After reading, can you evaluate the text by giving, for example, your opinion?

- Yes
- No

Table 4.36. Text evaluation

	Frequency	Percent	valid Percent	Cumulative percent
Valid	Yes	17	32.1	32.1
	No	36	67.9	100.0
	Total	53	100.0	100.0

Thirty-two point one percent of the participants can evaluate a text after reading whereas two thirds of them (67.9 %) cannot.

Sixty-seven point nine percent of the participants cannot evaluate the text after reading it. This is not surprising since they cannot infer the author’s message nor can they take advantage of note taking to write a comment on the text.

4.7.2.2.1. Analysis of the Questionnaires’ Findings

1- First, all of the respondents have studied in Algerian schools in Arabic, which means that it is obvious that they read in Arabic. What is more attractive is that they **read**, which is encouraging as a beginning step. Second, reading a variety of materials enriches the students’ habits of reading. The result is acceptable since they are expected to be educated people. Third, the easiness of reading in Arabic has been expected since they have been instructed and tested in Arabic. This means that they are trained to read a number of types of reading in Arabic from primary school to university, which makes the process of reading **easy**. Fourth, reading in other languages means that they are aware of the importance of reading in other languages. This, in its turn, enriches their reading habits. Fifth, those students read in other languages despite the fact that they find it **fairly easy**, **easy** or **difficult**. Sixth, all of them find ‘reading’ very important and according to many researchers, as we have seen in Chapter One,

such as Grabe (1991; 2009) and Saville-Troike (2006), reading is the most needed skill in academic studies, and it is by reading that students gain insights and knowledge and expand their thinking. Finally, they read a variety of text types which reflects the role of assignments given by the teachers in the classroom. Most of the time, teachers ask students to read chapters of books or even books to be summarised or discussed. Nevertheless, reading books is also favoured by so many students. Sometimes, a whole book may include a whole academic programme.

2- Though the majority of the students have studied English for at least nine years including the university studies, they find reading in English 'difficult'. This situation poses many questions. The students' speciality, Accounting and Finance, is related to the world of business and commerce which means that they are expected to be at an acceptable level of awareness of English language mastery and importance. English is the language of commerce *par excellence*, which means that the respondents are expected to be prepared for producing and interpreting both oral and written messages. In addition, all that is given by teachers is just a kind of guidance. So, students are given lists of references for reading and investigating more in their areas of study. Academic reading also entails comprehending messages of the texts at hand so as to use the extracted information to fulfill many goals and perform many tasks such as making comments, evaluating, summarising, and the like though reading for pleasure and for discovering the others' culture is recommended. When details are needed, then, reading the whole text including the body becomes a necessity otherwise the purpose of reading specifies what to be read. The results of the second section of the questionnaire reflects a bottom-up processing orientation on the part of students which means that it does not enable them to get the main idea of the text quickly. Another important point is that the 'topic of the text' is crucial for understanding but not sufficient. Text organisation and type of

text are also important. Even reading groups of words and combining the main ideas of paragraphs are crucial.

3- Previewing is an important pre-reading strategy; in that, it gives an idea about the text by looking at the title, any drawings, tables, etc. Skimming is also very important in academic reading, and getting the main idea is the first step in reading, but when 52.8 % of the respondents do not get the main idea, it means that it is doubtful that they can recognise the main idea of texts. According to the literature, using pre-reading strategies in combination is very beneficial to generating the main idea of a text. Nonetheless, a combination of pre-reading strategies contributes to getting the main idea of text. Moreover, 96.2 % of the respondents use the strategy of forming questions which is very important in questioning the text before reading it. Nevertheless, they claim that they check whether their predictions made before reading the text whether they are correct or not, so to be revised. Only 62.3 % of the students are aware of the importance of the scanning strategy. Moreover, most of the time, they are asked to look for specific information, which involves reading just parts of the whole and gaining time. The students' answers (a+b) reflect the two ways found in the literature. That is, sometimes they, as readers, look for specific information by beginning reading until we encounter the needed information whereas, at other times, we can spot the needed information directly mainly when it is a "date" or when it is "italicized" or in "bold". Concerning word comprehension, the result strengthens what has been investigated in the theoretical part. In other words, one characteristic of good readers is that they do attempt to comprehend difficult or unknown words from the context. Looking at 'affixation' indicates that students use bottom-up processing. Additionally, more than the half of the respondents skip unimportant words and read globally, which is a characteristic of good readers. The majority of the students use a variety of strategies such as rereading difficult parts of a text, underlining words and phrases that occur frequently and claim that they represent the topic

whereas half of them sometimes take notes and agree that each paragraph has a purpose and carries a sub-idea. However, the majority cannot read between the lines and cannot write a comment using those notes nor can they summarise the text or give their opinions on it.

Conclusion

The questionnaire has been used for one reason only which is to have an idea about the students' habits in reading, how they read and comprehend what they read and the reading strategies they use before, while and after reading. The thirty-six questions have been selected carefully.

The questionnaire analysis shows that the majority of the respondents do not know how to read. In other words, they do not read strategically. Though they read a variety of text types, they said they could not get the main idea of a text. They (the majority) read the *whole* text in order to get the main idea. Besides, they ignore the majority of the reading comprehension strategies including the use of text structure awareness strategy. Moreover, it appears that they do not know how to comprehend a sentence and a paragraph, i.e., they tend to use bottom-up processing.

It has also been noticed that they cannot decipher the intended message of the author, which does not allow them to evaluate the text at hand. Though they take notes, they cannot write a comment on the text, which makes the result about the text summary in a paragraph or a graphic organiser doubtful.

4.7.2.3. Pre-Test Analysis

Before beginning the reading sessions, it has been advisable to test the respondents to see how well they read and comprehend the text and do related tasks. So, a test was administered.

It was shaped according to the objectives assigned to this study. To this end, the test included ten (10) items ranged from recognising the main idea up to the text summary. It was designed to be accomplished within 60 minutes.

➤ **The Selected Text**

“*Investing your money*” is a text in “Richey, 2011, p. 36”. This text has been selected for a number of reasons. First, it is related to Economic Sciences in general, taking into account that students in this study belong to Economics. Second, it includes, in the main, the “definition” pattern of organisation. According to the literature, the first pattern of organisation that should be taught is “definition”. It is very important and useful at the beginning as found in expository/informational texts.

➤ **Pre-Test Items**

The most important items investigated in this study are: pattern of organisation used in the selected text and providing an example, type of the text, main idea of the text, the audience of the text, filling a graphic organiser in, summarising the text, in addition to other ones such as answering comprehension questions, filling gaps in with specialised vocabulary, and answering a True/False activity.

The results of the pre-test are shown in the following table:

Pre-test items	Correct answers	Incorrect answers
1. The main idea of a text	41.50%	58.49%
2. Type of text	16.98%	83.01%
3. Pattern of organisation	39.62%	60.37%
4. Example of pattern of organisation	30.18%	69.81%
5. The readership	13.20%	86.79%
6. The message conveyed via the text	9.43%	90.56%
7. Comprehension questions	47.16%	52.83%
8. Filling in gaps with vocabulary	30.18%	69.81%
9. True/False	58.49%	41.50%
10. Filling in a graphic organiser	28.30%	69.81%
11. Text summary	13.20%	86.79%

Table 4.37. Pre-test items with the correct and incorrect answers

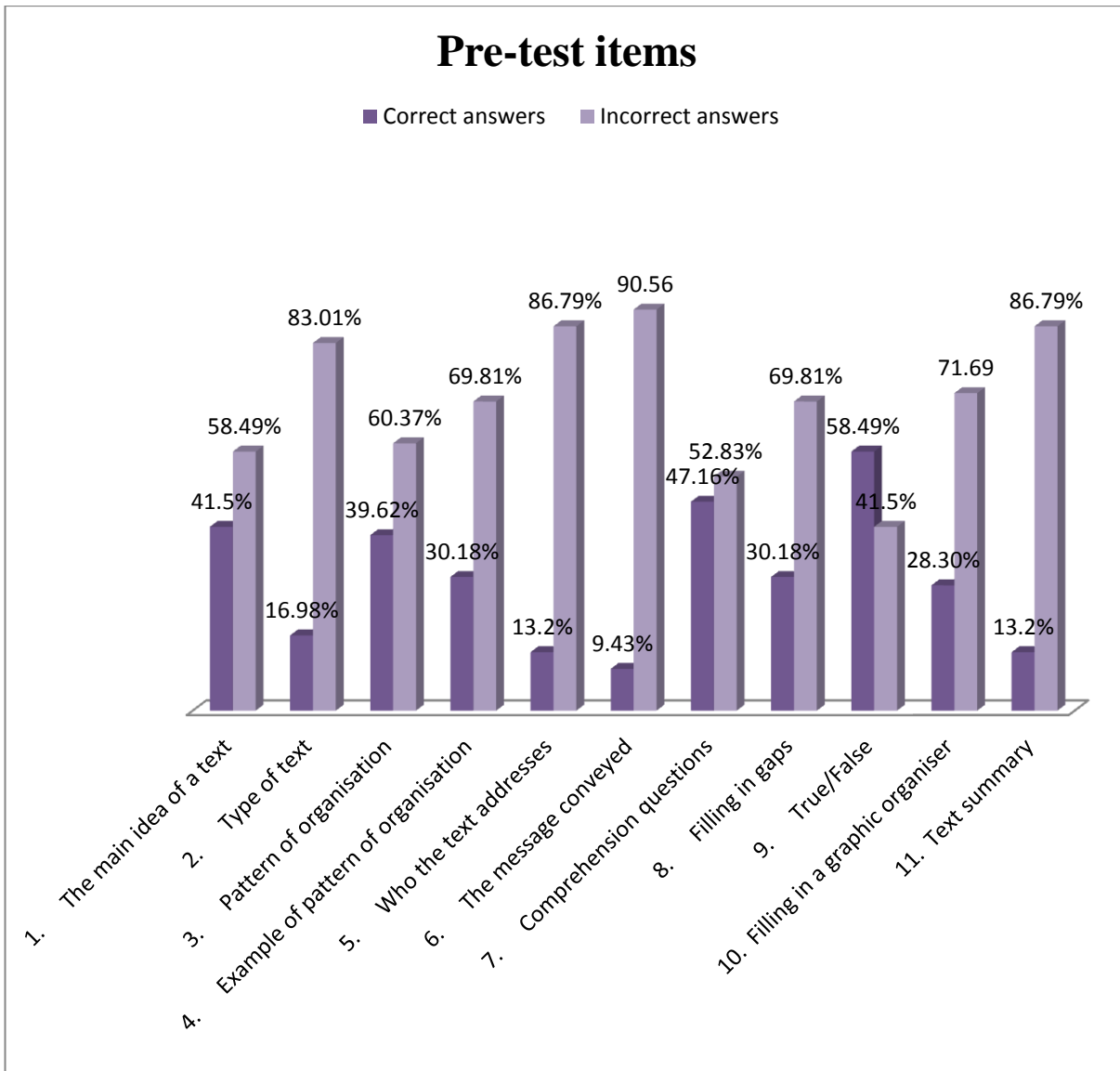


Figure 4.1. Pre-test's results

More than half of the subjects (58.49 %) in this study failed at getting the gist of the text, 83.01 % could not recognise the type of text, 60.37 % could not identify the pattern of organisation. Moreover, 86.79 % were not able to find out whom the text is addressing nor 90.56 % could they infer the intended message of the author. 52.83 % failed at answering comprehension questions and 69.81 % did not succeed in filling in gaps with specialised

vocabulary. Few of them could (28.30 %) fill in the graphic organiser and also very few of them (13.2 %) could summarise the text.

4.7.2.3.1. Discussion of the Pre-Test's Findings

Because of lack of comprehension, students could not answer the questions related to the text. Therefore, if they knew how the text was organised, they would be able to comprehend it easily and answer comprehension questions. Even students who seemed in the discussions having English language proficiency failed at summarising the text.

Following the above discussion, we can conclude that students in the present study did not make sense of the text which had a negative impact on doing related tasks such as recognising the type of text, identifying the pattern of organisation, deciphering the intended message and readership, etc and most importantly summarising the text in a graphic organiser and in a paragraph.

At this stage, it is urgent to handle an immediate intervention which focuses on teaching the students text structure awareness strategy. We shall begin the training next session. As a whole, the intervention will take five sessions of one hour and a half each.

4.7.2.4. The Reading Sessions

Third year Accounting and Finance students at Ghardaia University are expected to have a good mastery of the English language either in the spoken mode or the written one. English is directly related to their speciality since it is the language of Commerce and Communication.

Moreover, they are asked to present exposes on a number of topics which involves searching for information not only in Arabic, but in French and English as well, taking into account that the best references related to so many sciences if not all are in English. Furthermore, according to many researchers as mentioned in Chapter One, “reading” is the primary skill to be acquired in academic settings. For this reason and others, it should be advisable to put students in a context where they see and interact with a number of texts.

The reading course was a necessity as the students showed a lack of awareness of the importance of text structure awareness in RC. Our major aim is to make the subjects aware of text structure reading strategy. Because of the results obtained from the questionnaire and the pre-test, it is clear that the majority of the respondents show a linguistic deficiency, which requires the use of simplified texts.

4.7.2.4.1. Session One

The researcher began with the pre-test text, and for this reason, students were given other copies of the pre-test. The text is entitled “Investing your money” as follows.

INVESTING YOUR MONEY

Investment means using money to buy something (an asset) with the aim of making a profit by selling that asset at a higher price some time in the future. There are many different types of investments. Some people put their money in art, stamps, or collectibles. Other people invest in shares and become part owners of a company. Not only can they make a profit by selling those shares at a higher price than they paid for them, but they can receive a dividend – a share of the profits which the company gives to its shareholders every year. People often ask about the difference between *savings* and *investments*. Sometimes the two terms appear interchangeable, but there is a big difference. Quite simply, investment involves some kind of capital risk. There is no guarantee that you will make a profit. In fact, the price of your assets may fall and you may not even get back your capital, the money you put in. Some banks call their savings accounts ‘investment accounts’, but this is misleading. The only risk of savings accounts is that inflation will reduce the value of the money you put in them. There is no risk of losing your capital.

(In Richey, 2012, p. 36)

As the title suggests, the text is about investing money, and, according to the literature, one pre-reading strategy is looking at the title of the text. It gives the reader an idea about the content of the text. Then, the teacher invited the students to read the text silently then aloud. Next, the teacher asked them about the main idea of the text. The students, though the title is obvious, could not get the gist of the text. The first sentence of the text, “*Investment* means using money to buy something (an asset) with the aim of making a profit by selling that asset at a higher price some time in the future”. It is clear that this sentence “defines” the term “investment”. What follows is a collection of examples of the term “investment”. So, the

main idea of the text is about ‘how to invest one’s money’. Again, the following sentences expose the benefits of investing in “shares” saying that *‘Not only can they make a profit by selling those shares at a higher price than they paid for them, but they can receive a dividend – a share of the profits which the company gives to its shareholders every year.* This means that the focus is on investing on shares. So, the pattern of organisation, which is the second question, is “definition”.

The second part of the text deals with the comparison between “savings” and “investments” to avoiding the confusion. A reader may say that the pattern of organisation in this part is “compare and contrast”. Nonetheless, the main organisational pattern is “definition”. The example extracted is the previously mentioned one, “Investment means...future”. The teacher was invited to tell the students to put in their minds that in “definition” pattern, we find verbs such as “to mean”, “to be”, etc.

The teacher asked them about ‘to whom the text is addressed and why’. The students’ answers varied from one student to another. She asked them to think for a while. She said: is it for students like you? Is it for ...? Who benefits from this text?, etc. Students said ‘It is for anyone who wants to invest his/her money’.

It is very important that students contextualise the text. This makes them be able to comprehend the text and continue reading easily. That is, there is a kind of interaction between the text and readers. The respondents were not accustomed to this kind of questions that they found challenging.

The following stage was the one of RC. Students were asked to read the questions one by one, understand them, and then go back to the text to look for the answers. Here, the teacher explained how to do that, i.e., scanning strategy. She asked them to begin reading and when they find the first keyword, they stop and see the surrounding text. If this is what is needed,

they stop reading. If not, they continue reading until they get the answer. Question one concerns the different types of investments mentioned in the text. The answer is as follows:

- Putting money in art, stamps, or collectibles
- Investing in shares

Question two is about the benefits of ‘investing in shares’. The answer is in this way:

- Making a profit by selling shares at a higher price
- Receiving a dividend

The third question is about the difference between ‘investments’ and ‘savings’. The expected answer is the following:

- The difference between ‘investments’ and ‘savings’ is that in the former, there is a risk of losing the capital whereas in the latter, there is not.

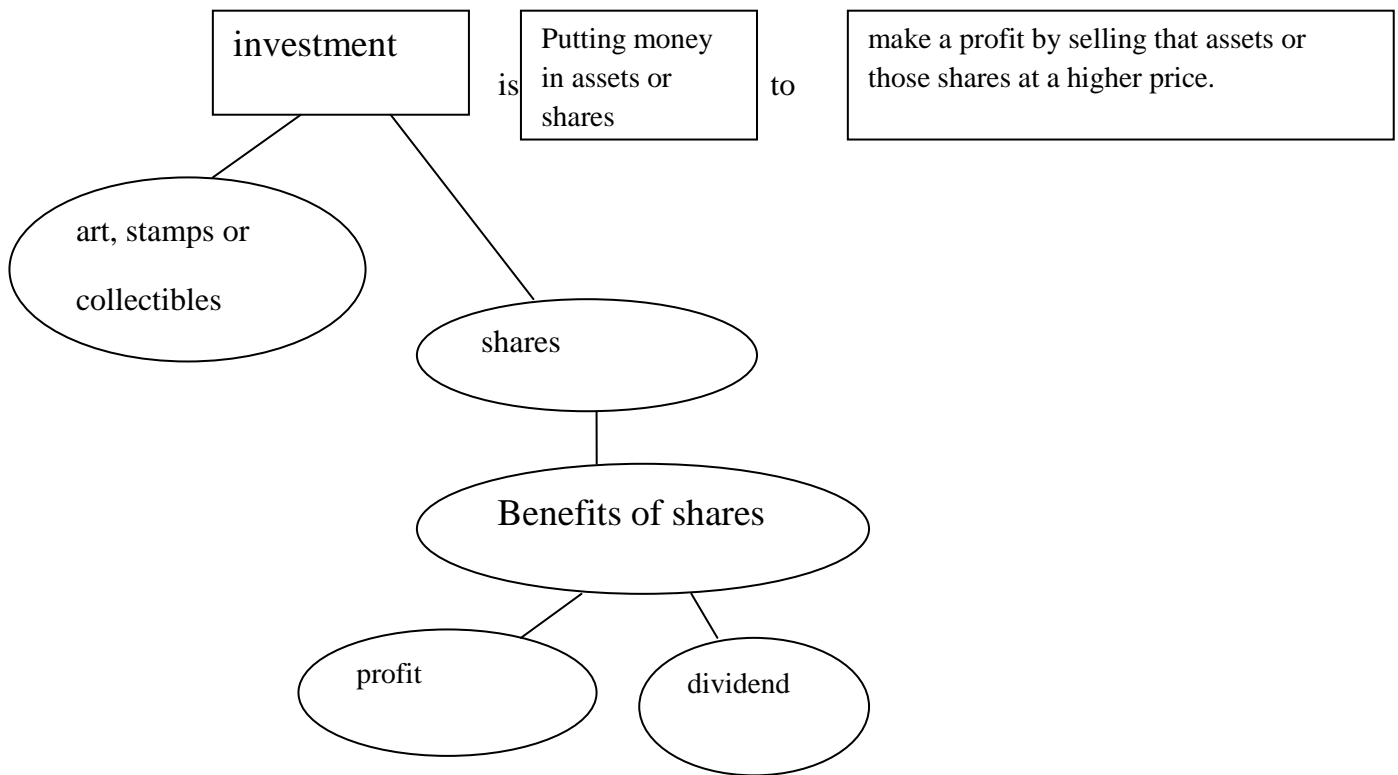
Next step, students were required to prove their text comprehension through other tasks such as True/False sentences:

- There is no difference between savings and investments. → **False**
- Buying art and buying shares are both types of investments. → **True**
- Investments involve more risk than savings. → **True**
- There are two ways in which shareholders can make money from their shares. → **True**
- Savings accounts involve no risk at all. → **False**

As previously mentioned, this text is from the students’ area of study, which means that it contains specialised vocabularies that can be investigated by a means or another. The testees were given seven terms to be matched to their definitions as follows:

1. Certainty that something will happen: **guarantee**
2. The possibility that you will make a loss: **risk**
3. The money you pay for an asset or put into a savings account: **capital**
4. The money you make when you sell something for a higher price than you paid for it: **profit**
5. A valuable item that can be sold for cash: **asset**
6. Things that have value because many people are interested in owning them: **collectibles**
7. A share in the profits of a company, which is paid to the shareholders: **dividend**

Comprehension of the text was also accomplished by filling in a graphic organiser. Students, in this case, are asked to fill in the following graphic organiser that fits the organisational pattern used in this text.



At this stage, students were supposed to summarise the text in just few sentences. Towards this end, they were given explanation on how to summarise. Of course, the summary takes a form of a paragraph which begins with a topic sentence. This latter summarises the whole paragraph. What follows includes details, in the main. So, we began with the main idea of the text, then, we expanded it.

- **The text summary**

Investing is putting money in assets to make a profit. People can invest in art, stamps, and collectibles or in shares. By investing in shares, they can make a profit by selling those shares at a higher price, and can receive a dividend. Nonetheless, people can lose their capitals.

This is just an example of a summary. The main idea of the text and supporting details are put only in four sentences.

4.7.2.4.1.1. Comment 1

The respondents appreciated what was done up to the point. There was an acceptable interaction with the text as they became curious about the ways of “investing money” and about all the tasks mainly the ones related to the pattern of organisation of text, to whom it is addressed and why, the graphic organiser, and the text summary. They learnt new specialised vocabularies such as “assets”, “shares”, “profit”, “dividend”, “shareholders”, “savings”, “capital”, etc. they showed an interest to read and comprehend the text which means that they began to be aware of how to read and comprehend texts. What was attractive in the first session is the fact that students responded to voluntary aloud reading positively; that is, students who showed reluctance to reading read the text with ease though they made mistakes. Also, other students tried to help their classmates in reading well by asking the teacher for correction. The first session witnessed a collaborative atmosphere that built confidence between the students and the teacher.

4.7.2.4.2. Session Two

In this session, students were provided with another text to be read, always in the same content area of the subjects. It is about the various kinds of jobs in UK banks. So, students were required to follow the steps as they did in the former texts, beginning with pre-reading strategies as usual. They had to preview the text, skim it, etc. then, they proceed in reading it bit by bit. Of course, silent and aloud reading were included. What we did in the second

session was to remove the title of the text and the subheadings in order to test the students' ability to find the most appropriate title and sub-titles. It is composed of three paragraphs. It is always in the content area of students. We thought of providing students with a more than one paragraph-text. The aim behind this choice, as well, was to allow students to acquire so many specialised vocabularies. The text itself was an opportunity to make the discussion in the classroom more interactive. All in all, the following will deal with the procedures followed in the second session including the selected text.

Banks offer many different jobs, from trainee cashier right up to senior account manager or investment analyst. Many jobs are in specialist areas such as IT or corporate banking – accounts for business customers. Some banks have call centres where customer service advisors answer telephone enquiries. In the UK today, building societies, insurance companies and even supermarkets can offer the same services as banks. There is a lot of competition, so banks always need top-quality staff with good communications skills.

Trainees with basic school qualifications usually process cheques and do administrative tasks. They then take a training course to become cashiers. Good cashiers often become supervisors, responsible for their own teams of employees. Graduate trainees have a fast-track training course. They usually spend about two years learning how the bank works. Then they can get management positions. Branch managers spend a lot of time with customers and sometimes visit business customers in their office or factory.

Working hours are usually 9 am to 5 pm. Most banks have an annual appraisal system and give salary increases according to performance. Some also have good pension schemes. Larger banks have sports facilities for activities such as golf and tennis.

(Adapted from Richey, 2012, p. 16)

The main idea of the text is about the different jobs UK banks provide. The text is an article. It has a descriptive pattern of organisation. It addresses those who intend to work in those banks. It attempts to attract them by citing the different benefits found in those banks. The teacher asks them to find the function of each paragraph and do the other related tasks.

It is clear that the first paragraph introduces the topic, and the following paragraphs make the topic more explicit. In paragraph two, there is a description of how a trainee becomes a cashier, then a supervisor and, finally, a branch manager. Paragraph three includes the advantages found in banks such as an annual appraisal system.

As in the first session, the students were required to identify the main idea of text, type of text, the pattern of organisation with an example, whom the text addresses, and the other components.

To do so, students were put in a context that allowed them to comprehend the text at hand easily. The teacher introduced the text by asking them some questions that led to the jobs in banks in Algeria. Then, she moved to the jobs in UK banks.

The second step focused on getting the text's gist. Before this step, the teacher distributed the text and asked them to identify the type of text. Students moved to look for the main idea of text. This can be done by making use of the skimming reading strategy. The teacher in this case helped students to skim by reading the introduction (paragraph one).

The teacher, then, asked them to identify the pattern of organisation and provide an example. Some of them, at once, said that it is 'descriptive'. So, she asked them to prove by giving an example. They extracted many examples accompanied by discussions between them. She selected one of the examples and asked them, afterwards, about the readership of the text and the reason for telling them about jobs in UK banks. The students took some time to think, then, began to answer individually. Their answers varied. They said that it may be addressed to students in Economics to have an idea about the different jobs in UK. Others mentioned that it addresses foreign trainees in case they want to join UK banks. This means that students were in an interaction with the author via the text and tried to interpret the

message combining the information in the text, their context of situation and their prior knowledge.

Going into details was important and necessary as students were accustomed to it in undergraduate settings. In this session, the teacher asked students to read the text again and say whether some sentences were true (T) or false (F). Here, she reminded them about the scanning strategy and asked them to begin reading and to stop when they encounter the needed information. If not, they continue reading until they find it.

Next, students were asked to read the text and find the vocabulary that corresponds to the following definitions. Students in this text are supposed to be aware of a number of specialised vocabularies.

After students recognised the vocabularies, the teacher asked the students to match each paragraph with its sub-idea. To do this, they read the three sub-ideas. Some of them reread the text while others matched directly, and what they did was correct.

The last but one step was to summarise the text in a graphic organiser. And since the pattern of organisation is descriptive, then the teacher and the students selected the corresponding graphic organiser. The teacher reminded the students about the main idea of the text to be put in the graphic organiser.

Finally, after filling in the graphic organiser, students were required to focus on the main idea of the text and provide some details. This process focused on the main idea of the text to be written at the beginning of the paragraph as a topic sentence.

The different tasks and answers were as follows:

1. What type of text is it? → It is **an article**.
2. What is the main idea of the text? → It is about **the different jobs in UK banks**.

3. What is the pattern of organisation used in this text? → It is **descriptive**.
4. Provide an example. → ‘**Banks offer many different jobs, from trainee cashier right up to senior account manager or investment analyst**’.
5. To whom is the text addressed? Why? → **The text addresses students in Economics to have an idea about the different jobs in UK banks. It also addresses foreigners who may want to join those banks.**

B) Comprehension questions

a. Are the following statements true (T) or false (F)

1. Only university graduates get jobs in UK banks. → **F**
2. Customers visit call centres to talk to customer service advisors. → **F**
3. Some other companies offer the same services as banks. → **T**
4. University graduates become managers as soon as they join a bank. → **F**
5. Managers never leave the bank during working hours. → **F**
6. Working hours are usually 9 am to 5 pm. → **T**

C. Find words and expressions in the text to match these definitions

1. The ability to talk to people clearly and explain things well
→ **customer service**
2. Banking for business customers rather than individual customers:
→ **corporate banking**
3. People who watch over other employees and check their work:

→ **supervisors**

4. A way of deciding how well and how hard an employee works:

→ **appraisal system**

5. A way of saving for the time when you are old and don't work any more:

→ **pension scheme**

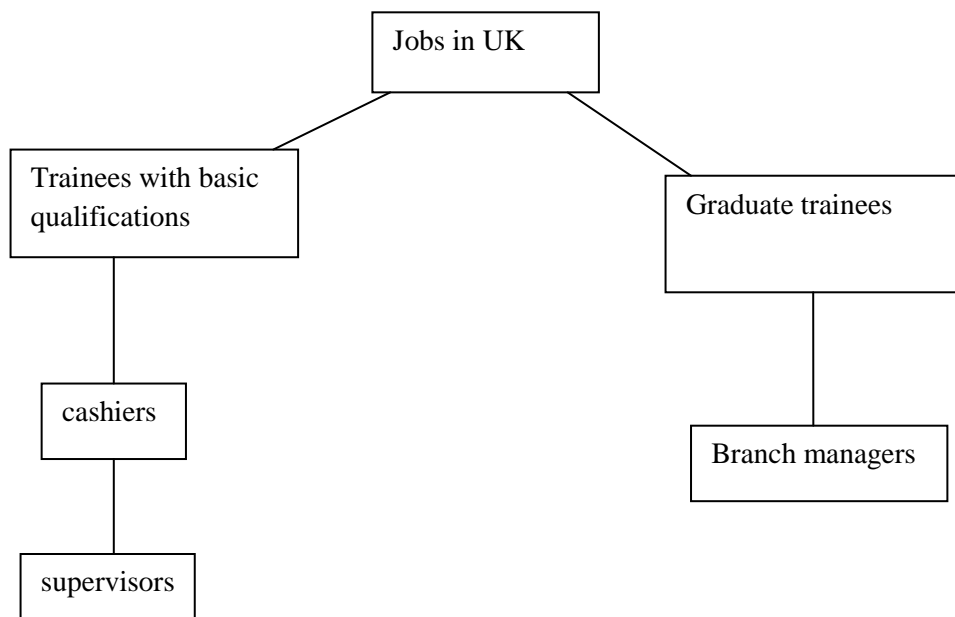
After that, the students were asked to match each paragraph with its sub-idea. The answer was:

D) Paragraph one **introduces and summarises the whole text.**

Paragraph two **describes how trainees graduate from one job to another.**

Paragraph three **states the advantages of working in banks.**

The graphic organiser



The last step in this intervention is the summary of the text. Students tried to do their best to summarise the text focusing on the main idea of the text.

- **The Text Summary**

UK banks offer a variety of jobs from cashier to account manager. Trainees with basic qualifications can become cashiers and, then, supervisors after taking training courses. However, graduate trainees can get management positions after having fast-track training courses. UK banks also provide their workers with some advantages such as salary increases and sports facilities.

4.7.2.4.2.1. Comment 2

We noticed that the subjects were getting more and more aware of top-level structure of texts, which permitted them to comprehend the text and do related tasks. They became so curious about the aforementioned steps and even negotiated the content in a way that revealed their involvement in the text. Besides, they got an idea about jobs in UK and learnt a number of new specialised vocabularies in English such as “trainee cashier”, “supervisors”, “branch managers”, “annual appraising system”, “pension scheme”, etc. They appreciated the new information and again showed more enthusiasm to aloud reading. What is more important is that they became more aware of how to comprehend texts. That is, they participated in this process through answering questions, commenting, and the like. And since the text summary is a product of reading comprehension, students became very interested and attentive to how to attain it. All that happened in Session Two was a promising factor.

4.7.2.4.3. Session Three

Before beginning the third session, it was very useful to recycle the previous one. This process contributes to making the students aware of the top-level structure of texts. This took a form of a discussion accompanied by questions. The teacher was invited to remind the subjects about the importance of reading in academic settings, reading comprehension strategies, mainly the use of text structure awareness (TSA), and the interaction between the author and the reader via the text besides the graphic organiser and the summary processes.

The third text is, as usual, related to the students' area of study. It concerns what it happens in a stock market and some of its sections. This text is related to the first text (Session One) in terms of content; that is, it deals with the process of buying and selling shares on stock markets which means that it includes some vocabularies that students had seen previously. This means that these known vocabularies (background knowledge) would help students in text comprehension. The text is composed of three paragraphs. The first one makes the introduction; the second and the third develop the main idea of the text. The following is about what went on during this session, beginning with the printed text and ending with the text summary, as follows.

STOCK MARKETS

Every country has its own stock market, where people can buy and sell shares and other securities. A stock exchange is a building where this trading takes place. Some of these are very old – the London Stock Exchange started in the 17th century. However, a lot of share trading today is done by computer. This is much faster and cheaper.

Companies raise capital by selling their shares to investors on the stock market. They use the money to run their day-to-day business and to expand. Investors buy shares to make money. They hope to make a profit when the share price goes up. They also get money from dividends.

A stock market index is a way of measuring a section of a stock market. It is a list of some of the shares traded in the stock market. It shows the price of these shares and the number of shares bought and sold. Investors can look at the stock market indices in the newspaper. They can see how well or how badly their shares are doing.

(In Richey, 2012, p. 40)

Similarly, we followed the same steps as in the previous session. To put it simply, we began with pre-reading strategies, i.e., previewing the title, activating background knowledge, forming questions, predicting, skimming, etc.

As the title suggests, the text is about stock markets, and, according to the literature, one of the pre-reading strategies is looking at title of the text. It gives the reader an idea about the content of the text. Then, the teacher invited the students to read the text silently then loudly. Next, the teacher asked them about the main idea of the text. The students, though the title is

obvious, could not get the gist of the text. For them, stock related to markets is unusual. That is why; they were hesitating and seem confused. The teacher tried to encourage them to guess the content by assisting them in activating their background knowledge without having a look at the text asking them: what is a “market”? They all answered that it is related to commerce. A student says, “It is a place where we can buy and sell goods, etc.”. The teacher, then, asked them what came to their minds by forming some questions such as: “What is the meaning of “stock”? ‘Are there many types of markets?’...”

The following step was to predict the content of the text. At that moment, the students were to come to a decision that will be checked during reading. For some of them, the text is about trading; for others, it is about investments. No one came to the right prediction. This was not surprising since the course was new to them.

Students, because they were not accustomed to such method of teaching, appreciated this way of teaching and became more and more curious. Motivating them was very important and promising.

The second step had to do with during-reading strategies: inferencing, comprehension monitoring, predicting, and, of course, as it was the focus of this study, using text structure awareness. Other during-reading strategies are to be used unconsciously such as checking predictions, forming questions about the text, finding answers to posed questions, skipping unimportant words, distinguishing main ideas from supporting details, distinguishing fact from opinion, connecting one part of the text to another, rereading, guessing the meaning of words from contexts, highlighting /underlining difficult parts of a text, using discourse markers to see relationships, and checking comprehension.

To this end, the teacher committed the students to read the text silently. Then, she asked them whether they had found the main idea of the text. They said various answers: shares, trading, etc. They were asked, afterwards, to locate the piece of information that signals the main idea.

A)

1. What is the text about? → The text is about **stock markets**.
2. What is the pattern of organisation used in the text: argumentation, definition, description, “description & definition”? → **description and definition**
3. Give an example. → **A stock exchange is a building where this trading takes place.**
4. To whom is this text addressed? Why? → This text addresses **people who want to buy and sell shares. These can be investors. It also students in the Economics settings in order to have an idea about stock markets and what goes on in the shares trading.**

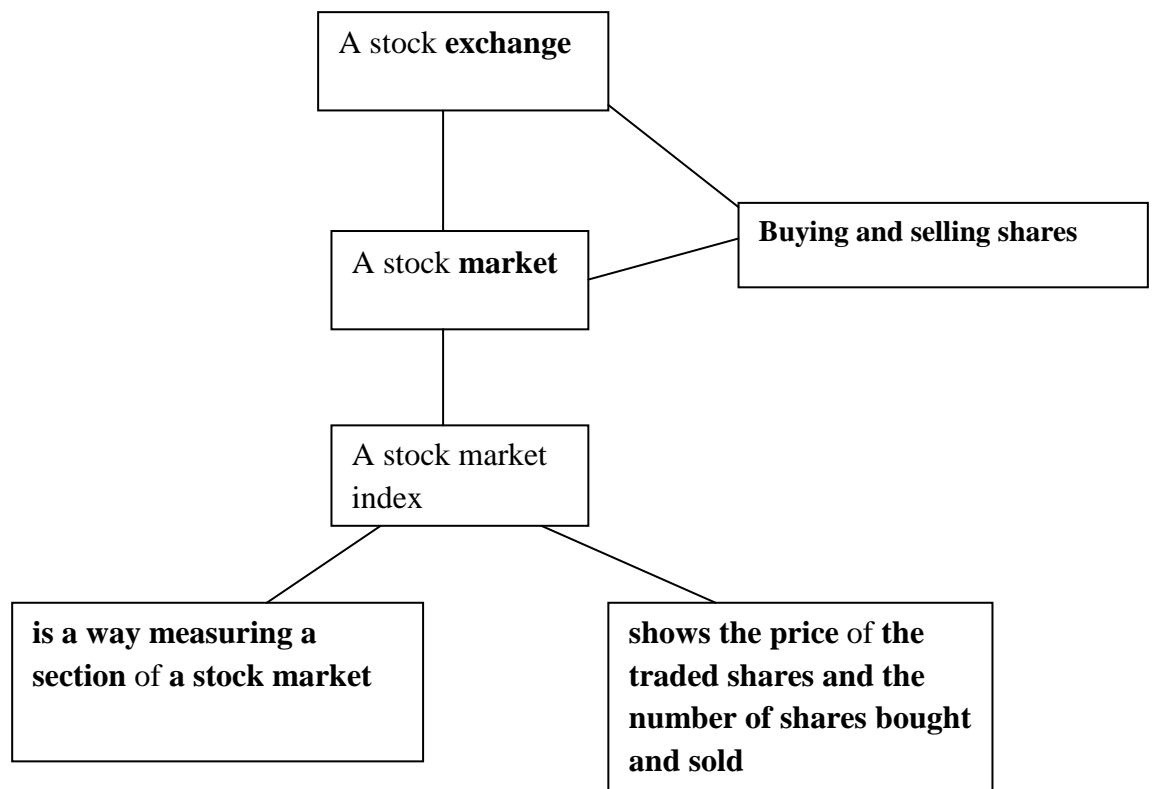
B) Comprehension questions

5. Where can people buy and sell shares? → People can buy and sell shares **in stock markets**.
6. Where does trading takes place? → This trading takes place **in a stock exchange**.
7. Why is trading faster and cheaper nowadays? → Trading is faster and cheaper because **it is done by computer**.
8. How can companies raise their capitals? → Companies can raise their capitals by **selling their shares to investors on the stock market**.

9. What is the aim of investors when they buy shares? → When they buy shares, investors aim to **make money**.

10. What is the function of a stock market index? → The stock market index **shows the traded shares and the number of shares bought and sold**.

C) Complete the following graphic organiser.



- **The text summary**

Buying and selling shares takes place in a stock market. Selling shares permits companies to make money and to expand whereas buying shares allows investors to make a profit when the share price goes up. The stock market includes a section called a stock market index. Its function is to indicate the shares being traded and the number of shares both bought and sold.

4.7.2.4.3.1.Comment 3

It appears that students became more and more aware of top-level structure of texts; in that, they could identify the pattern of organisation and provide an example, decipher the intended meaning of the author and the readership, answer comprehension questions, fill in a graphic organiser, and summarise the text in few sentences. Moreover, they learnt new vocabularies such as “stock markets”, “stock exchange”, “stock market index”. In short, students progressed in the process of comprehending texts. In other words, they behaved spontaneously towards text comprehension. They showed more and more interest and perseverance to reading comprehension. It seems that they became accustomed to the components of the suggested strategic reading comprehension instruction.

4.7.2.4.4. Session Four

The last but one session included another type of text, always in the domain of Economics, Finance precisely. The purpose of selecting this text was to make students recognise and be accustomed with a variety of text types. The text is about financial statements. It has a descriptive pattern of organisation. It tells us about what it is ‘a financial statement’, what it includes, how often it is produced and why and who needs it.

The subjects followed the same steps of analysing the text as they did in the preceding sessions. They approached the text within a pre-, during- and post-reading framework. In this session, they were supposed to acquire more and more specialised vocabularies and gain more information about their content area in English, of course.

As done in the preceding sessions, the focus was on text comprehension that is realised in a graphic organiser and a paragraph summary. This also means that the focus is not on analysing text based on grammar.

How the session proceeded from the beginning to the end is what we are going to find out in the following section.

Accountants produce financial statements. A financial statement is a written report with information about the financial activities of a company. It includes a balance sheet and a profit and loss statement.

- A balance sheet lists the company's assets (the things it owns), its liabilities (the things it owes) and its capital (money invested in the company).
- A profit and loss statement shows the company's income, expenses and profits or losses.

Accountants produce financial statements quarterly (every three months) or annually (every year) to show the financial position of a company and its performance over a period of time. This period of time is called the reporting period.

There are many different people who need this information. They could be shareholders, the directors of the company, government departments, employees, suppliers or customers. Investors can also look at this information and decide whether or not to buy shares in the company.

(In Richey, 2012, p. 47)

As in the previous sessions, we followed nearly the same steps.

A)

- a- What is the text about?→ It is about **financial statements**.
- b- What is the type of text?→ It is **an information sheet**.

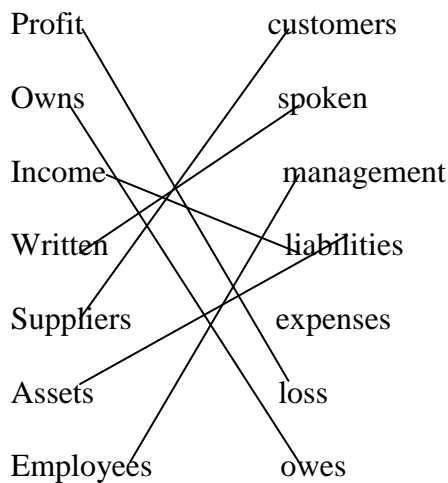
- c- What is the pattern of organisation? → It is **descriptive**.
- d- Give an example. → **It includes a balance sheet and a profit and loss statement.**
- e- Who the text addresses? Why? → It addresses **investors, shareholders, customers and students studying Finance** in order to **be aware of the financial status of a company.**

B)

f- Find a word or phrase from the information sheet above with a similar meaning.

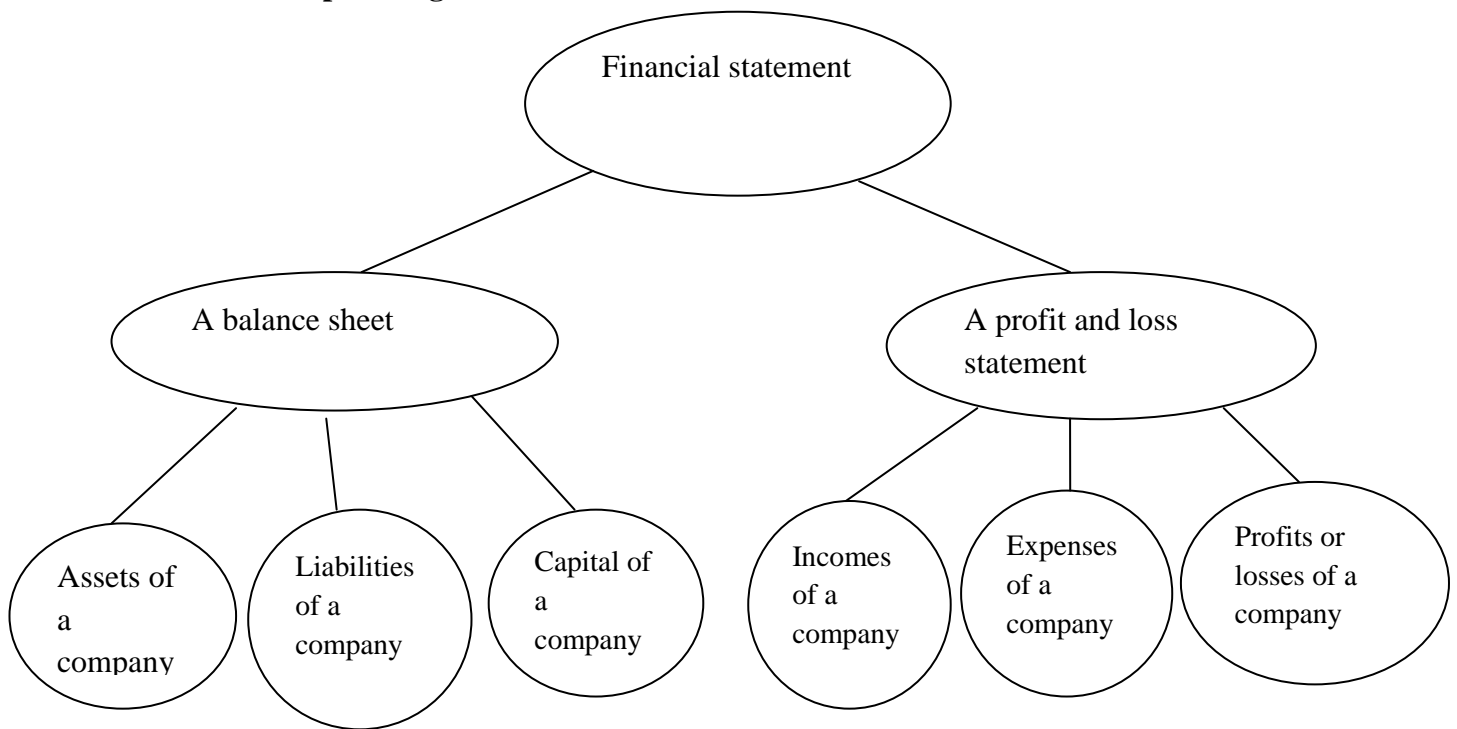
1. Things a company owns, such as machines and buildings → **assets**
2. Things a company owes, such as debts and taxes → **liabilities**
3. A record of a company's assets, liabilities and capital → **a balance sheet**
4. Money left from a company's income once expenses have been paid → **profit**
5. People who sell goods and services to a company → **suppliers**
6. Money a company receives from the sale of goods or services → **income**
- 7.

a) Match the opposites.



D)

The Graphic Organiser



- **The Text Summary**

Financial statements are written reports about the financial activities of companies. A financial statement contains a balance sheet and a profit and loss statement. The first one lists the assets of a company, its liabilities and its capital. The second one shows the incomes of a company, its expenses and profits or losses.

4.7.2.4.4.1. Comment 4

The teacher directed the students towards all the steps followed in the previous sessions, which made them involved in doing all the tasks in a more relaxed atmosphere. They could not recognise the type of text at the beginning since it was new to them. Students benefited

from the session to a great extent. They learnt about what ‘financial statements’ include, when they are produced and who needs them. Students learnt new vocabularies such as “balance sheets”, “profit and loss statement”, “liabilities”, “suppliers”, etc. They were involved in deciphering the conveyed message and could infer it in the end; in that, there were attempts on their part to enlarge their thinking and imagination. More importantly, they could summarise the text in a graphic organiser and in a paragraph. They did not meet any problem in selecting the appropriate text organisation. Besides, they used simple language to avoid writing complexities. This phase took a kind of negotiation between the teacher and the students and between the students themselves. It was an opportunity to remind of the organisation of an English paragraph them as done in the previous sessions.

4.7.2.4.5. Session Five

The last text in the reading course is about a bank called UBCS International. This text’s aim is to talk about UBCS International Bank: the services and products it provides, its branches, the number of employees, and so on. The pattern of organisation is clearly ‘descriptive’.

The students’ job was to identify the top-level structure of the text and do some related tasks. They were required to follow the same steps in analysing the text as they did in the previous sessions: finding out the type of text, the pattern of organisation, the readership and the reason for writing the text, answering some comprehension questions, filling in a graphic organiser, and summarising the text in a paragraph besides other tasks.

UBCS International

UBCS International is a leading international bank. We provide an excellent range of products and services, including current accounts, savings accounts, mortgages, insurance, loans, foreign exchange services and investment advice. We have 2,000 employees in our head office in Frankfurt and 38,000 in our 320 branches in Europe, the Middle East and Asia. We give our trainees experience in all our departments:

- Our cashiers serve the bank's customers. They help customers make deposits and withdrawals, check balances, answer questions and help customers with their everyday banking needs.
- At our foreign exchange counter, the cashiers sell foreign currency to customers who want to go abroad.
- Our mortgage advisers arrange mortgages for customers who want to buy property. They also set up insurance policies.
- Our financial advisers give customers information about stocks and shares, bonds and other types of investments.

(In Richey, 2012, p. 13)

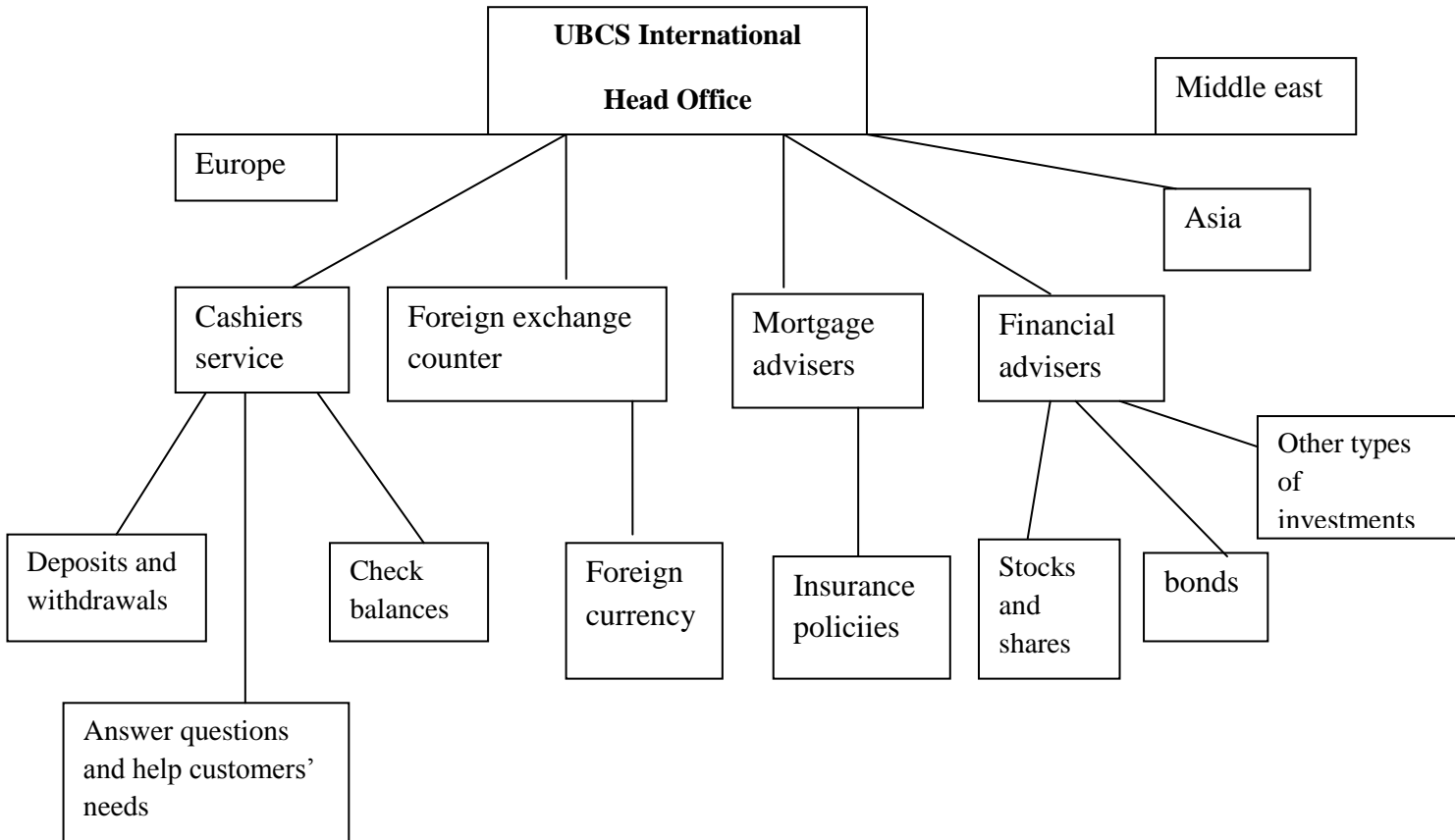
A)

- a. What is the main idea of the text? → the text is about UBCS International company.
- b. What type of text is it? → It is an **information sheet**.
- c. What is the pattern of organisation used in the text? → It is **descriptive**.
- d. Give an example. → **We have 2,000 employees in our head office in Frankfurt and 38,000 in our 320 branches in Europe, the Middle East and Asia.**

e. Who does the text address? Why? → The text addresses **customers who want to deal with UBCS International and students in Finance.**

B)

The Graphic Organiser



- **The Text Summary**

UBCS International is an international bank. It has 40,000 employees in its branches in Europe, Middle East and Asia. The bank provides a number of services such as current accounts, saving accounts, insurance, loans, mortgages, etc. Its cashiers help customers in making deposits and withdrawals, selling foreign currency, arranging mortgages, setting up insurance policies, and giving information about stocks and shares and so on.

4.7.4.2.5.1. Comment 5

Students have become more aware of the TSA strategy; in that, they have been trained to grasp the intended meaning of a text and to be aware of the fact that any text carries a message that should be deciphered by the reader. They recognised the type of text, recognised the pattern of organisation and provided an example. They succeeded in answering comprehension questions and recognising the vocabulary needed. They also summarised the text in a graphic organiser and in a paragraph. They learnt some more specialised vocabulary such as “current accounts”, “savings accounts”, “mortgages”, “loans”, “deposits”, “withdrawals”, “financial advisors”, etc.

4.7.2.4.6. Evaluation of the Reading Sessions

The reading sessions were beneficial to students; in that, students became more and more aware of text structures and comprehended the given texts. Moreover, they showed a great skill in analysing texts and summarising them in graphic organisers then in paragraphs. They became more conscious about inferring the intended meaning of the text. Additionally, they became more autonomous and showed great interest in how to comprehend the texts using the top-level structure. Though the tuition did not take much time, students seemed

accustomed with the new approach. They identified the main idea and text types, recognised the patterns of organisation in those texts and gave examples, and learnt specialised vocabularies. More importantly, they learnt that authors do not write texts for the sake of writing. Rather, they transmit messages that should be inferred by good readers. They also learnt to decipher the intended readership. So, the training sessions helped the students in taking this into consideration so as to monitor their reading. In order to check their reading comprehension, the students were asked to summarise the texts in graphic organisers and in paragraphs. As such, they were taught how a paragraph is built in English.

We do not pretend to say that the five sessions were perfect and students became one hundred percent excellent, but, at least, they changed their view towards how to make sense of texts. And what we observed during the sessions was really promising.

At this time, it was advisable to test the subjects again to investigate the hypothesis set in this study; that is, to find out the relationship between text structure awareness and reading comprehension.

After the reading sessions, students became more aware of the reading strategies in general and TSA in particular. More importantly, they became more motivated towards reading and reading comprehension. Also, they benefitted from the training on how to summarise texts both in graphic organisers and in paragraphs. In sum, they showed more interest in reading comprehension and their view towards reading changed to a great extent.

4.7.2.5. Post-Test Analysis

After spending five weeks of training, it was time to test the subjects again for the sake of finding out to what extent the intervention was beneficial through conducting another test. To this end, the post-test includes the same items included in the pre-test.

➤ Post-Test Items

The items investigated in the post-test are the same as the ones in the pre-test: the pattern of organisation used in the selected text and providing an example, the type of text, the main idea of text, the readership of the text, filling a graphic organiser in, summarising the text in addition to other ones such as answering comprehension questions, filling gaps in with words and specialised vocabulary, and answering a True/False activity.

➤ The Text

A portfolio is a combination of different types of investment. It can include bank accounts, bonds, property, shares, mutual funds or any other type of investment. Investors use portfolios to minimize risk. They may lose money in one area, but can make a profit in another. Spreading risk by including many different types of investment in a portfolio is called diversification.

Many financial institutions, such as banks, offer a portfolio management service. Portfolio managers decide what assets to include in the portfolio- what to buy, how many to buy, when to buy and what to sell. Their decisions depend on the goals of the portfolio owner and changing the economic conditions. Each investor has his or her own financial needs, so no two portfolios are the same. The main goal of any portfolio is to put the investor's money in different places. This improves the chances of making a profit.

(In Richey, 2012, p. 38)

First, let us have a look at the post-test' s answers:

1. What is the main idea of the text?→ The text is about **portfolios and what they can include as types of investment.**
2. Give a title to the text.→ **portfolios**
3. What type of text is it? An article? A memo? → It is **an article.**
4. To whom is the text addressed? Why?→ The text is addressed to **investors.**
5. What is the pattern of organisation used in the text? Descriptive? Definition? Definition and description?→ The text is **descriptive.**

6. Give an example → **It can include bank accounts, bonds, property, shares, mutual funds or any other type of investment.**
7. What is a portfolio? → A portfolio is **a combination of different types of investment.**
8. Who offers a portfolio? → It is **financial institutions such as a bank** which offer a portfolio.
9. What is the aim of a portfolio? → The aim of a portfolio is **to put the investor's money in different places.**

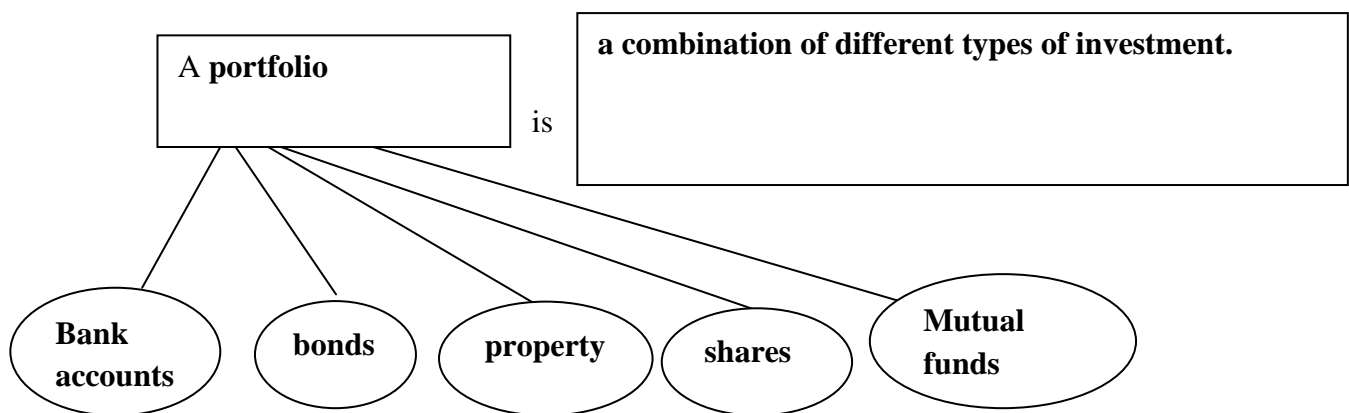
10. **Complete the sentences with the following words:**

- a. A portfolio combines different **types** of investments.
- b. The aim of a portfolio is to minimise **risk**.
- c. A bank may offer a portfolio **management** service to its customers.
- d. Diversification is a way of **spreading** risk.
- e. Portfolio managers choose to include **assets** in the portfolio.
- f. The **goals** of the customer affect the decisions that the portfolio managers make.
- g. Investors all have different **financial** needs.
- h. The **chances** of making a profit are improved if the investor's portfolio is diversified.

11. Are these statements true (T) or false (F) according to the text.

- a. A portfolio increases an investor's chances of making a profit. →**T**
- b. Portfolios only include limited types of investments. →**F**
- c. All the investments in a portfolio are likely to make the same amount of profit.
→**F**
- d. Portfolio managers look at economic conditions when they make decisions about what assets to put in a portfolio.→**T**
- e. Most portfolios are very similar.→**F**
- f. Most investors have the same financial needs.→ **F**

12.Fill in the following graphic organiser.



13. Summarise the text in few sentences.

Financial institutions such as banks offer portfolios. These are combinations of types of investment. They can include bank accounts, shares, property, bonds, mutual funds, and the like. The aim of a portfolio is to put the investor's money in different places. So investors use portfolios in order to minimise risk. What to put in a portfolio depends on the investor's aim and the economic conditions.

The results of the post-test are shown in the following table:

Post-test items	Correct answers	Incorrect answers
1.The main idea of a text	69.81%	30.18%
2.Type of text	56.60%	43.39%
3.Pattern of organisation	83.01%	16.98%
4.Example of pattern of organisation	67.92%	32.07%
5.Who the text addresses	45.28%	54.71%
6.The message conveyed via the text	77.36%	22.64%
7.Comprehension questions	50.94%	52.83%
8.Filling in gaps	58.49%	49.05%
9.True/False	66.03%	33.96%
10.Filling in a graphic organiser	84.90%	15.09%
11.Text summary	67.92%	32.07%

Table 4.38. Post-test items with the correct and incorrect answers

These obtained results are shown in the following graph. It is clear that the scores of the post-test are higher than the ones of the pre-test as follow:

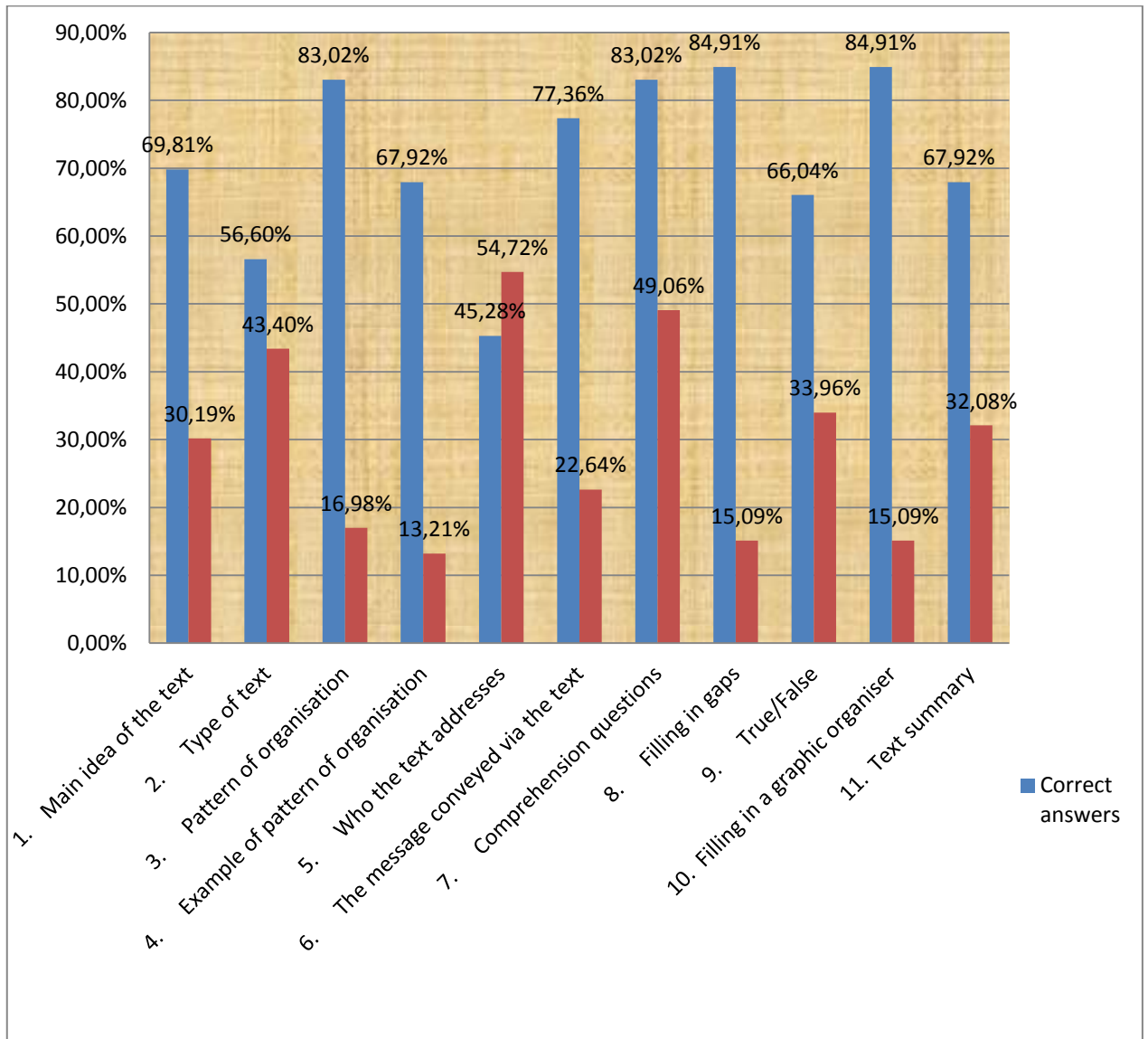


Figure 4.2. Post-test's results

It appears that more than half of the subjects (69.81 %) in this study succeeded in getting the gist of the text, 83.02% could identify the pattern of organisation, 67.92% provided an example, and 56.60% and recognised the type of text. Moreover, 45.28% were able to find out whom the text addresses and 83.02% could answer comprehension questions. Furthermore, 84.91% could fill in the graphic organiser and 67.92% could summarise the text.

4.7.2.5.1. Results' Analysis

The data gathered showed a great difference between the pre-test and post-test's results which means that there had been an improvement after the direct instruction. The table below reveals that the investigated TSA strategy along with the other strategies in the pre-test were better tackled in the post-test:

Investigating Text Structure Strategy and other Reading strategies for Reading Comprehension	Pre-test	Post-test
1. The main idea of a text	41.50%	69.81%
2.Type of text	16.98%	65.60%
3. Pattern of organization	39.62%	83.01%
4. Example of pattern of organisation	30.18%	67.92%
5. Who the text addresses	13.20%	45.28%
6. The message conveyed via the text	9.43%	77.36%
7. Comprehension questions	47.16%	50.94%
8.Filling in gaps	30.18%	58.49%
9.True/False	58.49%	66.03%
10.Filling in a graphic organiser	28.30%	84.90%
11.Text summary	13.20%	67.92%

Table 4.39. Comparison of the items in the pre-test and the post-test

These eleven items that have been compared between the pre-test and the post-test are exposed in the following graph.

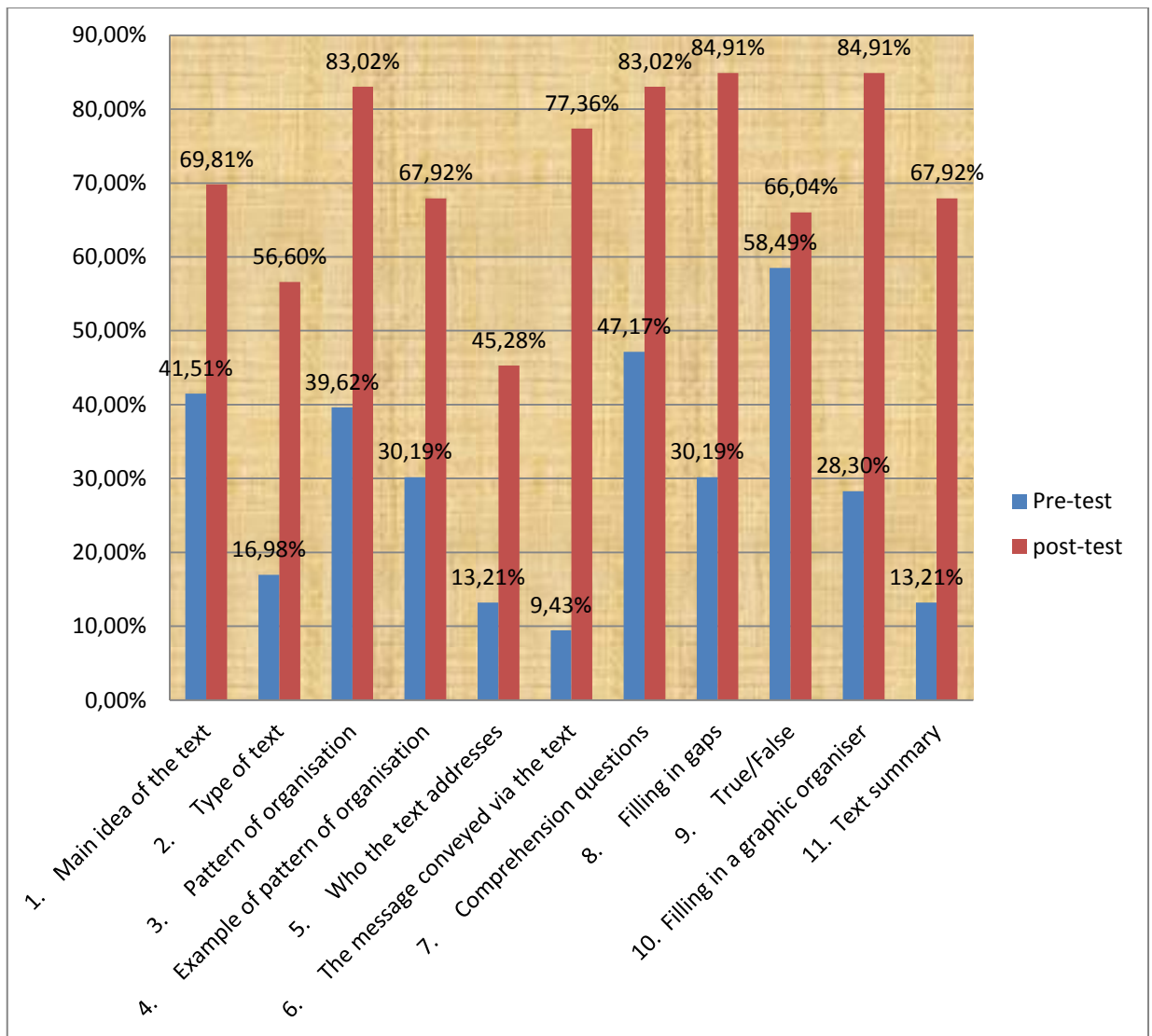


Figure 4.3. Comparison of pre-test and post-test's results

The results show that all the strategies witnessed a remarkable improvement though without an equal percentage. This means that the reading course was efficient in that it assisted the subjects in being aware of the use of text structure awareness strategy along with the other reading strategies for comprehending ESP texts. Figure 4.4. below shows the comparison of both tests'scores in a form of a polygon.

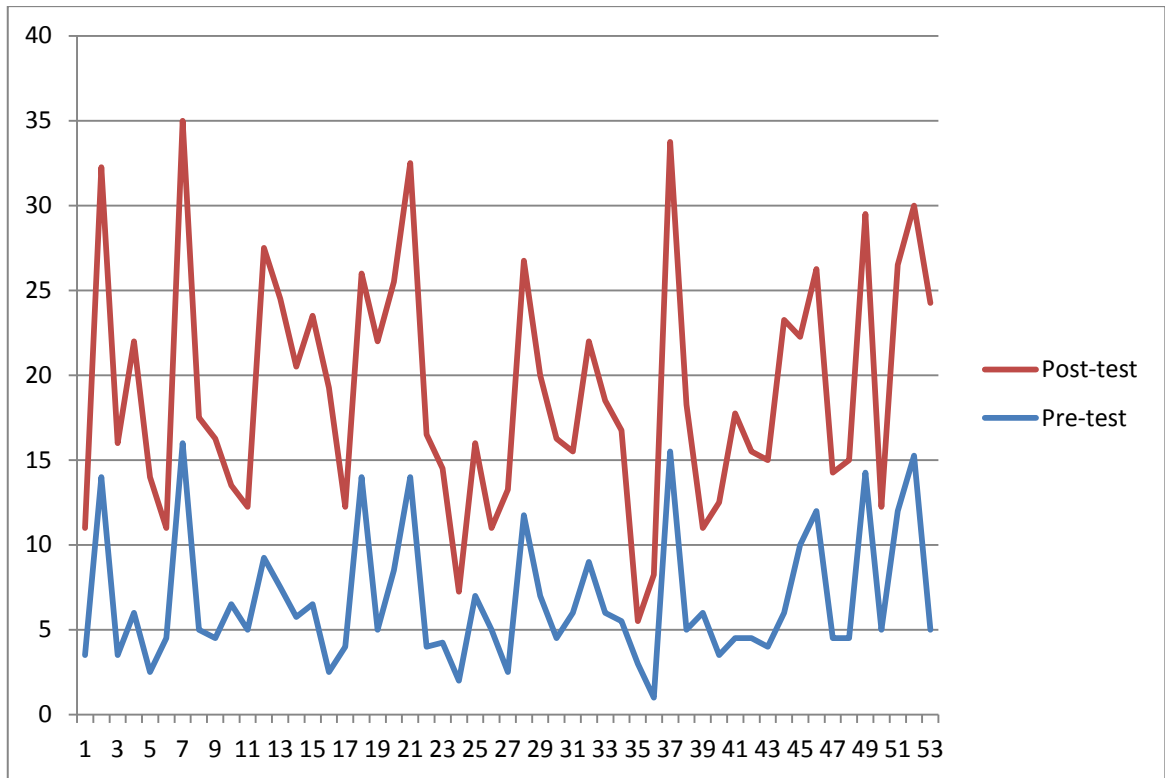


Figure 4.4. Polygon for pre-test and post-test scores

From above, it is clear that the post-test marks are higher than the pre-test ones. Nonetheless, this analysis is not sufficient. There should be an analysis of the results (t-Test), but before that, we need to comment on the students' marks, mainly the under-achievers' ones.

Having a look at the students' marks, we can deduce an improvement even with the students who were considered as under-achievers. The following table exposes their pre-test and post-test marks.

Testees	Pre-test scores	Post-test scores
1	03.5	07.5
6	04.5	06.5
10	06.5	07
11	05	07.25
17	04	08.25
24	02	05.25
25	07	09
26	05	06
31	06	09.5
35	03	02.5
36	01	07.25
40	03.5	09
47	04.5	9.75
50	05	07.25

Table 4.40. Under-achievers' pre-test and post-test scores

However, there are two good-achievers (18 and 52) who got lower marks in the post–test. This is because they came to the post-test late. The same applies to one under-achiever (39).

Testees	Pre-test scores	Post-test scores
4	06	16
12	09.25	18.25
13	07.5	17
14	05.75	14.75
15	06.5	17
16	02.5	16.75
19	05	17
20	08.5	17
44	06	17.25
53	05	19.25

Table 4.41. Under-achievers having lower scores in the pre-test

Concerning the testees in the above table, they have good English language proficiency. However, according to them, they were not accustomed to such kind of testing and questions besides being hesitant. This, actually, was noticed through the reading sessions. To solve this problem, the only thing that was available was to motivate them throughout the reading sessions. As a result, they performed better in the post-test.

As for the remaining testees, they have been classified as follows:

Testees	Pre-test scores	Post-test scores
2	14	18.25
7	16	19
21	14	18.5
28	11.75	15

Table 4.42. Very good and excellent achievers' post-test scores

The testees above are excellent in terms of comprehension, but lacked training. Therefore, they got better grades after the training.

The following testees are judged to be intermediate. Their average scores after the training sessions were between 10.5 and 11.75.

Testees	Pre-test scores	Post-test scores
5	02.5	11.5
9	04.5	11.75
27	02.5	10.75
30	04.5	11.75
34	05.5	11.25
42	04.5	11
43	04	11
48	04.5	10.5

Table 4.43. Average scores of intermediate students

The testees below are judged to be between “good” and “very good”. Their average scores are between 12.25 and 14.5.

Testees	Pre-Test scores	Post-test scores
3	03.5	12.5
8	05	12.5
22	04	12.5
29	07	13
32	09	13
33	06	12.5
41	04.5	13.25
45	10	12.25
46	12	14.25
51	12	14.5

Table 4.44. Average scores of good and very good testees

So, from the table above, the testees are ranged between low-intermediate and excellent. Besides, they have all benefited from the training sessions in a way or another.

The improvement in the post-test is proved by the calculation of both means and standard deviations (SD) as follows through conducting a T-test.

4.7.2.5.2. T-Test

The t-test is a statistical test that assists in drawing conclusions from the experiment's data. It is used to confirm the significance or non-significance of the findings. T-test is calculated using SPSS.

Conducting a T-test generates two tables: paired sample statistics including the Mean, N (number of testees), SD (standard deviation), and Standard Error Mean. The other one includes more data mainly T value, Sig (significance), and SD.

	Mean	N	Std. Deviation	Std. Error Mean
Pre-test marks	6.75472	53	3.924617	.539088
Post-test marks	12.29245	53	4.141644	.568898

Table 4.45. Paired Samples Statistics

As shown above, the mean of the post-test (4.14) is higher than the one of the pre-test (3.92), which reflects the efficiency of the suggested TSA reading approach that is based on a discourse-based approach. As for the SD, it has also been noticed that it has increased in the post-test (4.14) which strengthens our hypothesis set at the beginning of the thesis.

The following table shows the statistical differences between scores of pre-test and post-test $t(53) = 7.066$, $Sig = 0.00$. In other words, teaching TSA had a significant impact on RC.

Paired Samples Test

Paired Differences				t	df	Sig. (2-tailed)	
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower				Upper
-5.53774-	3.788709	.78375	-7.09199-	-3.98348-	7.066	52	.000

Table 4.46. Paired Sample Test

Since Sig is < 0.05, it means that the result is significant. And we admit the hypotheses that say that text structure awareness fosters ESP learners' RC and enable them to summarise texts in graphic organisers and in paragraphs. As seen above, the 't' value is **7.066** which means that our results could not have arisen by chance.

4.7.2.5.3. Discussion and Conclusion

The present study attempted to investigate the impact of TSA on a group of 53 students studying in the department of Accounting and Finance at Ghardaia University. The suggested hypothesis was as follows: being aware of text structure including pattern of organisation, text type, who the text addresses, the message conveyed via the text, the summary of a text in a form of a graphic organiser and a paragraph would foster RC.

We conducted this research using a quasi experimental design. We used as tools of research, classroom discussions, a questionnaire, a pre-test, five training sessions on text structure awareness and a post-test.

The T-test was used to confirm the obtained results. T-test calculation indicated that TSA fosters ESP learners' RC which means that the null hypotheses are rejected.

The obtained results showed that students not only benefited from text structure awareness (TSA) strategy training, but how to summarise texts in graphic organisers and paragraphs as well. In short, they became more aware of the fact that texts convey certain messages that should be detected by readers. We cannot pretend that students became perfect, but at least they showed an important improvement. As noticed, we did not focus on grammar nor on discourse signalling in the DI.

Conclusion

Throughout this chapter, we have been considered with the investigation of the impact of the TSA strategy on ESP learners' RC. We began with the classroom discussions to get an idea about the difficulties encountered by third year Accounting and Finance students at Ghardaia University. Then, we conducted a questionnaire of thirty-six questions to get insights on how students read and comprehend texts and whether they use RC strategies for making sense of texts and doing some related tasks such as summarising texts in both graphic organisers and paragraphs or even evaluating and inferring the intended message of texts.

The results of the questionnaire revealed that students do not have a clear idea about how to read and how to comprehend texts, which paved the way to designing a test prior the intervention. So we tested the subjects using a text in the content-area with eleven tasks ranged from getting the main idea of the text to the text summary. We analysed the pre-test and found that the students did not succeed in getting the text structure of the text nor could they decipher the intended meaning of the text and who the text addresses. Moreover, they could not fill in a graphic organiser nor could they summarise the text in a paragraph. All that

58.49 % of the subject succeeded in was to do the True/False task correctly, which necessitated an immediate intervention. Next, we trained the subjects during five sessions in being aware of the text structure strategy. They were shown how to get the main idea of text, identify the type of text, the pattern of organisation, infer the message of the author and the intended readership, answer comprehension questions, fill in gaps with vocabulary, answer a True/False activity and finally summarise texts in graphic organisers and in paragraphs. After noticing the awareness improvement, we tested the students once again to measure this improvement formally.

The results obtained showed a considerable improvement in the TSA strategy; in that, the respondents could get the main idea of text, recognise type of text, text organisation and provide an example of it, fill in a graphic organiser and summarise the text in a paragraph. This finding reflects the efficiency of the suggested approach.

This experiment revealed that the hypotheses set at the beginning are correct. We have proved empirically that making ESP learners in Accounting and Finance Department at Ghardaia University aware of text structure has a strong impact on their RC. In five training sessions, the participants became able to read the text, spot the pattern of organisation, spot to whom the message is addressed, answer the comprehension question, fill in the graphic organiser, and summarise the text in a paragraph. Simply, this means that drawing students' attention towards how to comprehend texts using TSA is very beneficial, without neglecting the other reading strategies, for TSA strategy cannot be taught in isolation.

Chapter Five:

**Pedagogical Implications and Strategic ESP
Reading Comprehension Instruction**

Introduction

5.1. Pedagogical Implications

5.2. Strategic ESP Reading Comprehension Instruction

5.2.1. Conducting Needs Analyses

5.2.2. Issues Affecting ESP Reading Instruction

5.2.2.1. ESP Texts

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5.2.2.5. Text Structure and Discourse Organisation

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5.2.2.7. Reading Rate

5.2.2.8. Pre-, During-, and Post-Reading Strategies Framework

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5.2.2.10. Integrated Reading and Writing

5.2.2.11. Extensive Reading

5.2.2.12. Reading Assessment

Conclusion

Introduction

Following the experiment, it is of a great importance to recommend ESP teachers and even future teachers to take into account the following pedagogical implications. Moreover, any ESP reading comprehension instruction should include the elements in 6.2. (Strategic ESP Reading Comprehension Instruction).

5.1. Pedagogical Implications

The students at the department of Accounting and Finance at Ghardaia University should have a module of RC in English twice a week, along with a Study Skills Module, whereby they encounter many types of texts and whereby they will identify the different patterns of organisation. They should also be aware of the importance of using reading strategies in terms of efficiency and time saving, mainly using text structure awareness since they are judged to be adult learners. Nonetheless, this is not sufficient. Teachers should make students aware of text structure as a powerful reading strategy that assists readers to comprehend the main idea of texts easily.

The students need practice, *viz.* reading a variety of texts including different patterns of organisation, genres and text-types through a pre-, during-, and post-reading framework. They, also, need to practise the think aloud method which helps them as readers activate their prior knowledge before and during reading the text. In addition, they should be motivated and encouraged to talk about and describe their ways of reading and the strategies they use in each text.

Students need to know how to spot information in a text, but before this they need to know how ideas are related. All this can be relevant when students are exposed to acceptable texts in terms of length and complexity. That is, students will begin with short texts and bit by bit will deal with longer ones. A second issue is the use of authentic texts which implies that the reading teacher tries to use extracts from real sources, for it will assist putting the texts into their contexts. And so doing will enable students to better comprehend texts.

Students will encounter grammatical structures in their contexts, which allows a good mastery and use of grammar. Moreover, identifying and discriminating different functions of words will improve the students' text comprehension. Furthermore, students will be able to write good summaries and comments.

Another point of a crucial importance is the use of graphic organisers. The literature of reading suggests that using graphic organisers permits a good representation of texts, mainly the main points. To this end, there exist a large number of them depending on the rhetorical patterns of organisation. Concerning the latter and according to the reading literature too, when students are guided to see how texts are structured and ideas are organised, they will acquire stronger comprehension skills. Some of the activities that focus on how discourse is organised and texts are structured, besides the ones that use graphic organisers, are text-analysis ones suggested by Grabe and Stoller (2001):

1. Identifying the sentences that convey the main ideas of texts
2. Examining headings and subheadings in a text and then deciding what each section is about
3. Adding information to a partially completed outline until all key supporting ideas are included

4. Underlining transition phrases and, when they signal major sections of the text, describing what the next section covers
5. Explaining what a set of pronouns refers to in prior text
6. Examining an inaccurate outline and adjusting it so that it is correct
7. Reorganizing a scrambled paragraph and discussing textual clues used for decisions
8. Creating headings for a set of paragraphs in the text, giving a label to each, and discussing the function each paragraph.
9. Identifying clues that indicate major patterns of organization (e.g., cause-effect, comparison-contrast, analysis)

(p. 194)

Since students read for academic purposes and learn information from difficult texts, the above activities will be beneficial for them. Before talking about ESP reading comprehension strategy, let us have a look at the guidelines for effective comprehension instruction as cited in Irwin (2007, p. 17):

1. Promote comprehension in the context of meaningful, authentic interactions with print.
2. Provide motivating and high-quality print resources representing multiple points of view and a variety of cultures.
3. Encourage students to use comprehension for functional, personal, and transformational reasons.
4. Allow students to select their own materials whenever possible and to read as much as possible.
5. Schedule time for both student- and teacher-led discussions.

6. Create an atmosphere of inquiry that encourages student questions, tentative talk, and problem solving and discourages right and wrong declarations.
7. Teach comprehension strategies explicitly (explain, model, and gradually withdraw support) when difficulties with understanding text suggest that this instruction is needed.
8. Use guided reading group experiences to scaffold student strategies and encourage process talk.
9. Connect reading and writing activities and strategy instruction.
10. Make sure all activities are culturally responsive and relevant.

5.2. Strategic ESP Reading Comprehension Instruction

Strategic ESP RC instruction involves taking into consideration a number of elements beginning with needs analyses and finishing by reading assessment. In the following section, we are going to provide the most important factors that contribute to improving RC in ESP settings.

5.2.1. Conducting Needs Analyses

Strategic ESP RC instruction involves gathering information from the students about their goals, prior reading experiences, and motivations and attitudes concerning L2/FL reading. To this end, teachers are required to conduct surveys, questionnaires, interviews, and even tests. Questions should concentrate on the students' reading habits, reading purposes,

ways of reading, reading problems, and reading preferences. In this way, teachers will be able to design courses that fulfil the students' and the institutional expectations.

5.2.2. Issues Affecting Strategic ESP RC Instruction

There are certain criteria to be taken into account on the part of both ESP teachers and learners. These concern ESP texts selection, text authenticity, vocabulary development, text structure and discourse organisation, grammar, careful reading of texts, and reading rate.

5.2.2.1. ESP Texts

Texts in ESP settings should be selected according to a certain number of criteria, namely suitability, exploitability, readability. Moreover, it is advisable that they should be authentic which means they are not written for pedagogical purposes.

5.2.2.1.1. Text Selection Criteria

Selecting texts is not an easy task. There should be a number of criteria to be taken into consideration. Nuttall (1996) recommends three criteria that influence the choice of texts: suitability of content, exploitability, and readability.

- **Suitability**

Suitability is the most important criterion, in that the teacher selects the text that interests both the students and the teacher (Nuttall, 1996). In other words, Nuttall (ibid) pointed out that “interesting content makes the learner’s task far more rewarding” (p. 170). The author

claims that if teachers are training students for academic studies, they may get better results when they begin with simple and more motivating material to (Nuttall, 1996).

- **Exploitability**

The most important criterion after interest, according to many researchers, is exploitability. Nuttall (ibid) argues that it has to do with the use of a text to “develop the students’ competence as readers” (p. 171). She stressed on the fact that a text which cannot be exploited is useless, even if students enjoy reading it (ibid). The focus in the reading lesson as she claims should be on both language and content, for the primary aim is that students learn language better when they focus on the meaning and on the purpose of the text (ibid). Nuttall (ibid) continued arguing that exploitability implies developing interpretive strategies, the use of authentic texts, and considering the length of texts.

- **Readability**

Readability is an important feature of text. It is an essential criterion for text selection (Davies, 1995). Irwin’s (2007) research on readability has demonstrated that comprehension can be affected by word familiarity and sentence length. For Nuttall (ibid), readability refers to the structural and lexical difficulties encountered in texts, in educational settings (ibid). The former, structural difficulty, is not easy to assess, but in case the text is comprehensible, new grammatical forms such as tenses, structural words, and the like will often cause no problem (ibid). However, long and complex sentences do (ibid). The latter, which is lexical difficulty, has to do with vocabulary (ibid). This means that vocabulary can be assessed straightforwardly when the teacher knows his/her students by making lists which include new

words or phrases with the addition of new idiomatic expressions and the use of familiar words such as phrases and verbs (ibid).

There exist other criteria for selecting texts such as text variety and whether texts are common-core or subject-specific.

- **Text variety**

For classes with a specific purpose for learning the language, a variety of texts is more preferred by students, which makes the reading course more interesting and the response better. A variety of texts can be even used in one lesson, especially for activities which do not necessitate a complete understanding such as prediction, skimming and so on (ibid). However, there is a benefit in using texts that deal with similar topics, which ensures the recycling of vocabulary (Nuttall, 1996).

- **Common-Core Texts or Subject- Specific Texts?**

ESP teaching and learning requires the use of subject-specific texts rather than common-core ones. But, in many situations, as the authors explain, where there are heterogeneous classes, in terms of their subject specialties or lack of numbers of teachers who teach various specialisms, a subject-specific approach is not appropriate (Kennedy & Bolitho, 1984). Rather, a common-core approach is the best solution, in that semi-technical texts may be selected, including some general topics that suit all these specialties and that make students' activities based on semi-technical vocabulary, some skills, structures and functions (ibid).

Nevertheless, in some other situations where no teaching or administrative constraints exist, a subject-specific approach is more desirable and feasible, in that specific topics are more relevant and more demanded by the learners themselves (Kennedy & Bolitho, 1984). In this vein, ESP teachers untrained in subject-specific texts, then, are in need of a training programme, if not, a common-core approach should be used (ibid). The role of specialists in many disciplines, who have less difficulty with vocabulary than language teachers do, is to focus on discourse markers, structures, and the like.

5.2.2.2. Text Authenticity

Authenticity of texts has been under discussion for a long time. Though many researchers claim that authentic texts are the ones that are not written for pedagogic purposes (Edge & Garton, 2009; Harmer, 2007; Wallace, 1992), Widdowson (1979) views authentic texts as ones reconstructed on each occasion of their use along with the reader's purpose. Put simply, authenticity lies in the interaction between text and reader, which calls for specially written texts (Wallace, ibid). To this end, Kennedy & Bolitho (1984) argue that ESP teachers should consider the L2 learners' level.

Authentic materials, which are most of the time reading texts, can be used if the learner's conceptual knowledge is higher than his /her linguistic level (ibid). Contrariwise, simplified texts lose some meaning as they are artificially written for language teaching purposes (Davies, 1995; Dudley - Evans & St John, 1998; Hutchinson & Waters, 1987; Kennedy & Bolitho, ibid; Nuttall, 1996; Silberstein, 1994; Wallace, ibid). Despite this fact, simplified materials assist learners in developing their reading abilities (Davies & Widdowson, 1974 cited in Allen & Corder) and are to be used when "both concepts and language are at a low level" (Kennedy & Bolitho, ibid, p. 48). In this line, Allen and Widdowson (1971) point out

that it should be looked at a target situation (ESP/EAP) text as whether it fits the learning purpose or not (cited in Hutchinson & Waters , 1987).

5.2.2.3. Vocabulary Development

Vocabulary knowledge is essential in reading. A large number of researchers make strong relations between vocabulary growth (Knowledge) and reading abilities (Grabe, 2009; Kamil & Chou, 2009; Koda, 2004; Nagy, 1988). Baumann (2009) indicates that “The relationship between word knowledge and text understanding has been demonstrated empirically...” (p. 335). Nyikos and Fan (2007) argue that vocabulary has an important role in effective communication.

There exist two types of words: function words and content words. The first type includes, for instance, prepositions, conjunctions, auxiliaries; the second nouns, verbs, adjectives, and adverbs (Aebersold & Field, 1997; Nation, 2001). The two types are labelled high-frequency words (Nation, *ibid*). These high frequency words, according to Nation (*ibid*), contain many running words in written texts and they are found in all uses of language. Grabe (*ibid*) points out that readers do not know everything about a word at a time, but gradually, *viz.* it is a lifelong learning (*ibid*).

Word knowledge develops when readers encounter word many times and in many contexts. This suggests that when students are exposed to words in many occasions and at many times, they will likely to know about its components: orthography, morphology, parts of speech, pronunciation, and so on.

The amount of vocabulary needed in L2 academic reading is not less than 10,000 words (without counting inflectional suffixation distinctions). To this end, fluent readers should know at least 95 percent of vocabulary automatically, 300 words on a page (ibid). Meara (1995), Nation (2001) and Schmitt (2000) maintain that L2 students in academic settings will need more than 2,000 most frequent words families, which is very important in vocabulary instruction (cited in Grabe, ibid). In fact, as Grabe and Stoller (2001) argue, SL learners can attain this amount of words through extensive reading. Nonetheless, vocabulary development cannot be attained by extensive reading only, but by exposing students to new words through explicit instruction, showing them how to learn words on their own, familiarising them with their own learning processes, and by making them word collectors (ibid).

Decision making in the type and number of words is crucial, which necessitates experienced teachers rather than inexperienced ones. The teachers' job is to select and focus on key words that should be "the most important words for a text, the most useful for organizing and working with other vocabulary, and the most likely be helpful to students beyond the text being read" (Grabe & Stoller, 2001, p , 192). To this end, textbooks often select focused words by highlighting them, for example (ibid). However, there are other words that call for attention (ibid).

To make a compromise, as Grabe and Stoller (ibid) argue, teachers preview the text under study and show unfamiliar words to their students (ibid). These words are of three types:

1. words critical for text comprehension and used in other contexts .
2. words necessary for text comprehension, but not useful in other settings, and
3. words not necessary for text comprehension, neither particularly useful in other settings (ibid).

Direct instruction involves type (1) and (2) mentioned above, but in case texts are difficult for learners, teachers might identify 40 to 50 words in categories (1) and (2) (Grabe & Stoller, 2001). However, teaching a large number of words in a single lesson is not effective (ibid). Rather, focusing on four to five key words is more efficient; in that, if a number of words is used many times and in many ways, these words are likely to be remembered and learned (ibid). The remaining useful words are to be identified in activities (tables, semantic maps, etc.) and discussions throughout the lesson (ibid).

From above, a good percentage of word learning requires “extensive exposure to print and learning words from contexts” (Grabe, 2009, p. 272; Nation, 2001). Context, here, is a cue for both learning a word and getting a word.

➤ **Learning Words incidentally from Contexts**

This type of learning words involves incidental exposure to words readers encounter for the first time. This means that the aim of the reader is to read and understand (Grabe, ibid). This, in turn, means that the reader may not notice a new word in any conscious way, but in case it is noticed, it may be skipped so as to focus on text comprehension (ibid). Many researchers argue that learning from context is related to extensive reading (Beglar & Hunt, 2002; Nation, 2002); in that if a student acquires one word in ten through contexts, s/he will acquire between 2,000 and 4,000 new words in a year (Grabe, ibid).

➤ **Guessing Words from Context**

Guessing words from context is practised by readers to varying extents. A new word shows its form and part of speech. It may show some aspects such as some affixes that

contribute to a guess, (Grabe, 2009). The guess, in some cases, may be accurate, but in other ones may not (ibid). The overall comprehension may not be affected when a guess is not very accurate (ibid). But with many encounters with the word, the process of guessing develops and results in a reasonable meaning of the word (ibid). All in all, the strategic process of guessing words from context will be more important when one needs multiple exposures to a word and the very gradual nature of vocabulary acquisition, and if one knows the benefit of extensive reading (ibid).

➤ **Vocabulary Types and Coverage in an Academic Text**

In academic texts, there are many types of words. Nation (2001) points out that an academic text contains respectively 80% high-frequency words, 9% academic words, 5% technical words, and 5% low-frequency words. The amount of academic words (9%) does not ensure making sense of text on the part of students compared to high-frequency words (80%), which necessitates using other plans to attain text comprehension.

By and large, vocabulary knowledge is important for text comprehension. As mentioned earlier, L2 academic reading comprehension entails knowing at least 95% percent of vocabulary on a page.

5.2.2.4. Careful Reading of Texts

Reading a text carefully is a common task in academic settings. This task requires the reader to understand texts well including the details besides learning information and using that information for other tasks (Grabe & Stoller, 2001). The type of activities used in careful reading includes asking the students to recognise main ideas and analyse the supporting

details that explain those main ideas. Other activities focus on exploring inferences that combines sets of information and using the information in the text for other types of activities.

Other activities include the following:

1. Filling in parts left blank in an extended summary
2. Determining the attitude of the writer, the intended audience, and the goal(s) of the writer and identifying clues in the text
3. Listing examples that appear in the text, adding other pertinent examples to the list, and explaining one's reasons for doing so
4. Matching information or evaluating possible true/false statements (Grabe & Stoller, 2001, p. 193)

5.2.2.5. Text Structure and Discourse Organisation

Recognising text structure and discourse organisation assists readers in making sense of texts. According to Grabe (2009), “texts convey a considerable amount of discourse information at multiple levels” (p. 244). He argues that this information assists readers in building *coherent representations of texts* (ibid p. 244). Silberstein (1994) states that most second language reading curricula are dominated by expository prose which is central for ESP/EAP settings. For her, once students recognise the structure of a text in terms of how arguments are structured, and in terms of grammatical/lexical features, they will comprehend the text easily (ibid). Confirming this, Grabe (ibid) mentions that good readers are able to comprehend what they read by making use of text structure which is supported by some linguistic systems such as surface-level signals (cohesion), information structuring, lexical signaling, anaphoric signaling, text coherence, etc. Aebersold and Field (1997) point out that rhetorical structures “describe the organization of information in text” (p. 11), and they are

conventional, including description, classification, comparison, contrast, cause and effect, process, argument, and persuasion (Aebersold and Field, 1997, p. 12).

With regard to what has been aforementioned, if students are guided to see how texts are structured and how discourse is organised, they will acquire stronger comprehension skills (Grabe & Stoller, 2001; Thornbury, 1997). All this ensures text comprehension.

5.2.2.6. Grammar

In L2 contexts, RC is strongly affected by and related to syntactic awareness. In fact, as Grabe (2009) states, a large body of research on L2 assessment such as IELTS and TOEFL, has demonstrated strong correlations between reading and grammar. Nevertheless, it is not clear how this relationship occurs (ibid). In practice, when a reader starts looking at a text, “visual word-recognition processes are engaged, the first words are recognized, and the extraction of syntactic information begins” (ibid, p. 200). Syntactic processing constructs the phrasal and clausal units which support the building of semantic propositions, *viz.* meaning units (ibid). Structural information is extracted from the visually recognised words (ibid). Moreover, “specific word groupings are recognized for the structural information that they provide” (DeKeyser, 2001; Fender, 2001; Kempen, 1999; Pickering & Traxler, 2000 cited in Grabe, ibid, p. 200) such as prepositional phrases, adverbial clauses, and the like. For instance, the word “the” is recognised to be followed by a noun phrase (ibid), and even the verb may have a specific meaning depending on the subject noun phrase (Kintsch, 2001 cited in Grabe, ibid).

To sum-up, the meanings of clauses and sentences are being constructed when words are being recognised and when the syntax is being processed (ibid). Nonetheless, focusing on grammar or not is related to the objective of the reading instruction.

5.2.2.7. Reading Rate

Reading rate refers to the automaticity reached by the reader. Automaticity reflects his/her reading fluency (Eskey, 2005; Rasinsky et al, 2011); that is

the ability to convert most written language into meaningful information so automatically that the reader does not have to think about the language and can concentrate on combining the information obtained with background knowledge to construct a meaning for the text (Eskey, *ibid* p. 568).

This, in fact, requires not only knowledge of lexis, grammar, text structure, but reading in chunks as well (*ibid*). Chunning has been proved as a major comprehension process (Irwin, 2007). So, fluent decoding is both rapid and accurate (*ibid*). Nuttall (1996) argues that when the student is encouraged to read, his/her reading rate will increase, and the more he/she reads, the more he/she comprehends. And in this way, he/she can get into the virtuous cycle of the good reader (*ibid*). This is also related to the amount of vocabulary in that the reader who recognises so many words, he/she will read more rapidly than the one who acquires less vocabulary (Nation, 2001).

As mentioned above, there is a strong relationship between rapid reading and variables such as lexis, grammar recognition, text structure vocabulary, and reading in chunks. This relationship makes text comprehension more accessible.

5.2.2.8. Pre-, During-, and Post- Reading Strategies Framework

Good reading requires the readers to be strategic. That is, they establish goals for any reading task, apply a number of well-practised reading strategies at hand in efficient combinations, monitor comprehension appropriately, recognise miscomprehension, and repair

miscomprehension problems effectively (Grabe & Stoller, 2001). Teaching strategies “promotes students’ active engagement with text” (Wilkinson & Hye Son, 2011, p. 365). To this end, RC strategies should be implemented in the three stages of a reading lesson, namely pre-, during-, and post-reading stages (Davies & Pearse, 2000) each of which plays an important role in text comprehension. Besides, these strategies should be taught and modelled by the teacher so as to enable the students to do the same (Janzen & Stoller, 1998; Janzen, 2002). Moreover, Koda (2004) finds modelling assist students in understanding what it means to comprehend a text and monitor comprehension. By thinking aloud, the teacher demonstrates how understanding ‘materializes from the text’ (Koda, *ibid*). In the following, we expose some characteristics of good readers, then we shall shed some light on the most recognised strategies namely the ones used before, during, and after reading.

5.2.2.8.1. Characteristics of Good Readers

Comprehending a text involves the presence of all the factors mentioned above. That is, the reader should have a linguistic threshold as recommended by Alderson (2000). He/she should acquire good decoding skills, vocabulary, and grammar. However, this is not sufficient. There should be other factors that assist students in making sense of text. And this is what distinguishes good readers from poor ones. In this case, good readers have a certain number of characteristics. Before reading, good readers make a plan for reading, they set a purpose for reading, preview the text, activate background knowledge and predict the content of the text. When engaged in a text, according to Pressley (2002a, 2002b, and 2006), use the following strategies:

1. They read selectively according to goals.
2. They read carefully in key places.
3. They read as appropriate.
4. They monitor their reading continuously and they are aware of whether or not they are comprehending the text.
5. They identify important information.
6. They try to fill in gaps in the text through inferences and prior knowledge.
7. They make guesses about unknown words.
8. They use text-structure information to guide understanding.
9. They make inferences about the author, key information, and main ideas.
10. They attempt to integrate ideas from different parts of the text.
11. They build interpretations of the text as they read.
12. They build main-idea summaries.
13. They evaluate the text and the author and, as a result, form feelings about the text.
14. They attempt to resolve difficulties.

(Grabe, 2009, p. 228)

Good readers, after reading, check their comprehension, summarise and evaluate the text and integrate the information in the text with their background knowledge (ibid).

5.2.2.8.2. Pre-, During- and Post-Reading Strategies

Researchers indicate that RC should be handled within a pre-, during- and post-reading strategies framework. “In the process of comprehending a message for a particular purpose, each reader utilizes different strategy and skill components” (Alderson, 1991, in press; Alderson & Lukmani, 1989 as cited in Hudson, 1991, p. 79). Carrell (1984) claims that

“Strategic reading is a prime characteristic of expert readers because it is woven into the very fabric of reading for meaning, and the development of this cognitive ability” (Cited in Ediger, 2006, p. 307). Goldenberg (2011) claims that “readers can improve their comprehension by using comprehension strategies” (p. 697).

5.2.2.8.2.1. Pre-reading strategies

Before they begin to read, L2/FL readers come with a purpose in mind. The following steps are previewing the text, activating background knowledge, forming questions, predicting, and skimming. By doing so, learners will be prepared for reading the text (Davies & Pearse, 2000).

- Previewing

This strategy allows students to determine the general topic of the reading, relevant vocabulary (though not necessary for advanced learners), etc. This can be done by examining distinguishing features of the text such as the title, subheadings, drawings, and illustrations (Grabe & Stoller, 2001).

- Activating prior knowledge

Activating prior knowledge facilitates recall of information among students. It is an aid to better comprehension of the text, especially when students are provided with specific reading guides for texts (Grabe, 2009). However, less background knowledge does not necessarily lead to miscomprehension. It has been proved that students with a high level of proficiency in

L2/FL and with limited background knowledge can learn more from a text than less-skilled ones (ibid).

- Forming questions

Question-forming strategy, most of the time, requires training students in how to generate appropriate questions that relate to a text. This strategy improves “memory for text information, the identification of main ideas, and accuracy in answering questions” (Rosenshine, Meister, & Chapman, 1996 cited in 2009, p. 209-210).

- Predicting

Predicting is important in making sense of texts. After the background knowledge has been activated and questions have been formed, the reader, then, predicts the content of the text by forming hypotheses (Duffy, 2009). This strategy is also used during reading to anticipate the next chunk of language.

- Skimming

Skimming is identified by researchers as a quick reading. The reader uses this strategy to identify the main idea of the text by having a glance at the first and last paragraphs, and the topic sentence of each paragraph (Grabe & Stoller, 2001).

-Scanning

Scanning a text is crucial since readers are required to answer questions. Scanning means looking quickly through the text but for a specific piece of information (Aebersold & Field,

1997; Grellet, 1981). The reader starts reading and once s/he finds the needed information, s/he looks at the surrounding text. If s/he gets what s/he is looking for, s/he stops reading. If not, s/he continues scanning until s/he spots that information (Aebersold & Field, *ibid*). Scanning can also be used as a during-reading strategy whereby students can have a glance at the text to look for specific piece of information, with students having already read the text (*ibid*).

5.2.2.8.2.2. During-Reading Strategies

During reading, L2/FL readers are engaged with a text by using both bottom-up and top-down strategies to comprehend the text. The bottom-up strategies help in building sentence-by-sentence comprehension. The top-down ones assist the reader in comprehending large pieces of text such as a paragraph. In short, efficient reading involves both types of strategies whereby the reader moves from one to the other as s/he reads (Aebersold & Field, *ibid*). Some of during-reading strategies are: inferencing, comprehension monitoring, predicting, and using TSA.

- Inferencing

Inferencing is a very important and useful strategy to comprehension. It permits the reader to retrieve the intended information by using what is mentioned in the text such as syntax, logical and cultural clues, etc (Grellet, 1981). According to King (2007),

Writers generally leave some material implicit in their text as they assume that the reader will easily figure out (infer) from the text. This “figuring out” of implicit information is called *inferencing* and is considered to be a central of the comprehension process (p. 269).

Inferencing depends on the student’s prior knowledge, reading strategies, vocabulary knowledge, text-structure awareness and so on.

- Comprehension Monitoring

It is a major reading strategy that improves comprehension. More than that, it is viewed as an important metacognitive process (Grabe, 2009). This strategy implies many other strategies such as relating text to background knowledge, recognising text structure, etc (ibid).

- Predicting

During reading, good readers anticipate the following paragraph in a text and predict its main idea before reading it based on what is being said and dealt with in the present paragraph. This prediction is going to be either confirmed or revised and in this way new information will be added to the prior knowledge.

- Using Text Structure Awareness

It is a very useful and important strategy for making text comprehension and recall of information better. Grabe (ibid) states that many studies dealing with expository prose have

demonstrated that students who are aware of text structure and who utilise the resources of text structure in their summaries such as discourse-signalling systems which include, for instance, rhetorical patterns of organisation, and the like, improve their RC.

- Other During-Reading Strategies

There are other strategies used during reading such as checking predictions, forming questions about the text, finding answers to posed questions, taking notes, skipping words, distinguishing main ideas from supporting details, distinguishing fact from opinion, connecting one part of the text to another, rereading, guessing the meaning of words from contexts, highlighting /underlining difficult parts of a text, and checking comprehension (Grabe, *ibid*; Grellet, 1981; Jordan, 1997).

5.2.2.8.2.3. Post-Reading Strategies

After reading and understanding a text, proficient L2/FL readers are able to paraphrase and summarise the text in a form of a paragraph or in graphic organisers, evaluate the author's point of view or make a personal response. Post-reading strategies include mainly "summarisation" and "the use of graphic organisers".

- Summarisation

Summarisation is an important post-reading strategy. According to Grabe (2009), though there is scant research on the effect of this strategy on L2 reading, summarising texts leads students to better comprehension. In studies conducted by some researchers like Trabasso and

Bouchard (2000), it has been found that summarisation training has led students to better summarising of reading texts, which reflects better texts comprehension (Grabe, 2009).

- Using Graphic Organisers

The use of graphic organisers, in L2 contexts, such as Venn diagrams, KWL charts, matrices and the like assists readers in recognising text structure and focus on main points and ideas and their relations with supporting details.

5.2.2.9. Dialogic Discussions

Dialogic discussion is a post-reading classroom event which allows all students to participate and give interpretations to text. Almasi (2002) states that “discussion is defined as a dialogic classroom event in which students and teachers are cognitively, socially, and affectively engaged in collaboratively constructing meaning or considering alternate interpretations of texts to arrive at new understandings” (Cited in Almasi and Garas-York, 2009, p. 471). This means that students may shape or reshape their interpretations of texts.

5.2.2.10. Integrated Reading and Writing

Reading and writing are interrelated skills. To this end, a number of researchers, such as Grabe (2001, 2003, 2009) and Carkin (2005), have called for skills integration for many decades in academic settings especially where the communicative approach is applied. The motive behind this trend in language teaching is that teaching separate skills does not yield good results whereas combining at least two skills for instance, reading and writing, will

assist learners fulfill many learning outcomes. Reading in ESP/EAP settings is most of the time linked to writing (Flowerdew & Peacock, 2001). To this end, many specialists in reading and writing have become interested in how “reading and writing might reinforce or accelerate the learning content, the development of literacy skills, and the acquisition of language abilities” (Grabe, 2003, p. 242). It has been argued that findings found in L1 are also applicable to L2 contexts despite the existence of L1 and L2 differences.

According to Grabe and Stoller (2001), EAP curricula should be centered within an integrated skills framework. So, one of the objectives of academic reading is to accomplish further tasks related to both language and content in connection with writing activities. To this end, Grabe (ibid) recommends that “one of the most common tasks in school and academic settings is to read texts and then use that information for writing purposes” (p. 243). For example, the integration of EAP reading and writing can result in “summary writing, report writing, and outlining” (Grabe & Stoller, ibid, p. 200). Other examples include writing comments, personal viewpoints and critiques and even creating graphic organisers (ibid).

However, the subjects in this study are not trained to write such kinds of tasks. In other words, all they are doing is answering comprehension questions, true/false statements and maybe finding synonyms and antonyms. It appears that RC is reflected in the summaries written by students; that is, there is a strong relation between reading and writing.

5.2.2.11. Extensive Reading

Extensive reading is crucial for academic expectations. It can lead to greater comprehension and “facilitates vocabulary acquisition” (Carkin, 2005, p. 91). To this end, Grabe and Stoller (2001) argue that extensive reading which refers to “the practice of reading

large amounts of text for extended periods of time” (Grabe and Stoller, 2001, p. 198) should be central in any course for the sake of fostering the students’ academic reading abilities (ibid). In actuality, becoming a good reader is through reading extensively (ibid). Nevertheless, students favour reading books of interest to them (ibid). Given this situation, teachers in academic settings should encourage extensive reading in and out class (ibid). As for the former, Day and Bamford (1998) point out that it requires at least a quarter of an hour. For the latter, outside the classroom, the authors recommend that students should be encouraged to take books home and read (ibid). ESP students should be given many resources that promote extensive reading such as articles, encyclopedias, papers, and books and in case the library misses some books, the teachers are required to provide their students with those missing books.

5.2.2.12. Reading Assessment

After citing the different components of ESP reading, it is crucial to have a look at how reading can be assessed. In fact, the traditional approach of testing RC took the form of providing students with a text followed by questions (Nuttall, 1982). The aim was to test rather than to teach (ibid). However, there was a shift towards developing other techniques that aimed at assisting students in developing their strategies for comprehending texts (ibid). Any kind of assessment such as classroom assessment of reading should be *valid* and *reliable* (Afflerbach & Cho, 2011; Brindley, 2001), *viz.* it has to measure or assess only what it intends to assess and to do this in a consistent way (Brindley, ibid). Moreover, any kind of language assessment should have three types of validity, namely construct validity, i.e., reflecting the theory of the course/the programme; content validity which means sticking to the same content of the course/programme; and criterion-related validity which means “the extent to which the results correlate with other independent measures of ability” (ibid p. 138).

Reading assessment aims at providing feedback on all that is related to reading abilities. Alderson (2000) argues that assessing reading needs multiple methods and techniques. In fact, there are certain types of reading assessment such as standardised reading assessment, class-based assessment practices, assessment for learning practices, placement and diagnostic assessment, and research-based assessment practices (Grabe, 2009). The main objective of the standardised tests is to “reflect the construct of reading-comprehension abilities in one form or another” (ibid p. 356) which means that these tests assess essential aspects of the component abilities of comprehension such as fluency and reading speed, syntactic knowledge, etc. In short, reading assessment tasks in these tests can take various forms such as gap-filling formats, text gap, dichotomous items (T/F/not stated, Y/N), sentence completion, multiple-choice, and the like. However, techniques and methods of assessing reading comprehension have developed. Readers are asked to match main ideas with their paragraphs, summarise the text in a paragraph or in a form of a graphic organiser, etc. This kind of assessment distinguishes good readers from poor ones.

Conclusion

The above pedagogical implications and the components of a strategic reading comprehension instruction are very essential in academic studies, let alone if it is in ESP settings. In the latter, conducting needs analyses is of a very crucial importance. Text selection and text authenticity are determining factors; in that, they assure the appropriateness of texts in terms of interest, variety and structural and lexical difficulty besides allowing an interaction with the reader. Vocabulary is also important for reading comprehension and the task of teachers is to assist students in acquiring to learn academic and specialised vocabulary. Grammar and reading rate are essential in making sense of texts as well. Last but not least, using reading strategies such as text structure and discourse organisation is no less important.

It has been proved empirically that students who use pre-, during- and post-reading strategies comprehend texts and subsequently are ready to do any related tasks. In sum, the aforementioned implications and instruction assist teachers who think of teaching reading comprehension in ESP contexts.

Conclusion

The major aim of this study was to investigate the relationship between text structure awareness strategy and ESP learners' reading comprehension within a discourse based-approach whose building blocks are discourse analysis, pragmatics, context, and background knowledge. We proved empirically the hypothesis that when students are aware of structures of texts, they improve their comprehension of those texts and do related tasks. Students in the present study, after five reading sessions, were able to get the gist of the text, give a title to the text, identify the type of text, recognise the pattern of organisation used in the text, infer to whom the text is addressed and why, answer comprehension questions, fill in gaps with specialised vocabulary, do a T/F activity, fill in a graphic organiser and summarise the text in few sentences. That is to say, we proved that when students comprehend texts, they can summarise those texts in graphic organisers or in paragraphs or do any other task.

As a first step in the reading comprehension process, making sense of text is done by recognising the main idea of it. In this case, pre- and during- reading strategies are very important. As such, reading the title and the first and the last paragraphs are very significant in the process of getting the gist of a text. Nonetheless, when a text is composed of only one paragraph, as is the case in some of texts used in the present study, reading it all is necessary. Italicised words also indicate something about the text topic and subsequently contribute to the main idea extraction. It is by practice that students learn how to pick out the main idea of any text. This is actually what happened during the reading sessions; in that, students progressed in the main idea of the suggested texts.

Students were not accustomed to focus on text type of text. They were astonished to encounter questions about the type of text. It seems that this feature was neglected by teachers in the middle and secondary schools. The knowledge of text type assists comprehension of texts. Once students identify text type, they can locate main ideas of text very quickly by

intensive practice. Students benefited from the training sessions; in that, they identified and learnt about a number of text types.

Text organisation is a very important during-reading strategy in the reading comprehension process. It appears that knowledge of how a text is structured contributes to distinguishing main ideas from supporting details. This means that students can comprehend texts easily. Students learnt that recognising text organisation is a contributing factor to making sense of text. To what extent students could pick out the right text organisation was reflected in the examples they extracted from texts. Since the present study revolved round two patterns of organisation, students found no difficulty in giving examples. They learnt how to do it by following the teacher's instruction and by practice.

Recognising who the text addresses is also of crucial importance. Students were not aware of the fact that authors write to a specific audience. They thought that this feature is related only to literary texts. Through the five sessions, they succeeded in recognising the readership. They provided a lot of options, which shows their awareness of the matter. For example, they mentioned that the suggested texts address "investors", "students in Economics", or even "ordinary people" who want to have an idea about the suggested topics.

The intended message is the cornerstone in this approach. The authors transmit messages via their writings. According to what is provided as textual information in the text and the schematic knowledge, students can decipher the intended message. Questions such as "why does the writer tell us about this?", for instance, generate other questions and make the student think of the hidden message extraction.

Superficial understanding is done through comprehension questions. Students can answer comprehension questions by beginning to read from the beginning, provided that they are proficient in discriminating the types of questions in the English language. The pre-test

indicated that nearly 50% of the subject answered those questions in a correct way. This means that those students acquire an acceptable linguistic threshold, which encouraged them to go ahead.

Accounting and Finance students appreciated the dichotomy, True/False at the very beginning. Nearly 60% of the students answered correctly, which showed part of their understanding of text. Also, this activity reflects some English language proficiency on the part of students.

Specialised vocabulary is a significant factor of text comprehension. Specialised texts are full of vocabulary related to specific content areas. Unless students recognise these vocabularies, they cannot comprehend what they read. During the five sessions, students came across and identified a large number of vocabularies and did well in the post-test, contrary to the pre-test result.

Comprehension of text can be summarised in a graphic organiser and/or in a paragraph. When students comprehend what they read, they can put the most important ideas in a graphic organiser or in a paragraph. Summarisation process has been taught successfully to the students although we cannot pretend that it was perfect 100%. At least, students began to be aware of what it is to summarise and that in an English paragraph, the first sentence which is in most cases the topic sentence, summarises the whole paragraph and that what follows are just supporting details.

Though the tuition was not so long, students benefited from the text structure awareness strategy to a great extent. According to the observations that we got while teaching, the students' behaviour changed positively. They became more motivated and ready to read and comprehend the selected texts. They showed much enthusiasm to following the steps set in the present approach. Even the students, who seemed reluctant at the beginning, found

themselves involved in the reading comprehension process spontaneously. This is due to the motivational strategy that we adopted from the beginning. In actuality, at the beginning of each session, we spoke about and explained the importance of the English language nowadays. We emphasised the role of English in the world of Business and Economics in general. Once students grasped this meaning, they became more active in participating in the text structure awareness strategy intervention.

The conclusion that can be drawn from this experiment is that students in academic and mainly in ESP settings should be aware of the importance of reading comprehension strategies in general and text structure awareness in particular if they are to comprehend written discourse, viz. texts in their content areas. In those contexts, students are asked and required to read a huge number of texts in a very short period of time and unless they are accustomed to read strategically, they cannot gain information accurately nor can they distinguish important ideas from less important ones. We have found out that reading comprehension strategies should be modelled and taught in combination. This means that we cannot teach text structure awareness strategy in isolation. This also means that students should be exposed to a great number of genres and text types and should identify the patterns of organisation and the signalling words used in those texts. Furthermore, in order to comprehend a text, students should read the text quickly to get the main idea. They should know who the text addresses and why (inferring strategy) as well.

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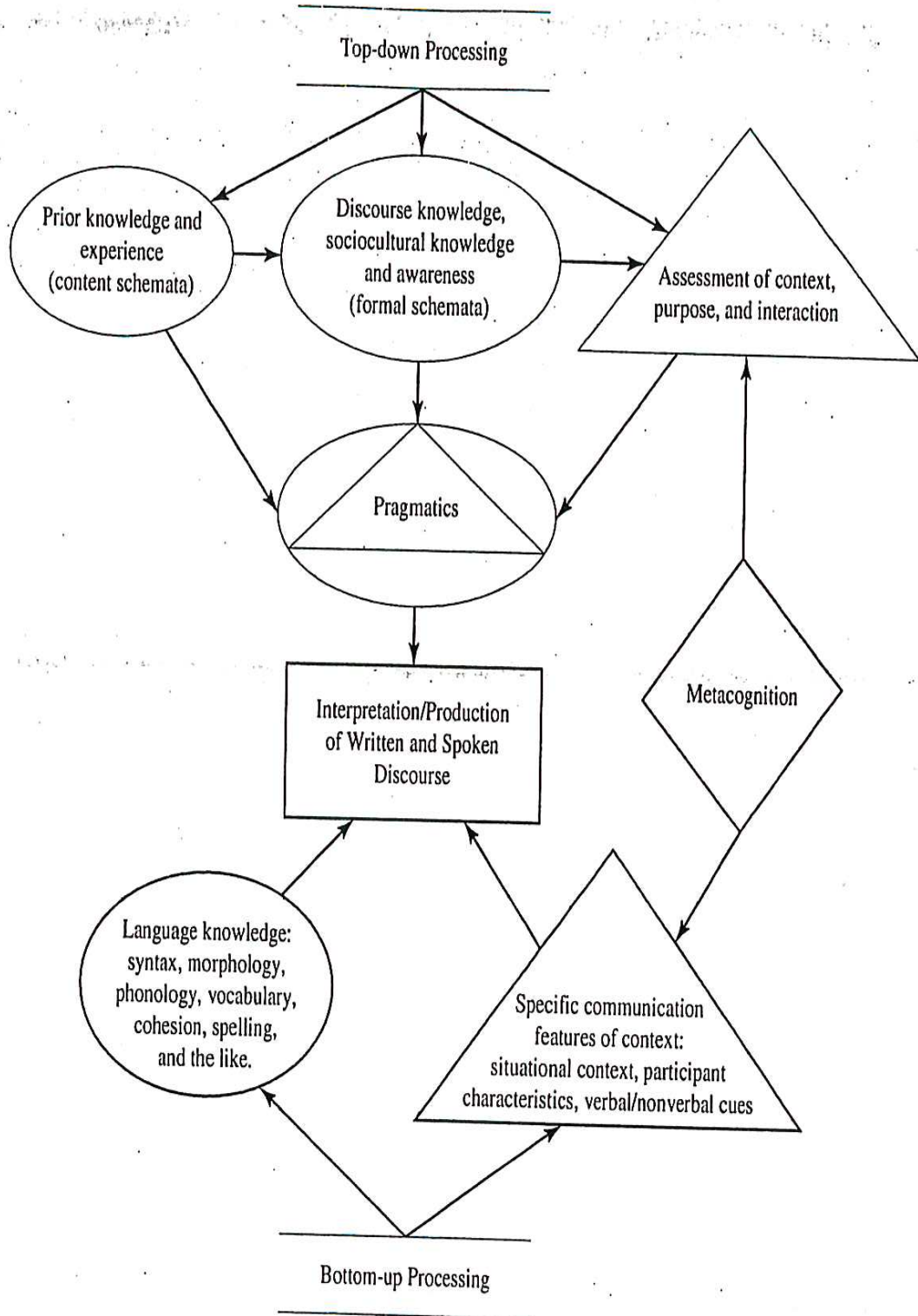
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Appendices

Appendix A

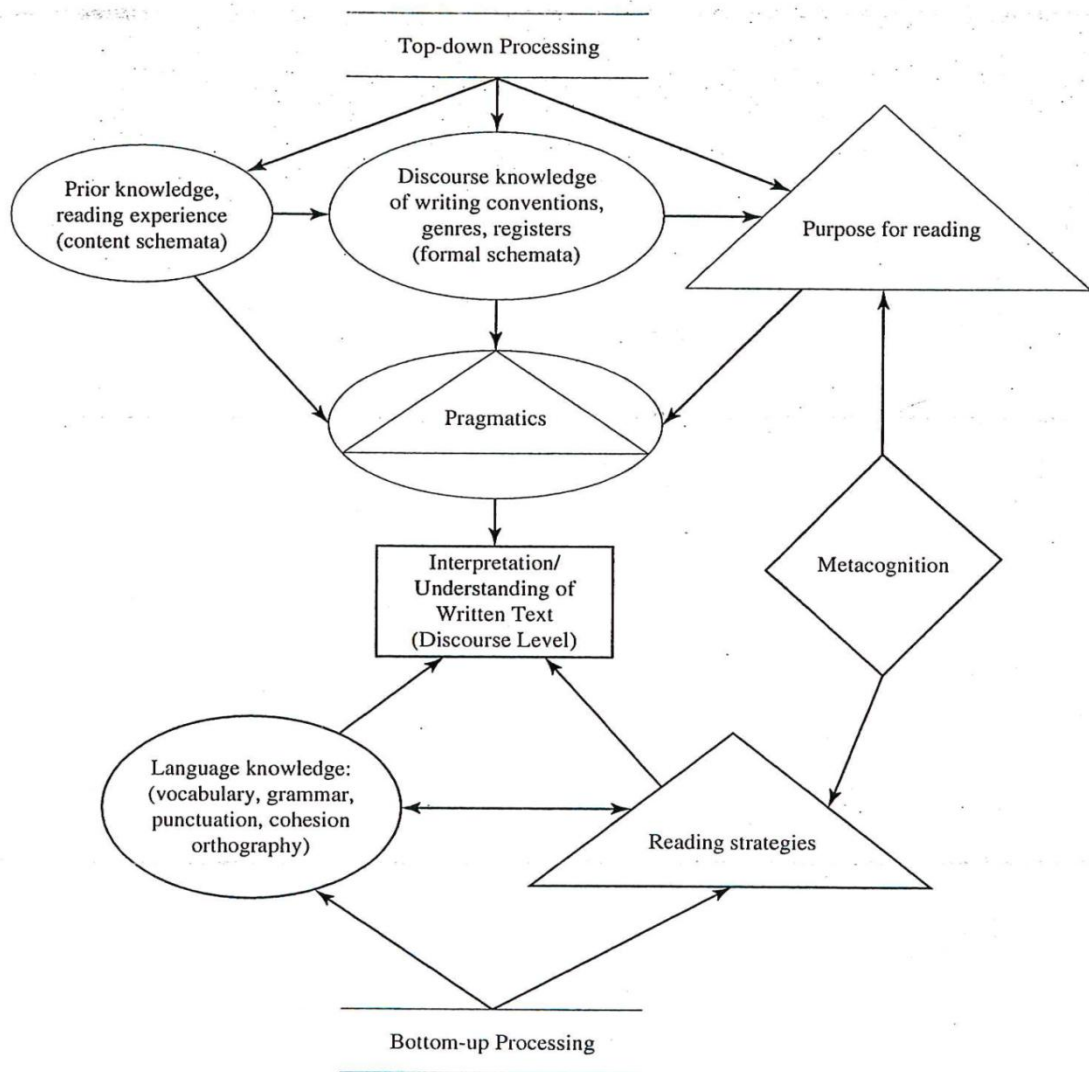
Discourse Processing Framework



Discourse Processing Framework (DPF)

Appendix B

Reading: Written Reception Framework



Reading: Written Reception Framework

APPENDIX C

Questionnaire

The purpose of this questionnaire is to shed light on how graduate and post graduate students read in English their academic studies, and how they attain comprehension when reading texts, articles, and the like. You have been selected as the best source of information to contribute to this study. You are kindly invited to answer this questionnaire.

This questionnaire is divided into three parts and consists of five pages. It is designed to be answered within forty-five minutes. Please, answer all questions as accurately as you can. Instruction is provided for the way of answering .Thank you in advance.

Name
Specialty
How long have you been studying English?	
a. Primary schoolyears
b. Middle schoolyears
c. Secondary schoolyears
d. Private schoolsyears

Instructions:

1-Put a **tick**(√) in each .

2-**Circle** the selected item in the remaining types of questions.

I. Reading Habits

1. Do you read in Arabic?

Yes

No

2. What do you read?

-Newspapers

-Magazines

-Articles

-Books

-Other. Please, specify.....

3. How do you find reading in Arabic?

- Easy
- Difficult

4. Do you read in another language?

- Yes
- No

5. If 'yes', what is it?

.....

6. What do you read in that language?

- Newspapers
- Magazines
- Articles
- Books
- Other. Please, specify.....

7. How do you find reading in that language?

- Easy
- Fairly easy
- Difficult

8. Is "reading" very important in your academic studies?

- Yes
- No

9. What do you read in your academic studies?

- Books
- Chapters of books
- Articles
- Papers
- Other. Please specify.....

II-The Academic Reading Comprehension in English

10. How do you find reading in English (in your specialty)?

- Easy
- Fairly easy

f-Other. Please, specify.....

III- The Reading Comprehension Strategies

18. Before reading a text, do you look at any headings, graphs, drawings...?

Yes No

19. Do these headings, graphs, etc. activate your background knowledge (depending on the topic) and help you predict the content of the text?

Yes No

20. If “Yes”, do predictions challenge you to form questions on the topic and, then, motivate you to read the text?

Yes No

21. If “yes”, will those predictions be either confirmed or revised during reading?

Yes No

22. Do you read the whole text for looking for specific information?

Yes No

23. How do you find specific information?

a-I read quickly and stop when I find the specific information

b-I try to spot the specific information without reading from the beginning

24. What is important for comprehending a text in your opinion?

a-The topic of the text

b-The organisation of the text (descriptive, cause-effect...)

c-The type of the text(article, letter...)

d-Whether sentences are long or short

e-Whether sentences are simple or complex

f-Word order

g- Spelling of the word

h- Recognising individual words

i- Reading groups of words

j-Combining the main ideas of the paragraphs

k-**All of them** (a+b+c+d+e+f+g+h+i+j)

25. What do you do for understanding a word?

a-I guess the meaning from the context

b- I look at affixation (prefix/suffix)

c-I consider if it is a verb/adjective/noun...

d-I use a dictionary

e- I use a glossary

f-I ask a colleague

g-**Other**. Please, specify.....

26. What do you do for comprehending a sentence?

a- I read every word

b-I skip **un**important words

c-I look for the subject

d-I look for the verb

e-I look for the object

f- I read in a global way

27. Does each paragraph in the text have a purpose and carry a sub- idea?

Yes

No

28. How do you comprehend a paragraph?

a- By reading the topic sentence

b- By focusing on details (examples, statistics...)

c- By reading all the sentences

d-**Other**. Please, specify.....

29. Do you re-read the difficult parts of the text?

Yes

No

30. I underline words and phrases that occur frequently in the text.

Never

Sometimes

Often

Always

31. What do these words and phrases represent?

- a- The topic
- b- New vocabulary
- c- New ideas

32. I take notes while reading.

Never

Sometimes

Often

Always

33. Can you infer an author's message while reading?

Yes

No

34. After reading, will you be able to write a comment on the text by using those notes?

Yes

No

35. At this phase, will you be able to summarise the text in a paragraph or in a form of a graphic organiser?

Yes

No

36. After reading, can you evaluate the text?

Yes

No

APPENDIX D

Pre-test

INVESTING YOUR MONEY

Read the following text, then answer the questions.

Investment means using money to buy something (an asset) with the aim of making a profit by selling that asset at a higher price some time in the future. There are many different types of investments. Some people put their money in art, stamps, or collectibles. Other people invest in shares and become part owners of a company. Not only can they make a profit by selling those shares at a higher price than they paid for them, but they can receive a dividend – a share of the profits which the company gives to its shareholders every year. People often ask about the difference between *savings* and *investments*. Sometimes the two terms appear interchangeable, but there is a big difference. Quite simply, investment involves some kind of capital risk. There is no guarantee that you will make a profit. In fact, the price of your assets may fall and you may not even get back your capital, the money you put in. Some banks call their savings accounts ‘investment accounts’, but this is misleading. The only risk of savings accounts is that inflation will reduce the value of the money you put in them. There is no risk of losing your capital.

1. What type of text is it? →
1. What is the text about? →.....
2. Is the text: definition, descriptive, argumentative, narrative?
.....
3. Give an example ?→
4. To whom is the text addressed and **why**?.....
.....
5. a. What are the different types of investments mentioned in the text?
-
-
- b. What are the benefits of ‘investing in shares’ according to the text?
→.....
.....
.....
- c. What is the difference between ‘**investments**’ and ‘**savings**’? →
.....
.....
.....

6. Read the text, and write true (T) or false (F)

1. There is no difference between savings and investments. →
2. Buying art and buying shares are both types of investments. →.....
3. Investments involve more risk than savings. →
4. There are two ways in which shareholders can make money from their shares.
→.....
5. Savings accounts involve no risk at all. →

7. Match the following words to the definitions (1 to 7):

“ asset- capital- collectibles- dividend- guarantee- profit- risk”

8. Certainty that something will happen:
9. The possibility that you will make a loss:
10. The money you pay for an asset or put into a savings account:
11. The money you make when you sell something for a higher price than you paid for it:
12. A valuable item that can be sold for cash:
13. Things that have value because many people are interested in owning them:
.....
14. A share in the profits of a company, which is paid to the shareholders:
.....

8. Fill in the following graphic organisers.

a.

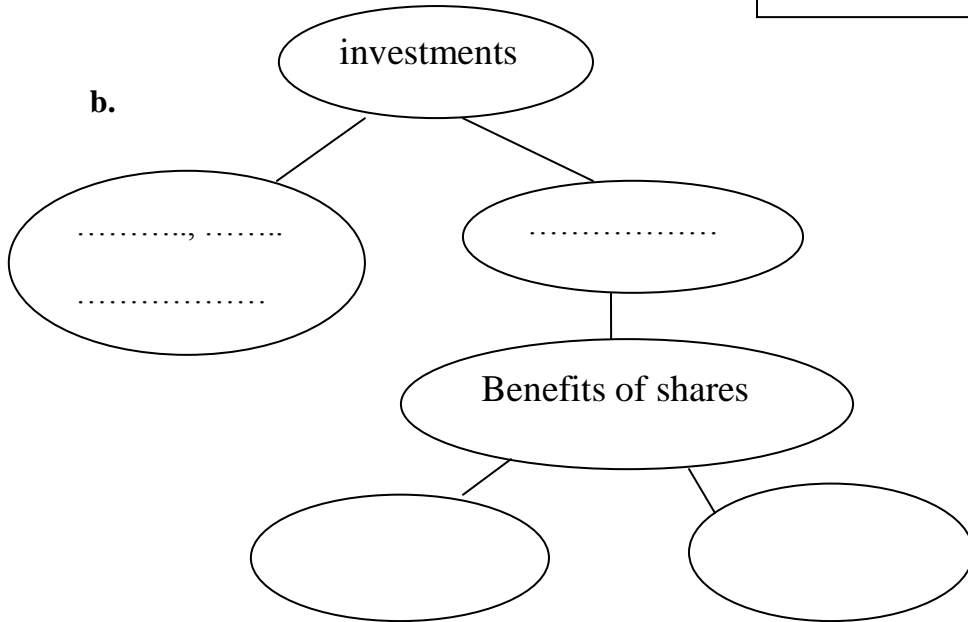
investment

 is

--

 to

--



9. Summarise the text in four (4) sentences.

.....
.....
.....
.....

APPENDIX E

Post-test

A portfolio is a combination of different types of investment. It can include bank accounts, bonds, property, shares, mutual funds or any other type of investment. Investors use portfolios to minimise risk. They may lose money in one area, but can make a profit in another. Spreading risk by including many different types of investment in a portfolio is called diversification.

Many financial institutions, such as banks, offer a portfolio management service. Portfolio managers decide what assets to include in the portfolio- what to buy, how many to buy, when to buy and what to sell. Their decisions depend on the goals of the portfolio owner and changing the economic conditions. Each investor has his or her own financial needs, so no two portfolios are the same. The main goal of any portfolio is to put the investor's money in different places. This improves the chances of making a profit.

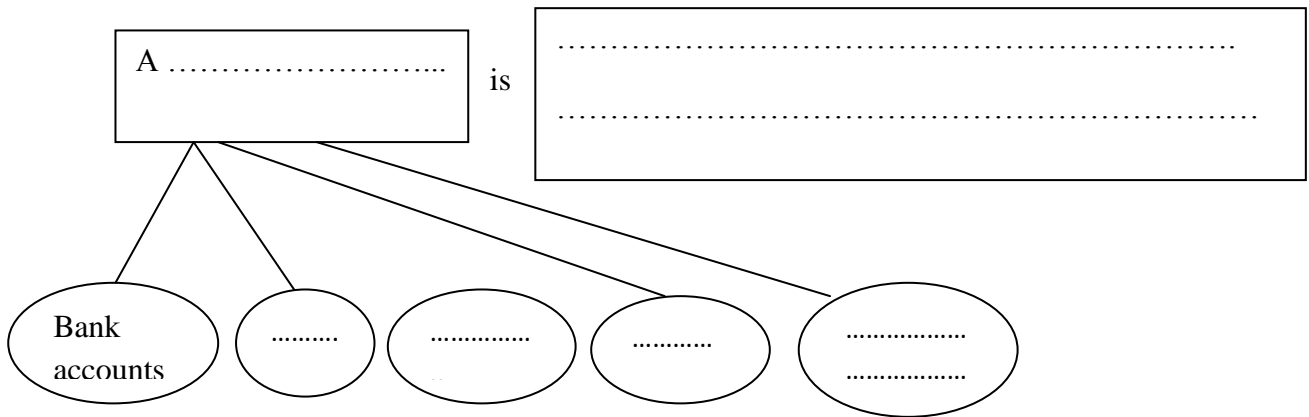
1. What is the main idea of the text?.....
.....
2. Give a title to the text.→.....
3. What type of text is it? An article? A memo?.....
4. To whom is the text addressed? **Why?**.....
5. What is the pattern of organisation used in the text? Descriptive? Definition? Definition and description?.....
6. Give an example →.....
.....
7. a. What is a portfolio? →
.....
b. Who offers a portfolio? →
.....
c. What is the aim of a portfolio? →.....
.....
8. **Complete the sentences with the following words: assets- chances- financial- goals- management- risk- spreading- types**
 - i. A portfolio combines differentof investments.
 - j. The aim of a portfolio is to minimise
 - k. A bank may offer a portfolioservice to its customers.
 - l. Diversification is a way ofrisk.
 - m. Portfolio managers chooseto include in the portfolio.
 - n. Theof the customer affect the decisions that the portfolio managers make.

- o. Investors all have differentneeds.
- p. Theof making a profit are improved if the investor's portfolio is diversified.

9. Are these statements true (T) or false (F) according to the text.

- g. A portfolio increases an investor's chances of making a profit. →....
- h. Portfolios only include limited types of investments. →.....
- i. All the investments in a portfolio are likely to make the same amount of profit. →.....
- j. Portfolio managers look at economic conditions when they make decisions about what assets to put in a portfolio.→.....
- k. Most portfolios are very similar.→.....
- l. Most investors have the same financial needs.→.....

10.Fill in the following graphic organiser.



11. Summarise the text in few sentences.

.....

.....

.....

.....

APPENDIX F

Testees' Pre-Test and Post-Test Scores

Testees	Pre-test marks	Post-test marks
1	03.5	07.5
2	14	18.25
3	03.5	12.5
4	06	16
5	02.5	11.5
6	04.5	06.5
7	16	19
8	05	12.5
9	04.5	11.75
10	06.5	07
11	05	07.25
12	09.25	18.25
13	07.5	17
14	05.75	14.75
15	06.5	17
16	02.5	16.75
17	04	08.25
18	14	12
19	05	17
20	08.5	17
21	14	18.5
22	04	12.5
23	04.25	10.25
24	02	05.25
25	07	09
26	05	06
27	02.5	10.75
28	11.75	15
29	07	13
30	04.5	11.75
31	06	09.5

32	09	13
33	06	12.5
34	05.5	11.25
35	03	02.5
36	01	07.25
37	15.5	18.25
38	05	13.25
39	06	05
40	03.5	09
41	04.5	13.25
42	04.5	11
43	04	11
44	06	17.25
45	10	12.25
46	12	14.25
47	04.5	09.75
48	04.5	10.5
49	14.25	15.25
50	05	07.25
51	12	14.5
52	15.25	14.75
53	05	19.25
	Number 53 Total score 358	Number 53 Total score 651.5
	Mean 6.754	Mean 12.292

APPENDIX G

Test T

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre test marks - Post test marks	-5.53774-	3.788709	.78375	-7.09199-	-3.98348-	7.066	52	.000

Résumé

Cette thèse vise à étudier la relation entre la sensibilisation à la structure du texte et la compréhension de la lecture des apprenants de l'ESP, dans le cadre d'une approche axée sur le discours. 53 étudiants de la comptabilité et des finances de l'Université de Ghardaia ont participé à cette étude. Le chercheur a adopté une approche triangulaire en menant des discussions en classe en tant que première étape pour avoir une idée des problèmes d'apprentissage des élèves, un questionnaire afin d'obtenir des idées sur les habitudes de lecture et les expériences des élèves: ce qu'ils lisent, comment ils comprennent les textes, et s'ils utilisent ou non des stratégies de compréhension de lecture. Un pré-test a été distribué aux élèves en troisième étape pour vérifier la compréhension par les élèves d'un texte en répondant à des questions de compréhension et en effectuant certaines tâches liées au texte. Les sujets, après, ont reçu un traitement de cinq sessions pendant cinq semaines. L'intervention a consisté à traiter des textes dans la zone de contenu des sujets, en se concentrant principalement sur l'enseignement de la stratégie de sensibilisation à la structure du texte qui a abouti à résumer les textes dans les organisateurs graphiques et, ensuite, aux paragraphes. Les questions de compréhension, True / False et autres activités ont également été incluses. Après cela, les sujets ont eu un post-test incluant les mêmes éléments que dans le pré-test. Les scores du post-test étaient plus élevés que ceux du pré-test. Les résultats ont montré une amélioration significative de la stratégie de sensibilisation à la structure du texte, ce qui a prouvé l'efficacité de l'approche proposée. Nous avons mené, en dernière étape, un test T qui a confirmé notre hypothèse selon laquelle la sensibilisation à la structure du texte favorise la compréhension de la lecture des apprenants de l'ESP.

ملخص

تهدف هذه الأطروحة إلى دراسة العلاقة بين الوعي ببنيات النص و فهم القراءة بالنسبة لطلبة ال ESP ، ضمن النهج القائم على الخطاب. وشارك في هذه الدراسة 53 من طلاب المحاسبة والمالية من جامعة غرداية. واعتمد الباحث منهجا مثاليا من خلال إجراء مناقشات في الفصل الدراسي كخطوة أولى لإيجاد فكرة عن مشاكل التعلم لدى الطلاب، واستبيان من أجل معرفة عادات و تجارب الطلبة في القراءة والتجارب لدى الطلاب: ماذا يقرأون، كيف يفهمون النصوص ، وما إذا كانوا يستخدمون استراتيجيات فهم القراءة أم لا. تم توزيع اختبار قبلي على الطلاب كخطوة ثالثة للتحقق من فهم الطلاب للنص من خلال الإجابة على أسئلة الفهم والقيام ببعض المهام المتعلقة بالنص. تلقت الطلبة بعد ذلك خمس حصص معالجة خلال خمسة أسابيع. وتضمن المحتوى التعامل مع نصوص في مجال اختصاص الطلبة ، مع التركيز، في المقام الأول، على تدريس استراتيجية الوعي ببنية النص الذي أدى إلى تلخيص النصوص في منظمي الرسوم البيانية، ثم، في الفقرات. شملت أسئلة الفهم، صحيح / خطأ وملء الفراغات أيضا. بعد ذلك، كان لدى الطلاب اختبار بعدي نفس البنود كما في الاختبار القبلي. وكانت درجات الاختبار البعدي أعلى من درجات الاختبار القبلي. وأظهرت النتائج تحسنا ملحوظا في استراتيجية الوعي ببنية النص، مما أثبت كفاءة النهج المقترح. أجرينا، كخطوة أخيرة، اختبار T الذي أكد فرضيتنا أن الوعي ببنية النص يعزز فهم القراءة بالنسبة لهؤلاء الطلبة.