Enhancing Students’ Schematic Construction of Authentic-Based Structuring: The Case of Third Year Undergraduate Students of English at the University of Frères Mentouri Constantine

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Dedication

I dedicate this work,

First and foremost to very special gifts from God, my precious parents. Their prayers sent blessings and boosters to my soul to carry on the path and finish the work despite the obstacles.

To my dear sisters and brother;

To my dear friends;

and

To all my educational and academic career teachers.
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Abstract

Considering the authenticity aspect of language and finding the best pedagogical ways to introduce it to learners is of great importance to foreign language learning. Language knowledge and comprehension during the process of learning plays a fundamental role in dealing with learners’ schematic conception. The latter is reflected in the conventional structure of knowledge required when processing the information. For this reason, the present research investigates the effect of introducing the authenticity of language on learners’ schematic knowledge in order to develop their critical thinking and problem-solving skill. In this respect, a corpus consisting of a variety of texts has been selected as an authentic frame of language knowledge to study the various contextual and rhetorical features needed in the network of comprehension and information processing. An experimental study with 120 informants from 3rd year undergraduate students of English (control group and experimental group) was conducted together with a questionnaire which was administered to the same informants in order to have an overview about their attitudes and schematic knowledge. The results after comparing both groups pre-test and post-test via the required statistical inferences have shown a remarkable improvement in the experimental group performance after the treatment. Hence, they confirm the hypothesis of this research and prove that the authenticity of language has a positive effect on students’ schematic knowledge.
List of Abbreviations

EFL  English as a Foreign Language
ESL  English as a Second Language
i.e. in other words
Std. deviation Standard Deviation
Std. Error Mean Standard Error of the Mean
df Degree of Freedom
PBL Problem-based Learning
PC Psycholinguistic-Cognitive
SPSS Statistical Package for the Social Sciences
PreCTL Group Pre-test of the Control Group (following the abbreviations used in the SPSS counting software)
PreEXP Group Pre-test of the Experimental Group
PostCTL Group Post-test of the Control Group
PostEXP Group Post-test of the experimental group
t-Test A statistical test which tests the significance of the results obtained in an experimental study
List of Tables

Table 1: Rhetorical Aspects of History Genre .................................................. 87

Table 2: Rhetorical Aspects of Recount, Information Report, and Explanation Genres
................................................................. 95

Table 3: Rhetorical Aspects of Discussion, Procedure, and Narrative Genres ............ 97

Table 4: Materials frequently used for Getting Background Knowledge ................. 183

Table 5: Students’ Attitude towards Using Authentic language Data to Enhance their
Background Knowledge .................................................................................. 185

Table 6: Students’ Knowledge of the Authenticity of Language ............................ 187

Table 7: Level of Ease and Difficulty of the Language of Newspapers to Students ...... 188

Table 8: Learners’ Source of Difficulty ................................................................ 190

Table 9: Students’ Familiarity with the Term Authenticity .................................... 193

Table 10: Students Familiarity with the term Critical thinking ............................ 194

Table 11: Familiarity with Types of texts ............................................................ 195

Table 12: Familiarity with Functionality of Language ........................................ 196

Table 13: Students’ Ability to Recognise the Elements of Information in a Newspaper
Article .............................................................................................................. 198

Table 14: Students’ Awareness towards Taking a Critical Stance .......................... 200

Table 15: Students’ Attitudes towards understanding and Summarising the Authentic
Language ......................................................................................................... 202

Table 16: Students’ Response towards Focusing on the Author’s Purpose .............. 204

Table 17: Students’ Response towards Focusing on the whole Message of the Text .... 205
Table 18: Students’ Response towards Focusing on the Author’s Arguments……………206
Table 19: Students’ Response towards Focusing on the Relationship between the Ideas of the
Text……………………………………………………………………………………………………207
Table 20: The Control Group Pre-test Scores .........................................................219
Table 21: The experimental Group Pre-test Scores……………………………………222
Table 22: The Control Group Post-test Scores………………………………………..225
Table 23: The Experimental Group Post-test Scores……………………………………228
Table 24: Below and Above Average Scores of the Control Group Pre-test and Post-
test……………………………………………………………………………………………………230
Table 25: Below and Above Average Scores of the Experimental Group Pre-test and Post-
test……………………………………………………………………………………………………231
Table 26: Mean, Median, Mode, Standard Deviation, and Variance of the Control and
Experimental Groups in the Pre-test and the Post-test……………………………………232
Table 27: The PreCTL Scores Frequency………………………………………………235
Table 28: The PreEXP Scores Frequency………………………………………………237
Table 29: The PostCTL Scores Frequency………………………………………………239
Table 30: The PostEXP Scores Frequency………………………………………………242
Table 31: The t-Test Value………………………………………………………………….248
List of Figures

Figure 1: Learning Together ........................................................................................................13
Figure 2: The Schematic Framework of Reading a Text during Reception ............51
Figure 3: A Model Expectation Network for Problem-Solution Texts .........................82
Figure 4: Levels of Generic Description ..................................................................................89
Figure 5: Applications of Genre-Based Description ..............................................................90
Figure 6: Analysis of the Material ‘Can Europe Be Saved?’ ...............................................145
Figure 7: Analysis of the Material ‘Past, Present, and the Quantity of the Year’ ............148
Figure 8: Analysis of the Material ‘A Lesson on Warming’ .................................................152
Figure 9: Analysis of the Material “Copenhagen and Beyond” .......................................155
Figure 10: Analysis of the Material ‘Immigration’s New Year’ .........................................158
Figure 11: Analysis of the Material ‘Britain Votes on the Election System’ ...................160
Figure 12: Analysis of the Material “A Real Unnecessary Crisis for Families” ............163
Figure 13: Analysis of the Material “Regenerative Medicine: Past and Present” .............166
Figure 14: Analysis of the Material ‘Prevention of Youth Violence: Why not Start at the Beginning’ .........................................................................................................................169
Figure 15: Analysis of the Material “Financial and World Economic Crisis: What Did Economists Contribute” ......................................................................................173
Figure 16: Materials frequently used for Getting Background Knowledge .....................183
Figure 17: Students’ Attitude towards Using Authentic language Data to Enhance their Background Knowledge .................................................................185
Figure 18: Students Knowledge of the Authenticity of Language ..................................187
Figure 19: Level of Ease and Difficulty of the Language of Newspapers to Students…… 189
Figure 20: Students’ Source of Difficulty………………………………………………………… 191
Figure 21: Students’ Familiarity with the Term Authenticity……………………………………. 193
Figure 22: Students’ Familiarity with the term Critical thinking…………………………… 194
Figure 23: Familiarity with Types of texts………………………………………………………….. 195
Figure 24: Familiarity with Functionality of Language……………………………………………… 196
Figure 25: Students’ Ability to Recognise the Elements of Information in a Newspaper Article………………………………………………………………………………………… 198
Figure 26: Students’ Awareness towards Taking a Critical Stance …………………………………… 200
Figure 27: Students’ Attitudes towards understanding and Summarising the Authentic Language……………………………………………………………………………………….. 202
Figure 28: Students’ Response towards Focusing on the Author’s Purpose …………………………………………………………………………………………………………………………… 204
Figure 29: Students’ Response towards Focusing on the whole Message of the Text… 205
Figure 30: Students’ Response towards Focusing on the Author’s Arguments………………… 206
Figure 31: Students’ Response towards Focusing on the Relationship between the Ideas of the Text………………………………………………………………………………………… 207
Figure 32: Histogram of the PreCTL Group Scores Frequency…………………………………….. 236
Figure 33: Histogram of the PreEXP Group Scores Frequency…………………………….. 238
Figure 34: Histogram of the PostCTL Group Scores Frequency………………………………… 240
Figure 35: Histogram of the PostEXP Group Scores Frequency………………………………… 243
Figure 36: The Control Group Scores in the Pre-test and the Post-test ………………….. 245
Figure 37: The Experimental Group Scores in the Pre-test and the Post-test ………………….. 246
Table of Contents

Dedication
Acknowledgements
Abstract
List of Abbreviations
List of Tables
List of Figures

General Introduction ..............................................................................1

1. Rationale and Research Scope......................................................1
2. Research Questions and Hypothesis.............................................2
3. Methodology and Research Tools...............................................3
4. Structure of the Thesis...............................................................4

Chapter One: Schematic Knowledge and Reading

Introduction........................................................................................7

1.1. Learning Approaches..............................................................8
1.2. Thinking, Critical Thinking, and Problem Solving.....................15
1.3. Comprehension and Language Knowledge...............................19
1.4. Information Processing...........................................................24
1.5. Schematic Processing and Learning..........................................27

1.5.1. Types of Schematic Processing............................................32

1.5.1.1. Formal Schema..........................................................32
1.5.1.2. Content Schema.......................................................34
1.5.2. Representations of Knowledge in the Schematic Processing.................................................................35
1.5.3. Semantic Mapping and Schema.........................................................41
1.6. Reading.....................................................................................45
1.6.1. Cognitive Models of Reading..................................................46
  1.6.1.1. Top-Down Model.................................................................47
  1.6.1.2. Bottom-Up Model.................................................................48
  1.6.1.3. Interactive Approach.........................................................50
1.6.2. Metacognitive Reading Strategies...........................................52
1.6.3. Types of Reading....................................................................54
  1.6.3.1. Extensive Reading.................................................................54
  1.6.3.2. Intensive or Creative Reading..............................................59
Conclusion....................................................................................63

Chapter two: Rhetorical Aspects of Authentic Language

Introduction..................................................................................65
2.1. Authenticity Defined ...............................................................65
2.2. Text Authenticity and Learner Authenticity.............................69
  2.2.1. Authenticity as a Communicative aspect of Texts...............69
  2.2.2. Authenticity of Learners Interpretation.................................72
2.3. Authenticity and Rhetorical Consideration of Form....................76
  2.3.1. Rhetorical Features of Language Authenticity...............76
  2.3.2. Real-World Authenticity in Newspapers Language..........101
    2.3.2.1. The Importance of Using Newspapers in the Classroom...102
Chapter Three: Research Methodology and Data Collection

Introduction .......................................................................................................................... 130

3.1. Research Design.............................................................................................................. 131
   3.1.1. Rationale and Hypothesis ...................................................................................... 131
   3.1.2. Subjects Sampling and Population ......................................................................... 132

3.2. The Experimental Procedure ......................................................................................... 134
   3.2.1. Data Collection and Instruments ........................................................................... 134
      3.2.1.1. Description of the Pre-test .............................................................................. 134
      3.2.1.2. Description of the Post-test ........................................................................... 138
   3.2.2. Content of the Treatment Materials ....................................................................... 141
      3.2.2.1. Material One: “Can Europe Be Saved?” ......................................................... 144
      3.2.2.2. Material Two: “Past, Present, and the Quantity of the Year” ..................... 147
      3.2.2.3. Material Three: “A Lesson on Warming” ....................................................... 151
      3.2.2.4. Material Four: “Copenhagen and Beyond” .................................................. 154
      3.2.2.5. Material Five: “Immigration’s New Year” ...................................................... 158
      3.2.2.6. Material Six: “Britain Votes on the Election System” ................................. 160
      3.2.2.7. Material Seven: “A Real Unnecessary Crisis for Families” ....................... 163
      3.2.2.8. Material Eight: “Regenerative Medicine: Past and Present” ...................... 166
      3.2.2.9. Material Nine: “Prevention of Youth Violence: Why not Start Ant the Beginning” ................................................................. 169

...
Chapter Four: Overview about Students’ Schematic Knowledge

Introduction..........................................................................................................................178
3.1. Description of Students Questionnaire.................................................................179
3.2. Administration of Students Questionnaire.........................................................181
3.3. Analysis and Discussion of Students Questionnaire Results..................182
   3.3.1. Results of Students Answers in Section One: Information about students’ schematic knowledge.................................................................182
   3.3.2. Results of Students Answers in Section Two: Information about learners’ strategies and attitudes.................................................................199
3.4. Summary of Findings..............................................................................................211
Conclusion..........................................................................................................................212

Chapter Five: Data Analysis and Results

Introduction.........................................................................................................................214
5.1. Scoring and Measurement of Students Performance.................................215
5.2. Data Presentation and Analysis...........................................................................216
   5.2.1. Presenting Students Scores in the Pre-test Performance and Post-test Achievement .........................................................................................226
   5.2.1. Statistical Analysis and Results.....................................................................228
      5.2.1.1. Calculating the Mean............................................................................228
      5.2.1.2. Median and Mode.............................................................................233
      5.2.1.3. The Frequency Distribution..............................................................234
   xii
5.2.1.4. The t-Test………………………………………………….247

5.3. Further Improvements………………………………………………………249

5.4. Summary of Findings and Conclusion…………………………………….252

**General Conclusion and Pedagogical Recommendations**………………..254

**Bibliography**……………………………………………………………………..259

**APPENDICES:**

**APPENDIX A:** The Students Questionnaire

**APPENDIX B:** The Students Pre-test

**APPENDIX C:** A Theoretical Lecture Given to Students (Experimental Group) in the Treatment Period

**APPENDIX D:** The Full Version of the Materials Used in the Experimental Study

**APPENDIX E:** The Students Post-test
General Introduction

1. Rationale and Research Scope

Language knowledge and comprehension along the process of learning are gaining great insights in foreign language learning and teaching. The source of this interest comes from the importance of this issue in the context of learning. In this respect, there are many cognitive processes involved to count for the schematic knowledge of learners which represents the conventional way of building information and constitutes the various knowledge structures in the human mind. Processing the information is the basic ground for comprehension and understanding the different materials learners are exposed to during the learning process. When the scope of comprehension is directed to real (authentic) language data whether written or spoken, the process becomes complicated and needs a special treatment. This complexity can be viewed in terms of lexical items, syntactic structures, and the overall rhetorical construction of various genres and types of texts. For this reason, teachers mostly avoid using authentic materials in the classroom context. They are aware of their importance, but when it comes to application with foreign language students the manner becomes fuzzy and difficult to apply. Hence, to cope with this difficulty, teachers try to simplify the material in terms of language form and content. However, this process can be time consuming and may result in distorting the message conveyed from the original version. Thus, oversimplification affects students negatively
especially if the authentic reading material needs genuine consideration of form and content.

Within the same line of thought and despite the difficulty, authentic contexts are very useful to students and represent a rich source of language data which play a crucial role in getting a genuine schematic knowledge of language. Choosing the material is a rather difficult step especially when it comes to authentic language. The latter is reflected in various genuine text types or genres and real-world materials like in the language of native-speakers’ newspapers which are effective and purposeful reading tools. Hence, authentic structuring depends to a great extent on the way the writer adopts a certain stylistic and rhetorical choice to convince the reader. The variety of the topics discussed and issues tackled in authentic materials comes from the wide range of public contexts or even disciplinary contexts. For instance, the aim of using newspapers is not particular to students of journalism or just to deal with language skills (Sanderson, 1999) and the authentic communication in various disciplinary genres can have a positive effect on students of English as a foreign language. Hence, authentic materials are tools to benefit from mainly to make learners analyse the information and adapt creative ways to understand the content and manipulate language forms and structures. So, considering the authenticity of communication is an interesting issue to investigate, regardless of the difficulty of application with foreign language students. Again, authentic materials constitute a valuable and rich source of information to make learners adapt a critical
stance while thinking and reasoning as part of active learning improving in that their schematic knowledge of the language.

2. Research Questions and Hypothesis

There are various research questions which represent the starting points of this research. They can be formulated as follows:

- What aspects help students cope with the authenticity of language?
- What can best describe the communicative and rhetorical structure of authentic language in order to make it clear for students?
- To what extent do students orient their attention to various generic authentic contexts?
- How can we test pedagogically the application of authentic structuring of language in enhancing students’ schematic knowledge?

The present research attempts to test the following hypotheses:

- Hypothesis One: If students lack schematic knowledge about the authentic side of language whatever the genre or register, they will need intervention to cope with the difficulty they encounter.
- Hypothesis Two: If students are made aware of the authentic side of language through the various rhetorical features, this
will serve as access route to enhancing their schematic knowledge.

3. Methodology and Research Tools

The present research is an experimental procedure which attempts to investigate the effect of making students aware of the authentic side of language by introducing its communicative entity via the different rhetorical features characterising the manner the information is processed. This rhetorical consideration includes awareness to language patterns, language typology and functions, metadiscourse functions, and language macrostructure. Two groups are involved in the treatment, control group and experimental group, 60 students in each group which make up a total of 120 students as the whole sample. A pre-test and a post-test were given to both groups besides a questionnaire which was administered to get an overview about their attitudes and schematic knowledge.

4. Structure of the Thesis

The present research is composed of five chapters, two theoretical and three practical:

Chapter One, Schematic Knowledge and Reading, provides definition of the basic terms of language comprehension and information processing, critical thinking and problem-solving, reading types and models, and cognitive and metacognitive reading strategies.
Chapter two, Rhetorical Aspects of Authentic Language, clarifies the concept of authenticity vis-à-vis the text and learner’s interpretation of authentic texts, authenticity as content and form, besides the features and rhetorical considerations of authentic language.

Chapter Three, Research Methodology and Data Collection, presents the methodology adapted and research tools used.

Chapter Four, Overview about Students’ Schematic Knowledge, explains learners’ attitudes and reviews their schematic knowledge to test hypothesis one.

Chapter Five, Data Analysis and Results, introduces the statistical measures extracted from learners’ performance of both groups in the pre-test and post-test via comparing the results and drawing conclusions.
Chapter One

Schematic Knowledge and Reading

Introduction

1.1. Learning Approaches
1.2. Thinking, Critical Thinking, and Problem-Solving
1.3. Comprehension and Language Knowledge
1.4. Information Processing
1.5. Schematic Processing and Learning

1.5.1. Types of Schematic Processing
1.5.1.1. Formal Schema
1.5.1.2. Content Schema

1.5.2. Representations of Knowledge in the Schematic Processing

1.5.3. Semantic Mapping and Schema

1.6. Reading

1.6.1. Cognitive Models of Reading
1.6.1.1. Top-Down Model
1.6.1.2. Bottom-Up Model
1.6.1.3. Interactive Approach

1.6.2. Metacognitive Reading Strategies

1.6.3. Types of Reading
1.6.3.1. Extensive Reading
1.6.3.2. Intensive or Creative Reading

Conclusion

6
Introduction

Language comprehension and text processing represent the basic ground for any foreign language learner. Indeed, the thinking skill and problem-solving strategies are always present when it comes to developing capacities of understanding and processing the information effectively. At the cognitive level, learners need many efforts to find the most accessible ways which help them adapt in new situations and unfamiliar contexts of processing the information. For this reason, taking a critical stance at the various aspects of language guides learners into better interpretation of the message inferred from any material they encounter. This is representing their schematic knowledge which is affective in the sense that it is controlled by the degree of exposure to the target situation. And any problem in reception of previously learned objects (background knowledge) results in difficulties of processing the information in the new situation. This chapter presents theoretical explanations of the basic concepts adapted in the area of schematic processing and reading.

1.1. Learning Approaches

Learning can occur in any place and any time. It can be applied in various contexts taking into account many considerations. Pritchard (2009: 1), in defining learning, argues that: “learning is the process of gaining more knowledge or of learning how to do something”. Hence, it
can be viewed in general sense as getting knowledge about something. He (ibid.: 2) proposed the following statements as possible definitions to learning:

<table>
<thead>
<tr>
<th>Definition of Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A change in behavior as a result of experience or practice.</td>
</tr>
<tr>
<td>The acquisition of knowledge.</td>
</tr>
<tr>
<td>Knowledge gained through study.</td>
</tr>
<tr>
<td>To gain knowledge of, or skill in, something through study, teaching, instruction or experience.</td>
</tr>
<tr>
<td>The process of gaining knowledge.</td>
</tr>
<tr>
<td>A process by which behaviour is changed, shared or controlled.</td>
</tr>
<tr>
<td>The individual process of constructing understanding based on experience from a wide range of sources.</td>
</tr>
</tbody>
</table>

Finding an exhaustive and accurate definition to learning cannot be achieved in a more definite manner. There should be considerations to the various theories and views which try to provide a clarification to this natural task or activity. Historically speaking and since the ancient Greece, learning was traditionally viewed from a rather philosophical point of view. After that, learning was tackled from a psychological scope.
in which there was a rising interest in studying mental processes through studying the mind and human behavior. In effect, this stage was a source of an expanding interest to understand learning from a modern view instead of just dealing with merely philosophical discussions. Here, the primary interest in learning was the learner’s attitude, behaviour, and environment which are dealt within the behaviourism theory.


Pritchard (2009) states that behaviourism is originated from the work of John B. Watson through his psychological interpretation based on “observation and scientific measurement” which was at first the main principle of behaviourism. This view deals with observable actions which in turn generates other seen processes. It is based on “stimulus-response” interaction as it is observed among animals like a pet dog responding to the sound ‘beg’. It is also present among humans, for example, a plane pilot gets a life-saving reaction in a dangerous situation. Any action part of a stimulus-response relationship is naturally occurring and acted as part of the human brain activity. So behaviourism is: “[...] a theory of learning focusing on observable behaviours and discounting any mental activity. Learning is defined simply as the acquisition of new behaviour” (Pritchard, 2009:3). The latter is observed in complimentary interaction of students’ stimulus and stimuli through “conditioning”.

9
Conditioning” is of two types: “classical conditioning” and “operant conditioning”:

Classical conditioning can be explained through the famous biological experiment of Ivan Pavlov implemented on a dog. He used a bell while introducing or giving food to that dog. Then he noticed that this dog starts to salivate as a reaction to the sound of the bell. When he found the same reaction after many observations of the dog’s saliva, he constructed a conclusion that the sound of the bell is an important element in the conditioning process, i.e., a signal that makes the dog salivate when preserving food. This is part of a process where there is a “conditioning” of the response. Pitchard (2009) gave examples of conditioned responses like: “the sound of the dentist’s drill” results in the patient’s feeling of fear.

Pavlov sat four stages of classical conditioning such as: “acquisition”, “extinction”, “generalisation”, and “discrimination”. These stages can be ordered from the first stage till the last stage explaining the relationship between stimulus and response. Acquisition is reflected in the first stage of the learning process. Acquisition as the first stage in this process is the starting point of knowing the information and in the view of behaviourism, it is the “learning of the conditioned response”. In the experiment of Pavlov, it is reflected in the dog’s saliva which is conditioned by the bell’s sound. Additionally, Extinction is the stage of excluding “the conditioned response” in which after learning the
information, it does not stay in an undefined manner. The generalisation comes as a further stage of having the same response in every situation with the same stimulus, i.e., generalising the response which has one stimulus. For example, a bite of one dog will generalise a great fear of all dogs. Finally, discrimination, unlike generalisation, is when the “conditioned response” cannot be generalised to similar stimulus (ibid.).

The second type of conditioning in the behaviourism theory is operant conditioning which is more crucial than classical conditioning, because it includes other motivational factors for the behaviour through what is called “reinforcement” which is in turn affected by “rewarding”. For instance, the child will organise his room on a regular basis if he is motivated by a reward from his mother like “chocolate”. Skinner is the leading psychologist of the view of reinforcement. He argues that “rewarding” and “punishing” are the controlling factors of most of the behaviours as they particularly affect learning. This conclusion is drawn from his experiment which is carried out on a box called the “skinner box” and an animal inside in which that animal gains food as a reward just by “pressing a lever”. The more this reward is given repeatedly; the more the animal will learn to perform the action of pressing the lever as a condition of gaining food (ibid.).

Moreover, reinforcement is expressed in two main ways: positive and negative Reinforcement. The former is expressed through rewards given to learners whether in natural environments or classroom
contexts for a favourable and good behavior. The latter – negative reinforcement- is expressed in punishments caused by bad and undesirable behavior. Despite the fact that experiments proved the effectiveness of punishments to refrain the unfavourable behavior, the psychological side of the lever can be affected negatively. Hence, behaviourism is based on observation of the learners’ behavior which can be changed via “experience” and controlled by concrete tools of “reinforcement” to get positive outcomes in the learning process. However, this theory is lacking the mental and cognitive side of learners which explains the way they understand and process information. For this reason, there is a need to analyse the cognitive level while learning the information (ibid.).

Cognitive or constructionist learning is based on learners mind, brain, and other cognitive activities like “remembering”, “thinking”, and “reasoning”. Indeed, Pitchard (2009: 17) argues that “constructivists view learning as the result of mental construction [...] learning takes place when new information is built into and added onto an individual’s current structure of knowledge, understanding, and skills”. So, the task of learning is achieved through constructing knowledge and understanding. Piaget is the leading psychologist of this theory and did a lot in the field of learning and “child development”. He described four stages of development: a) “Sensori-motor stage” (0-2), b) Pre-operational stage (2-7), c) concrete operational stage (7-11), and d) formal operations (+11). Stage (a) deals with the first simple norms of behavior. Stage (b) reflects a preliminary developmental stage of imagination when
describing things in the world. Stage (c) is the beginning stage of logical thinking and realisations. Finally, stage (d) is where children make hypotheses and assumptions in the real world without profound thinking norms.

However, learning as an important human activity requires combination of both the behaviour and cognition of learner besides the way s/he learns the new information and relates it to background knowledge. The following figure, as designed by Ellis (2007: 288), shows clearly this relationship which gathers all views of learning assigned together:

![Learning Together Diagram](image)

**Figure 1: Learning Together**
Hence, the learner tries to build blocks of meaning and make connections between all the elements needed in the whole process. As it was shown in the figure when “constructing a new knowledge”, it is affected by “previous experiences” which are done through comparing and thinking about the main components involved in both sides of knowledge. After learning the new information, as it was designed by Ellis (2007) in the previous figure, the learner makes modification and addition to his/her background knowledge for understanding and application in order to “recognise relevant elements in new learning”.

To sum up, Learning is part of everyday experiences in the sense that it is composed of the different skills acquired and knowledge stored in memory. Learning in a more specific sense is getting the various strategies and techniques throughout a process that starts from understanding the information until application. During this process, the learner after comprehension makes possible interpretations of the information once it is retrieved better it can be stored in memory and will be needed in the application phase. The learner during the process of learning should be aware when recognising any new information as it strongly entails and reinforces the ground of the whole process of learning (ibid.).
1.2. Thinking, Critical Thinking, and Problem-Solving

Thinking is an important activity of the human mind which is reflected in steps of processing the information starting from reference to previous knowledge and arriving at full interpretation of the new situation. Thinking takes various forms whether at the cognitive level as part of the mental task to infer what is implied from the situation and at the behavioural side via a clear problem-solving integration. It includes reasoning and looking deeply in the problematic tasks and activities. Learners need to consider certain aspects of interpreting the information when thinking takes place as a task (cf. Grabinger et al., 1995; Williams, 1998; Perry, 2014). Waters and Waters (2002: 21) gave basic strategies which help learners think critically when dealing with reading materials. They are developed through activities which involve evaluating the material via:

- Having a clear purpose
- Defining all terms
- Answering all essential questions
- Including relevant information
- Excluding bias and unsupported opinion
- Considering all viewpoints
The issue of the thinking skill in reading and the way it is related to investigate learners’ ability to read effectively is of great importance in pedagogy and ESL/EFL learning. Thinking is a kind of problem-solving activity. Clay (1987) introduced an “analogy” between reading and driving in which “the brain’s capacity to handle reading is much like the brain’s capacity to handle driving” (cited in Birtwistle, 1998: 152). This example is to refer to the importance of thinking alongside intelligence which is not enough in isolation in reading. So, to develop learners thinking skill, there is a need to consider “self-regulation” strategies. By this, learners become more autonomous and self-dependent although it is a hard task to make them develop such capacity. In this respect, reading is considered as a “problem-solving” process. The teacher in the thinking process directs learners, gives them feedback, and rewards them for encouragement. Here, they will be more involved and motivated in the thinking process. This is what is known as “tutoring” to develop the thinking skill. Wood and Wood (1996), as cited in Birtwistle (1998: 5), state that:

In a problematic situation, the learners may seek to draw analogies between their current difficulties and previous experiences with related problems. If and when a learner succeeds in solving a problem by analogy from a previously worked example (which initially may have been supported by a tutor, then the example is elaborated [...] to start the formation of a “schema or metaprocedure” to the extent that this schema supports future learning, it becomes increasingly linked (procedurally) to the class of problems that it serves.
Treating any situation and problem is monitored in the thinking zone of learners in which the tutor plays an important role to guide learners through helping them making associations between previously treated situations and problematic issues of new situations. Hence, learners when taught how to deal in problematic contexts; they become more aware to the questioning skill and self-evaluative monitoring (Van Essen, 2008).

Williams (1998) further focuses on the issue of considering thinking and critical thinking in teaching a foreign language because it gives a space for learners to deal with authentic situations. Problem-solving as an effective strategy is required in this process to find the possible solutions when encountering problematic situations. “As the skills involved in critical thinking and solving problems are necessary for effective functioning in the world in general, such an approach provides real educational value to the tasks used in the language classroom” (ibid., 94). This is part of problem-based learning (PBL) where the teacher prepares challenging situations to students and takes the role of tutoring to guide them in the classroom during practice. Hence, they start “thinking through” these situations and suggest solutions. Through this way, the teacher can open discussions and ask Wh-questions, mainly, via “how” and “why” questions in order to make them think of reasons and the way these situations are described. This view is better applied with authentic contexts. Hence, authenticity is a crucial side of PBL because the real problematic situations are expressed through real language structures to be practiced in the classroom (Grabinger et al., 1995).
Taking a critical stance when dealing with any reading material is associated in the process of understanding and evaluating what is needed from it and what to be selected on the basis of it. The main focus is creating meaning and seeking the basic interpretation and translation of ideas inferred from the material. Experienced readers try to deal with any ambiguity via strategies of guessing and comparing the content of the present or new text (context) with that available in their background knowledge. However, if this information is not provided in the learners previously learned information, there will be problems in expecting the information from the new context. Similarly, in the case of explaining any confusion of unfamiliar words encountered in the new text, learners are aware of these “inconsistencies” and try to use several ways to solve this problem. Here, it depends on the experience of the reader whether s/he finds a quick problem-solving strategy or wastes time just in explaining words and expressions before moving on to interpreting the whole message of the text. This situation, as argued by Birtwistle (1998: 149), is “when an unfamiliar concept is introduced, the skilled learners will slow down and increase processing of the information in the problem area.”

Furthermore, language is a hardly decoded cognitive activity especially when it comes to considering structural patterns and uses in respect to cultural conventions and rules. In this respect, Birtwistle (1998: 86) argues that problem-solving skills like: “selective attention, forming hypotheses, testing hypotheses, putting rules into use and monitoring their effectiveness” are effectively adapted mainly in the case of bilingual
children. Hence, when teaching the language or developing the schematic knowledge of learners, thinking and problem-solving skills are crucial in promoting ways to cope with any difficult situations especially when explaining terms, understanding structures, and communicating successfully in a foreign culture.

1.1. Comprehension and Language Knowledge

When developing a view of text comprehension, knowledge is of great importance, especially via considering the various conventional components of language (Kintsch, 1982). Skehan (1995) states that knowledge underlies an appropriateness of language use relying on certain contextual properties. This is reflected in a psychological representation of language knowledge to convey the purpose of communication. Here, comprehension while communication can be accomplished beyond word level. It is important to analyse the different factors included in the processing of information and go through the stages of comprehension.

Additionally, Halliday (1973) views that there must be a functional view of language in which there is intention to the social function of language through identifying language varieties or registers representing ‘the linguistic repertoire’ of a particular community as part of a culture. This functional view helps in identifying in the relationship between the nature of the linguistic system and language functions which are determined by certain linguistic structures. This opens the way to a
description of various uses of language in order to know ‘the internal organisation’ of language and other ‘social structures’ of language, besides ‘values’ and ‘systems of knowledge’. This is always aimed at understanding the nature of language.

According to Van Dijk (1977), when talking about knowledge, there is a progression from a ‘local’ view of language as a combination of sentences to greater view of language via having extended combinations of texts segments. This guides to study large connections of lexical and syntactic structures beyond just considering the semantic aspects of language in isolation. Comprehension and language knowledge can be accomplished in respect to the different conventions of language and extracted from language users’ background knowledge. Components of knowledge are diversified and involve semantic meaning, lexical and syntactic structures, cultural and social conventions (etc.) in which there is a progress and shift to larger sequences of language. Again, when considering language knowledge, there is a multidisciplinarity of many disciplines like psycholinguistics and sociolinguistics in addition to consideration of cultural conventions and rules. Again, there are ‘strategies’ of comprehension that deal with the ‘abstraction of information’ of the whole information and accounting for ‘knowledge and beliefs’ in terms of texts structure. Hence, learners’ background knowledge is the controlling factor of understanding and it is based on their schematic knowledge (Berardo, 2006).
Similarly, Brumfit (1984) states that learners should develop fluency in comprehension which is an important communicative ability. Comprehension is characterised, in his terms, by being ‘a hidden operation’ and learners are supposed to get access to reading the suitable material corresponding to its content. Here, the communicative ability requires a great deal of the intensity of exposure to the reading materials that are chosen according to a given purpose of instruction. So, learners need to have knowledge of the components of the linguistic system in addition to the conventional rules related to language in order to process the information effectively. This is developed through awareness to language features. Learners can be exposed to a variety of topics that are connected to transportation, economy, education, sports, and arts, (etc.).

Moreover, as part of the communicative competence of learners, Littlewood (1981) argues that it should include knowledge of language forms and their relevant functions in society. Successful manipulation and interpretation in terms of the social meaning of language develop the ability to use it effectively. Learning the communicative function also helps learners explore their background knowledge. Within the same line of thought, shared knowledge is needed for successful communicative purposes in which participants have a common way to exchange information. Celce-Murcia and Olshtain (2000: 11) gave the following exchange as an example to explain the importance of prior knowledge in understanding the message of communication:
Without prior knowledge, the listener cannot understand what is implied from the speaker’s utterance. If the context is not directly stated, there will be a problem in the interpretation of the intended message which is dependent to a great extent on enough background knowledge of both addressee and addressee. For that respect, learners should be introduced to pre-identified contexts to avoid ambiguity in the plausibility of the message. So, the contextualisation in contrast to the decontextualisation of language environment helps to a great extent in improving learning speed.

Widdowson (1998) in turn focuses on various sides of context which deal with the immediate environment and the shared schematic knowledge that provides instructions for learners to understand the contextual meaning. Context as a notion has gained great insights recently to explain the communicative competence of learners. As an essential component in comprehension, learners’ background knowledge is required to gain the ability for successful communication and to understand the structuring of information. Dijk (1980) emphasised on the combination of very crucial factors: “opinions”, “beliefs”, and
“attitudes”, besides the way the information is processed. All these components which constitute the essential background knowledge required by learners represent what he calls as a “cognitive set”.

The other concept also needed in comprehension is reflected in learners’ awareness of the different realisations of language via text types whether descriptive, narrative, expository (etc.). The more learners are exposed to these varieties of language knowledge or made aware of the various text types, the more it will be helpful for them to shape their cultural background knowledge and comprehension of what they read. To categorise the various text types, there is a consideration of the participants, the functions of language, the context, “the internal structure” of texts (etc.). These components are required in text processing and production. After recognising the text type or genre, learners should go deeper to understand the content of the text and the purpose of the author. This specification is useful for successful understanding of the propositional content of texts. As a result of this identification also is that students can find the information easily without waste of time, especially when dealing with written records of communication. The learner will be able to follow the stages and progression of the information or the writer’s message besides predicting the subsequent and unclear parts of information (cf. Cook, 2003).

Yalden (1987) also states that language knowledge as an entity of learners’ communicative competence includes the basic
linguistic system of phonology, grammar, and semantics besides considering social conventions and other communicative strategies of whether spoken interactions or written texts. This is reflecting the way how people communicate. The format of texts informs us how we communicate and language teaching focuses on the way stretches of language structures are combined to make sense. This is represented in learners’ ‘capacity’ in Widdowson’s words, i.e., the communicative competence. There are requirements in language teaching for principled concepts that describe the basic components of information processes. This is related to learner’s ability to construct meaning and form ‘a conceptual and ideational’ identification of context that is based on the interpretation of different structures.

1.2. Information Processing

Information processing as an approach to cognitive psychology studies the way learners receive knowledge and apply what they get. This form of understanding includes constructs of meaning and as part of information processing strategies, there is what is called “attention” which is considered as a central element to understand the way the human mind conceives information. So, paying attention is a key psychological process in the context of learning (Williams and Burden, 1997).

Similarly, the cognitive basis of learning as a mental activity focuses on information processing. The latter, as a theoretical
manipulation, views learning the language as a development of knowledge which results in understanding. This is encouraged in turn via awareness of the different concepts and notions of language starting from comprehension and arriving at application. There is a certain development during the process of learning the language. It goes through stages of getting knowledge from single components of language to extended structures, i.e.; from single lexical items to extended textual units of meaning. The awareness needed in this process is raised according to the stage of development to get the opportunity to learn wide ranges of structures and units of meaning. So, ‘proficient language users’ are automatically aware of the whole meaning while learners focus on single elements to understand the message of communication or piece of discourse. They explain each element going through stages to arrive at a thorough comprehension. This is the reason why learners spend much time to get the meaning of a text. Mental processing specifies the range of focus according to the individuals’ engagement of the reading activity (Lightbown and Spada, 2006).

Exposure to language does not necessarily mean engaging learners in the production process only, but to see also their understanding or information processing that needs ‘the cognitive effort’ of the learner. Additionally, there is another consideration of the way learners can process the information is in terms of storing and retrieving it in order to get access to the context of information and have the ability to retrieve what was learned in similar situations. During the
process of reading, the mind makes records of the information in the target situation, for instance, to make plausible interpretations of the reading material’s content as a comprehensible input. Hence, according to Brumfit (1979: 189-90), text processing is a basic element in pedagogy based on psycholinguistic-cognitive (PC) theories:

[...] to understand learning processes more fully we become aware of the limitations of considering language in isolation from the cognitive and cultural processes in which it is embedded [...] and the language teacher’s purpose is to link the integrated and internal needs of the learner to external demands of society [...] language teaching is not packaged for learners, it is made by them. Language is whole people.

Both the cultural side and the cognitive manipulation are needed to explain the way learners process information. They need to see the “external requirements” or “demands” because language is of a vital role and it is part of a whole social community. Learners by learning the language, they reflect at the same time the whole community speaking this language. So, having a pedagogical perspective in terms of the accurate use of language in which there is a result of fluency reflects a communicative view. Learners should learn language reflecting ‘cognitive and cultural processes’. Indeed, “without knowledge of the world we cannot understand complex information [...] we should study the ways [...] in which knowledge is acquired more closely in processes of learning and [...] how this knowledge is manipulated as soon as all kinds of cognitive tasks, like reading and comprehension require it” (Dijk, 1980: 229).
In text processing, there are different strategies to deal with written texts such as ‘memorisation’, ‘rereading’, ‘taking notes’, or ‘summarising’. Teachers and researchers try to develop in students a metacognitive ability to make assumptions corresponding to the various tasks that deal with their awareness of such processes. Learner-centered point of view provides the pedagogy with the possible ways which entail learners’ motivation vis-à-vis their processing of meaning. Brumfit (1984: 13) adds that: “[…] students are central to the acquisition process as they make choices, develop and comprehend their chosen texts, and analyse their strategies for text processing. Teachers are coaches and facilitators who interfere only minimally in a learner’s reading and writing processes.” This view is practiced differently in the socioliterate view in which the schema of learners should be developed in the social context of the speech community.

1.3. **Schematic Processing and Learning**

Schema theory is based on readers background knowledge which is subject to change and modification with newly added information and related to the long term memory. So, the writer makes presuppositions about what the reader has as background knowledge concerning the topic and acts on that basis where he should provide the reader with the remaining information (Berardo, 2006). Hence, schema expresses a conventional knowledge structure. This theory is originated from the psychologist F.C. Bartlett who relates the concept of schema to
the familiar structure of knowledge. In the process of text interpretation, the reader can derive meaning from the aspect of reference which reflects the connection between previous ideas and anticipation of subsequent ones. This frame of reference guides through the interpretation of reading texts. So, schemata give the reader resources of understanding the structure and content of the reading material (Law, 2010).

Schema theory encourages the idea of considering learners background knowledge. In this view, reading is considered as an “interactive” activity between the reader’s background knowledge or already learned information and the new information to be learned. So what is already stored in memory is needed to make associations with what is introduced as a new knowledge to be stored also (cf. Singer, 2006; Hakkı & Rası, 2009). This mediating interactive view of text processing relies on readers’ background knowledge combining in that top-down and bottom-up processing. This ‘constructivist view’ is concerned with the printed record of communication in which the output of the reader is the input itself of the text. Hence, the reader is exposed to ranks of interpretation whether from single linguistic elements to higher levels of organisations of texts or vice-versa.

Widdowson (1990) argues that comprehension is related to the kind of understanding related to the context of situation. Here, there is a reliance on a certain shared background knowledge which is called the schematic knowledge. The latter is considered as a kind of a
resource that guides the language user in the course of interpretation. This fact differs depending on the modes of communication whether spoken or written. In spoken interaction, the listener relies on his/her schematic knowledge to make interpretations of what is said by the speaker. When reading written texts, the writer makes presuppositions about what should be mentioned in the content based on the reader’s shared background knowledge and what s/he needs to know from the reading material. So, comprehension can never be accomplished in a consistent and exhaustive manner, but it is relevant to the language user’s purpose which calls for the schematic knowledge needed to help in the negotiation of meaning.

Schema as a term used by many (PC) linguists refers to learners’ prior knowledge in dealing with language skills like reading and writing. It is needed in situations when they require going back to their previous experiences to understand the propositional content and structure of texts. And if there are problems with understanding the content and the structure of texts, there will be problems in processing and understanding them vis-à-vis content and form. From a schematic point of view, there is an interaction between the writer and the reader. The success of this interaction depends on the shared schematic knowledge (cf. Jackson, 2005; Toledo, 2005). And most importantly, Widdowson (1990) adds and argues that: “[...] in ESL and EFL classrooms, schemata are not shared by student readers and expert native-speaker writers; thus literacy instructors prepare students for the academic texts they will read (or write) by providing schema-development exercises” (11). This development of
thoughts can be accomplished through pre-reading activities and preparatory questions about the content of texts (cf. Noizet, 1992; Toledo, 2005).

According to Brown and Yule (1983), schema refers to a purposeful background knowledge that is needed to make predictions about the different aspects of language. So, schemata can cover the proposition and interpretation of texts content in terms of the rhetorical identification and referential recognition. In teaching textual structures, there are main discourse units that should be analysed and described like the context which identifies the communicative event in addition to text features like markers and connectives which guide to the coherence of texts. Moreover, Brown and Yule (ibid.) describe schema as fixed forms of interpretation to deal with certain pieces of discourse. It is characterised as ‘the organised background knowledge which results in the presupposition about the content of the reading material.

It is to, a certain extent, prototypical state of knowledge which is activated to make plausible interpretations. Graesser (2007) states that: “deep comprehension requires inferences, linking ideas coherently, scrutinizing the validity of claims with a critical stance, and sometimes understanding the motives of authors” (4).

Cook (1989) discusses discourse knowledge in terms of schemata in which understanding and interpretation depend on the pre-existing knowledge. This theory is originated from works of artificial
intelligence. He (ibid.: 69) explains this process in the field of discourse analysis by the following:

 [...] the most important idea to come out of the field of artificial intelligence is that of knowledge schemata. These are mental representations of typical situations, and they are used [...] to predict the contents of the particular situation [...] . The idea is that the mind, stimulated by the key words or phrases in the text, or by the context, activates a knowledge schema, and uses it to make sense.

Schemata are knowledge structures that reflect prototypical implications derived from the individual’s memory for successful extraction of discourse meaning. This is reflected in the essential features that describe the communicative character of discourse.

Widdowson (2007) states that the context of language needs a certain kind of interpretation that is based on language users background knowledge which is referred to as the schematic knowledge. It is conventionally organised according to the necessity of understanding language use because “language use is a matter of constructing texts by keying them into contexts so as to realize discourse meaning, that is to say, the message in the mind as intended by the text producer on the one hand, and as interpreted by the text receiver on the other” (27). Moreover, to make interpretations of that message, there is need to consider the context which is reflected in ‘the schematic structures of knowledge’. In
this respect, Yule (2006) argues that single elements can constitute a communicative event like ‘STOP’, ‘NO SMOKING’. Schema is related to the ‘conventional knowledge’ that helps in dealing with objects, written texts, listening materials. This knowledge includes frames of objects and things, for example, ‘a classroom schema’.

1.3.1. Types of Schematic Processing

Knowledge takes two different types one for the form and one for the content, i.e.; formal schema and content schema. These two types of schema complement each other and each one should be taken into consideration when processing the information:

1.3.1.1. Formal Schema

One of the important types of knowledge is language knowledge with its different forms and structures. This is what is called the formal schema. It is one of the crucial basics of language learning. In the phase of getting new knowledge and trying to link it with previous one, language knowledge is of great impact to get the new information. And any difficulties encountered with the language structures will result in problems of understanding the new information. This is including grammatical structures, syntactic structures, and lexical items besides higher levels of textual structures via the functionality of the whole message of communication (cf. Miller, 1984).
Reducing problems of comprehension can be promoted by knowledge of vocabulary. This is one of the ways that make comprehension more automatic. So, when learners read and find many unfamiliar lexical items, this is coming from the poor reading habits which in turn result in a waste of time and boredom from the part of the learner. Learners should change the bad habits of reading and raise that consciousness of reading effectively using the appropriate strategies. Moreover, part of the formal schema of learners is syntactic knowledge or knowledge of the different sentential structures including the way sentences are structured whether in simple or complex structures (Gee, 2008).

Additionally, knowledge of the type of the text and recognizing the context in which the information is applied is of great importance to any reader. By considering this aspect s/he can have knowledge of the way the information is organised and structured. The reader should know what type of the text is whether descriptive, narrative, expository, argumentative, (etc.). Knowledge of these types facilitates understanding while reading. Indeed, knowing the features of texts is considered as one of the important types of knowledge. For instance, considering claims and counter-claims of an argumentative text helps the reader understand the structuring of information. Hence, s/he will direct his/her attention to those opinions and extracting the various arguments behind them. This will save time during reading and guides the reader to the main components of information. Thus, formal
schema plays an important role in comprehension. It includes the main components of language knowledge. Ensuring this knowledge helps the reader process the information. (Klix et al. 1982)

1.3.1.2. Content Schema

Content schema represents knowledge prior to understanding which means the background knowledge of learners. This kind of knowledge is so important in comprehension. This is the type of knowledge that includes prior information of the topic and the content discussed in the reading text. This is requiring enough grounds about the social and cultural considerations of the text. So, where there is any missing cultural information about the topic and the content of the text, there will be gaps of comprehension. This attributes to the understanding of information in a complementary manner, in other words, when the reader reads any material, knowledge about the content complements his/her comprehension especially when the reader needs to recall any information from his memory which is the store of knowledge (Gee, 2008).

One of the crucial parts of content schema is knowledge about the topic when processing the information; the readers mind is entailed by knowledge of the subject of discussion in the text. So, zero knowledge about the topic will definitely result in slowing down the process of getting the information especially if the topic of discussion is
completely new to the reader’s knowledge. Here, even if there is no problematic issue in comprehending the lexical items, but there will be difficulty in following the stretch of ideas in unfamiliar topic because of lack of background knowledge (Singer, 2006).

Content schema is so crucial to understand any ambiguities in comprehension which can be caused by lack of this kind of background knowledge. Exposure to a new and unfamiliar cultural context can puzzle foreign language readers. Here, there is a need to knowledge of the world. This knowledge constitutes the content schema of readers. When learners read, they refer back to world experiences related to the topic of the text for understanding. (ibid.)

1.3.2. Representations of Knowledge in the Schematic Processing

Schemata as part of the “prototypical” constructions of knowledge include the stereotypic characteristics of things and events. The categorisations of language structures are extracted from learners’ background knowledge about them. Dijk (1980) emphasised the importance of knowledge in understanding any text, because interpretation needs knowledge of semantic items, syntactic structures, and contextual units. This is also considered in “cognitive sciences” and “artificial intelligence”. Despite the fact that a great amount of literature said about this crucial role, there is much to be explained in the “actual
“process” which constitutes the situation of communication and the construction of the information, i.e.; the interpretation of information.

So, representation of knowledge in the human mind, i.e., learners’ background knowledge is structured and organised. The various “semantic conceptualisations” of things and objects in the world include: frames, scripts, and scenarios. In describing these semantic associations and building knowledge, the prototypical picture of the human mind about them helps the human being recognise that a “dog” is an animal and a “house” is a building, for instance. This is part of the schematic perceptions of things during the interpretation of information as it is shown by Dijk (1980: 229) in the following:

The various aspects involved in the representation of knowledge in memory. It is understood that this knowledge is a part of semantic or conceptual (long-term) memory. This knowledge has a general nature. Particular knowledge about the actual context and about everything a person can remember is better stored as episodic information (…) general knowledge is derived from episodic knowledge by a number of different operations such as simple addition, generalisation, inductive and deductive inference, (re-) construction, and the formation of various kinds of knowledge schemata.

In this respect, Brown and Yule (1983) argue that bottom-up (the focus on microlinguistic elements) and Top-down (focus on higher levels of structure) processing are important forms of mental processes that help in the interpretation of discourse content. The representation of background
knowledge focuses on ‘stereotypic representations of knowledge’. There is a static representation of objects in the real world. When reading a text, there is a given state of knowledge which is used to make plausible interpretations. Examples of that knowledge are frames and scripts as useful accessible ways to understand any piece of discourse. Also, there are other mental models that constitute the knowledge required for interpretation as scenarios and schemata (ibid.).

Schema as part of cognitive psychology is an outstanding concept especially in studies of learning, memory, thinking, and problem solving. It represents a “frame” for learners’ knowledge in which memory makes connections of meaning. The latter can be extracted in a top-down or bottom-up manner to construct knowledge which is a group of mental associations about objects in the world. Frame is a schematic representation via referring to things in the world, in other words, it is the semantic representation of objects. Sometimes, interpretation can be characterised with gaps of understanding the message of communication. In this respect, the frame of memory interferes and fills in the gaps and empty spaces of comprehension with a new knowledge or information (ibid.).

Frames similarly can be explained as the overall picture of knowledge about “content” and “form” of things, in Dijk’s examples rooms, streets, libraries, “birthday parties”, and “lectures” (etc.). Frames represent data stored in memory in the form of structures. The individual
chooses from his/her frames what is required for interpretation in a particular situation. It is originated from Minsky’s theory (1975), as mentioned by Brown and Yule (1983), who relates them to memory processing and representation. They reflect the various conceptions which refer to the situation of events in terms of time and place, or as Dijk (1980) describes them as: “spacio-temporal properties, a prototypical collection of objects, and persons with their prototypical properties and relations” (233). They are the regular perceptions of things in a given place or situation. In this respect a frame is culturally and socially specified. For example, the decoration of a room in a country in Europe is different from that in Africa. So, frames are universal representations of objects in the world when interpreting meaning. These representations are specified depending on the situation and the previously acquired knowledge (background knowledge).

The next aspect in schema theory reflects another form of learners’ representation of knowledge called ‘the script’. It refers to the subsequent actions which occur in a given context and involves conventional actions and responses. Script is part of learners’ content schema. It is the flow of events in a particular situation ruled by cultural conventions. Additionally, Scripts are related to sequences of objects conceptualization. They include a set of routines like ‘going to the restaurants’ and ‘grocery shopping’, (etc.). Hence, a script is the sum of logical events implied by the context. No need to explain the details of those events which occur naturally during the occurrence of the whole
situation. They depend on the social formulae of a particular situation following the social “habits” and “rules”. Consider the following example given by Yule (2006: 133):

*Trying not to be out of the office for long. Suzy went into the nearest place, sat down and ordered an avocado sandwich. It was quite crowded, but the service was fast, so she left a good tip. Back in the office, things were not going well.*

The script of the whole situation helps to a great extent in reducing the amount of description. Hence, comprehending what learners read is reflected in the structure of texts and the psychological processes at the level of the individual’s mind. As Yule (ibid.: 133) states that:

[…] our understanding of what we read is not only based on what we see on the page (language structures), but also on other things that we have in mind (knowledge structures). To understand more about the connection between these two things, we have to take a close look at the workings of the human brain.

Understanding any reading material depends on its characteristics in terms of language besides learners' background knowledge. There is a variety of communicative events or scripts like: ‘interview’, ‘conversational style’, ‘the register of cookery books’, or ‘scientific medical discourse’. Language users in these situations require enough background knowledge to deal with them besides considering the corresponding properties of language to analyse and describe the script of
events. Hence, scripts reflect the way the situation is built and under what circumstances and conventions is controlled, for instance, the usual way of delivering a lecture and eating in a restaurant (etc.). Each script is the conventional behaviour and attitude regularly adapted in a given situation or frame, i.e., the “sequence of events” in a particular frame. Here, always the human mind is present to make associations of meaning in a particular situation or context. The integration of scripts in frames underlies the schematic representation of the frames of actions based on the combination of scripts. This is reflecting an action in a group of subsequent sequences of events. According to Haberlandt (1982: 243), “a script is a schematic representation of a familiar situation”. Finally, to understand the order of events (the script) within the whole situation (the frame); there is a need to follow this order in a structured scenario via reference which relate the parts of information and help in comprehension.

Here comes the third element, scenarios which represent the field of reference as a useful way to make interpretations of written discourses. In scenarios, there is a given representation of the basic components of knowledge. For instance, when reading a text about ‘going to a restaurant’ includes automatically the idea of a waiter in the situation. Scenarios are full representations of the whole situation like “being at the cinema” or “driving a car”. In these events, there is an interpretation of prototypical things.
To sum up, all these elements of knowledge have a great impact to contribute to the knowledge required to deal with any new information or knowledge. And any missing part will cause misinterpretation of the information. What can be noticed as a problem of representation would be the shift of focus from one information to another which can result in confusion to understand the message of reading materials. Written texts are meant to convince the reader in order to have a certain effect on him/her (Mckoon & Ratkliff, 1992; Sadoski, 2001; Singer, 2006). This problem can be resolved following the kind of reference to emphasis on the important information of any text. There should be a focus also on what is called message-mapping which needs memorisation of the events depending on reader’s intentions. Here, mapping or getting an overview of the whole message of the text require what is called semantic mapping which will be explained in the next section. So, these aspects describe better the psychological implications required to relate all parts of information in a given frame reflecting the corresponding script events which refer to each other in a scenario to formulate a given message. This consideration suggests the requirement of taking into account rhetoric and style to deal with the problems of comprehension (cf. Graesser et al., 1997; Brantmeier, 2002).

1.3.3. Semantic Mapping and Schema

Learners’ background knowledge is of great importance to comprehension. It involves the necessary components to deal with new
situations via referring to previous situations, i.e.; the new information is understood via the previous information. In this respect, learners when dealing with any reading text face difficulties especially if they encounter with new words and expressions vis-à-vis their vocabulary knowledge. Indeed, they rely directly on the dictionary rather than guessing the meaning from context as an effective strategy to compensate this difficulty (cf. Broek, Rapp, & Kendeon, 2005; Souleimen El Youcef, 2006). Through the misuse of dictionaries, learners cannot recognise the exact definition of the word as words may have many explanations depending on the context of use. Vocabulary knowledge is so crucial in the comprehension process, because once the lexical level of a text is considered in a more effective way; the whole textual level will be ensured. In other words, the lexical level is a facilitator to understand the whole text. Thus, readers with a better knowledge at the lexical level gain more time when decoding the text. As a result, reading comprehension is facilitated through learners’ background knowledge in trying to explain vocabulary (cf. Wu & Wank Wei, 2007; Robinson, 2008)

Stoller et al. (2013) emphasises on the importance of building vocabulary because: “proficient reading requires a large recognition of vocabulary [...] The most effective reading curricular makes a commitment to building and recycling vocabulary” (4). Semantic mapping is related to the way semantic items required for comprehension. Here, there is a need to activate learners’ background knowledge and using what
they have in their semantic memory to guess the meaning from the new context. This activation is done through brainstorming. It is considered as one of the effective strategies used in reading and comprehension. Teachers make students brainstorm ideas relying on their background knowledge to make them more aware to be strategic when dealing with what they have in their memory (Ajideh 2003).

Schema is attributed to be of great importance to learners in general and readers in particular. When processing the information and making associations between background knowledge and new information, it should be taken into consideration to know the amount of knowledge acquired and needed to make interpretations. It is needed to make inferences when there is an ambiguity about the content. Information can be given explicitly and part of this information is implied from the context (cf. Soricoban, 2002; Karakaş, 2005; Al Issa, 2006). Hence, to adopt with the hidden information, there will be a reference to the schema of the reader to understand it. The schema is required to complete any gaps of understanding (Stoller, 2013).

So, in order to process the information, learners need to activate their prior knowledge and consider the different conventions of language structures, and take into account the purpose of the reading process. Learners’ schema helps them make predictions about the content of the text. So, when the reader wants to comprehend a text, s/he should refer to his/her schema to make anticipations about the new knowledge
from his/her background knowledge. This will direct the reader’s selection from his/her background knowledge when processing the information. This is made through selecting the required data from the mind and using it in the appropriate context. To deal with learners’ knowledge, teachers try develop it the classroom and help them to use it and before or after class. Hence, they depend on reading activities for students before (pre-reading), during (while-reading), and after (post-reading) dealing with any reading materials. Pre-reading activities can be of less impact on learners’ comprehension because they should have the required package of vocabulary (cf. Celce-Murcia and Olshtain, 2000)

Sanford and Garrod (1982) state that problems of mental representation of language can be reflected in “mapping the reader’s background knowledge”. They see that: “it might be more useful to consider a discourse as a set of instructions to the reader to derive a message from the text in which case a general message mapping principle should be formulated which would capture the variety of different functions a piece of discourse may serve.” (147). So, the problem of mapping and representing discourse content should be resolved from the point of view of a macro analysis of discourse functions and structures. However, there are certain difficulties encountered when representing the content of texts. These difficulties represent kinds of ‘mental variables’. One of these variables is text-descriptions vis-à-vis the ‘propositional analysis’ of the structure of written texts in which the expectation of the
arguments derived by readers are combined to form the message to be communicated.

They (ibid.: 150) argue that: “discourse serves to call up knowledge structures into which it is then mapped. The mental representation of a discourse consists of representations of explicitly mentioned things mapped into a knowledge structure.” Hence, if learners recognise the kind of reference of the text, it will be easier for them to understand it accurately. Learners can refer to locate the relevant scenario in memory to map the subsequent events.

1.4. Reading

The reading activity is defined according to a specific purpose of reading. The reader’s purpose can be for pleasure, to get knowledge about a given topic, to look for particular information or to make an assignment given by the teacher (etc.). It can be even to get a general information from reading the news in a newspaper. Whatever the purpose of reading, the reader should adapt the required strategies for comprehension. So a specific purpose of reading any material is a basic factor for the success of the reading process because when the reader has a given direction in mind to read, the suitable strategy to use while reading can be easily adapted and followed. For Example, when the reader wants just to locate specific information in reading any material, there is
no need to read all the details. In other words, the reader directs his attention to what is relevant and necessary to his purpose (Grellet, 1981).

When processing the information through reading, learners try to ‘decode’ and categorise the writer’s signals, associate meaning, and get the message to be communicated. The action of reading as an interactive process can be assigned by three main ‘participants’ of the process: the writer, the text, and the reader. At the cognitive level, a psycholinguistic approach to reading developed by Barnett (1989) who focuses on the pre-requisite knowledge of the learner which represents his/her schema. The latter is reflected in dealing with discourse options for which there is a development in research and teaching methodologies to emphasise on the interactive nature of the language rather than on its abstract and isolated items.

1.4.1. Cognitive Models of Reading

Learners depend on the cognitive strategies in dealing with different activities of reading that foster the reading comprehension. Cognitive strategies take various forms: developing recognition, using the title and the topic of the reading text, guessing unfamiliar lexical items from context, using dictionaries, summarizing the author’s main ideas, “activating learners background knowledge”, “using contextual clues” explaining images and metaphors in creative texts (etc.). Dealing with these skills at the cognitive level requires a metacognitive ability of
“planning”, “monitoring”, and “evaluating” to control and guide the reading tasks (cf. Laureta, 2009)

To develop this schema, there is a reflection of considering text-reader communication that is viewed according to the literature from two main perspectives: bottom-up and top-down processing:

1.4.1.1. Top-Down Model

The two ways of processing whether a top-down and a bottom-up in which there is an emphasis on the main components of the linguistic system and the focus on the global representation of ideas respectively. The combination of these approaches in an interactive view is considered as the most exhaustive view of analysis. Here, all the elements of the process interrelate with each other for a successful understanding (cf. Berardo (2006). Top-down models “searches for information to satisfy partially activated higher- order knowledge complexes” (197). This approach focuses on the hierarchical organization starting from higher levels. It is known as knowledge-driven processing which is dependent on the overall sense derived from the whole reading material. There is a kind of philosophical view about top-down processing explained in terms of “causal-effect” basics. Although this psychological view is logical in some sense, it is rather abstract because “visual processing” should be based on prior knowledge which is neglected by this view. Hence, top-down processing is represented in macro picture of language input in which processing starts from higher levels based on stored information. This approach represents reading memory and what is constructed from
learners’ background knowledge. The reader does not focus on every word in the text, but on the whole meaning and connects it with what s/he already knows about the content of the text.

This model also focuses on larger units of constructing meaning and making presuppositions on the topic of the text via reference to previous schemata. Although considering readers’ background knowledge and focusing on higher levels of comprehension is of great importance to the reader, the linguistic elements helpful from explanation are neglected. Again, the necessary linguistic components are missing in this model, there is a need for an exhaustive approach that combines all components required in the comprehension process (Celce-Murcia & Olshtain, 2000).

1.4.1.2. Bottom-up Model

The reading skill is viewed as the capacity to derive the propositional content of any piece of discourse in which there are models of constructing the meaning. Here the focus is on every single element whether it be phrase, clause, or a sentence to reach the whole meaning. But it is an incomplete model when learners read any piece of discourse they do not stop at that level because the piece of discourse is a whole coherent body (ibid.).

Bottom-up model emphasizes on how lower levels of meaning within a text. The focus is on lexical items, the way they are
combined to form a whole meaningful unit at a higher level. In this approach, the reader tries to start the reading process from the words, trying to explain them and then combining them in a sentence. Later those sentences are combined to form a group of sentential units until s/he arrives at extracting meaning from the whole text. The focus on these linguistic elements is guided by learners’ background knowledge to help them in extracting the meaning. This approach is called also “data-driven” comprehension from bottom to top i.e., starting from letters, words, sentences, text, i.e., combining letters to form words, combining words to formulate sentences; connect sentences to get the core meaning of the whole unit or a text. This is rather a traditional point of view to the reading tasks based on lower levels to get meaning (Anderson & Pearson, 1988).

Despite the importance of this approach and combining small elements of language to get the overall meaning, there is a great gap in this view vis-à-vis reading comprehension. This view loses interest in readers’ background knowledge. The cultural schema of learners is so crucial in understanding and focusing on the linguistic side of the text without a cultural consideration is not enough for comprehension.
1.4.1.3. Interactive Approach

The missing aspects in bottom-up and top-down models call for an approach that includes the necessary elements for comprehending texts. This is reflected in the interactive approach which is rather more exhaustive and comprehensive combining both bottom-up and top-down models. Here, learners background knowledge is activated and needed for comprehension through highly ordered predictions about the topic. And when it comes to difficulty in dealing with particular unfamiliar linguistic elements in the text, there will be a shift to consider lower levels of comprehension. So, there is an association among lexical items, syntactic and grammatical structures and background knowledge (cf. Grabe, 1988; Celce-Murcia & Olshtain, 2000). The following diagram, as classified by Celce-Murcia and Olshtain (ibid.: 120), shows better the association of very important concepts for comprehension and how they are interrelated in the interactive processing:
Figure 2: The Schematic Framework of Reading a Text during Reception
This diagram includes the basic components of processing the information whether in a top-down way (Prior knowledge, reading experiences via content schema, formal schema, purpose for reading) or bottom-up manner (language knowledge and reading strategies). Their combination in a complementary interaction forms an interactive view while understanding. They represent the schematic framework of reading in the reception process. Readers use the required components that help them to understand the meaning of the text. It is the mostly adapted model by readers. It avoids the restricted scope of just focusing on one of the approaches in isolation whether the bottom-up or top-down.

1.4.2. Metacognitive Reading Strategies

Metacognitive strategies have a great importance in reading comprehension. This is shown in raising metacognitive awareness while reading. It includes strategies required by learners when dealing with a reading material. Cook (2001) views that in this method, learners depend any attitudes, ideas, thoughts, and propositions as an aid during the comprehension process. Recently, there are many elaborations in this approach in which learners and motivation are taken into consideration to combine their cognitive capacity and their metacognitive ability as well. Instructors see this importance because the reading comprehension of learners is controlled by their interests and the factor that guide their attention into the various strategies that should be applied in the reading process.
Additionally, developing self-awareness and self-evaluation skills in the learning experience in general and the reading process in particular is motivated by a considerable attention to the metacognitive awareness of learners. So, by considering readers metacognitive awareness, teachers can have information about their way of thinking vis-à-vis the strategies they adapt when they read (cf. Van Dijk, 1982; Klix et al., 1982; Ahmadi et al., 2013).

Similarly, skills like “self-planning”, “self-monitoring”, “self-regulating”, “self-questioning”, and “self-reflecting” are all crucial skills required in the reading process. And by considering them, learners can develop a self-awareness and consciousness about what is needed from skills and strategies to be adapted and applied (Ahmadi et al. 2013).

Metacognitive reading strategies Take three forms of knowledge: declarative knowledge, procedural knowledge, and conditional knowledge. The first focuses on information “about” things and objects in the world. This knowledge includes details about learners’ experiences and practices. It refers to “things such as facts, rules, and images that one is able to describe explicitly” (cf. Celce Murcia & Olshtain, 2000: 13). It constitutes consideration of various grammatical rules and semantics through describing them clearly. Second, procedural knowledge deals with the manner of doing things in any situation of learning via understanding the way of “how” to act in a given context. Third, conditional knowledge reflects the time and reason behind using
cognitive processes through relating understanding and the cognition of learners (cf. Van Essen, 2008; Ahmadi et al., 2013).

During the activity of reading, the readers especially of a foreign language aim to achieve the automatic way of reading or dealing with a written text. Hence, the reader can quickly comprehend the text and recognize the components of the message of communication. More particularly this is to achieve fluency in reading (cf. Sweller & Diao, 2007; Yen Chi, 2010; Veenam, 2014)

1.4.3. Types of Reading

1.4.3.1. Extensive Reading

Teachers can follow three phases of the reading process. Pre-reading, reading, and post-reading. Pre-reading activities are so crucial in the preparatory stage of learners as a recalling enhancer in the reading process, i.e.; to recall their prior knowledge. Before adding a new information to learners memory, it is better to go through what is learned before. This is considered as a facilitating factor to make relations and associations between old and new information or between background knowledge and new information. More particularly, this is to make learners ready to receive the new information. This is so motivating at the cognitive level to engage learners in the reading process (Stoller, et al. 2013).

There are various choices to integrate learners in the reading activity. It is up to the teacher who can evaluate the tasks in terms of
learners’ level, purpose, and designed objectives of the reading course. Assigning activities in this stage is of considerable difficulty to readers. Although the aim is to introduce them to read for comprehension, it cannot be achieved without effective planning of those activities. Hence, making readers engage in a short period of time can be a challenging task before the actual reading stage (cf. Celece-Murcia & Olshtain, 2000; Bilikozen & Aykel, 2014).

This can be achieved via avoiding lengthy introductions to the actual reading course to give learners more space to the actual reading. For example, reading stories is a good example of the pre-reading stage. There are various problems associated with reading stories is learners motivation and their comprehension in addition to the way they interpret the information without using effective reading strategies. So, the pre-reading activities can entail the interaction between the reader and the text. Some common pre-reading tasks to activate readers’ background knowledge can be through previewing the material, asking questions before reading it, and brainstorming any relevant ideas to the content of the passage (Stoller et al. 2013).

After a brief motivating engagement to reading, the teacher starts making learners understand and extract meaning from the text. In this phase learners have more time to manage with the content of the reading material. The activities included in this phase can cover a specific purpose, underlining the main ideas of the text, considering the
various explanations of the author through taking notes during reading, making possible anticipations about the subsequent ideas, summarizing and noting down what is understood from the text (Celce-Murcia & Olshtain, 2000).

The initial step in the reading course could be pre-reading questions to activate learners’ background knowledge and explain some unfamiliar vocabulary. Here at this level, according to Stoller et al. (2013: 3), learners first look at the title to guess the content besides previewing and skimming topic sentences and scanning any visual elements associated with the reading passage because:

Good readers, at a minimum, need to be able to identify main ideas and details; distinguish between facts and opinions; draw inferences; determine author intent, stance, and bias; summarise; synthesise two or more reading passages; and extend textual information to new tasks, such as class projects, oral presentations, and written assignments.

After the comprehension process, the teacher assigns post-reading activities which involve:

- Filling in the blanks
- Start answer format
- Multiple choice
- Complete vocabulary and/ or grammar exercises
Answer the comprehension question

Within the same phase of selection and before reading, skimming is a kind of quick selective reading and it is often efficient to get the overall picture of the material whether book, article, or story before having the final decision to read the material for comprehension. Skimming depends on helpful parts which guide directly to the main idea (e.g., skimming a text by reading quickly the topic sentences of each paragraph). In addition, the reader should avoid reading word for word by focusing on certain clues like ‘italicized’ and ‘underlined’ words, titles and subtitles. Skimming has three forms: previewing, overviewing, and reviewing. Previewing is to see the material before actually reading it. Overviewing is getting a general picture of the material to get the overall sense and the content of an article or book. Reviewing is to see again the material following a previous reading for revision or refreshing the memory. After the phase of selecting the relevant parts, the reader can read the selected material for comprehension (Wallace, 1980).

Scanning is part of quick selective reading to locate just a specific information like finding a particular date, number, name, page, or time (etc.). When the purpose of reading is to get information about the weather from a newspaper, scanning is needed to do so. Scanning requires decision of the exact information aimed to locate, where to find it, and a quick eye movement to the exact element. Hence, after scanning the element, the reader will not read further to comprehend the text not like skimming, the reader goes on to read after selecting the required part.
When dealing with written texts, the reader depends on very principled ways and techniques. The latter are reflected in the purpose of reading and the degree of focus whether on specific or detailed information. Besides considering the purpose, these techniques can be considered also as helpful factors to understand the message of communication (cf. Grellet, 1981; Parrot, 1993; Bilikozen & Akyel, 2014).

Similarly, skimming and scanning represent two techniques of extensive reading which are needed during a quick selective reading, i.e.; during the phase of selection of the reading material whether relevant or not. The technique of skimming is useful to get the gist or the main idea of the material: headlines and titles a written document, the titles of the table of content in a book or a journal, the topic sentence of the paragraph... (etc.). The scanning technique is used in specific contexts: looking up words in a dictionary or encyclopedia, phone number, page number ... (etc.). For example, when reading the weather forecast in a newspaper, the reader skims the different headings in the paper and scans the temperature or any specific descriptions of the weather (sunny, cloudy ...) (ibid.).

After a brief motivating engagement to reading, the teacher starts making learners understand and extract meaning from the text. In this phase, learners have more time to manage with the content of the reading material. The activities included in this phase can cover a specific purpose, underlining the main ideas of the text, considering the various
explanations of the author through taking notes during reading, making possible anticipations about the subsequent ideas, summarising and noting down what is understood from the text. According to McNamara et al. (2007: 399):

Although successful comprehension often appears effortless for skilled readers, the processes underlying the chain of activities necessary to comprehend text are complicated. Successful comprehension entails a highly integrated set of activities that involve both lower level decoding abilities and higher level integration abilities.

The curriculum of reading which is aimed to raise students’ comprehension reflects a focus on the appropriateness of texts in accordance with their level. The space of reading must be expanded in various contexts: classroom, home, and even outside these places. The attention is drawn to the feasibility of reading in different environments. When raising learners awareness into this, they will have more chances for reading and dealing extensively with the reading activity.

1.4.3.2. Intensive or Creative Reading

Berardo (2006) argues that reading is a purposeful action. It can be for pleasure, for functional communication, for learning, and for “survival purpose”, for example, to understand street signs. However, the learning purpose is set for given educational goals. Understanding any written material reflects consideration of meaning, the interaction of the
So, readers should consider the “genre” of the reading material with its respective “rhetorical” body and language structure. And comprehension is considered as an active process especially when it comes to beginners because of their requirements to cope with their reading speed. He adds to argue that: “A successful reader implements deliberate, conscious effortful, time-consuming strategies to repair or circumvent a reading component that is not intact. Reading teachers and programs explicitly teach such reading strategies to handle the challenges of reading obstacles.” (ibid. 4). For a deeper understanding learners should adapt the required strategies which help them process the parts of information in the reading material.
Van Dijk (1982) focuses on the great importance of the psychological consideration of how the information is processed while understanding the piece of discourse. He (ibid., 35) states that:

[...] discourse understanding involves both bottom-up and top-down processing [...] Both kinds of processing presuppose large amounts of word knowledge besides the textual and contextual information conveyed in the communicative situation. In order to access and use this information effectively, it has been assumed that knowledge must be intelligently organised.

Hence, to achieve comprehension, there should be a consideration of the organisational patterns of knowledge in terms of frame, script, and schema as important notions and forms of knowledge. They are kinds of knowledge organisation to help and guide the reader through the understanding of reading materials (ibid.)

Focus on language skills as part of the practical concerns of language teaching implies consideration of the communicative capacity of learners. Reading as one of these language skills suggests comprehension as one of learners’ communicative abilities. Indeed, comprehending written texts depends on the pedagogic purpose and realm of focus. This focus can be on building knowledge of structure, lexis, and cohesive links, etc. And studying the coherence of discourse is seen as the connection between the ideas of discourse so that it makes a discoursal
The relevant knowledge and skills with which readers approach a text are critical determinants of their proficiency. To the extent that a reader is lacking any fragment of the knowledge or skills presumed by the text, the flow of information through the system will be obstructed. In this case, the reader has three options. First, [...] she or he can direct extra processing capacity to the difficulty in the effort to resolve it; second, she or he can rely on top-down processes in the effort to resolve it; third, he or she can skip it.

The various skills involved in the reading process specify the degree of reader’s proficiency to understand what is communicated. This is realised through “organisational strategies”, “rhetorical structures” and conventions, besides syntactic options. In addition to these techniques, the reader depends on “extra processing” strategies which are part of his background knowledge and experiences. When learners read the material, they try to analyse it and consider the various opinions expressed in it. And in the classroom context, there are assignments which test the reading capacity of learners to be presented in seminars for example. Here, the teacher directs students into making seminars and relating them to reading because: a) they entail understanding, b) ameliorate the thinking skill of learners, c) they make learners deal with problematic issues while reading, d) they improve decision making, e) they make
learners listen to others, and f) they have a good impact on students' confidence (ibid.).

Hence, any problems in understanding depend on the form of communication whether spoken or written. In spoken interactions, for instance, there is much space for controlling the understanding of participants because it is characterised by many cues to follow like prosodies and specific contextual frames. However, the written communication is described by the absence of the writer in which the reader should derive the context and use strategies to deal with the message to be communicated (Yule, 2006).

**Conclusion**

Learners’ schematic knowledge requires a number of interrelated concepts which facilitate the learning process. Comprehension cannot be achieved without thinking critically and analysing the information whether in a top-down manner, a bottom-up synthesis, or even via an interactive way that gathers both of them. In this respect, whatever the processing followed teachers can adapt cognitive or metacognitive strategies to make the learner decode the reading material. The latter is accomplished through using purposeful reading tasks that entail learners’ reception capacity.
Chapter two
Rhetorical Aspects of Authentic Language

Introduction

2.1. Authenticity Defined

2.2. Text Authenticity and Learner Authenticity

2.2.1. Authenticity as a Communicative aspect of Texts

2.2.2. Authenticity of Learners Interpretation

2.3. Authenticity and Rhetorical Consideration of Form

2.3.1. Rhetorical Features of Language Authenticity

2.3.2. Real-World Authenticity in Newspapers language

2.3.2.1. The Importance of Using Newspapers in the Classroom

2.3.2.2. Practical Uses of Newspapers in the Classroom

2.4. Authenticity and Interpretation of Meaning

Conclusion
Introduction

Processing the information needs a close look at the comprehensibility of language structures and content in terms of previous knowledge to be related to the new situation. Hence, when it comes to an authentic application of language knowledge, many requirements should be raised as problem-solving exits to cope with the difficulty of authentic or real situation. Authentic materials represent a source of genuine knowledge structures as crucial aspects that imply a considerable attention into the various rhetorical features which characterise the realm and scope of authentic communication vis-à-vis the foreign language context. The coming sections explain better the basic aspects of authenticity in terms of the various rhetorical features of authentic language such as: language patterns and macrostructure, language functions, and metadiscourse markers.

2.1. Authenticity Defined

Authentic materials are spoken or written records that reflect real forms of communication without being addressed to academic purposes. Learners can be more motivated to use these materials and exposed to the real use of the English language. They have the advantage of motivating learners and allowing them to know different aspects of language. The purpose of these authentic materials is to improve the reading skill of learners through, for instance, ‘newspapers’, ‘editorials’,
and other materials in terms of analysing the content, taking notes, and summarising (etc.) (Ma, 2005).

There are various definitions associated with authenticity which result in an ambiguity in specifying exact explanations of this concept. So, when defining authenticity, there are certain identifiers of the term like: “language produced by native speakers communicating a real message”, and “real language as interpreted by the listener or reader”. It can be related also to the authenticity of assessment and even to academic and disciplinary authentic communication. Language interpretation as an authentic process depends on the listener or reader. Language authenticity is associated to teacher-learners interaction and related to the tasks made in the classroom by giving authenticity social grounds. The authenticity of assessment is related to culture and social interactions and the way the speaker behaves in a particular context (cf. William & Gellagher, 1993; Hwang, 2005).

Authenticity took a debatable space between Chomsky (1965) and Hymes (1972) when talking about learners’ competence in which the former restricted it to grammatical considerations and the latter discussed it from a communicative point of view in what is called the “communicative competence”. There are many approaches which dealt with the concept of authenticity like sociolinguistics, pragmatics, cognitive and social psychology, acquisition and ‘learner autonomy’,
cross-cultural studies, discourse and conversational analysis (Gillmore 2007).

Similarly, learners need an authentic context to language teaching as the pedagogical requirements are in recurrent modifications and change. Teachers act as evaluators of the learners’ situation trying to develop approaches and methods for their learning environment, because “learners are no longer passive recipients of the teaching process” (McCarthy, 2000: 17), where they should develop new capacities of ‘autonomous’ learning. The authenticity of the context of learning is required in developing these capacities in terms of a cognitive awareness of language elements. In this respect, he argues that processing language data is realised in a cooperative and interrelated way that stimulates authentic language learning and the purposeful language manipulation during processing (McCarthy, ibid.).

Choosing reading materials as authentic contexts is identified via the degree of complexity which may affect comprehension during processing the main components of meaning. They are classified into extracts, simplified versions, and simple accounts. Extracts are characterised by being authentic texts. They are derived from a wide range of sources or ‘communicative units’ and do not deal with pedagogic learning purposes such us: essays, articles, letters, newspaper reports (etc.). The authentic nature of these materials explains better the interaction between the content and the reader. He adds and argues that: “if a learner is to acquire communicative abilities, he must ultimately be
introduced to treat reading passages as discourse” (McCarthy, 2000: 80).
The second, ‘simplified versions’, are discourses or passages come from
authentic contexts but with some modifications at the lexical and
syntactic levels to have a passage which is near to students linguistic
competence. However, this method lacks exhaustiveness and affects
negatively the meaning and structure of the reading passage in terms of
use. The third, ‘simplified accounts’ are aimed to simplify the use and
rewrite the ideas of the discourse and they are for the purpose of teaching
the language. So, the decision of the way they are analysed and described
depends on the different procedures and learners needs as he (ibid.: 109)
argues: “[...] any pedagogic proposal must be provisional and subject to
actual classroom experiment.”

Moreover, the adaptation reflects the artificial use of
language in which there is modification of content, structure, and
discourse markers. These aspects depend on the mode of discourse
whether spoken or written. For instance, in spoken discourse, there should
be many modifications and artificial structures to occur because of the
complexity of certain structures on foreign language learners (Berardo,
2006). Authentic materials also include complete messages without
distortion of the message. So, besides having a positive effect on learners
cultural and formal schemata, they have a great impact on foreign
language learners’ motivation because they reflect interesting aspects in
comparison to materials designed for teaching purposes in coursebooks
which are more artificial. The authenticity of language plays an important
role on learners “attitude”, cultural behavior, motivation, and language proficiency and literacy. He proved this through an experimental study using “authentic language” where the results of the study he conducted show that a great interest and motivation from the part of students who worked on authentic language in comparison to students who worked with adapted and simplified language (Peacock, 1997).

2.2. Text Authenticity and Learner Authenticity

Lee (1995) states that the authenticity of materials depends on learners’ view of authenticity and the way they deal with that material. Whether the material is authentic or not, the learner’s linguistic grounds specify its interpretation and comprehension. He argues that there should be a distinction between two variables of authenticity: “text authenticity” and “learner authenticity”. The first is related to the authenticity of the material and the second one is related to the way learner reacts with that authentic material at the cognitive level. Authentic texts are those texts which are written outside the teaching zone, i.e., not designed particularly to teaching purposes. They reflect real communicative contexts and language is characterised by being difficult and more or less involves complicated syntactic structures and lexical items.

2.2.1. Authenticity as a Communicative aspect of Texts

The authenticity of texts is defined in terms of the topic of the text, the text type besides the authenticity of the context of
communication. For example, a poem in a teaching coursebook is of an authentic nature but utilised to teach learners an authentic message of communication. And when it comes to the learner, s/he considers authentic materials as enticing materials vis-à-vis content, style, culture, and social basis for genuine communication. Although authentic materials can be of relative degree of difficulty to learners, they require appropriateness in the selection when choosing them to be part of the teacher’s course. This selection is also directed by learners’ linguistic schema, because they do not prefer sometimes dealing with texts lesser than their linguistic background knowledge or easier to understand (Lee, 1995).

The authenticity of texts reflects to a great extent a more purposeful realm of communication. Parrot (1993) argues that ‘comprehension’ here includes derivation of meaning while reading texts or listening and participating in conversations. The type of meaning and the manner it is ‘extracted’ differ according to the participants’ purposes and the situation which results in the different conceptualisation of ‘comprehension’. This ability in turn includes other sub-skills which are characterised by the capacity to identify the communicative function of a text (stretch of speech or writing) such as: invitation, commiseration, persuasion, description, (etc.). This is to know the main idea of the text; to specify certain details; to differentiate main ideas from specific details; to identify the writer’s point of view; to make implications of the inferred information; to make predictions about the ‘content’ and its subsequent
components; to deal with words; and to derive and infer the ‘context of discourse’.

Communicative language teaching (CLT) gives a great importance the aspect of authenticity. Authenticity reflects the relationship between the reader and the text. This connection is viewed from the cognitive side because it affects the mind of the reader (Berardo, 2006). Nunan (1988) states that the methodology used in communicative language teaching focuses on stages of development in dealing with language as a way to elicit communication skills. Authentic texts reflect real life productions far from learning goals. Authentic materials have the advantage of completing the full communicative purpose. The source of authentic materials comes from different sources of information like newspapers, magazines, TV programs, movies, songs, and literature (etc.). They are familiar sources of both spoken and written materials and they are useful to be used in the classroom. The internet is a valuable source of them because it opens the way for many options to find a wide range of authentic materials (Berardo, 2006).

In considering the authenticity of texts, as Widdowson (2007) argues, the stretching of information is set through certain communicative purposes. Authentic texts are applied in a variety of contexts and recognised by the function of communication such as meetings, interviews, e-mails, newspaper reports and articles, (etc.). In dealing with written language, the writer establishes an interpersonal
relationship with his/her readers to make them involved for the purpose of clarifying the message. The writer of a research report, for instance, tries to write in correspondence to what readers need to know in the topic covered. Hence, authentic materials especially in the learning environment are highly structured and their schematic construction is specified by the common grounds of language users (readers or listeners).

2.2.2. Authenticity of Learners Interpretation

Teachers need to know the different skills and background knowledge and try to find the possible solutions for the different pedagogic problems. Hence, there is no such a specific and accurate manner to deal with all these problems, but the teacher or the researcher seeks for ways to recognise his/her students’ purposes and identify the content of the tasks basing on these purposes (Parrot, 1993). Widdowson (1978: 53) argues:

The Learning of language means acquiring the ability to handle discourse and if this crucially depends on knowledge of conventions, then it would seem to follow that we have to link the foreign language to be learned with real contexts of use in one way or another.

The aim is to widen the background knowledge of communicative rules and structures and to raise awareness in terms of authentic uses of language. Understanding discourse as part of reading ability is not restricted to the meaning of words in isolation but to rely on the
combination of the whole sequences of discourse. Hence, learner’s authenticity of texts is based and centered around the learner’s linguistic and cultural background knowledge, interest, motivation, and curiosity about the materials used. At the cognitive level, they raise learners awareness of the cultural and genuine grounds of communication which allow them to be effective in the comprehension process (Lee, 1995).

In making the relationship between the authenticity of texts and authenticity of learners, authentic texts which are in nature reflect a real realm of communication can be made authentic by learners as well. In other words, when there is a problem in the availability of authentic materials, learners try to make their own production of those materials. He gave the example of learners production of “commercially-published materials”. Learners contribute in making them authentic which is considered at the same time as an interesting authentic practical task (ibid.). Learners do not prefer textbook materials. Teachers try all the time seek for interesting and effective choices of the materials they use in the classroom when it comes to using authentic materials (or of authentic nature). They try also to see whether their choice is accepted positively from the learners’ part (cf. Herrington & Oliver, 2000; Perry, 2014). Simultaneously, the teacher takes into consideration when integrating text’s and learner’s authenticity:

- The entity of an authentic text
- The receiver of this text
- The aim and objective of authenticity

- The application of authentic social conventions in the classroom

Through these factors, Lee (1995: 325) points out that:

(...) a part from the materials themselves, there are four other aspects to consider in order to facilitate an interaction between learners and materials. In pedagogical terms, these aspects might be defined as text factor (materials selection), learners factor (individual differences), task factor (task design), and learner setting factor (learning environment) to which could be added one more- the teacher factor (the teacher’s attitude and teaching approach)

So, besides the importance of the text and learner factors in the authentic integration, the teacher also is of crucial consideration to create the motivating and appropriate environment to entail authentic discussions suitable to learners. In this respect, there are “guiding questions” which associate the selection and evaluation of authentic materials in terms of text’s nature and learner’s interpretation, as proposed by (Lee, 1995: 226):
Newspapers language as an authentic language is a good example for adapting those principles, because they have the acceptability to be learner authentic (ibid.).
2.3. Authenticity and Rhetorical Consideration of Form

2.3.1. Rhetorical Features of Language Authenticity

It is important to know the nature of texts as a crucial literacy component. There are three main views that approach texts: traditional view, learner-centered view, and socioliterate view. The first led by ‘Traditionalists’ who are interested in the text itself through a description of its features and structure. This traditional view was restricted to features count and formal descriptions. Learners receive direct practices to discourse structural features in which the teacher is the main facilitator of the process of learning. The second, learner-centered view is related to what ‘Expressivists’ deal with learners’ construction of meaning in terms of the different cognitive processes. The third view is reflected in the developing awareness of the different social structures of specific cultures which are realised in specific genres. The second view focuses on the shift of the pedagogic view from considering authentic features to emphasise on learners’ motivation and rendering their different capacities as readers and writers. It is interested in how learners make interpretations and processing of discourse message. The teacher allows more space for students to engage in the learning process. This pedagogic view is divided into three main perspectives. The first deals with the development of students as readers and writers to develop a certain confidence to deal with academic discourses. Psycholinguistic-
Cognitive view is based on what theories try to deal with the cognitive development of learners and their understanding of the piece of discourse. There are main key elements in teaching discourse according to this view: ‘schemata and interactivity’, ‘text processing’, ‘strategies’, and ‘metacognitive awareness’ (Johns, 1997).

Ellis and Barkhuizen (2005) argue that the competence of learners can be measured through investigation of their performance. Their understanding of the input can specify the degree of measurement. And to overcome any negative effects and shortcomings of this kind of measurement, the researcher or the teacher tries to collect samples of their production to test effectively their comprehension. As another aspect of designing tasks for learners is that there should be ‘text reconstruction tasks’ when listening or reading discourses. The aim here is to make learners derive from their knowledge what is needed to understand the text. Indeed, when they process a text they try to construct the ‘propositional content’ which helps in dealing with a variety of genres. Discourse completion tasks also are useful to analyse learners’ pragmatic capacities through giving them exchanges with gaps and they are supposed to predict what is missing after they have read a description of the immediate situation.

The pedagogical perspective on communicative competence is based on the main aim of developing the ability to
communicate effectively in target language. According to Canale (1983), it should include four main complements:

- ‘Linguistic competence’ which deals with phonology, morphology, syntax, and lexis.
- ‘Sociolinguistic competence’ which represents the needed background knowledge for communication in terms of the social context.
- ‘Discourse competence’ reflects structure, order, ‘arrangement’, and all components of contextual meaning to infer a given message.
- ‘Strategic competence’ which aims at developing strategies of manipulating the different options of the language for the purpose of understanding. This understanding includes information processing and practicing that knowledge in communication.

Celce-Murcia and Olshtain (2000) see that ‘discourse competence’ is the central component because it gathers all aspects of communication in which it involves the main supporting elements of assessing the communicative competence of learners.

Language as a discoursal unit is described from a variety of angles. One of the important dichotomies to treat this unit is the distinction between cohesion and coherence. The former is achieved through the surface connection of the different words and sentences
within the text. The latter is one of the main angles to see language and contribute to the understanding of the information. There are many attempts to describe this notion. To explain cohesion, Halliday and Hasan (1976) proposed a model of linguistic links which consist in certain cohesive devices such as: reference, conjunction, lexical ties, ellipsis, and substitution. Reference (anaphoric, exophoric, and cataphoric); conjunction (additive, adversative, causal, and temporal); lexical ties (repetition, synonymy, and hyponymy); besides ellipsis and substitution which reflect omission or substitution and depend on the linguistic environment. These lexical devices view the connection of ideas at the grammatical level in which the surface links are the main parts of description.

However, many theoretical frameworks agree that this model is not exhaustive in the sense that it does not pour in a contextual frame that describes the whole coherent body of discourse. The latter should be considered in its appropriate propositional context in which there is a categorisation of the macrolinguistic link. This guides the reader to explain the different components of meaning. Here, there should be a consideration of more than the linguistic signals because the levels of analysis have implications at the cognitive level. This is related to participants’ background knowledge and real experiences. These real experiences are reflected in the authentic way of using language. They are represented by certain formal and structural aspects that characterize the authentic body of various genres and textual realisations (Yule, 2006).
Blakemore (1998) argues that: “a connective [...] is a signal of a relationship which the text producer has sought to establish between stretches of text, and a cue to the reader/listener to relate two stretches of text in a particular way.” Without enough information about context, it will be difficult to identify the causal relation between parts of that information. There are certain ‘cue phrases’ or ‘discourse markers’ to serve the purpose of connecting ideas in a complete manner to describe the relevance of the components of meaning. For this reason, there is a need to consider the rhetorical construction of the piece of discourse or of various genres in order to have a thorough identification of meaning. This rhetorical awareness helps in extracting the contextual meaning of language especially the authentic one in which it guides the reader to the main components of the author’s general idea or purpose.

Hence, linguistic constraints and generic rhetorical structure have cognitive reflections and representations. The latter are mentally constructed where the rhetorical structure and the analysis of meaning in the piece of discourse have an important role in expressing and understanding the message of communication. Attempts to study discourse analysis from a linguistic, social or a cognitive orientation depends on the purpose of study and analysis. These views are interrelated in which they put emphasis on the interpretation of the coherent body of discourse. Several researches in applied linguistics try to find the rhetorical function of discourse as a useful area in teaching materials and syllabi through analysing spoken and written materials and dealing with authentic
language in the classroom (Hatch, 2002). In this respect there are basic rhetorical aspects help in the identification and description of the body of the different generic structures of language such as: a) rhetorical patterns and macrostructure, b) language functions and typology, and c) metadiscourse markers:

   a) Rhetorical Patterns and Macrostructure

   At smaller levels of structure analysis, the parts of communication in an extended communicative process can be interpreted in terms of syntactic relations. These elements of communication can be explained and described in certain relationships: cause-effect, problem-solution, comparison-contrast, general-specific (etc.). These patterns expand until arriving at higher levels of explaining the message of communication. Hence, “the prototypical organisation is also about the ‘structure’ of the world but in different sense. It says something about how things especially complex social things, normally, usually, typically, etc. are” (Dijk: 232). The following diagram, as cited by Paltridge (2002: 88) shows visually the interrelatedness between patterns of the information:
Figure 3: A Model Expectation Network for Problem-Solution Texts
The syntactic level of any text is an important component of language knowledge and comprehension. The structuring of sentences from short and simple sentences to long and complicated ones can affect readers’ comprehension. The problem of comprehension at this level is reduced throughout the process of reading and different from novice and advanced or experienced readers. The more automatic is the comprehension of learners, the less difficulty encountered with long stretches of structures.

Haberlandt (1982: 239) argues that: “text comprehension is considered to be the product of the information in the text and of the reader’s knowledge sources. These sources enable the reader to generate expectations about the information unfolding in a text.” Text comprehension occurs at the higher level of discourse and it focuses on the real communicative function of the whole propositional meaning of discourse. It reflects also the interaction of the reader’s knowledge and the rhetorical options of various genres. These rhetorical options represented in language patterns, macrostructures, language functions, text types, and metadiscourse functions. The text consists of integrated ideas that describe its coherence. The learner should recognise this relationship and build expectations about the information. Causal coherence can be local or global. The former deals with the syntactic level and the latter covers the overall content or the ideas of the piece of discourse. Causal coherence is also concerned with the interrelatedness of actions in a cause-effect relationship. This is reflected in a scenario that describes the whole situation. According to McCarthy (2000) context
includes all components that have impact on the mode of communication whether spoken or written in terms of beyond textual and linguistic features. It represents a given situation which is based on both linguistic and cognitive considerations.

Van Dijk (1980) focuses on macrostructure which has an important place in the theory of discourse in terms of ‘global units’ that include: ‘topic’ ‘theme’, and the ‘gist’. Additionally, the psychological basis of discourse processing vis-à-vis the ‘production’, ‘comprehension’, and ‘storage’ in memory depends to a great degree on the macro organisation of information in any piece of discourse. According to Van Dijk (1980: v): “Macrostructures are higher level semantic or conceptual structures that organise the local microstructures of discourse, interaction, and their cognitive processing.”

Moreover, macrostructures or ‘global meanings’ are needed for understanding in which they reduce the complexity of sequences and structures of discourse in the different psychological processes such as: “comprehension”, “memory representation”, “retrieval”, and “recall”. The meaning of macrostructure is varied depending on the context of application. In modern linguistics, it is about the ‘semantic structure’ of discourse (text-grammar). In cognitive psychology, the interest of macrostructure is shown in the different organisations of knowledge in concepts like: (schema, frame, script, and scenario). These concepts reveal a great importance to knowledge in the understanding of discourse.
There are other aspects that can be considered in discourse comprehension and production like: the different ‘motivational structures’, ‘opinions’, ‘attitudes’, ‘values’, and ‘norms’. The applicable view of macrostructure vis-à-vis language users is to take into account their consciousness and awareness of the different discourse structures. This helps language users “perceiving”, “interpreting”, “knowing”, “memorising”, “evaluating”, “planning”, and “producing” (etc.) discourses. Macrostructure have a psychological basis to make reflections about the communicative property of discourse (ibid.).

The rhetorical point of view of language is interested in the system of analysis which is based on the description of structure with its historical background and conventional rules. This is providing an applicable framework of contextual combinations. Van Dijk (1980) encourages a linguistic point of view of discourse which is based on semantic combinations of the whole structure of discourse or macrostructure. The topic of discourse represents its macrostructure which in turn helps in the identification of the whole message as representation sequenced sentences. He (ibid.) adds also that there is a need to consider the connection between propositions like speech acts as ‘pragmatically coherent discourse’. This is based on a systematic link of sentences to get a whole coherent message or macrostructure.
b) Language Functions and Typology

Martin (2002) focuses on two main language forms expository and narrative in which he describes them on the basis of Grabe’s conceptualisation. This is representing an amalgamation of texts in which it refers to the arrangement of units of meaning together. There are two main parts of this definition. The first, ‘typological’ has to do with ‘classification’ as the construction of ‘taxonomies’ that categorise each type of text from another; the other, ‘topological’ deals with ‘family resemblance’ in which there are basics of comparison. Grabe (2002), as quoted by Martin (ibid.: 270), assumes that “the family of narrative discourse structures represent text types that are typically episodic in nature and include a set of identifying criteria that bear family resemblances with one another.” Narratives describe the chronology of events in a formation of causality with the need for further explanation with some texts. For example, ‘personal recounts’ as part of history genre tell about the personal experience of individuals without the need to explaining other details. Martin (2002: 271) proposed the following rhetorical aspects and key features of history genre:
There are specific linguistic features characterising the context of genre. History genres whether personal recount, autobiographical recount, biographical recount, historical account, factorial explanation, and

<table>
<thead>
<tr>
<th>GENRE</th>
<th>INFORMAL DESCRIPTION</th>
<th>KEY LINGUISTIC FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>personal recount</td>
<td>agnate to story genres; what happened to me</td>
<td>sequence in time; 1st person; specific participants</td>
</tr>
<tr>
<td>autobiographical recount</td>
<td>borderline - agnate to story &amp; factual genres; story of my life [oral history]</td>
<td>setting in time; 1st person; specific participants</td>
</tr>
<tr>
<td>biographical recount</td>
<td>story of someone else's life</td>
<td>setting in time; 3rd person (specific); other specific &amp; generic participants</td>
</tr>
<tr>
<td>historical recount;</td>
<td>establishing the time line of the grand narrative</td>
<td>setting in time; 3rd person; mainly generic participants (but specific great 'men')</td>
</tr>
<tr>
<td>[Background*Record]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>historical account;</td>
<td>naturalizing linearization rendering the grand narrative inevitable</td>
<td>incongruent external causal unfolding; 3rd person; mainly generic participants; prosodic judgment</td>
</tr>
<tr>
<td>[Background*Account]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>factorial explanation</td>
<td>complexifying notion of what leads on to/from what</td>
<td>internal organization of factors; factors externally linked to outcome; 3rd person; mainly generic participants</td>
</tr>
<tr>
<td>[Outcome*Factors]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>consequential</td>
<td>complexifying notion of what leads on to/from what; hypothetical variant; if x, then these</td>
<td>internal organization of factors; consequences externally linked to input; 3rd person; mainly generic outcomes participants</td>
</tr>
<tr>
<td>explanation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Input*Consequences]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 1: Rhetorical Aspects of History Genre**
consequential explanation have certain rhetorical features help in understanding and interpreting the information (ibid.).

Furthermore, specifying the type of situation or genre is determined by the whole functionality of the piece of discourse or genre. In identifying and recognising the typology of texts (text types) is considered as another facilitator to comprehend the message communicated by the writer. The functionality of the text can be descriptive, expository, persuasive, argumentative, and informative. It depends on the context of communication whether to inform, persuade, expose, or argue or simply to describe something. This is at the higher level of communication. Bhatia (2002: 281) specified the text type or typology of texts with the relevant generic or rhetorical level of description in the following diagram:
Hence, there are levels of describing genres in terms of “rhetorical/generic values”, “genre colonies”, and “individual genres”. The first deals with real and social criteria for description. The second reflects the wide contextual frames of analysis. The third “individual genres” are the prototypical production various text types resulting in different genres such as: “book blurbs”, “book reviews”, “advertisements”, “sales letters”, and “job applications” (ibid.). Similarly the previous levels of description reflect specific applications, as it is shown in the following figure designed by Bhatia (2002: 283):
The contextual framework of the previous levels of description can be applied in more focused applications like in ESP (English for Specific Purposes) where the realm of analysis is more defined and specified (ibid.).

\begin{itemize}
\item[c) Metadiscourse Markers]
\end{itemize}

Metadiscourse markers are linguistic links that guide the reader through the progression of the author’s ideas in the piece of discourse. They make the connection between the various arguments and parts of information describing the coherence of the whole textual unit. Metadiscourse markers as textual signals keep the relationship between the ideas of the author via cohesive links (moreover, furthermore, first,
finally, as a result). Metadiscourse signals also have an interpersonal identification through the impact of the piece of discourse on the reader via markers identifying the author’s point of view like in: believe, think, admittedly, probably, undoubtedly, of course (etc.) (Hyland, 2003).

Additionally, metadiscourse signals have two main types: interactive and interactional. The first one represents signals of the connection between the ideas of the author or the evolvement of the arguments within the piece of discourse. It involves: “transitions” (furthermore, additionally, moreover, etc.), “frame markers” (first, second, finally, etc.), “code glosses” (for example, for instance, etc.). The writer of the academic discourse or genre respectively uses these markers to signal the progression of his/her ideas, the logical connection of those ideas, besides any necessary explanations and exemplifications. Further interactive markers are: “endophoric markers” which point to any tables, diagrams, and sections through (as mentioned above, in section 4, see fig., etc.) and “evidentials” which refer to previous literature said in the academic field (x argues that, y (2002), according to z, etc.) (Hyland & TSE, 2004).

Furthermore, the interactional function of metadiscourse markers is expressed through: “hedges”, “boosters”, “attitude markers”, “self-mentions”, and “engagement markers”. “Hedges” are signals that represent the author’s doubts around the topic of the piece of discourse (might, maybe, might be, perhaps, etc.). “Boosters” emphasise upon the
ideas (clearly, in fact, undoubtedly, definitely, etc.). Attitude markers express the author’s opinions and attitudes (agree, fortunately, unfortunately, etc.). “Self mentions” refer to the presence of the author (I, me, our, etc.). Finally, “engagement markers” are used when the writer wants to note to any idea or aspect in the piece of discourse to signal it to the reader (you can see that, note that, consider, etc.) (ibid.).

Similarly, metadiscourse markers help in understanding the intertextuality of the piece of information or discourse. Fairclough (1992) states that intertextuality as an authentic concept of genres reflects the variety of a textual variation and interrelationship. Whatever the form and length of communication, spoken, written, single or even highly structured paper, there is a consideration to the changes of the context and the shift of participants. Intertextuality also includes different aspects of the authentic language conventions like in ‘genres’. In dealing with the notion of genre, texts can reveal different functions that reflect a given heterogeneity. So, texts can be different according to the variety of realization in terms of the ‘complex’ or ‘simple’ intertextual relations. For instance, texts can be integrated within other texts and signalled by quotation marks and preceded by reporting verbs. Intertextuality has the sense of the social identity of discourse in various genres or authentic structures. Discourse representation is a kind of Intertextuality in which there is a marked integrated text within another text as an aspect frequently used in news reports.
According to Gee (2008), there are five main aspects that help in the interpretation and explanation of any piece of discourse. First, prosody refers to the different speech effects which depend on the pitch and the loudness of the voice (etc.). Second, cohesion is the linguistic identification of syntactic relations. Third, the overall organisation of a text describes the ordering of the ideas to form a whole communicative unit. For instance, the overall organisation or macrostructure of a story is composed of events that complete the whole story to make a full message to the receiver. Fourth, contextualisation signals represent the signals that speakers and writers depend on to refer to the contextual frame. There should be consideration to these signals because they affect the sensefulness of the piece of discourse. Fifth, thematic organisation of the text reflects the ways themes are explained with the help of the rest of information or the rheme (the predicate of the information). Gee (2008: 161) also adds:

A discourse is a socially accepted association among ways of using language and other symbolic expressions, of thinking, feeling, believing, valuing, and acting, as well as using various tools, technologies, or props that can be used to identify it as a member of socially meaningful “role” or to signal that one following a social niche in a distinctively recognisable fashion.

Yates and Orlikowski (1992) argue that a rhetorical theory provides a lot to offer a description of different forms of communication. For instance,
in organisational communication, there are various types of communication like letters and meetings. They are recognized by linguistic and formal structures which are reflected by the user’s communicative intention.

The schematic structure of various genres can be defined in terms of the linguistic constraints that specify their contextual framework. The following table, as identified by Macken-Horarik (2002: 21), shows the characteristic features of the rhetorical structure of recount, information report, and explanation genres:
<table>
<thead>
<tr>
<th>Social Purpose</th>
<th>Social Location</th>
<th>Schematic Structure</th>
<th>Description of Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recount</strong></td>
<td>Retells events for the purpose of informing or entertaining.</td>
<td>Recounts are found in personal letters or oral &amp; written histories, police records, insurance claims and excursion “write-ups.”</td>
<td><strong>Orientation:</strong> provides information about the situation; <strong>Record of events:</strong> presents events in temporal sequence; <strong>Re-orientation:</strong> optional stage bringing the events into the present.</td>
</tr>
<tr>
<td><strong>Information Report</strong></td>
<td>Describes “the ways things are” in our natural, built, &amp; social environment by firstly classifying things &amp; then describing their special characteristics.</td>
<td>Information reports package information and are found in encyclopedias, brochures, and government documents. They are useful for locating information on a topic.</td>
<td><strong>General Statement:</strong> provides information about the subject matter; <strong>Description of Aspects:</strong> lists and elaborates the parts or qualities of the subject matter; <strong>Description of Activities:</strong> could be behaviors, functions, or uses.</td>
</tr>
<tr>
<td><strong>Explanation</strong></td>
<td>Accounts for how or why things are as they are. An explanation sets out the logical steps in a process.</td>
<td>Explanations are written by experts for textbooks, for nature programs, environmental leaflets, healthcare booklets, and so on.</td>
<td><strong>General Statement:</strong> provides information about the phenomena to be explained; <strong>Implication Sequence:</strong> sets out steps in a process or the factors influencing a phenomenon in a logical sequence.</td>
</tr>
</tbody>
</table>

Table 2: Rhetorical Aspects of Recount, Information Report, and Explanation Genres
So, the social purpose of various genres is defined in a specific social location or context and comprises a well-defined schematic structure. For instance, a recount “retells events” and can be found in “written histories” and comprises the schematic structure of Orientation/Record of Events/Re-Orientation. Additionally, an “information report” also “describes the nature of things” and can be found in “encyclopedias” and “brochures” and structured in the schematic structure of General Statement/Description of Aspects/Description of Activities (ibid.).

Further schematic structures and characteristics, as it is mentioned by Macken-Horarik (2002: 22), can be observed for discussion, procedure, and narrative genres in the following table:
<table>
<thead>
<tr>
<th>Social Purpose</th>
<th>Social Location</th>
<th>Schematic Structure</th>
<th>Description of Stages</th>
</tr>
</thead>
</table>
| Discussion     | Discussions are found in essays, editorials, & public forums, which canvass a range of views on issues. They also occur in panel discussions & research summaries. | {Issue} ^
{Arguments for & against} ^
{Conclusion} | Issue: gives information about the issue and how it is to be framed;
Arguments for & against: canvasses points of view on the issue. (similarities & differences or advantages & disadvantages);
Conclusion: recommends a final position on the issue. |
| Procedure      | Procedures can be found in science experiments and in instructional manuals such as gardening and cookbooks and technical instruction sheets. | {Goal} ^
{Steps 1-n} ^
{Results} | Goal: gives information about the purpose of the activity (might be in the title or in the opening paragraphs);
Steps 1-n: presents the activities needed to achieve the goal. They need to be put in right order.
Results: optional stage describing the final state or “look” of activity. |
| Narrative      | Narratives are found across all aspects of cultural life, in novels, short stories, movies, sit coms, and radio dramas. They are important in subjects such as English. | {Orientation} ^
{Complication. Evaluation} ^
{Resolution} | Orientation: provides relevant information about the characters’ situation;
Complication: introduces one or more problems for characters to solve;
Evaluation: highlights the significance of the events for characters;
Resolution: sorts out the problems for better or worse. |

**Table 3**: Rhetorical Aspects of Discussion, Procedure, and Narrative Genres
Discussion genre comprises the schematic structure of “Issue/Arguments for and against/Conclusion” and socially located in “public forums”, “discussions panel”, and “research summaries”. Procedure genre is located in “science experiments” and “technical instruction sheets” in which its schematic structure is “Goal/Step/Results”. In addition, Narrative genre can be found in “novels” and “short stories” and comprises the schematic structure of “Orientation/ Complication/ Evaluation/ Resolution” (ibid.).

Nunan (1993) argues that the variety of typification of different discourses is realised in certain generic structures. These structures result from different contexts of communication. Similarly, focusing on the discourse type is part of a top-down view of discourse. These types reflect a variety of forms of communication. Cook (1989: 95) suggests the following list of discourse types as prototypical ways of communication and information:
The variety of language data are included in the individual’s communicative competence which reflects their understanding of language forms and content (Cook, 2003). According to Macken-Horarik (2002: 24-5), there are certain critical aspects guide in analysing the context of any generic level of description:

**GENRE (WHY?)**

Genres are staged, goal-oriented language processes; we use different genres to get things done in language; the goals or purposes of the users affect the type of text they construct. Each stage of the text contributes to achieving the overall social purpose of the participants.

**FIELD (WHAT?)**

This is the social activity of the participants (what is going on). Subject matter is one aspect field. In written language, the field is the subject matter. This is because the reader is dependent on language alone to re-construct the field.

<table>
<thead>
<tr>
<th>Recipe</th>
<th>Joke</th>
<th>Anecdote</th>
<th>Label</th>
<th>Poem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter</td>
<td>Advertisement</td>
<td>Report</td>
<td>Message</td>
<td>Note</td>
</tr>
<tr>
<td>Chat</td>
<td>Seminar</td>
<td>Manifesto</td>
<td>Toast</td>
<td>Argument</td>
</tr>
<tr>
<td>Song</td>
<td>Novel</td>
<td>Notice</td>
<td>Biography</td>
<td>Sermon</td>
</tr>
<tr>
<td>Squabble</td>
<td>Consultation</td>
<td>Sign</td>
<td>Essay</td>
<td>Jingle</td>
</tr>
<tr>
<td>Speech</td>
<td>Story</td>
<td>Article</td>
<td>Warrant</td>
<td>Ticket</td>
</tr>
<tr>
<td>Lecture</td>
<td>Manual</td>
<td>Cheque</td>
<td>Will</td>
<td>Conversation</td>
</tr>
<tr>
<td>Menu</td>
<td>Row</td>
<td>Prescription</td>
<td>Telegram</td>
<td>Newspaper</td>
</tr>
</tbody>
</table>
The contextual framework of critical analysis as a form of communication is viewed from four main criteria: genre, field, tenor, and mode. The first is interested in purpose of communication by following particular goals when constructing and using textual structures. The second deals with the field and the context of situation or the “subject matter”. The third reflects the nature and the form of communication between participants. The fourth presents the way the information is introduced and interpreted by participants whether in spoken or written forms of communication (ibid.).

**TENOR (WHO?)**  This refers to the relationship assumed between participants in the communication event (who is taking part). Wharare the status, familiarity, and degree of feeling assumed in the interaction? In written language, the relationship assumed is often one of differential status (apprentice to expert), with marked social distance between writer and reader (that is, an important tenor).

**MODE (HOW?)**  This refers to the role played by language (how language is being used). The simplest distinction is that between spoken and written language. Mode can be represented as a continuum-moving from texts which are most “spoken” to those which are most “written.” The mode is also influenced by semiotic distance of two kinds: (a) the distance of the speaker or writer from the events about which language is used (from language in action to language as reflection); and (b) the distance of the participants themselves in the interaction (from communication with maximum feedback to that with delayed or no feedback).
Freedman and Medway (1994) state that genre as an emerging and recognisable area of study is traditionally viewed from a textual point of view on literature. Then the focus turns to be more exhaustive and genre is included in other contexts of study to consider the features of discourses. It reflects a variety of realisations and conceptualizations in different contexts of discourse types. It focuses on professional writings such as ‘tax accountants documents’, ‘research articles’, ‘bank discourse’, ‘memos’ and ‘business report’. Learners need to learn new genres and practice the rhetorical property. In disciplinary studies the rhetorical consideration and its ‘knowledge-making’ implication to recognise the nature of genre. Additionally, it is needed in interpreting the meaning. Knowledge here is a social construction of ‘conceptual ideas’.

2.3.2. Real-World Authenticity in Newspapers language

The language of newspapers as a crucial real-world authentic context reflects a well-structured form of communication. Its application in the classroom guides students to a variety of options that describe how language structures are combined in a well-defined rhetorical context. Students’ awareness can be raised through language features. In this respect, the language of newspapers pours in an academic context which is characterised by a certain commitment. Hedging is an example of such commitment in which the writer addresses his/her audience through expressions that reflect doubts about the topic. According to the classification of Hyland (1994), they are categorized into: modal verbs (would, could); lexical verbs (seem, appear); modal adverbs (probably,
possible); modal adjectives (certain, probable); modal nouns (assumption, possibility). This ‘vague language’ can be expressed in other forms through numbers and approximations (about, around); round numbers (a couple of), “non-numerical vague quantifiers” (lots of, several). It is important to draw their attention to these expressions and distinguish between the various recognisable features (Jordan, 1996).

2.3.2.1. The Importance of Using Newspapers in the Classroom

Laureta (2009) emphasises on the need to use mass media in the classroom, because they draw students’ attention to the main cultural issues and social aspects of the present time. She (ibid.: 12) stresses on the fact that “newspapers, magazines, books [...] are all powerful and endless sources of information that can be easily compared to a library or an encyclopedia; primarily because they give to the reader the opportunity to text and knowledge and they facilitate self-education”.

There are many ways to make mass media especially newspapers enticing to students for practicing them in the classroom. There are three crucial printed types of media materials needed by students in the reading process. They are regularly used by teachers and learners. They find difficulty in using them in the classroom because they require a lot of time devoted for preparation. However, the access to them is easy and neither expensive nor complicated and even students can participate in their collection to be practiced in the classroom. They can give the learner
and/or teacher different options: [...] which are not always found in textbooks. This is one of the most important features of newspaper-based activities. This wide variety serves as an excellent tool in the hands of the teacher while organizing exercises dealing with phonology, morphology, lexicon, and syntax” (Laureta, 2009).

Sanderson (1999) focuses on the importance of using and applying newspapers in the classroom context. This importance is shown in various benefits to the learner during the process of learning. The first deals with a global benefit related to educational purposes. Here, the informative nature of newspapers plays a great role to make learners knowledge up-to-date about worldwide events. Hence, they affect positively on language learners particularly because they are considered as a source of authentic language data. This is so helpful to enhance their understanding which is so crucial in their cognitive capacity. Newspapers are needed to develop the cultural ability of learners in terms of the cultural reflection of its language. This is also reflected in the aspects of culture via conventions or the “community” as a whole. In this respect, he (ibd.: 2) adds:

At a much deeper level, this is achieved through cultural associations of words, and the shared experiences, knowledge, values, beliefs, emotions and attitudes that a writer assumes. Newspapers are an invaluable source of such information, and the more widely students read, the greater their understanding of this socio-cultural meaning will be.
The objective of using newspapers in the classroom environment is not specifically restricted to students of journalism or just to be part of the domain of journalism. It is not only particular to develop language skills (speaking, writing, reading, and listening) to make students be journalists. However, the aim is to use newspapers in the context where they can analyse the information and benefit from the authenticity of language. He adds that newspapers are very valuable to teachers, students, language skills, students’ attitudes, and the reading habit. Hence, teachers can get ‘creative’ options from newspapers to design their materials. Additionally, newspapers make teachers deal with the various abilities and interests of students. And most importantly, learners can get a rich source of practical manipulations to improve their language skills. Again, newspapers, as it is stated by Sanderson (ibid.: pp. 1): “instill in students positive and comfortable attitude towards working with English-language newspapers, and towards reading generally in English, both inside and outside the classroom”. Newspapers language again helps explore language change because they focus on the subject matter which is frequently updated so that they suit any changes and developments in the language. Sanderson (1999: p.23) argues:
Newspapers contain a wide variety of text types and language styles [...] students need to become familiar with such language forms. Newspapers provide a natural source of many of the varieties of written English that become increasingly important to students and valuable for language study as they progress.

Newspapers also are valuable sources that fit students interest required in their reading skill if they want to read for pleasure or in their leisure time reading in general. They are encouraging tools to react in the target language whether for students who have interest or not to read their native language (ibid.).

Within the realm of improving learners’ cultural and educational ability, newspapers are considered as a rich source to authentic language data through understanding the general practices of linguistic data. Newspapers are important for students of specific subject matters (English for Specific Purposes). They are useful in the selection of teaching materials and texts in specific topic discussions and articles whether in business, law, politics, (etc.) (ibid.).

Additionally, Sanderson (1999) states that newspapers are effective materials which reflect authentic situations because they are motivating in the learning process. They are of a cultural nature and they are good tools to learn a foreign language through reflecting the real content of using the language. They are always updated especially in
terms of the linguistic items. Thus, the interesting side of newspapers is that it motivates learners to react about things and events. The various parts and types of the newspapers help a lot to design materials in the classroom like headlines, broadsheet newspapers, and tabloids. These specific elements are extensively used mainly in the second language classroom:

a) **Headlines**

Newspapers headlines teach students how to tackle:

- Vocabulary items eg. Collocation, words with prefixes and suffixes, lexical groups ...
- Selection of important ideas
- Locating the information
- Matching old and new information through guessing from headlines

Activities include exchanging headlines which are formulated and selected by students. The teacher gives students a list of headlines which are divided into two parts where students try to match between them (ibid.) .

b) **Broadsheet Newspapers**

Broadsheet newspapers are of “large size” and the name is coming from the size of the broadsheet. Sanderson (1999) also characterises them as “qualities” or the “heavies” which is the part published in the weekends. This version includes a large number of pages which make them “heavy”. This kind of newspapers is known

c) Tabloids

Tabloids are called also “tabloids newspapers” are newspapers which are half-sized in comparison to broadsheets. They are of a popular nature because they are sold in a quick manner. The prototypical format of a tabloid includes many “photographs” and “headlines that draw the curiosity of readers discussing stories and scandal about public figures and famous persons. Unlike broadsheets which are informative and objective, tabloids are subjective and designed for entertainment purposes. Examples of these newspapers in Britain are “The Sun”, “Daily Mirror”, “The Daily Star”, and “The Daily Express”. The selection of newspapers depends on:

- The choice of the topic
- Ease and clarity for comprehension
- The nature of vocabulary used and the types of newspapers

A large corpus or data of newspapers language can be described in order to make it clear for learners. Analysing this corpus is of great
importance to consider the purpose of use and language features (Braun, 2005).

The language of newspapers reflects certain degree of difficulty because of its authentic nature. Teachers try not to use them with pre-intermediate learners. For this reason, learners should start learning about the language of newspapers at the beginning of the learning process because it is of great benefit to learners despite the assumption of difficulty. This avoidance of using newspapers in the classroom which is caused by assuming the difficulty in the newspapers language results in making learners afraid of understanding and using newspapers. Then it is up to the teacher to make them easy for access because students’ especially foreign language learners do not have the capacity to rightly choose the articles suitable to learning environment. Sanderson (1999) mentions many disadvantages which can be drawn when newspapers are chosen according to language difficulty:

- Students will miss the opportunity to read and analyse interesting articles just to avoid the complexity because simply structured articles may not be interesting.
- The choice of the materials also can be “less-challenging” when the choice is restrictedly based on language ease and difficulty.
- Learners will not develop their language proficiency just because the materials are easy to understand.
The use of artificial and simplified language will make learners’ focus more restricted and their mind less creative (ibid.).

Nowadays, there is no problem in the availability of newspapers around the world. There is always a regular productivity of both content and copies on a daily basis. So, teachers can find easily, when aimed to design courses and select materials, whatever they need from the endless availability of newspapers. Newspapers also as teaching tools are suitable for all levels whether “elementary” or “advanced” and even suitable for learners whether they good readers or poor readers. And they are useful tools for all kinds of learners in class whether good or bad. Hence, they are applicable and suitable for all types and levels of learners, as is argued by Sanderson, 1999: 4):

Newspapers items are conventionally self-contained units which vary in length from a short paragraph to a complete page or more. This is particularly helpful feature for teachers, in that it offers them a great deal of flexibility when planning lessons and selecting materials to meet certain criteria, e.g., the length of the newspaper item(s) the complexity of the language, the density of information, the subject-matter and content, the lesson time available and the level of students.
This is useful also to teachers who aim to measure students reading speed and understanding. When reading and selecting newspapers as materials for teaching, the teacher should consider certain criteria of selection: a) the interesting side of the selected material; b) the usefulness of the materials to students background knowledge to avoid ‘obscurity’ in understanding the content; c) the suitability of the newspaper to students linguistic level.

2.3.2.2. Practical Uses of Newspapers in the Classroom

To cope with language difficulty of newspapers, there are principled ways, according to Sanderson (1999), to make the materials more “accessible” and applicable to foreign language learners in Sanderson’s terms:

a) “Pre-activity preparation”
b) “Careful selection of materials”
c) “Careful Design of materials”
d) “Recycling materials”

a) Pre-activity Preparation

Learners in pre-activity preparation stage are exposed previously to materials in order to be familiar. This stage also includes explanation of any difficult terms on the learners. This will raise their self-awareness and be prepared in the actual course. The previous preparation involves the following steps:
- Students make sure of the materials availability before the class and explain unfamiliar lexical items as a homework
- Previewing the subject matter in a short period of time
- Activating previous knowledge about the theme
- Giving learners the opportunity to have knowledge about the topic in their first language through recordings or video news or hard copies before the English language version.
- Underlining and/or highlighting key terms and headlines

There are many ways to make learners prepared depending on the topic, the length and students background knowledge. The major way of processing can be a top-down processing to predict the content. The advantage of adapting it is to make learners more prepared and motivated through stimulating the most applicable ways for them to understand (ibid.).

b) Careful Selection of Materials

When considering language complexity lexical items or the amount of information the material includes or ‘density of information’, clarity of vocabulary items on the whole structuring of information, there should be an organization between careful choice from the part of the teacher and enough preparation from the part of the learner. Again, ease and difficulty are relative characteristics of texts because they depend on learner background knowledge. So, easy materials can be difficult for learners and vice versa. Hence, extensive and intensive reading are always needed especially in the
case of foreign language learners besides adapting the previous strategy-pre-activity preparation-to cope with any difficulty. Hence, the selection of the material should be based on the right strategies which make the processing easy for learners. (Sanderson 1999)

c) Careful Design of Tasks

The importance of preparing the right task for learners is of great impact on learners understanding. So, the principle of “grade the task-not the material” (Sanderson, 1999:15) is a basic variable in EFL learning. In this respect a careful design of the task is needed whatever the difficulty of the materials because when learners are exposed to well structured activities besides their pre-preparation, the course will succeed and learners achieve their purpose. Despite the positive side of the matter, still designing well directed and exhaustive tasks for learners is not an easy task and implies many requirements. Learners can apply various techniques which help them in the processing of information like skimming, scanning, highlighting the points they understand better and relate them with the difficult information. Additionally, in the selection of the materials, the teacher can construct them from different domains: social, economic, politics (etc).
d) Recycling Materials

From the name, recycling materials means using materials twice once one for one task and the second to be recycled again via using them in a different task. It reflects many positive effects:

- The learner can have a renewed way of dealing with the materials through practicing it in two different ways.
- Learners will have the opportunity to apply new strategies of understanding and analysis via using the same familiar material
- Learners again will develop their understanding and stimulate their motivation when being confident of the material.

As far as the tasks designed for newspapers materials are concerned, let us consider the next newspaper article which is suggested by Sanderson (1999: 133):
This article can raise an interesting discussion what jobs, salaries, and “matching them together. Learner can do the following:

a) In the preparation Phase

- Making a compilation of various jobs announcements which include the salary in the page and trying to solve in difficulty of any lexical items.
- Before giving the compilation to students, the teacher hides the wages mentioned in the articles and makes a copy for each student (ibid.).

b) In the Classroom Context / During Class

- Students will have the sheet which includes the compilation of the selected articles together with salaries hidden vis-à-vis also the type of advertisement and the various arguments.

- Learners start guessing and making assumptions about the wages.

- At the same time, learners are given the chance to compare, discuss, and exchange ideas together and most importantly, they are practicing the language.

- The teacher shows the correct sheet which includes the compilation with revealing the salaries.

- Learners will express their agreements and disagreements about the topic and make comparisons again within their answers and exchanging them with their partners (ibid.).

Another example of tasks designed for students, according to Sanderson (1999), is related to dealing with text types or genres. The following example covers the case of narrative genre:
Native speakers’ newspapers represent a valuable source of what is called “strip cartoons”. They can be used as short narratives. In considering this type of tasks, the story itself is not important as much as what is needed to be extracted from it:

- It is considered as a motivating tool for teaching reading and stimulating thinking.
- The teacher makes learners brainstorm any key terms and ideas which construct the narrative process of the study.
- The task is useful to pre-and post-intermediate learners.
- Through this strip learners can use culture-based expressions depending on the context and speech event.
- Those strip cartoons can be used for learning purposes.
- The teacher can benefit from this to create stimulating atmosphere.
- The strips also are used to imply social, political, facts.

Learners can discuss what is implied and to exchange their answers with their partners (ibid.).

There is another type of activity to be done with students using the newspaper as an authentic material. Wallace (1980) suggested a type of activity which deals with proposing topics for learners and then making them choose a standing argument which they argue and extract it from a compilation of newspaper articles. Another suggestion for classroom discussion can be in the form of a question asked to students and giving them a newspaper article to answer that question. For example, the teacher gives learners the topic in a form of a question asked. For example, the topic is: **What is the most important thing in making a job satisfying?** In considering this material, the teacher will adapt a top-own manner in dealing with the tasks. This is a good way of making learners participate in group discussions in “seminars”. This is aimed to create a stimulating environment of reading and understanding and most importantly to practice the language. In the same respect and in raising topics of discussion, learners will learn the language of discussion and the way they express their ideas. Hence, learners will be divided into those who agree, those who disagree and those who do not know (cannot understand the author’s point of view).
At the same time, according to Wallace (1980: 77), students use expressions and a specific list of lexical items like:

- I could not agree more
- On the while, I think the speakers arguments are fair (to express agreements)
- I’m afraid I can’t agree with Mr x on this matter (to express disagreements)
- Is the speaker saying that …? (to express lack of knowledge and misinterpretation)

Activating learners Background Knowledge needed in understanding newspapers, as stated by Bernadowski (2011: 5) can be through:

Content-area teachers begin to consider themselves literacy teachers (…) they can find (…) strategies to teach literacy in their subject area while using the newspaper-print or digital- as the perfect textbook because it is written at a level that many adolescents can read, some with ease, and successfully learn about content while practicing the chosen literacy skill.

Hence, as a pre-reading Strategy to activate students’ background knowledge, there is what is called anticipation guides. According to Bernadowski (2011: 8):
These guides essentially challenge students’ preconceptions or misconceptions about a topic or concept, help than set a purpose for reading and access prior knowledge about a particular topic, and aid them in reading strategically […] Design to increase content knowledge and reading comprehension concurrently while activating prior knowledge.

There are stages for using “anticipation guides” to help learners use their previous knowledge and make anticipations about the content. So, another form of activities can accompany the process of comprehending a newspaper article involve the following:

- Selecting an article from a newspaper in any field
- Locating and identifying the aspects of application or the points the teacher wants to practice with students
- Making up to five explicit true/false statements vis-à-vis the selected article without “generalization” which guide learners into supporting details and opposing ideas
- Preparing a sheet that includes these statements forming an anticipation guide
- Using this guide by students to signal the main points of the “evidence” discussed in the text (learners can circle the ideas selected)
- Reviewing the anticipation guide for the post reading phase
- Discussing the selection in reference to students previous knowledge
Similarly, learners can use also concept maps to comprehend what they read. They are very useful with learners especially if they are applied with a newspaper article whether through lengthy or moderate length. (Bernadowski, 2011). The following instructions explain the steps the teacher can follow:

- The teacher must decide what concept will be taught and how it relates to understanding the text or discussion. Concept maps [...] are typically used to introduce students to a topic that will spark critical thinking and conversation.
- Draw a large circle on the board or chart paper. Write the concept in the center of the article
- Ask students to think about the concept for a few minutes to tell you what comes to their mind
- Begin by writing what they tell you, branching out from the main concept circle. Related terms should then branch out in the same manner
- Use this process to lecture, discuss, or explore new ideas
- After reading, students can revisit the concept map and add or revise the information learned through reading

Learners also when developing their thinking skill through newspapers, as Shaw (2014) states, are focusing on a kind of “thoughtful literacy”. The latter deals with the combination between the basic components of language (phonetics, grammar, semantics)
The following guidelines help learners to deal with open sorts newspaper categorisations:

- Making students to create a motivational and collaborative environment among them
- Giving them at least three articles classified according to “theme”, “location”, “personality” (Here, the articles might be “clipped” together for further use or referencing)
- Asking learners to propose a suitable title for each article and trying to find “commonalities in the problems discussed in the articles with the suggested solutions
- Directing learners into making “generalisations” vis-à-vis the selected articles
- Testing students in a final step in terms of an output of a work presented orally (or an assignment)

In this kind of activity, learners in Shaw’s (2014, 32) terms are required to:

- Extracting categorization and “sorting”
- “Making generalizations”
- “Labeling”
- Making comparison and contrast
- Locating details
- Making written or Oral presentations
Additionally, whatever the difficulty encountered by students to apply these strategies, what is important is the way they justify their choices and the manner they sort each type of information with the corresponding material or newspaper article (Shaw, 2014).

Learners also learn from newspaper’s editorials how to deal with the main arguments and opinions discussed by the writer. In this respect, Shaw (2014: 23) states that: “One of the most difficult skills for students to master is taking a critical stance and then supporting the stance effectively. Students would rather give rote answers than develop a theory and research information to support their hypothesis. Using editorials […] can help students build their critical stance skills”. Hence, editorials are of great importance to develop learners’ literacy and critical thinking.

Globally, editorials require strategies like: “taking a critical stance”, inferring the meaning, persuasive writing, reference to background knowledge besides dealing with editorials cartoons, symbols, graphics, and visuals. The following instructions, as assigned by Sanderson (2000), guide learners in promoting their skill to take a stance critically vis-à-vis the editorials section in the newspaper:

✓ Learners are required to deal with “persuasive writing” and know the various strategies applied to understand the manner the writer set his/her arguments
Students try to be aware of the stylistic techniques used such as:
expressive words or “powerful words”, “statistical data”,
“anecdotes” (etc.)

Learners also when encountered with editorials cartoons try to infer
the meaning and the message from the visual graphics which are
considered as one of the difficult tasks for them.

The difficulty of inferring the message from graphic elements can
be dealt with a collaborative work between students to work
together and combine their suggestions and interpretations about
the visual editorial.

As far as students’ final production is concerned, they can express
what they understand from the editorial in an oral presentation or
a written assignment.

2.4. Authenticity and Interpretation of Meaning

Meaning or sense is very important at the cognitive level.
There is an interrelation of language and context which opens the way to
the different applications of contexts in different genres. Brown (1998)
mentions three main ‘aspect’ of context that help in the interpretation of
different genres which are, in his terms: ‘the external physical context’,
‘the social context of the interaction’, and ‘the discourse itself’. The first
deals with setting (time and place) of the discourse. The second is
interested in the identification of the identity of the interactants and the
specification of their purposes. The third is concerned with the language itself and the circumstances of its realisation. This functional view of language represents semantic, pragmatic, and cognitive considerations to affect the understanding at the syntactic level. (Hupet and Costermans, 1982).

Another level of language treatment in a piece of discourse or reading material is the concern of the manipulation of its intended meaning which is reflected in pragmatics. This study deals with the different goals, social structures, language use, contexts of situation, and actions performed. These aspects are reflected in the pragmatic competence in contrast to the lexico-grammatical one that describes better the communicative realisation of the relevant discourse structures. (Celce-Murcia and Olshtain, 2000. As Austin (1962) argues, the extent of cooperation between speakers and listeners to form a successful conversation, as stated by Grice (1975). The former is clarified by the actions performed by the speaker and the meaning inferred by the listener. These performed actions, speech acts, are of three main kinds: locutionary (the surface meaning), illocutionary (the intended meaning), and perlocutionary (the utterance effect). The latter is shown in a conversational implicature which reflects conciseness, honesty, relevance, and clarity in the kind of spoken interaction.

Berardo (2006) adds other two important aspects ‘variety’ and ‘presentation’ in which they affect positively the choice of the material. The variety of topics raises students’ motivation to read any
material especially authentic ones for the purpose of understanding. The following figure presents the main factors, according to (Berardo, ibid.: 11) which help in choosing the authentic reading material:

**Important Factors in Choosing Authentic Reading Material**

**Suitability of Content** Does the text interest the student?

*Is it relevant to the student’s needs?*

*Does it represent the type of material that the student will use outside of the classroom?*

**Exploitability** Can the text be exploited for teaching purposes?

*For what purpose should the text be exploited?*

*What skills/strategies can be developed by exploiting the text?*

**Readability** Is the text too easy/ difficult for the student?

*Is it structurally too demanding/ complex?*

*How much new vocabulary does it contain? Is it relevant?*

**Presentation** Does it “look” authentic?

*Is it “attractive”?*

*Does it grab the student’s attention?*

The decision about selecting authentic materials to be used in the classroom depends on three main aspects: ‘suitability of the content’, ‘exploitability’, and ‘readability’. The first is concerned with the choice
of the material according to a motivating and manageable content. The second is related to enhancing students’ background knowledge as receivers. The third is interested in the different features of discourse structure in terms of grammatical forms, discourse markers, and vocabulary (etc.) (Berardo, 2006).

From a rhetorical consideration, rhetoricians see that discourse is represented by different genres that are defined by the situation, purpose, style, and rhetorical structure. Hence, Yates and Orlikowski add that “genres are typified rhetorical actions in the context of socially defined recurrent situations.” (301). Meeting genre, for instance reflects structures of communication between Memo genre which is characterised by headings, polite language, and salutations.

Bruce (2010) argues that genres can be classified according to their “social genres” and “cognitive genres”. The former represents the social target to which the genre is addressed to. The latter is expressed through the “internal organisation” of the ideas presented within the peace of genre explaining with that the cognitive relation of the rhetorical representation of the different sequences of the propositional meaning: “…to recount sequenced events, to explain a process, to argue a point of view” (ibid, 155). Each of these rhetorical purposes entails an independent cognitive generic structure. Social and cognitive considerations of texts stand in a complementary position where they can
be gathered for a more complete view of the generic unit which forms the whole textual structure (Harley, 2001).

Considering meaning via pragmatics guides into the contextual implication of the piece of discourse in which its interpretation depends on the various circumstances of the environment. Indeed in any reading material there should be a consideration of the pragmatic context and the relationship between participants. Such consideration gives a reflection of the presupposition of the implied meaning that defined according to the addressee shared background knowledge. Hence, pragmatics of discourse shows its communicative character in which the purpose of use (Zadeh, 2006; Bruce, 2010).

**Conclusion**

Authenticity of the message of communication is reflected in learners’ interpretation and the extent the context of communication or the text describes elements of an authentic situation. The latter is found in real delivery of language structures and patterns which play an important role in language proficiency and literacy. Within the same respect, the authenticity of language is considered as a useful tool to deal with raising students awareness of the cultural identification of language form and content. Hence, the entity of the authentic language in terms of the various rhetorical features helps the learner adapt an effective way to process the information or the message of communication.
Chapter Three

Research Methodology and Data Collection

Introduction

3.1. Research Design

3.1.1. Rationale and Hypothesis

3.1.2. Subjects Sampling and Population

3.2. The Experimental Procedure

3.2.1. Data Collection and Instruments

3.2.1.1. Description of the Pre-test

3.2.1.2. Description of the Post-test

3.2.2. Content of the Treatment Materials

3.2.2.1. Material One: “Can Europe Be Saved?”

3.2.2.2. Material Two: “Past, Present, and the Quantity of the Year”

3.2.2.3. Material Three: “A Lesson on Warming”

3.2.2.4. Material Four: “Copenhagen and Beyond”

3.2.2.5. Material Five: “Immigration’s New Year”

3.2.2.6. Material Six: “Britain Votes on the Election System”

3.2.2.7. Material Seven: “A Real Unnecessary Crisis for Families”

3.2.2.8. Material Eight: “Regenerative Medicine: Past and Present”
3.2.2.9. Material Nine: “Prevention of Youth Violence: Why not Start at the Beginning”

3.2.2.10. Material Ten: Financial and World Economic Crisis: What Did Economists Contribute

Conclusion
Introduction

The present chapter represents an experimental study which was conducted to make students aware of the authenticity of various genres and consider their communicative body. The experimental procedure includes a pre-test (before treatment) and a post-test (after treatment) administered to control and experimental groups of third year undergraduate students of English from the department of Letters and English language, University of Mentouri Brothers-Constantine 1. Additionally, both groups completed a questionnaire which reviews their attitudes and background knowledge about the different rhetorical aspects of language. After collecting the preliminary data which give an overview about students’ performance before the treatment by means of a pre-test and a questionnaire, students of the experimental group received a treatment in which they were exposed to a variety of authentic materials of real-world authenticity and disciplinary authenticity. This chapter describes the data collection phase and the materials given to students within the experimental period.
3.1. Research Design

3.1.1. Rationale and Hypothesis

The present research aims at enhancing students’ schematic knowledge of the communicative entity of the authenticity of various genres developing by that students’ knowledge to entail their critical thinking skill and reasoning. To remind the reader of the research questions asked and hypotheses assumed at the beginning of this research, the investigation seeks to answer the following questions:

- What aspects help students cope with the authenticity of language?
- What can best describe the communicative and rhetorical structure of authentic language in order to make it clear for students?
- To what extent do students orient their attention to various generic authentic contexts?
- How can we test pedagogically the application of authentic structuring of language in enhancing students’ schematic knowledge?

In the light of the above questions, the present research attempts to test the following hypotheses:
- Hypothesis One: If students lack schematic knowledge about the authentic side of language whatever the genre or register, they will need intervention to cope with the difficulty they encounter.

- Hypothesis Two: If students are made aware of the authentic side of language through the various rhetorical features, this will serve as access route to enhancing their schematic knowledge.

### 3.1.2. Subjects Sampling and Population

The sample of the target population consists of third year undergraduate students of English as a Foreign Language from the department of Letters and English language, University of Mentouri Brothers-Constantine 1. The sample which participated in the study represents a number of 120 students divided into control group and experimental group (60 students in each group). The choice of third year students comes from the fact that they have developed sufficient background knowledge of the basic linguistic system. During the first two years, learners were exposed to the main components of language (phonetics, grammar, and semantics) besides the main language skills (speaking, listening, reading, and writing). First and second year students are still in the course of receiving the basic linguistic elements. Hence,
what is expected from third year students when dealing with language or any material to some extent is an accurate understanding. In addition to this purpose of choice, the point of view of this research focuses on higher levels of textual analysis and comprehension, i.e.; above the level of lexical items. Students were exposed already to the basic semantic-grammatical components of the language in their first two years. So, in the third year, students need to move on to higher levels of language structures which allow them make associations and draw conclusions from the materials they are exposed to.

Concerning the sampling procedure, two groups are involved, a control group and an experimental group, sixty (60) students in each which makes a total number of 120 students. To avoid problems of heterogeneity, the population is homogeneous and the sampling of both groups is equally divided from the whole population. So, the sampling procedure is representative, because the groups were divided and selected randomly. All chances of being part in a group rather than the other are equally specified.

The experiment took 5 months of instruction (almost a total of 35 sessions) with a considerable number of practices of the issues covered in the classroom (Section 3.2.2). The coming analysis of the experimental procedure represents a treatment which aims at making students aware of the importance of considering the authenticity of language via considering its characteristic features of meaning as
guidelines for understanding, manipulating, and drawing conclusions in a more critical way. This is expected to enhance their ability to build a schematic picture of the rhetorical nature of authentic language. The coming sections explain the process of collecting data and the experimental procedure followed.

### 3.2. The Experimental Procedure

#### 3.2.1. Data Collection and Instruments

##### 3.2.1.1. Description of the Pre-test

Since the treatment focuses on the importance of considering the authenticity of communication and taking into account the rhetorical body of presenting information via various genres, the pre-test as an initial step tests learners’ background knowledge about this. For this reason, the choice of the material used in the pre-test is an authentic material. To avoid any ambiguity, the questions and tasks were explicitly directed to basic concepts like the functions of language and the interrelatedness of ideas. Consider the following material which was presented in the pre-test:
It is debatable whether a significant number of people in Britain today would work harder or more effectively if their take-home pay were increased by the cuts in income tax canvassed by Tories and Liberals in amendments to the finance Bill incentives are a grey area only measurable when you have crossed it, but the presumption must be that lower taxes would help. It is indisputable that if our present system of taxing all incomes above the lowest at high and ultimately crushing rates continues more people will work less hard and less effectively, save by moonlight. Blue collar dishonesty and white collar crime are unlikely to breed a healthy economy.

All political parties, it appears, now agree that this is so. They would be even more obtuse than the electors believe them to be if they did not. In his ‘think again’ letter to the Chancellor of the exchequer last week, John Greenborough, president of the Confederation of British industry, put the case as dispassionately as anyone could.

‘You have said that the key to growth and high employment must lie in an improvement of Britain’s industrial performance. We agree. But the budget as it now stands will not achieve this objective. It is, in effect, a tax on skill...As you yourself have recognised the acquisition of skills and incentives and the acceptance of greater responsibility need to be made much more attractive than at present. Yet by giving much smaller benefits proportionately to the skilled than to the unskilled your proposals will do exactly the opposite.’

The budget poll conducted by MORI for The Sunday Times showed that 73% agreed (only 22 disagreed) ‘that higher paid people pay so much tax that there is no incentive for them to work harder.’ Among members of trade unions the split was 70% -21%; among conservatives, 84%-15%; and among Labour supporters, 65%-30%.

The pre-test is dealt with from two interrelated parts. The first one is subdivided, in turn, into five main angles which deal with:

a) Identifying the topic of the article.

b) Identifying with justification the function(s) found in the article.

Students have been given choices for the purpose of directing them
clearly (explanation, exposition, description, argumentation, procedure, reporting).

c) Picking up the elements that signal the link between the ideas of the article.

d) Identifying the patterns in the newspaper article in terms of:

- Giving causes and consequences of the topic
- Stating the problem and derive conclusions
- Making observations about the topic
- Introducing the problem and give solutions
- Stating opinion about the topic
- Describing events in a given order

(Here, students are directed too to have more valuable answers)

e) Summarising the text to test their global understanding of the material given in terms of the different clues of information.

In the second part, students were given the following table:

<table>
<thead>
<tr>
<th>The kind of material</th>
<th>The whole Organisation and the content of the text</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The writer introduces the problem and gives the solution.</td>
<td></td>
</tr>
<tr>
<td>b. The writer introduces the argument and states the conclusion.</td>
<td></td>
</tr>
<tr>
<td>c. The writer starts from a general observation to a specific one.</td>
<td></td>
</tr>
<tr>
<td>d. The writer expresses his/her agreements and disagreements about the subject.</td>
<td></td>
</tr>
<tr>
<td>e. The writer introduces the causes and then mentions the consequences.</td>
<td></td>
</tr>
<tr>
<td>f. The writer introduces the theory and the problem, and then s/he makes comments to draw conclusions.</td>
<td></td>
</tr>
</tbody>
</table>
They were asked to decide about the functions and associate the relevant organisation of the following materials:

- Newspaper article
- A document in an encyclopedia
- Story
- Report
- Academic article
- Political text
- An article in psychology

This part (the second part) has a more applicable nature in which it is aimed at gathering data about their background knowledge of the textual patterns and functions of various materials.

To avoid any possible ambiguity of understanding the questions of the test, the subjects are asked in a more clear way through avoiding direct terminological and technical terms like: metadiscourse markers, macrostructure and macro-patterns. Students in the pre-test were questioned through a paraphrase of these items. The decision of the material of the pre-test is based on:

a) A general selection of discussing and arguing about an economic issue in Britain (to avoid any ambiguity of discussing a rather more specific subject matter).

b) The semantico-grammatical side of the text is rather clear because the purpose is to make sure that when processing the
information students need a further level of understanding not caused by ambiguity in vocabulary especially if they are not familiar with authentic materials.

The quantitative interpretation and evaluation of this pre-test as a preliminary observation of students performance before the treatment will be clearly stated in Chapter 5 through both groups pre-test scores in comparison to the post-test. The latter will be described in the next section.

3.2.1.2. Description of the Post-test

To test the outcomes of the treatment, a post-test was administered to both groups- the control group and the experimental group. They were asked to consider the following newspaper article which is an editorial extracted from The New York Times newspaper:
When leaders of the world’s richest nations and the big developing countries agreed at the Group of 8 summit this month to restart global trade negotiations, they sent a powerful signal about the need for concerted action to deal with the world’s economic emergency.

It was disturbing, however, that they could not agree on a common strategy for reducing the greenhouse emissions causing global warming. Trade and climate policy have become increasingly entangled. A failure to agree on how to address global warming could undermine half a century of opening world trade.

The House of Representatives proved the point last month when it passed a climate bill that would impose trade penalties on countries that do not accept limits on carbon emissions. Last year, the European Commission approved the idea of an “equalization” levy on imports from countries that have not agreed to cut emissions.

President Obama rightly opposed the penalties in the House bill. Unilateral sanctions are unlikely to work and more than likely to provoke a dangerous protectionist tit-for-tat trade war. Yet if the world’s biggest emitters of CO2 — including the United States, China and India — fail to reach an agreement at a meeting in Copenhagen in December, the temptation for countries that accept limits on emissions to impose unilateral sanctions on countries that do not could well become irresistible.

The main reason, trade and climate change are linked is that the damage inflicted by carbon dioxide and other greenhouse gases is not mainly local or regional. If big emitters do not cut back, atmospheric concentrations of greenhouse gases will continue to rise dangerously no matter what the rest of the world does.

Moreover, without a worldwide agreement on emissions, strict limits in signatory countries would very likely lead to a fall in energy prices in countries that did not agree to cuts — encouraging even more energy consumption in those places and undermining the goal of stopping climate change.

Congress is concerned that domestic limits on carbon emissions would put American companies at a competitive disadvantage with rivals in countries with no such caps. But that is not the only problem. In the absence of a system of import duties related to carbon, industries with high emissions might relocate to no signatory countries to save money. Or they might fail, unable to compete with dirtier and cheaper foreign rivals.

There are precedents for using trade measures for environmental goals. The Montreal Agreement to curb the use of ozone-depleting gases included trade controls on such substances. And the World Trade Organization has suggested that levying taxes at the border on the carbon content of imports would be acceptable if they are devised properly — in the same sort of way as some consumption taxes are levied on imports, ensuring equal treatment with domestic products.

Such tariffs must be part of an international agreement on climate change. Unilateral penalties against fast-growing polluters like China and India would be seen as illegitimate and could easily backfire, scuttling chances of an agreement on climate issues. Congress must refrain from putting sanctions in its climate bill.

An international accord that includes trade-related enforcement measures must also include commitments on emission reductions all around, as well as financial aid for poorer countries, like India and China, to meet the caps without sacrificing economic growth.

Further, any deal must set clear guidelines on how to identify and quantify transgressions and establish appropriate countermeasures. It also must not open a backdoor for protectionism. Without such a deal, trade is going to have problems. Failing to conclude the current negotiations will be the least of them.

“This is an editorial from the newspaper New York Times” published in 2009
a) Dealing with students’ categorisation of the main topic and the global function of the editorial (Questions one, two, and three)
b) knowing their inference of the global patterning of the editorial in question (Questions four and five)
c) Explaining and extracting the message conveyed from paragraph 5 based on the metadiscourse marker ‘the main reason’. Here students are expected to explain this identification (questions six and seven)
d) Within the same paragraph (no. 5), they have to identify the kind of structure or relation with justification.
e) Again, they are asked to identify the relation between the ideas of paragraph no. 10 with justification.
f) They were given an extract from the whole article and asked to identify what is conveyed from it. The aim here is to go directly to signals of information which state problem. The following is the extract given in question 12:

“Congress is concerned that domestic limits on carbon emissions would put American companies at a competitive disadvantage with rivals in countries with no such caps. But that is not the only problem. In the absence of a system of import duties related to carbon, industries with high emissions might relocate to no signatory countries to save money. Or they might fail, unable to compete with dirtier and cheaper foreign rivals”. (Paragraph 7)
g) In question 14, they were asked to identify the expressed doubts of the author with justification (question 15).

h) Question 16 is about the frequent kind of link between the ideas of the editorial with mentioning the purpose of use (question 17).

i) The last question is about summarising the article.

(For the whole layout of the questions refer to the appendix E)

### 3.2.2. Content of the Treatment Materials

The courses focused on students’ ability to think critically, make associations, and draw conclusions from the authenticity of various genres such as: newspaper articles/editorials, and part-genres like an abstract from a scientific report in medical studies, an introduction section in a sociology article, and a section of an economy article. So, learners are required to think deeply and analyse the message conveyed and the aspects discussed in the materials used, not just understand them in an abstract way but rather with a sense of analysis and a critical view of the language used.

The materials of the experiment focus on developing learners’ knowledge to deal with the various communicative features of the previously mentioned materials. Since the message is form and content, the treatment helps them to be aware of the message structural
features and the message content aspects for grasping the meaning. The treatment was done during the course/module of Pragmatics and Discourse Analysis. In the lecture of discourse analysis, students of the control group dealt with some theoretical conceptions of text cohesion and coherence from a theoretical view without practice (this is what is usually taught to introduce discourse analysis in the programme). However, students of the experimental group were exposed to a more practical authentic view via Ten (10) materials: seven (7) newspaper articles and three (3) disciplinary authentic materials. The newspaper articles were chosen from “The New York Times”. Two kinds of newspaper articles were used in the treatment: news reports and editorial sections. The title of the article used in the former is: “Can Europe Be Saved?”. Concerning the headlines of the latter (editorials), they are: “Past, Present, and the Quantity of the Year”, “A Lesson on Warming”, “Copenhagen and Beyond”, “Immigration’s New Year”, “Britain Votes on Changes to Election System” and “A Real Unnecessary Crisis for Families”. Hence, a great space in the treatment was devoted to editorials (called also opinion sections), because they represent an effective context for authentic discussions between students. As far as the other disciplinary authentic genres are concerned, they consist of an abstract from an article in medical studies entitled “Regenerative Medicine: Past and Present”, an introduction section in a sociology article entitled “Prevention of Youth Violence: Why not Start at the Beginning?”, and a section or part-genre of an article in economics
entitled “Financial and World Economic Crisis: What Did Economists Contribute?. Students described these genres according to their rhetorical properties in order to gain skills of manipulation and develop their schematic knowledge.

The analysis of the materials from the part of learners was done in a more collaborative way in group discussions. Students analysed them in a way that makes them manipulate with language options and features such as: metadiscourse markers, language functions and typology, and language patterns. All students’ suggestions were discussed and written on the board for a more visual clarification. They were highly motivated to participate in these discussions, because they were practicing something new they have never been done before. This proves a positive intention and attitude from the part of students when they try things out. Besides being motivated, they can explore new language options for them especially they got used of considering language from the lexical and syntactic levels only.

To show clearly the content of the courses and the tasks assigned to improve learners’ performance, the following treatment materials analysis was covered during the course and along the experiment period. The coming diagrams with the relevant description represent this analysis which includes the main aspects practiced by students in the classroom.

Each material in the following is represented by a diagram that facilitates locating the information easily especially when it comes to
selecting the main elements that signal the important ideas and/or arguments of the author. The main signals of each material which made students analyse the information effectively during the treatment period are underlined in the coming figures. However, the details discussed in the classroom are replaced by ellipsis (the whole version of the materials in practice will be provided in Appendix D). Using a visual representation of information via squares and arrows made it easy for students to make the relationship between the parts of the ideas and to understand the structural patterns.

3.2.2.1. Material One: “Can Europe Be Saved?”

The following diagram signals the main features of a newspaper article dealt with by students. It is an article taken from The New York Times entitled “Can Europe Be Saved?”:
Not long ago (…) say that the current economic crisis was actually (…) Like the United States, Europe suffered a severe slump (…) financial meltdown; but the human costs of that slump seemed far less in Europe than in America. In much of Europe (…), while (…). Europe’s gross domestic product might have fallen as much as ours, but the Europeans weren’t suffering anything like the same amount of misery. And the truth is that they still aren’t.

Yet Europe is in deep crisis — because its proudest achievement, the single currency (…) is now in danger. More than that, it’s looking (…) like a trap. (…) is now struggling to avoid bankruptcy; (…) a booming economy until recent years, now has (…) of painful, grinding deflation.

The tragedy of the Euromess (…) But the architects of the euro, (…) to ignore the mundane difficulties a shared currency would predictably encounter — to ignore warnings, which were issued right from the beginning, that Europe lacked (…). Instead, they engaged in magical thinking, acting as if the nobility of their mission transcended such concerns.

The result is a tragedy not only for Europe but also for the world, (…), and in the process they have created perhaps the most decent societies in human history, (…). These achievements are now (…) turns into a nightmare for all too many people.

Figure 6: Analysis of the Material ‘Can Europe Be Saved?’
Classroom Analysis and Description

a) Analysis of Content

- When previewing the title, the question structure makes the reader eager to read the content of the article and this is one of the characteristics of the language of newspapers where the title should be enticing to invite the reader to read the material. In the classroom context, students of the experimental group raised the problematic issue in question “Can Europe Be Saved?” to make discussions about the topic of the article (raising discussions about the topic is an important aspect of critical thinking).

- Using the model proposed by Paltridge (2002) to analyse the network of problem/solution texts (refer back to Section 2.1.2) which includes: Situation (time and place)/ Problem (causes)/ Responses/Evaluation structure, students did a Problem/Solution Analysis via the following table:

<table>
<thead>
<tr>
<th>Situation (time and place)</th>
<th>Problem (causes)</th>
<th>Responses</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
b) **Analysis of Form**

- The underlined elements or signals in the diagram were analysed by students during the course (i.e., analysing the newspaper article in terms of metadiscourse markers, language functions, and macrostructure.

- The lexical analysis covers, for instance, the frequent use of expressions that signal problem like: “Crisis”, “Europe suffered a severe slump”, “have fallen”, “financial meltdown”, “in danger”, “the result is a tragedy”, “turns into a nightmare”.

The following materials are articles from the editorial section of various newspapers. The role played by this section is leaving space for discussions to students. The issues dealt with are very interesting and suitable to the schematic knowledge of students. They are required to analyse the communicative message in a more purposeful way:

**3.2.2.2. Material Two: “Past, Present, and the Quantity of the Year”**

The coming diagram is a visual representation of the main elements in an editorial article entitled: **“Past, Present, and the Quantity of the Year”**. The topic is very interesting and cultivating besides it is a source of raising critical discussions:
How long is a year? (...) The year, of course, is the time it takes the Earth to orbit around the Sun, a rate that is slowing fractionally each century. For many reasons(...) a more precise definition of the year than its length in days, yet the only (...) which is measured in oscillations of cesium atoms.

Recently, a task force of geologists and chemists proposed a new unit of measure called the annus (...) Because the Earth's orbit varies in temporal length, the annus is keyed to the year 2000, which (...)

Astronomers prefer (...) are not likely to adopt the annus. Many working geologists are objecting to the proposed abbreviation for annus(...) the symbol Ma means mega-annus, or million

However this is resolved, we are left meditating on a remark made by a pair of geologists who note that a geological date like 90 Ma, or 90 million years ago, implies "before present." Unfortunately, these geologists write, the present "is not well defined."/We know the feeling. We also know that whatever you call it, the year gets shorter and shorter the older you get.

Figure 7: Analysis of the Material ‘Past, Present, and the Quantity of the Year’
Classroom Analysis and Description

a) Analysis of Content:

Since the article is an editorial, it needs *taking* a critical stance editorially using the following table:

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Topic</th>
<th>Location</th>
<th>People</th>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>

- Learners used the above table to analyse the information and the arguments in the editorial.
- After previewing the title, students can extract the main topic which opens a classroom discussion about the difficulty of defining time (This idea is also discussed by the author who urges that there is a difficulty in providing a rather clear definition of the notion of time). They noticed this from the first paragraph where the idea is signalled by “more+adj” (more precise definition).
b) **Analysis of Form**

- Students were given the following questions for application:
  
  What did the author want to state in each paragraph? Justify.
  
  What is the opinion expressed in this article? Justify.
  
  What are the various relations (patterns) in the whole article? Justify.
  
- In answering these questions, students have to be aware of the fact that the author wants to state reasons behind the difficulty in defining time.
  
- Students extracted the various explanations stated in this material.
  
- Students of the experimental group also extracted the elements that signal the kind of structural relation, for example, contrast is signalled by the transition “yet” (this is done through following the underlined signals in the diagram).
  
- Students again discussed the opinions of the author (one of the opinions expressed in this editorial is the difficulty to provide a consistent definition of the present time (since the opinion is the attitude of the author, it is marked by “unfortunately”).
  
- Students analysed further signals of information like: stating reason (for many reasons) comparison (more+adj...than phrase), contrast (yet)
- Students further discussed the explanation shown in: “To the task force, the symbol Ma means mega-annus, or million years. But to geologists, Ma means “million years ago,” and 90 Ma, for instance, means a specific point in the Cretaceous period”.

1.2.2.3. Material Three: “A Lesson on Warming”

The following visual representation is a set of the basic language signals that mark the main elements of information and represent the points of discussion accompanied with an editorial entitled: “A Lesson on Warming”:
President Obama had hoped to emerge from this week’s Group of 8 summit meeting in Italy with a tentative agreement uniting rich and developing nations in a common fight against global warming. Instead (…) and how hard (…) an agreement, Mr. Obama was clearly eager (…) to restore America’s leadership role.

Before the leaders gathered, their negotiators had already settled on a draft communiqué, committing to (…) “significant” if unquantified cuts. But on Wednesday, things fell apart (…) flatly refused to commit to the 50 percent goal by 2050.

it was not immediately clear why (…)
Otherwise, the developing nations would be left with an unfair share of the burden while their economies were expanding rapidly.
What is clear is that Mr. Obama and the other leaders of the developed world have yet (…) with the right mixture of pressure and incentives to get the developing countries to commit. (…) did agree to an “aspirational” goal of preventing global temperatures from rising.

If there is any chance of pulling this off (…) a lot better under Mr. Obama, but it is still lagging. The House’s climate change bill requires emissions reductions of only 17 percent from 2005 levels by 2020. (…) We know that (…) to do as well as (…) won’t be easy. But Mr. Obama will have to press them to do even better.

Figure 8: Analysis of the Material ‘A Lesson on Warming’
Classroom Analysis and Description

a) Analysis of Content

- The classroom discussion starts with a discussion of the topic
- Learners gave suggestions about the topic
- The author wants to state an agreement about global warming from the point of view of the Group of 8 summit meeting (the agreement here or the argument is signalled by the word “agreement” which is repeated twice and the transition of contrast “instead”).
- Taking a critical stance editorially using the following table:

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Topic</th>
<th>Location</th>
<th>People</th>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

b) Analysis of Form:

- In paragraph 6, the opinion expressed is that “the 17 nations agree on the efforts to decrease the temperature as a way to prevent global warming”.

153
- In paragraph 7, the kind of structure or relation (pattern) is a cause-effect (the cause-effect structure is shown in the if-clause (conditionality). The cause is “the chance to prevent all conflicts on global warming in the Group of 8 summit meeting” and the effect is “the ability to avoid the problematic issue”

- Another kind of structure which is a comparison “at the level of Mr. Obama will have to press them to do even better and also in getting the Senate to do as well as the House won’t be easy”. (there is a comparison and contrast on the amount of effort and the work achieved whether from both sides: pushing the senate to work better and the efforts of Obama to improve the situation).

- The structural analysis dealt with by students also includes identification of the metadiscourse markers (boosters and attitude markers) found in the article (editorial) besides language functions (mostly the argumentative function is the controlling function along the whole article) and language patterns (claim-counterclaim and problem-solution are the most frequent structures).

3.2.2.4. Material Four: “Copenhagen and Beyond”

The Following material represents an editorial section discussing an important issue about global warming entitled “Copenhagen and
Beyond”. Students were very motivated and interested with the various aspects and ideas when dealing with this editorial. What is known on the latter, it gives an extended space for purposeful discussions besides entailing the skill of critical thinking:

The global climate negotiations in Copenhagen produced neither a grand success nor the complete meltdown that seemed almost certain as late as [...]. Despite two years of advance work, the meeting failed (...). The hard work has only begun, in Washington and elsewhere. But Copenhagen’s achievements are not trivial, given the complexity of the issue (...). He forged an agreement that all but a handful of the 193 nations on hand accepted.

There were two keys to the deal. One was a dramatic offer (...). The offer had an instant soothing effect on many poorer nations that had been threatening to walk out all week. The other was China’s willingness to submit to a verification system under which all countries would agree to report on their actions (...). He would not agree to a deal unless China gave ground.

Called the Copenhagen Accord, in order to deliver on his promises (...). Mr. Obama must persuade the Senate to approve a cap-and-trade bill — a huge task. Meanwhile, there can be no letup by the rest of the world’s negotiators, (...). Some people believe the United Nations machinery has outlived its usefulness, and real progress will henceforth be made in smaller gatherings of the big players.

There may be some truth to this, but at the moment it is hard to see how many of the arrangements agreed to in principle at Copenhagen (...). For instance — can be made to work without detailed agreements. There must also be (...). As it is, the pledges now on the table (...). But for the moment it is worth savoring the steps forward. China is now a player in the effort to combat climate change (...). And the United States is very much back in the game (...).

Figure 9: Analysis of the Material “Copenhagen and Beyond”
Classroom Analysis and Discussion

a) Analysis of Content

- Globally, the author wants to express agreements and disagreements on the topic. In every paragraph, we can notice that this editorial is full of markers that signal the attitude of the author or attitude markers (the global organisation which is an agreement and disagreement about the subject)
- Taking a Critical Stance Editorially via the following table:

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Topic</th>
<th>Location</th>
<th>People</th>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>

b) Analysis of Form

The following points are the main structural aspects considered to discuss the arguments of the author and understand the content:

- The frequent kind of link in this editorial is the kind of transition that signals contrast.
- A frequent use of markers that express agreements and disagreements about the subject in order to state argumentation about the subject.
- That frequent use of link can lead us to the whole function which is “argumentation”.

- Analysis of the metadiscourse markers to locate doubts of the author (separating the hedges from boosters to make sure of the arguments of the author).

- The structure conveyed in paragraph 6 is cause-effect which is signalled by a transition of consequence or result “henceforth”.

- A problem-solution structure conveyed from: “China is now a player in the effort to combat climate change in a way it has never been, putting measurable emissions reductions targets on the table and accepting verification” (the problem is signalled by “to combat climate change/to solve climate change”, and the solution is signalled by “efforts/putting measurable emissions reductions targets on the table and accepting verification”).

- In The last paragraph and part of the critical analysis done by students, they focused on the following:

  “Curb greenhouses gases”

  “Provide ways to verify countries’ emissions”

  “Save rain forests”

  “Shield vulnerable nations from the impacts of climate change”

  “Share the costs”
Students analysed these terms and proposed some contexts where these terms are applicable (similar contexts).

3.2.2.5. Material Five: “Immigration’s New Year”

(... ) pledged to help the Obama administration pass immigration reform (... ) against illegal guns. (...) Like thousands of other young people, they bear no blame for their status, and they are frustrated that their hard work and bright promise lead to a brick wall. (...). “We are risking our future because our present is unbearable,”

The Obama administration has vowed to press ahead with reform this year. Given the hard economic times, the politics may be bleaker even than in 2007 when reform was scuttled in an ugly battle. The need is just as real — for the undocumented and for the country. America needs to shut the path to illegal entry and employment while opening (...).

Opponents of reform say (... ) When the recovery comes, the country will need a functioning system more than ever.

To do this, the country needs to... This means putting 12 million people on a path to being assimilated. It is not a question of adding new ... Representative Luis Gutierrez, a Democrat of Illinois, already has offered a sensible bill that legalizes immigrants who show that they have been employed, ... undergo a criminal background check (...).

Opponents will try their best to scuttle reform by claiming ... not a wait of months but of decades or never. That is not reform. And it won’t solve the problem. After years of tightening the screws, the system is hopelessly frozen. (...)
while holding firm to the core of the better solution. To legalize the undocumented, collect their unpaid taxes, (...)
The country needs it; the economy needs it; the immigrants need and deserve it.

“No city on earth has been more rewarded by immigrant labor, more renewed by immigrant ideas, more revitalized by immigrant culture,” (...)

Figure 10: Analysis of the Material “Immigration’s New Year”
Classroom Analysis and Description

a) Analysis of Content

- Raising a discussion about the title: “Immigrations New Year”
- Taking a Critical Stance Editorially:

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Topic</th>
<th>Location</th>
<th>People</th>
<th>Problem</th>
<th>Solution</th>
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</table>

b) Analysis of Form

- The elements that signal the opposing ideas in the editorial are signals like: opponents of reform, “but opponent”, “the false arguments” (opposing ideas also are signalled by markers like “but” as a contrasting element). In editorials, there is a frequent use of opposing arguments to explain the topic.
- A problem-solution structure shown in paragraph 2 (the problem is signalled by words like “frustrated hard work, brick wall” and the solution is signalled by “the protest which will be hopefully the solution to fight against the situation”).
- A cause-effect structure is conveyed in “…They are frustrated that their hard work and bright promise lead to a brick wall”
The relation between the cause and its effect is signalled by the verb ‘lead to’ which has the meaning of “results in”.

1.2.2.6. Material Six: “Britain Votes on the Election System

LONDON — Britons went to the polls on Thursday to vote on a proposal that would change how members of Parliament are elected, potentially seemingly designed to keep them there. Pre-election polls predict a resounding defeat for the proposal, (…) wins the seat — even if the candidate fails to win a majority of the votes. (…)50 percent of the vote.

The proposal (…) fractious governing coalition, with the ruling Conservatives, led by Prime Minister (…) vociferously opposing the measure (…) betting their political future on its passage. One of the reasons (…) before the voters.

In angry scenes in cabinet meetings, prominent Liberal Democrats have accused the Conservatives of scaremongering and misleading the public (…) are making claims which have no foundation in truth whatsoever. If they don’t come clean on this, I am sure the law courts will.” The “alternative vote its proponents argue that it would make voting much fairer, giving parties whose support is widespread but not concentrated in particular areas a better chance of winning more seats while making it harder for big parties to achieve clear-majority victories that usually allow them to govern without partners.

Opponents of the alternative vote maintain that it is expensive, confusing and inclined to lead to coalition governments paralyzed by policy divisions (…) (…) particularly … it is hard to muster … The results will not be known (…). But the vote will have huge political repercussions. The most serious are likely to be for (…) approval rating would be flagging at this point in the electoral cycle. (…)

But the complaints go deeper than (…) In the past year, (…) making it harder for people to get welfare benefits. At each stage, (…) to defect at the next election. Much of that would be forgiven, the feeling was, if the party could get its electoral reform proposal accepted. But that has looked increasingly unlikely (…)

Figure 11: Analysis of the Material ‘Britain Votes on the Election System’
Classroom Analysis and Description

a) Analysis of Content

- From the title, we can guess that the global organisation or macrostructure is agreements-disagreements or claims-counter-claims. We can understand that Britain is with the changes through elections, but it is against the system.

- Taking a Critical Stance Editorially using the following table:

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Topic</th>
<th>Location</th>
<th>People</th>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>

b) Analysis of Form

- The first argument is shown in paragraph 6, in which the alternative vote followers argue that gaining more seats can be achieved through “the alternative vote” which is a valuable way to that reflects accuracy in the elections. The second deals with claim of neglecting cheating in the elections (The first is signalled by the attitude marker “argue”; while the second is signalled with the attitude marker “making claims”).
- In Paragraph 5, there is a cause-effect structure in “If they don’t come clean on this, I am sure the law courts will” (it is signalled with conditionality or the if-clause. The first clause is the cause and the second one is the consequence).

- In Paragraph 13, there is a cause-effect structure in “Much of that would be forgiven, the feeling was, if the party could get its electoral reform proposal accepted” (it is signalled again with conditionality or the if-clause, but here the first is the consequence and the second one is the cause).

- In paragraph 8 there is a problem-solution “The electorate in general has not become particularly exercised about A.V.; it is hard to muster a case for voting reform when people are weary of government in the first place and when the last national election was just a year ago” (solution structure which is signalled with “it is hard to muster”).

- In paragraph 4: “One of the reasons Mr. Clegg gave for joining a Conservative-led government was to put electoral reform, long a cherished notion of his party, before the voters. (it is a cause-effect structure in which the cause is signalled with the transition “one of the reasons”, and the rest of the sentence is the consequence).
1.2.2.7. Material Seven: “A Real Unnecessary Crisis for Families”

The following diagram is a visual description of an editorial talking about an important social issue. Learners after having an idea about how to deal with the content and form in a more purposeful way, they raised interesting discussions about it. Consider the following:

(...) made a strong argument for good early childhood care. In a speech in New York City, he argued that the value can be especially high for disadvantaged children (...) These programs can increase high school graduation rates, and graduates earn more, pay more taxes, and rely less on state-provided health care.

(...) At present, the city subsidizes child care for 98,000 children. His new budget would end that support for

Families receiving public assistance or welfare will not be affected (...) Few will be able to pay the full cost on their own, and, without a safe and educational place for their children, many won’t be able to keep working. Their only option will be welfare.

The Independent Budget Office of New York City has suggested several better ways to save or raise money. [...] almost exactly what is needed to maintain current child care subsidies. Mayor Bloomberg and the City Council talk about budgeting for the future. Cutting child care is not the way to do it.

Figure 12: Analysis of the Material “A Real Unnecessary Crisis for Families”
Classroom Analysis and Description

a) Analysis of Content

- From the title, we can guess that the material is about stating a problem and any possible solutions.
- Learners also analysed the article using the following table to get a close critical look at the content via taking a critical stance editorially:

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Topic</th>
<th>Location</th>
<th>People</th>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The main problem of this article is on funding children at school and rejecting the exaggerated picture of the whole problematic issue. According to the author, the amount of money spent on the daily school allowance is really confusing.
- Students were asked to analyse and discuss the following:

“…An income of less than 200 percent of the poverty level …three” (comparison: it is signalled with less than)
“The independent Budget Office of New York City has suggested several better ways to save or raise money”. (Here there is a solution and signaled by “has suggested several better ways to raise money”)

b) Analysis of Form

- Learners made an identification of:
  
  Metadiscourse markers
  
  - Language Functions
  
  - Structural Patterns

After analysing the authenticity of newspapers language as a form of real-world authenticity, the following diagrams represent an analysis and description of another type of authentic language such as the disciplinary authenticity via different genres and part-genres. These materials are:

- An abstract from a scientific report entitled: “Regenerative Medicine: Past and Present”
- An Introduction Section in a Sociology Article entitled: “Prevention of Youth Violence: Why not Start at the Beginning?”
- A part-genre or section of an economic article entitled: “Financial and World Economic Crisis: What Did Economists Contribute?”
1.2.2.8. Material Eight: “Regenerative Medicine: Past and Present”

The following diagram represents the main signals of information of an abstract of a scientific report in a medical journal entitled *Medicine Studies*. The abstract as independent discourse includes

**Figure 13: Analysis of the Material “Regenerative Medicine: Past and Present”**
Classroom Analysis and Description

The topic of this part-genre or abstract is about regenerative medicine. This choice aims at avoiding any complicated medical issues or topics vis-à-vis the level of students. The area of regenerative medicine opens for many discussions and arguments via agreements/disagreements about its usefulness as a substitute therapy or complementary to scientific treatments.

a) Analysis of Content

- Since the material is an abstract, so it is an independent discourse that can be understood in its own and helps readers have a preview about the whole study of that material.
- Students discussed and proposed some of the novel therapies in regenerative medicine (the material was given before the class to be read in order to make a search about those novel therapies).

b) Analysis of Form

- Identifying and analysing metadiscourse markers:

  Transition markers in:

  “Currently, patients suffering from diseased and injured organs…”

  “However, there is a shortage…”

  “In addition, the stem cell field is rapidly advancing…”

  “Pluripotent cells provide still other potential sources of stem cells for cell-based tissue engineering applications…”
“While stem cells are still in the research phase…”

“some therapies arising from tissue engineering endeavors that make use of

*Frame markers* in:

“Scientists in the field of regenerative medicine and tissue engineering are now applying…”

“The process of somatic cell…”

*Code glosses* in:

“For example, new types of stem cells…”

“such as fluid and placental stem cells…”

- Students were asked to extract what is implied from:

“…some therapies arising from tissue engineering endeavors …adult cells have already entered the clinical setting, indicating that regenerative medicine holds much promise for the future”.

Since the material is not a lengthy one, there were no much aspects to analyse. However, it was an effective introduction into disciplinary language, especially the abstract is a complete message that summarises any study that can arrive even at hundreds of pages. In this respect, students started to know the abstract as an academic material.
1.2.2.9. Material Nine: Prevention of Youth Violence: Why not Start at the Beginning?

(…) From this perspective, I applaud the National Institutes of Health’s initiative to report on the state of knowledge for violence prevention. The NIH (2004) report provides to “prevention of violence” (…) Two other panels would have been most useful. (…)

The advantage of the scientific panel is that they can criticize the type of science we have been doing. Their criticism should be taken seriously. I certainly share many: the lack of a common language, the lack of genetic and brain research to understand youth violence, and the lack of integration of developmental knowledge in prevention experiments are among those with which I most strongly agree.

However, it was unfortunate, though not easily preventable, (…) These are clear in the title of the report: “Preventing violence and related health-risking social behaviours in adolescents.” My comments focus on the evidence (…) on preventing “violence” and “related health-risking behaviours” in adolescents was misguided. I attempt to demonstrate why an alternative perspective is needed.

Figure 14: Analysis of the Material “Prevention of Youth Violence: Why not Start at the Beginning?”
Classroom Analysis and Description

a) Analysis of Content:
- Describing the topic of the article from previewing the title.
- The article is located in the social context. So, it was tackled from the various social issues and applications of the topic of discussion.

b) Analysis of Form
- Identifying the metadiscourse markers:

Transitions in:

“Two other panels …and another …”
“…are among those with which …”
“… However, it was…”
“… though not easily preventable …”
“…which makes me conclude…”

Attitude Markers in:

“The product of an applied science is as good as the knowledge that gets into the hands of those who do not produce the science”

“From this perspective…”

“…it was unfortunate, …”

Boosters in:

“I applaud the National Institutes of Health’s initiative to ask eminent scientists at the periphery of violence research”
“Two other panels would have been most useful, one made up of practitioners in the field of violence prevention”

“The advantage of the scientific panel is that…”

“…their criticism should be taken seriously... I certainly share many…”

“...I most strongly agree…”

“...These are clear in the title of the report…”

“...comments focus on the evidence which makes…”

*Evidentials in:*

“The NIH (2004) report provides to …”

*Self-mentions (a frequent us of because of the nature of the genre) in:*

“I applaud the National Institutes of Health’s initiative to ask …”

“...we have been doing …”

“I certainly share many…”

“...I most strongly…”

“...My comments…”

The identification of metadiscourse markers helps to a great extent in locating the information and understanding the various arguments of the author. In this genre, we notice that there is a high frequency of
boosters and self-mentions. This is due to the type of writing used in the
domain of sociology.

Besides metadiscourse markers, students followed those signals to
discuss the various perspectives of the author and consider what did he
want to convey from the problematic issue presented in the material.

1.2.2.10. Material Ten: Financial and World Economic
Crisis: What Did Economists Contribute?

The following diagram represents the main features of a section or
part-genre in an article in economics entitled: “Financial and World
Economic Crisis: What Did Economists Contribute?”:
The global financial (and economic) crisis has created an urgent need to fundamentally rethink how financial systems are functioning and how they are regulated (...). In our opinion (...) over the three past decades (...). Moreover (...). In fact (...), i.e., one leading to a collapse of the global economy hence (...)

The implicit view behind our standard models (...). Thus, we overestimated (...). Hardly anybody, neither (...) nor (...), for example, the consequences of (...). Otherwise (...) probably would (...). Hence, (...) failed to warn (...) such as (...)

Ironically as the systemic functional crisis developed (...), had no choice to abandon (...). only (...) be quite useful (...) derived and empirically tested model, that can (...) urgently needed policy advice (...). It is not simply enough to argue (...) is astonishing because we experienced (...) a important financial crisis

One explanation for this failure goes back (...). namely (...) mostly concerned (...) well-specified problems (...). The danger in such research (...) without an adequate understanding (...) one is likely to miss important factors that influence the economic system (especially) decision-making (...)

One might even put forward the hypothesis (...) one is a lack of understanding (...)

Figure 15: Analysis of the Material Financial and World Economic Crisis: What Did Economists Contribute?
Classroom Analysis and Description

a) Analysis of Content

- Previewing the title and discussing the implicit view behind our standard models of the economic crisis and the urgent need to find solutions about the problem.
- Students identified the various problems mentioned and discussed in the material.
- Discussion of the writer’s statement: “In our opinion, however, “economists, as all other social scientists, have an ethical responsibility to communicate the limitations of the models and the potential misuse of their research”

b) Analysis of Form

- Identifying the metadiscourse functions:

  Transitions in:
  “…Moreover…”
  “…Hardly anybody, neither ... nor…”
  “Thus…”
  “the consequences of ...Otherwise…”
  “…Hence…”
  “…but…”
  “…because we experienced…”
“…nevertheless…”

“…Hence …”

*Frame Markers* in:

“over the three past decades…”

“…Before…”

“A second Explanation..”

*Attitude Markers* in:

“The implicit view behind our standard model..”

“ In our opinion …”

“... failed to warn ...”

“to argue that..”

“They do not think…”

“which is not a good explanation..”

*Boosters* in:

“… In fact …”

“if it is true…”

“what is quite often said

“well-specified problems…”

*Hedges* in:

“probably would …”

“One is likely to miss …”

*Code glosses* in :

**i.e.,** one leading to a collapse of the global economy hence (...)

“for example…”
“such as ...”
“namely...”

*Self-mentions in:* 

“*we overestimated  ...*”
“...we have failed...”
“In our opinion...”

The overuse of code glosses and attitude markers are the main characteristic features of the metadiscoursal use in the section in economics article. This part-genre is characterised by the presence of the author expressing the points of view said around the topic. Social humanities reflect the commitment of the writer, unlike the scientific contexts.

**Conclusion**

The research design of the present study covered the main elements of the data collection phase together with the materials dealt with in the treatment period. Data collection phase which involves a questionnaire, pre-test, and a post-test includes the main issues of assessing students’ performance. This assessment covers their schematic knowledge and attitudes towards the authenticity of language, their knowledge of the main features of language needed during processing, and the outcomes of the treatment. The next chapter will describe students’ attitudes and schematic knowledge *vis-à-vis* the rhetorical property of language authenticity.
Chapter Four

Overview about Students’ Schematic Knowledge

Introduction

3.1. Description of Students Questionnaire

3.2. Administration of Students Questionnaire

3.3. Analysis and Discussion of Students Questionnaire Results
   3.3.1. Results of Students Answers in Section One: Information about students’ schematic knowledge
   3.3.2. Results of Students Answers in Section Two: Information about learners’ strategies and attitudes

3.4. Summary of Findings

Conclusion
Introduction

The present chapter gives an overview about students’ attitudes and background knowledge of the various rhetorical aspects of language. This information was gathered through a questionnaire administered to students before the treatment. Having this overview gives an idea about their schematic knowledge of language authenticity and tests at the same time the first hypothesis of this research which is: “if students lack schematic knowledge about the authentic side of language whatever the genre or register, they will need intervention to cope with the difficulty they encounter.” This chapter also presents a quantitative analysis of students’ answers in the questionnaire with the relevant percentages vis-à-vis the questions asked. The latter cover aspects like familiarity with language authenticity, language functions, and text types together with any source of difficulty encountered during processing. The analysis of the percentages of students’ responses will provide a preliminary picture or overview of their background knowledge built along their process of learning English as a foreign language.
3.1. Description of Students Questionnaire

In the present research, a questionnaire was administered to students for the purpose of seeking their attitudes and intentions towards the materials they encounter, their background knowledge, and their specific ways of processing the information. This is to reflect their schematic knowledge of authentic-based language data. The importance of this questionnaire lies in the need to review the aspects required in the comprehension process in order to have an idea about the strategies students use before testing them in the pre-test as well as to test the first hypothesis which assumes students lack of schematic knowledge about the authentic side of newspapers language. Once this problem is extracted from students’ answers, they will need a treatment to cope with the difficulty they encounter. Additionally, this preview or questionnaire helps in the selection of the materials that should be included in this treatment. The questionnaire is divided into two sections:

✓ **Section One: Information about students’ schematic knowledge**

[(Q1), (Q2), (Q3), (Q4), (Q5), (Q6), and (Q7)]

(Q1) and (Q2) are direct questions to have an idea about the kind of materials they use especially to see whether they deal with authentic materials or not and whether these materials are part of their readings. Additionally, (Q3) is to see if they have knowledge of the authenticity of language and (Q4) is to make sure of the level of ease
and difficulty of the language of newspapers as a crucial material that reflects the authenticity of language. Similarly, (Q5) is to locate the source of difficulty if they assume it in the previous question. The next question (Q6) is to see the familiarity of terms like: authenticity, critical thinking, typology of texts, and functionality of language. The last question in the first part of the questionnaire (Q7) is related to the language of newspapers and whether students recognise easily the elements of a newspaper article.

✓ **Section Two: Information about learners’ strategies and attitudes [(Q8), (Q9), (Q10), and (Q11)].**

In the second section, four questions were asked to make an overview about students’ habits and strategies they adapt when dealing with authentic language data. These questions cover many aspects: (Q8) is related to the place of critical thinking in their learning and reading habits as an important factor in the schematic knowledge of learners. Furthermore, (Q9) was asked to see their attitudes towards directed guidelines and instructions about the authenticity of language. Then, to deal with the latter (Q10) reviews whether they are aware of specific strategies to identify: author’s purpose, the message inferred from the text, and the relationship between the author’s ideas and arguments besides what specific techniques they adapt if they do so. Finally, the last item of the questionnaire’s second part (Q11) is related to students’ prioritised strategies they follow representing at the same time their schematic construction of language. These components are:
a) Getting the meaning of single words and sentences

b) Understanding larger units of the whole text

c) Being able to make the distinction between the main points and details

d) Being able to summarise a passage

e) Drawing conclusions from the ideas of the text

f) Understanding the structure of a text in terms of how the parts relate to one another

g) Recognising the author's assumptions and perspectives

h) Making a complete analysis of the information provided in the text to draw conclusions

i) Recognising the main arguments of the author

Here, students were asked to order them reflecting the first components they depend on when understanding any material they encounter.

3.2. Administration of Students Questionnaire

Before administering the questionnaire, students were given brief guidelines about the importance of answering all the questions besides the individuality of the answers to avoid repetitive results.
3.3. Analysis and Discussion of Students Results

3.3.1. Results of Students Answers in Section One: Information about students’ schematic knowledge

Question One: What kind of materials do you use when trying to get background knowledge?

a) Articles in periodicals
b) Well-recognised (native speakers) Newspaper articles
c) Books
d) All of them

Students were asked about their mostly used kind(s) of material(s) to get background knowledge. The aim of this question is to know the type of materials students use when trying to read about any information they need whether for general or specific details. The following table will show the number of students with the relevant percentage. Each table representing the respondents’ percentages vis-à-vis the other questions of the questionnaire will be accompanied with the relevant chart for a better visual clarification and aid:
Table 4: Materials Frequently used for Getting Background Knowledge

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles in periodicals</td>
<td>17</td>
<td>14.6</td>
</tr>
<tr>
<td>Well-recognised (native speakers) newspaper articles</td>
<td>23</td>
<td>19.16</td>
</tr>
<tr>
<td>Books</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>All of them</td>
<td>71</td>
<td>59.16</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 16: Materials Frequently used for Getting Background Knowledge
The above table reveals a high proportion of students who vary the materials they use. Of the total respondents, (59.16%) prefer using articles in periodicals, books, and newspapers articles to get a background knowledge, (19.16%) of students are with using well-recognised (native speakers) newspaper articles. The table shows lower percentages unfortunately for students who use articles in periodicals (14.6%) and the ones who read books (7.5%).

**Question Two: Do you think that using materials from real contexts (real language data) can enhance your background knowledge about the language you are studying?**

a) Totally agree  

b) Partially agree  

c) Partially disagree  

d) Totally disagree  

In question two, students were asked about their attitude about the role of using authentic materials from real contexts (real language data) to enhance their background knowledge. In this question the exact term “authentic materials” has been replaced by a descriptive expression materials from real contexts (real language data) to avoid any ambiguity from the learners’ side. Consider the following table to see the respective percentages:
Table 5: Students’ Attitude towards Using Authentic language Data to Enhance their Background Knowledge

<table>
<thead>
<tr>
<th>Answers</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally agree</td>
<td>106</td>
<td>88.33</td>
</tr>
<tr>
<td>Partially agree</td>
<td>14</td>
<td>11.66</td>
</tr>
<tr>
<td>Totally disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Partially disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 17: Students’ Attitude towards Using Authentic language Data to Enhance their Background Knowledge
The above results indicate a high proportion of students who agree with using authentic materials and who see the importance of those materials in the learning process, 106 (88.33 %) of the total respondents. This is positive from the fact that they are aware of this importance. So the problem remains with application and enhancing the capacity to deal with them. However, 14 (11.66 %) students agree partially with the matter. Even if the answer is positive to some extent but it is not motivating like the first one (totally agree). Still, the highest percentage reflects that learners are interested in the use of authentic materials with the need to vary them (as it is shown in question one).

**Question 3: Do you think that you have a clear idea about the authenticity of language?**

a) Yes

b) Generally no

c) No

Question three is a continuation of the previous one to make sure whether they have a clear idea about the matter. The results will be shown in the following table:
Table 6: Students’ Knowledge of the Authenticity of Language

<table>
<thead>
<tr>
<th>The Choices</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>09</td>
<td>7.5</td>
</tr>
<tr>
<td>Generally No</td>
<td>64</td>
<td>53.33</td>
</tr>
<tr>
<td>No</td>
<td>47</td>
<td>39.16</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 18: Students’ Knowledge of the Authenticity of Language
When students were asked about their respective knowledge of the authenticity of language, the table shows high percentages of negative answers from the respondents whether with “generally no” (53.33%) and “no” (39.16%). 9 students (7.5 %) answered positively with “yes”, yet not enough. So, the problematic issue noticed from the previous question reveals learners’ lack of knowledge.

**Question 4: When encountered with the language of newspapers, precise its level of ease and difficulty:**

a) Very easy ☐
b) Easy ☐
c) Difficult ☐
d) Extremely difficult ☐

Then, students were asked about the ease or difficulty they meet when dealing with real language contexts (authentic materials). The results of students’ answers will be shown in the following table:

<table>
<thead>
<tr>
<th>Answers</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very easy</td>
<td>7</td>
<td>5.83</td>
</tr>
<tr>
<td>Easy</td>
<td>11</td>
<td>9.16</td>
</tr>
<tr>
<td>Difficult</td>
<td>67</td>
<td>55.83</td>
</tr>
<tr>
<td>Extremely Difficult</td>
<td>35</td>
<td>29.16</td>
</tr>
</tbody>
</table>

*Table 7: Level of Ease and Difficulty of the Language of Newspapers to Students*
Figure 8: Level of Ease and Difficulty of the Language of Newspapers to Students

Of the total respondents who participated in the questionnaire, a great number of students assume the difficulty, 67 students (55.83%); and extreme difficulty, 35 students (29.16%). However, 11 students (9.16%) feel at ease and 7 students (5.83%) see that they are very easy.
If you assume the difficulty in the previous question, specify the source of difficulty that prevents you from doing as well at present (you can choose more than one answer):

a) Complexity in the writers’ style
b) Ambiguity in the whole structure
c) Difficulty in the concepts
d) All of them

Related to the previous question and more specifically with the students who encounter difficulty with authentic materials, they were asked about the source of this difficulty. Consider the following table to see the corresponding percentages of students’ answers:

<table>
<thead>
<tr>
<th>Answers</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity in the writer’s style</td>
<td>07</td>
<td>6.86</td>
</tr>
<tr>
<td>Ambiguity in the whole structure</td>
<td>51</td>
<td>50</td>
</tr>
<tr>
<td>Difficulty in the concepts</td>
<td>27</td>
<td>26.47</td>
</tr>
<tr>
<td>All of them</td>
<td>17</td>
<td>16.66</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 8  : Learners’ Source of Difficulty
Out of 102 students who assumed the difficulty in the previous question, 51 students (50 %) refer the source of this difficulty to the ambiguity in texts structure; 27 students (26.47%) see the difficulty in the concepts; 17 students (24.16) assume the difficulty in the writer’s style, the structure of texts and the concepts as well; and 07 students (6.86%) think that the complexity is in the writer’s style.
Question 6: Are you familiar with terms like?

a) Authenticity
b) Critical thinking
c) Types of texts
d) Functionality of language

Question 6 deals with very important elements needed by language learners that help them in the comprehension of authentic texts (here the case of newspaper articles). It aims at gathering information about their familiarity of: authenticity, critical thinking, typology of texts, and functionality of language. The exact terms were given explicitly in the questionnaire because the aim is to see whether learners are familiar with these concepts or not. The results of students’ answers for each criterion will be presented in separate tables vis-à-vis the number of students and percentages. In this respect, the coming tables will show subsequently the corresponding percentages of learners’ answers:
a) Familiarity with the term “Authenticity”

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>03</td>
<td>2.5</td>
</tr>
<tr>
<td>No</td>
<td>117</td>
<td>97.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 9: Students’ Familiarity with the Term Authenticity

Figure 21: Students’ Familiarity with the Term Authenticity
b) Familiarity of the Term Critical thinking

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>02</td>
<td>1.66</td>
</tr>
<tr>
<td>No</td>
<td>118</td>
<td>98.33</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 10: Students’ Familiarity with the term Critical thinking

Figure 22: Students’ Familiarity with the term Critical thinking
b) Familiarity with Types of texts

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>09</td>
<td>7.5</td>
</tr>
<tr>
<td>No</td>
<td>111</td>
<td>92.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 11: Familiarity with Types of texts

Figure 23: Familiarity with Types of texts
c) **Familiarity with Functionality of Language**

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>11</td>
<td>9.16</td>
</tr>
<tr>
<td>No</td>
<td>109</td>
<td>90.83</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 12: Familiarity with Functionality of Language

![Pie chart showing familiarity with functionality of language](image)

Figure 24: Familiarity with Functionality of Language
From the students’ answers, the tables show a great percentage of students who gave negative answers vis-à-vis important components of language knowledge. So, as far as the learners’ schematic knowledge is concerned, the numbers show clearly lack of knowledge of the main schematic character of language. This is reflected in high percentages of the students who answered with no to the four concepts of language manipulation and information processing: authenticity (117 students, 97.5 %); Critical thinking (118 students, 98.33%); typology of texts (111 students, 92.5%); and functionality of language (109 students, 90.83%). Additionally, lower percentages were recorded from their positive answers (yes): authenticity (3 students, 2.5%); critical thinking (2 students, 1.66%); typology of texts (9 students, 7.5%); and functionality of language (11 students, 9.16 %).

**Question 7: Can you recognise easily the main elements of information in a newspaper article?**

a) Always  

b) Sometimes  

c) Rarely  

d) Never  

In the seventh question, students were asked about whether they identify easily the main part of information when they encounter the newspaper article which is a crucial reflection of the authenticity of language. The following results were recorded from students’ answers:
Table 13: Students’ Ability to Recognize the Elements of Information in a Newspaper article

<table>
<thead>
<tr>
<th>Answers</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>2</td>
<td>1.66</td>
</tr>
<tr>
<td>Sometimes</td>
<td>81</td>
<td>67.5</td>
</tr>
<tr>
<td>Rarely</td>
<td>34</td>
<td>28.33</td>
</tr>
<tr>
<td>Never</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 25: Students’ Ability to Recognise the Elements of Information in a Newspaper Article
Then learners were asked about their ability to identify the components of information in a newspaper article. Of the total respondents 81 students (67.5%) answered with sometimes and 34 students (28.33%) with rarely. And 3 students (2.5%) cannot assign them correctly because they answered with never. However, 2 students (1.66%) responded with always. So, these numbers reflect that learners cannot recognise properly the functioning of language and an effective processing of the information in a newspaper article.

3.3.2. Results of Students Answers in Section Two: Information about learners’ strategies and attitudes

Question 8: Do you take a critical stance on any text you read?

a) Always ☐
b) Sometimes ☐
c) Rarely ☐
d) Never ☐

To review another important component of students’ schematic knowledge and the strategies they use, they were asked about whether they take a critical stance when processing the information. The following table shows the respective number of students who are aware of the matter on a regular basis, sometimes, rarely and even never:
Table 14: Students’ Awareness towards Taking a Critical Stance

<table>
<thead>
<tr>
<th>Answers</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Sometimes</td>
<td>38</td>
<td>31.66</td>
</tr>
<tr>
<td>Rarely</td>
<td>29</td>
<td>24.16</td>
</tr>
<tr>
<td>Never</td>
<td>50</td>
<td>41.66</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 26: Students’ Awareness towards Taking a Critical Stance

Of the total respondents, 50 (41.66 %) students said that they never take a critical stance when dealing with any reading material. This is surprising and problematic at the same time having this large number of students of the language who are not aware of the matter. Moreover, 38
(31.66%) students answered with sometimes, 29 (24.16%) responded with rarely, and 3 (2.5 %) students answered with always. Thus, most of the students’ answers of this question reflect a negative perception towards thinking critically. As students of the language, they should consider this aspect because it is so helpful in explaining unfamiliar lexical item, understanding the content, and analyzing the context of the material they encounter.

**Question 9: Do you prefer receiving specific guidelines from teachers to help you understand and summarise the authentic language?**

a) Totally agree  
b) Partially agree  
c) Partially disagree  
d) Totally disagree
Table 15: Students’ Attitudes towards understanding and Summarising the Authentic Language

<table>
<thead>
<tr>
<th>Answers</th>
<th>The number of students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally agree</td>
<td>96</td>
<td>80</td>
</tr>
<tr>
<td>Partially agree</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>Totally disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Partially disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 27: Students’ Attitudes towards understanding and Summarising the Authentic Language
In this question (question 9), students were asked about their attitude and interest towards receiving specific guidelines about the features and conventions of the authenticity of language. The numbers reported in the table above show that 96 students (80 %) totally agree and 24 students (20 %) partially agree. Globally, students are interested in receiving directed instructions about the authenticity of language because they see its importance to them.

**Question 10: Do you have a given strategy to identify the following when dealing with the authenticity of language?**

a) Author’s purpose
b) The whole message of the text
c) Author’s arguments
d) Relationship between the author’s ideas

In this part of the questionnaire, students were asked about whether they are aware of very important components in processing the information and schematic knowledge: a)author’s purpose, b) the whole message of the text, c) author’s arguments d) the relationship between the author’s ideas. The relevant percentages of students answered will be presented in the following tables:
a) Author’s Purpose

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>4.16</td>
</tr>
<tr>
<td>Generally No</td>
<td>96</td>
<td>80</td>
</tr>
<tr>
<td>No</td>
<td>19</td>
<td>15.83</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 16: Students’ Response towards Focusing on the Author’s Purpose

Figure 28: Students’ Response towards Focusing on the Author’s Purpose
b) The whole Message of the Text

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Generally No</td>
<td>79</td>
<td>65.83</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>26.66</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 17: Students’ Response towards Focusing on the whole Message of the Text

Figure 29: Students’ Response towards Focusing on the whole Message of the Text
c) Author’s Arguments

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>8.33</td>
</tr>
<tr>
<td>Generally No</td>
<td>101</td>
<td>84.16</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 18** : Students’ Response towards Focusing on the Author’s Arguments

**Figure 30** : Students’ Response towards Focusing on the Author’s Arguments
d) Relationship between the Ideas of the Text

<table>
<thead>
<tr>
<th>Answers</th>
<th>The Number of Students</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>03</td>
<td>2.5</td>
</tr>
<tr>
<td>Generally No</td>
<td>17</td>
<td>14.16</td>
</tr>
<tr>
<td>No</td>
<td>99</td>
<td>82.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 19: Students’ Response towards Focusing on the Relationship between the Ideas of the Text

Figure 31: Students’ Response towards Focusing on the Relationship between the Ideas of the Text

From students’ answers, again it can be noticed that they do not have specific strategies dealing with important components in
language learning and understanding. Globally, students responded negatively towards: a) author’s purpose (generally no, 96 students (80 %) and no 19 students (15.83 %)); b) the whole message of the text (generally no, 79 students (65.83 %) and no 32 students (26.66 %); c) author’s arguments ( generally no, 101 students (84.16 %) and no 9 students (7.5 %)); and d) the relationship between the author’s ideas (generally no, 17 students (14.16 %) and no 99 students (82.5 %).

Concerning positive answers with yes vis-à-vis the same aspects, very low percentages were noticed: a) author’s purpose (5 students, 4.16 %); b) the whole message of the text (9 students, 7.5%)); c) author’s arguments (10 students, 8.33%); and d) the relationship between the ideas of the text (3 students, 2.5 %).

**Question 11: If “yes”, please specify the procedure by which you identify each point:**

In answering this question, students introduced the following answers:

a) To identify the author’s purpose, students responded:

- Dividing the text to specify the aim
- The aim of the author’s of writing article
- Trying to divide the text into paragraphs and each contains one idea
- Try to find the arguments given by the author
- It is generally in the introduction
Through solutions
The aim behind writing this book

b) To identify the whole message of the text:
- It is always cited at the beginning
- By reading and trying to consider what is written
- Quotations help me
- What he wants to give a message
- Understanding the meaning and the ambiguities
- The conclusion generally summarise the message
- I understand the whole message after reading many times
- In the conclusion
- What authors want to convey the readers
- Try to know the author’s point of view

c) To identify the author’s arguments:
- By the linkers, transitions,
- Arguments are the sentence topic of each paragraph
- What’s done? What are the arguments provided in the article
- The structure of the text shows the author’s arguments
- The arguments of the author used in the book

d) To understand the relationship between ideas of the text:
- Through the keywords
- By reading the text more than 3 times
- Without ideas I can’t understand meaning
➢ From the first general reading
➢ I try to relate each idea with the other
➢ Through the meaning of words
➢ Cohesion and cohesive
➢ I don’t know

Globally speaking, these answers unfortunately reflect less effective and purposeful techniques applied by students although they are third year students. Additionally, out of 120 students, 55 students (45.83 %) did not provide information about the techniques and strategies they adapt. As a result, they require direct instruction and treatment to organise and recall what they learned already and link it with the essential concepts they need to make them more strategic and purposeful.

**Question 12: Rank the following strategies according to their order of importance to you (1, 2, 3...):**

a) Getting the meaning of single words and sentences
b) Understanding larger units of the whole text
c) Being able to make the distinction between the main points and details
d) Being able to summarise a passage
e) Drawing conclusions from the ideas of the text
f) Understanding the structure of a text in terms of how the parts relate to one another

g) Recognising the author's assumptions and perspectives

h) Making a complete analysis of the information provided in the text to draw conclusions

i) Recognising the main arguments of the author

Many missing answers were noticed from the part of learners. 42 (35 \%) students did not complete this part. As far as 78 students who answered this question, out of 34 (43.58 \%) of students who ordered “being able to summarise the passage” as priority one, 12 (15.38 \%) ordered “understanding larger units of texts” as priority two, and 32 (41.02 \%) of students ordered “recognising author’s assumptions and perspectives as priority three.

1.4. Summary of Findings

Students questionnaire aims at testing hypothesis one which is: If students lack schematic knowledge about the authentic side of language whatever the genre or register, they will need intervention to cope with the difficulty they encounter. On the one hand, the results of students answers percentages proves that they have negative attitudes about their background knowledge of language authenticity, critical thinking, language functions, texts typology, assigning stages of information, (etc.). On the other hand, they have a positive attitude towards receiving guidelines in these concepts. Hence, students attitudes
towards their schematic knowledge, vis-à-vis their responses in the questionnaire, confirm the need for developing their schematic knowledge.

**Conclusion**

Considering the authentic side of language besides the strategies to manipulate with it is of great importance to learning the language. Students in the questionnaire were asked about this issue and from their answers a great lack of knowledge is noticed concerning very crucial components of language. Without them the schematic picture of understanding and undertaking the authentic property of language will not be complete. This problem of awareness requires intervention to improve students’ performance. This is what will be revealed in the coming chapter which presents the results of the treatment. The outcomes of the latter specify the validity of the concepts taught to know whether they have good results on students’ schematic knowledge or not.
Chapter Five

Data Analysis and Results

Introduction

5.1. Scoring and Measurement of Students Performance

5.2. Data Presentation and Analysis

5.2.1. Presenting Students Scores in the Pre-test Performance and Post-test Achievement

5.2.1. Statistical Analysis and Results

5.2.1.1. Calculating the Mean

5.2.1.2. Median and Mode

5.2.1.3. The Frequency Distribution

5.2.1.4. The t-Test

5.3. Further Improvements

5.4. Summary of Findings and Conclusion
Introduction

This chapter describes and analyses the statistical measures recorded from both groups' performance in the pre-test and the post-test. These measures represent the mean of scores, frequency distribution of students' scores, and the t-Test. All of these statistical inferences help in a better and concrete evaluation of any change in the performance of students. The following sections give a presentation of the scores obtained from students' pre-test and post-test to be analysed and interpreted according to the required statistical measures for a more recognisable and valid quantitative measurement of the students' results.
5.1. Scoring and Measurement of Students Performance

The evaluation system relied on in this research to make the required statistical inferences is a frequently used scoring scale (20 points marking). The students pre-test and post-test were evaluated. The evaluation of students’ pre-test and post-test covers their schematic construction and knowledge. Since the materials presented are of a written nature and the communicative message is form and content, the measurement of students’ performance is related to:

- The functioning of the authenticity language
- Assigning stages of information
- Inferring the author’s purpose

Hence, to find an exhaustive formula of evaluation of the above criteria that goes with the rating scale used in this research, the points of measurement are distributed through two main angles as follows:

- Testing learners’ competence and awareness of the various language options and structures
- Testing learners’ inference of the propositional message vis-à-vis the main purpose of the author
5.2. Data Presentation and Analysis

5.2.1. Presenting Students Scores in the Pre-test Performance and Post-test Achievement

Both groups the control group and the experimental group are pre-tested and post-tested in where the results will be used to be compared and counted according to the required statistical inferences. Both groups, the control group and experimental group, were exposed to the same conditions and time constraints in both tests. First, let us begin with presenting globally the scores of both groups in the pre-test and the posttest which allow us make the corresponding analysis and comparison of the results.

After presenting the scores of both groups in each of the evaluation tests, the results will be measured using the essential statistical measures which describe better the reliability of assessing students’ achievement vis-à-vis the results obtained.

Before the experimental procedure was carried out and teaching students the materials used (as described in Chapter 3), a pre-test was administered to students (the control group and experimental group) in order to make an overview about their performance in the pre-test and compare it with that in the post-test after the treatment. The table below presents the scores recorded for the control group pre-test:
<table>
<thead>
<tr>
<th>N</th>
<th>X (scores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
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<td>4</td>
<td>10</td>
</tr>
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<td>5</td>
<td>7</td>
</tr>
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<td>7</td>
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<td>8</td>
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<td>23</td>
<td>8</td>
</tr>
<tr>
<td>24</td>
<td>6</td>
</tr>
</tbody>
</table>
After presenting the scores of the control group in the pre-test, similarly let us consider the scores of the experimental group in the pre-test evaluation:

<table>
<thead>
<tr>
<th>50</th>
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</tr>
</thead>
<tbody>
<tr>
<td>51</td>
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<tr>
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<td>53</td>
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<td>54</td>
<td>6</td>
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<td>59</td>
<td>9</td>
</tr>
<tr>
<td>60</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 20: The Control Group Pre-test Scores
<table>
<thead>
<tr>
<th>N</th>
<th>X (scores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>9</td>
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<td>3</td>
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<td>46</td>
<td>8</td>
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<tr>
<td>47</td>
<td>5</td>
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<tr>
<td>48</td>
<td>6</td>
</tr>
<tr>
<td>49</td>
<td>11</td>
</tr>
</tbody>
</table>
After conducting the experimental procedure where learners were exposed to the criteria applied in the treatment materials (Refer back to Chapter 3) which aim at enhancing their schematic knowledge, a post-test was administered to both groups (the control group and experimental group). The tales below present the scores recorded in the post-test. These scores complete the picture of evaluation to make the statistical inferences which allow measure and see the presence of an improvement or not. Let us start with the scores of the control group scores in the post-test:

<table>
<thead>
<tr>
<th>Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td>51</td>
<td>8</td>
</tr>
<tr>
<td>52</td>
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<td>6</td>
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<tr>
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</tr>
<tr>
<td>60</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 21: The experimental Group Pre-test Scores
<table>
<thead>
<tr>
<th>N</th>
<th>X (scores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
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<td>4</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
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<tr>
<td>6</td>
<td>9</td>
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<tr>
<td>7</td>
<td>4</td>
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<td>8</td>
<td>4</td>
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<td>8</td>
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<td>6</td>
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<td>11</td>
<td>8</td>
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<td>12</td>
<td>4</td>
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<td>13</td>
<td>9</td>
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<td>14</td>
<td>6</td>
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<td>15</td>
<td>9</td>
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<tr>
<td>16</td>
<td>9</td>
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<tr>
<td>17</td>
<td>5</td>
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<tr>
<td>18</td>
<td>8</td>
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<tr>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>21</td>
<td>5</td>
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<tr>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
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<tr>
<td></td>
<td></td>
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<td>---</td>
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<tr>
<td>25</td>
<td>9</td>
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<tr>
<td>26</td>
<td>5</td>
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<tr>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>28</td>
<td>11</td>
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<tr>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>31</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>6</td>
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<tr>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>34</td>
<td>10</td>
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<tr>
<td>35</td>
<td>9</td>
</tr>
<tr>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td>37</td>
<td>6</td>
</tr>
<tr>
<td>38</td>
<td>3</td>
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<tr>
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<tr>
<td>41</td>
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<td>42</td>
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<tr>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td>44</td>
<td>10</td>
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<tr>
<td>45</td>
<td>8</td>
</tr>
<tr>
<td>46</td>
<td>4</td>
</tr>
<tr>
<td>47</td>
<td>7</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>49</td>
<td>9</td>
</tr>
</tbody>
</table>
Table 22: The Control Group Post-test Scores

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>6</td>
</tr>
<tr>
<td>51</td>
<td>9</td>
</tr>
<tr>
<td>52</td>
<td>7</td>
</tr>
<tr>
<td>53</td>
<td>3</td>
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<td>54</td>
<td>6</td>
</tr>
<tr>
<td>55</td>
<td>6</td>
</tr>
<tr>
<td>56</td>
<td>3</td>
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<tr>
<td>57</td>
<td>3</td>
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<tr>
<td>58</td>
<td>3</td>
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<tr>
<td>59</td>
<td>2</td>
</tr>
<tr>
<td>60</td>
<td>2</td>
</tr>
</tbody>
</table>

Related to the post-test achievement, the following table reports the scores obtained from the experimental group post-test:
<table>
<thead>
<tr>
<th>N</th>
<th>X (scores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
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<tr>
<td>7</td>
<td>17</td>
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<tr>
<td>8</td>
<td>12</td>
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<tr>
<td>9</td>
<td>14</td>
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<td>10</td>
<td>15</td>
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<td>11</td>
<td>11</td>
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<td>19</td>
<td>15</td>
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<td>20</td>
<td>9</td>
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<td>21</td>
<td>10</td>
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<tr>
<td>22</td>
<td>10</td>
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<td>23</td>
<td>6</td>
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<tr>
<td>24</td>
<td>9</td>
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<td>----</td>
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<tr>
<td>25</td>
<td>8</td>
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<tr>
<td>26</td>
<td>10</td>
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<tr>
<td>27</td>
<td>11</td>
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<tr>
<td>28</td>
<td>9</td>
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<tr>
<td>29</td>
<td>7</td>
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<td>32</td>
<td>15</td>
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<tr>
<td>33</td>
<td>8</td>
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<tr>
<td>34</td>
<td>17</td>
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<tr>
<td>35</td>
<td>13</td>
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<td>36</td>
<td>15</td>
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<tr>
<td>37</td>
<td>14</td>
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<td>38</td>
<td>15</td>
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<tr>
<td>39</td>
<td>7</td>
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<tr>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>41</td>
<td>9</td>
</tr>
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<td>42</td>
<td>15</td>
</tr>
<tr>
<td>43</td>
<td>15</td>
</tr>
<tr>
<td>44</td>
<td>14</td>
</tr>
<tr>
<td>45</td>
<td>17</td>
</tr>
<tr>
<td>46</td>
<td>15</td>
</tr>
<tr>
<td>47</td>
<td>12</td>
</tr>
<tr>
<td>48</td>
<td>13</td>
</tr>
</tbody>
</table>
After having a full picture of all scores recorded from students evaluation in the pre-test and the post-test, all data to make the statistical measures are ready to decide about their enhancement or not. The coming sections explain better these measures:

5.2.1. Statistical Analysis and Results

5.2.1.1. Calculating the Mean

The mean of learners’ scores is of great importance to see if there is a difference between learners’ performance in the pre-test (before treatment) and the post-test (after treatment). This is to make the required
comparisons of results. The mean can be obtained from gathering all frequencies of scores and multiplying them by the number of students as it is shown in the following formulae:

\[ x = \sum fx/N \]

After counting the mean based on the previously presented scores, the control group mean in the pre-test is 6.95 and in the post-test is 6.67. So, there is no significant improvement in the performance of the control group when comparing its means in the pre-test and the post-test. Concerning the experimental group, after gathering the scores and multiplying them by students number, the result is that the mean in the pre-test is 6.70 and the post-test is 12.25. And as a preliminary observation, a significant improvement in the performance of students is noticed when comparing their pre-test and post-test.

Besides the mean of both groups in each test, consideration of students’ scores below and above average is also of great importance to notice any change in their performance. Indeed, considering the students’ improvement in terms of the means alone is not enough. Other statistical considerations and inferences should be done to make sure of the positive effect of the treatment. The coming table will summarise the students above and below average scores in the pre-test and the post-test:
The results recorded in the tables above show that there is no great difference between the performance of the control group in the pre-test and the post-test. Hence, 50 students or 83.33 % of the control group got below average scores in the pre-test with almost the same observation with 39 students (65 %) in the post-test. And concerning above average scores, there are 10 students (16.66 %) in the pre-test and 21 students (35 %) in the post-test.

Moreover, as far as below and above average scores of the experimental group scores in the pre-test and the post-test, consider the following table:

<table>
<thead>
<tr>
<th>Scores total number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group below average Scores in the pre-test</td>
<td>50</td>
</tr>
<tr>
<td>Control group above average Scores in the pre-test</td>
<td>10</td>
</tr>
<tr>
<td>Control group below average Scores in the post-test</td>
<td>39</td>
</tr>
<tr>
<td>Control group above average Scores in the post-test</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 24 : Below and Above Average Scores of the Control Group

Pre-test and Post-test
<table>
<thead>
<tr>
<th>Scores total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>number</td>
<td></td>
</tr>
<tr>
<td>Experimental group below average Scores in the pre-test</td>
<td>52</td>
</tr>
<tr>
<td>Experimental group above average Scores in the pre-test</td>
<td>8</td>
</tr>
<tr>
<td>Experimental group below average Scores in the post-test</td>
<td>14</td>
</tr>
<tr>
<td>Experimental group above average Scores in the post-test</td>
<td>46</td>
</tr>
</tbody>
</table>

Table 25: Below and Above Average Scores of the Experimental Group Pre-test and Post-test

The above table shows a significant difference in the performance of the experimental group in the pre-test and the post-test. So, when considering above and below average scores in the pre-test and the post-test, 52 students (86.66 %) got below average scores in the pre-test and 14 students (23.33 %) in the post-test. The improvement is shown in the number of students who got above average scores in the pre-test and the post-test. Indeed, there are 8 students (76.66 %) in the pre-test and 46 students (76.66 %) in the post-test. This is reflecting a huge achievement when comparing it with the control group.

In addition to the mean besides above and below average scores, there are further statistical requirements to be considered in the phase of evaluation. The following table summarises all of these statistical concepts:
<table>
<thead>
<tr>
<th></th>
<th>PreCTL</th>
<th>PostCTL</th>
<th>PreEXP</th>
<th>PostEXP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>6,95</td>
<td>6,67</td>
<td>6,70</td>
<td>12,25</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>7,00</td>
<td>7,00</td>
<td>7,00</td>
<td>13,00</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td><strong>Std. Deviation</strong></td>
<td>2,432</td>
<td>2,589</td>
<td>2,338</td>
<td>3,150</td>
</tr>
<tr>
<td><strong>Variance</strong></td>
<td>5,913</td>
<td>6,701</td>
<td>5,468</td>
<td>9,919</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>10</td>
<td>11</td>
<td>11</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 26: Mean, Median, Mode, Standard Deviation, and Variance of the Control and Experimental Groups in the Pre-test and the Post-test

The table above shows a clear difference between the performance of the control group and experimental group. All of the above concepts are extracted from students’ scores. They are explained as follows:
5.2.1.2. Median and Mode

The median is the value that mediates between the scores distribution and the mode is that frequent score in a set of scores. As it is shown in the above table, the median is 7 in each of the PreCTL, PostCTL, and PreEXP; while, in the PostEXP it is 13. Concerning the mode, the frequent score in the control group pre-test is 6 and the post-test is 9. However, the frequent score in the pre-test of the experimental group is 8 and in the post-test is 15. So, the median and the mode of the experimental group scores in the post-test shows a remarkable positive performance when compared to the control group.

Moreover, what is noticed from the previous table is that the control group scores in the pre-test are between 2 as the lowest score and 10 as the highest score and in the post-test the scores are between 2 as the lowest and 11 as the highest. However, the experimental group scores are between 2 as the lowest score and 11 as the highest in the pre-test and between 6 as the lowest score and 18 as the highest score in the post-test. This is to see the range of scores distribution in each group. So, the control group scores in the pre-test are distributed in the range (2-10) and the post-test in the range (2-11); while, the experimental group scores in the pre-test are distributed in the range (2-11) and in the post-test in the range (6-18). For a better explanation and visual presentation of those
concepts and scores let us consider the scores frequency of distribution in the next section:

5.2.1.3. The Frequency Distribution

As a preliminary observation, the students of the experimental group recorded better scores when comparing them to the control group vis-à-vis the mean, the average of scores, and ranges. Hence, the result will be the frequency distribution of the scores mainly above average scores of the experimental group is better than scores frequency distribution of the control group. The coming tables show clearly the frequency of scores of both groups, the control and experimental group in the pre-test and the post-test.

Considering the frequency of the scores allows a better understanding of how the scores are distributed vis-à-vis a global evaluation of the students’ performance along the pre-test performance and the post-test achievement. All of the statistics and results with the relevant charts and histograms were done using the SPSS software version 21. It is a comprehensive and reliable counting system which is able to perform various statistical data.

Before making observations about the distribution of scores frequencies, there should be an attention to considering the frequency of scores in each of the PreCTL, PostCTL, PreEXP, and PostEXP. From the previously mentioned tables presenting students’ scores in the pre-test, we
can extract their frequency which will be presented in the following tables. And for a better visual presentation, each table will be accompanied with the respective histogram to see the deviation of the peak vis-à-vis the variance of scores and clarifies the distribution of both groups’ scores in the pre-test:

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 27 : The PreCTL Scores Frequency

The following histogram represents the deviation of PreCTL group scores:
Figure 32: Histogram of the PreCTL Group Scores Frequency
From the previous obtained frequencies, it is noticed that below average scores take greater frequency percentages such as: Score 6 (35 %), 9 (28 %), 2 (13.3 %), 8 (10 %), and 7 (3.3%) as the least frequent below average score. Concerning above average scores in the PreCTL, there is only one average score, score 10 with a percentage of 10 %.

Similarly, consider score frequencies of the experimental group in the pre-test as shown in the following table:

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>5</td>
<td>13</td>
<td>21.7</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>23.3</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 28: The PreEXP Scores Frequency
Figure 33: Histogram of the PreEXP Group Scores Frequency

Mean = 8.7
Std. Dev. = 2.338
N = 60
The recorded scores frequencies of the PreEXP show a large part of below average scores frequencies: 8 (23.3%), 5 (21.7 %), 9 (15 %), 6 (13.3 %), 2 (6.7 %), 3 (5 %), 7 (3.3 %), 4 (1.7 %). And almost the same observation with the PreCTL, there is one average score, 10 (8.3 %) and one above average score 11, (1.7 %).

After considering scores frequencies of PreCTL and PreEXP, the following tables and graphs make clear the frequencies of PostCTL and PostEXP:

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>5,0</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>11,7</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>8,3</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>10,0</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>13,3</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>3,3</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>15,0</td>
</tr>
<tr>
<td>9</td>
<td>13</td>
<td>21,7</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>8,3</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>3,3</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 29 : The PostCTL Scores Frequency
Figure 34: Histogram of the PostCTL Group Scores Frequency
The previous table shows the scores frequencies of the control group. The presence of higher percentages of below average scores is observed such as: 9 (21.7%), 8 (15%), 8 (13.3%), 3 (11.7%), 5 (10%), 4 (8.3%), 2 (5%). As far as the above average scores are concerned, score 10 (8.3%) and score 11 (3.3%). Comparing these PostCTL scores frequencies with the previous PreCTL scores frequencies, there is no big difference between the below average scores frequencies and above average scores frequencies in both the control group pre-test and post-test.

To see the achievement of the experimental group, consider the following table reporting its scores frequencies in the post-test:
<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td>3,3</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>6,7</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>3,3</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>10,0</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>8,3</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>6,7</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>10,0</td>
</tr>
<tr>
<td>13</td>
<td>6</td>
<td>10,0</td>
</tr>
<tr>
<td>14</td>
<td>8</td>
<td>13,3</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
<td>16,7</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>3,3</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>5,0</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>3,3</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Table 30: The PostEXP Scores Frequency
Figure 35: Histogram of the PostEXP Group Scores Frequency
Unlike the control group, the table of scores frequencies of the experimental group post-test shows the presence of higher percentages of above average scores such as: 15 (16.7%), 14 (13.3%), 13 (10%), 12 (10%), 10 (8.3%), 11 (6.7%), 17 (5%), 16 (3.3%), and 18 (3.3%). Concerning below average scores, there are fewer percentages of them like: score 9 (10%), 7 (6.7%), 8 (3.3%), and 6 (3.3%). When comparing these PostCTL scores frequencies with the previous PreCTL scores frequencies, there is a huge difference in the performance of the experimental group before the treatment (pre-test) and after the treatment (post-test).

Now, let us consider the visual representation of the difference of performance of the control group and experimental group in the pre-test and the post-test:
Figure 36: The Control Group Scores in the Pre-test and the Post-test
The above figures provide us with a clear visual representation of the difference of the performance of both groups the control group and the experimental group in the pre-test and the post-test. The distance between the vertical squares corresponding the frequencies in the left vertical line vis-à-vis the recorded scores in the horizontal line shows clearly that difference.

**Figure 37**: The Experimental Group Scores in the Pre-test and the Post-test
5.2.1.4. The t-Test

Students of the experimental group recorded better scores when comparing them to the control group scores. Hence, the frequency distribution of the scores mainly above average scores of the experimental group is better than the scores frequency distribution of the control group.

In addition to all of the previously discussed statistical inferences, there one remaining crucial element in the statistical assessment itself called the t-test. The t-test is of great importance to precise the exact improvement of students. The following table shows the t-Test recorded of both groups (using the SPSS software):
The present research deals with a paired sample t-test comparison between the performance of both groups, the control group and the experimental group, in the pre-test and the post-test. The recorded means of both groups in the two tests have shown a considerable improvement. In this respect, we have to see whether the difference in the performance of the control group and experimental group before and after the treatment did not happen by chance. The above table reporting on the t-test value shows the measures of comparison: the “Mean”, the “Std. Deviation”, “Std. Error Mean”, lower and upper confidence intervals, “t” (t-score), df (degree of freedom), and the p-value as sig. (2-tailed) column which is the most important measure when considering the significance of the difference in the performance of both groups. The last column shows two main comparisons between the PreCTL group and PostCTL group measures and most importantly comparison
between the PreEXP group and PostEXP group. When considering the p-value as lesser than the standard alpha .05, besides the t-test value between 0 and 1, the measures of comparison are significant which results in the significance of the results where the difference of performance is not caused by mere chance. So, this is representing an improvement in the students’ performance and confirming the hypothesis.

5.3. Further Improvements

The last part of the post-test was about summarising the material presented. To a great extent, students wrote effective summaries. They were more focused and reflective to the order of the author’s ideas. The following are some examples of those written productions:
The negotiations to stop the emissions coming from big industrial countries finished on a disagreement between the countries of the group of 8. Dangerous consequences might follow the emissions like the global warming. The American companies are afraid of this but which will cause several disadvantages and will face a competition from foreign industries. Cutting emissions from one sides might cause in the fall of prices and leads to contrast to more consumption solutions suggested are improving penalties and an international accord including commitments to reduce emissions.

The need for an agreement to restart global trade negotiations in order to follow a common strategy for reducing the greenhouse emissions causing global warming is more than necessary. Therefore, the best attempts for limiting the damage caused by carbon dioxide and other greenhouse gases are seen in opposing the idea of “equalization” in the countries which refuse to cut emissions. Above all, fast growing polluters countries in the world must be exposed to unilateral penalties. Otherwise, not only trade that surely would have problems, but also the world would be in a dramatic danger. Thus, a quick decision and agreement between the concerned people and countries, would keep our world greener for other decades.

A global agreement must be made to stop global warming. Industrial act might cause more problems for those countries and increase the CO₂ emissions. An international accord with commitments on emission reductions all around as well as financial aid for poor countries seem like the proper solution. Without such a deal trade around the earth is again to have problems.
The author speaks about global warming and the effects of it by talking about industries countries which are the main reasons for climate change. And the state that without a worldwide agreement we can’t solve this problem and also many countries agree with the cuts of the trees because it is the only source for the energy in which they use it in industries.

The richest countries restart the negotiation about the global trade after an agreement of 8 summit meeting. But, they would not achieve one method to decrease the greenhouse gases and emissions. After that it has proved that the countries which refuse the limits in carbon emissions will face trade penalties. Moreover, the gases not the main reason to this phenomenon also the lack of a system of import duties related to carbon considered as coefficient reason. Agreement was committed to use trade measures for environmental goals as of Ozone but with trade control there are many countries accord to include it but with decreasing in the use of emissions as it is used in India and China.

The meeting that gathered the group of 8 summit in Copenhagen have not solved the problem of global warming. They could not agree on how to manage between climate change and trade in which they do not accept putting limits on carbon emissions since they cause dangerous pollution. There should be a global agreement on emissions otherwise it will cause competition problems between American industries levying taxes at the borders on carbon content of imports can solve the problem but penalties should not be put . The author concluded that whatever the solution, identifying the quantity of emissions should be considered
5.4. Summary of Findings and Conclusion

The experimental investigation reflects students need to consider the authenticity of language. Students of the experimental group were exposed to a variety of authentic genres. They practiced and analysed the information as a genuine content going beyond the restricted analysis of simplified language. Another interesting aspect mastered by students is taking a critical stance of the arguments expressed in each material. The evaluation of learners’ performance vis-à-vis the scores obtained of both groups as concrete measures of assessing both groups performance proved better their progression. This statistical evaluation was done through: the mean, below and above average scores, frequency distribution of scores, and the t-Test. Indeed, when comparing the results of the control group in the pre-test and post-test, there were no remarkable improvements in their performance. However, the experimental group performed better regardless the length of the material or the difficulty of the language, because they were more focused in their answers and emphasised on the main elements of the ideas and arguments presented.

As a result, students manipulated with the authentic language in a more effective manner. The applied criteria in the treatment in addition to the tasks practiced in class played an important role in enhancing this capacity. All the statistical measures done to evaluate learners’ performance show a considerable amount of improvement. This is
reflecting in turn the positive effect of the experimental study and the criteria applied with students in the treatment. And the hypothesis is confirmed and proves the positive effect of analysing and manipulating with the authentic side of language results in effective ways to complete the schematic picture of learners’ language knowledge.
General Conclusion and Pedagogical Recommendations

This investigation focuses on the utility and usefulness of applying the authenticity aspect in the foreign language context and more specifically in the classroom. Processing the authentic information is generally known as difficult to apply, although many views support its use. It is mostly a source of a sceptical impression and discomfort when it comes to application with foreign language students because of the hard process which requires time to simplify and adapt the authentic material for students besides loosing the authentic body of language structures and patterns.

To solve this problematic issue, an experimental study was conducted to enhance students’ schematic knowledge of authentic structuring to guide them through a purposeful manipulation with authentic materials via their various rhetorical features. Students of the experimental group recorded better results after the treatment. This has proved that enhancing students’ schematic construction depends on the various authentic features of language such as: language patterns and macrostructure, language functions and typology, and metadiscourse functions. Therefore, the present investigation attempted to answer all the questions asked at the beginning of this research. Hence, students could cope with the authenticity aspect of language through analysing the information as updated form of knowledge as in real-world authenticity and highly structured information as in the disciplinary authenticity. The authentic
material is a reflection of interesting and enticing way of presenting information to readers as it was noticed in the real-world authenticity of newspapers language. This is reflected in the authenticity of style and content which helps students in turn during the process of comprehension and information processing. So the information whether news or discussing any issue in politics, economy, and society (etc.) help raise discussions between students. Through this, they will be able to analyse the situation, consider the problems presented, and evaluate the opinions suggested. Similarly, when varying the authentic scope into the disciplinary authentic communication in terms of the different genres dealt with by students in the treatment, the rhetorical consideration is extended and helps to deal with the authentic material in a more logical way.

Additionally, students depend on the communicative entity of authentic language to clarify the context of authenticity. The lexical choice besides the markers of transition of ideas represent a good practice for them regardless the complexity of information in the authentic language. The aspect of hedging and commitment, for example, in the writer’s stylistic choice entail students discussions of the opinions expressed in the authentic materials presented in the experimental study. Practicing the function of language whether descriptive, argumentative and expository (etc.) has shown an effective identification of the information by the experimental group after the treatment. This can be viewed by the editorial section of newspapers and in the disciplinary part-genres where students got a better knowledge of how the claims and
counterclaims are structured in the piece of information. As a result, teachers can direct students’ attention via the amount of practicing the authenticity of language which proves its validity and utility in the classroom context and pedagogy.

Moreover, the aim of this investigation is to make students benefit from the authenticity of language. This was tackled from both types of authentic language whether in the real-world context and the disciplinary context. As far as the limitations of the study are concerned, they can be viewed in the choice of the newspapers articles which were not taken from various names of newspapers coming from British and American newspapers. However, the main concern here is not with American or British varieties because the focus is not on spoken language where the variety of dialects should be taken into account. In the latter context, the specification of the community is of great importance to investigations that deal with the spoken variety which is due to lexical and cultural reasons. In written genres as in the context of the present study, language is well-structured, clearly defined, and rules-governed. And the academic language of newspapers reflects to a great extent this uniformity of communication to deliver news or describe events. Hence, the main objective is to make students adapt a critical stance when dealing with real language data and develop their schematic knowledge to manage effectively with the complexity of style and content regardless the length or difficulty of the material.
Moreover, another step back encountered when designing the tasks for analysing the newspapers language especially with foreign language students is the problem of prototypicality of the structure and language norms. Although the article in a newspaper comprises a generally known structure, few research works specify definitely to what extent this macrostructure is recurrent. The problem of prototypicality cannot be noticed in the authentic disciplinary genres because they reflect certain speech communities. The more this aspect is specified, the more it facilitates the procedure that guides through assigning courses and tasks.

Finally, the applicability of this investigation via pedagogical recommendations for future research can be found in various teaching and learning implications. First, they can be investigated in students production phase. Since this research is particular to the reception process of written authentic materials, a future researcher can attempt to seek the rhetorical criteria of analysis dealt within the treatment. This can be achieved via teaching students how to produce similar genuine materials respecting all the norms and structures of the language. Second, they can be used by any teacher who deals with language authenticity of newspapers or wants to use this kind of materials in the classroom through seeking to what extent newspapers features are prototypical and represent repeated language structures and moves of information. This can be done through a corpus-based research through which the researcher would analyse the various language patterns and structures of the
newspapers article in order to extract their prototypical rhetorical structure.

Thus, this investigation proves that processing information in the authentic scope of language has another dimension of utility and effectiveness which goes beyond the presentation of authentic content. Considering the complexity of the authentic material results in a negative impression from the part of the students especially when they make pre-judgments about the difficulty of the authentic language before attempting to analyse and understand it. The process of comprehension can be dealt with using the required rhetorical ways to cope with the difficulty and approach the authentic material. Hence, authentic language whatever the genre or purpose of application is a rich source of language data which enriches and enhances students’ schematic knowledge.
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APPENDICES

APPENDIX A: The Students Questionnaire

APPENDIX B: The Students’ Pre-test

APPENDIX C: A Theoretical Lecture Given to Students (Experimental Group) in the Treatment Period

APPENDIX D: The Full Version of the Materials Used in the Experimental Study

APPENDIX E: The Students’ Post-test
APPENDIX A

THE STUDENTS QUESTIONNAIRE
Students’ Questionnaire

This questionnaire will help bring useful insights for a research survey. Accurate and precise answers will be appreciated. Thank you in advance for your collaboration and patience in completing this questionnaire.

I/ Section One: Information about students’ schematic knowledge

1. What kind of materials do you use when trying to get background knowledge?
   a) Articles in periodicals □
   b) Well-recognised (native speakers) Newspaper articles □
   c) Books □
   d) All of them □

2. Do you think that using materials from real contexts (real language data) can enhance your background knowledge about the language you are studying?
   a) Totally agree □
   b) Partially agree □
   c) Partially disagree □
   d) Totally disagree □

3. Do you think that you have a clear idea about the authenticity of language?
   a) Yes □
   b) Generally no □
   c) No □
4. When encountered with the language of newspapers, precise its level of ease and difficulty:
   a) Very easy
   b) Easy
   c) Difficult
   d) Extremely difficult

5. If you assume the difficulty in the previous question, specify the source of difficulty that prevents you from doing as well at present (you can choose more than one answer):
   a) Complexity in the writers’ style
   b) Ambiguity in the whole structure
   c) Difficulty in the concepts
   d) All of them

6. Are you familiar with terms like?
   a) Authenticity
   b) Critical thinking
   c) Types of texts
   d) Functionality of language

7. Can you recognize easily the main elements of information in a newspaper article? 
   a) Always
   b) Sometimes
   c) Rarely
   d) Never
II/ Section Two: Information about learners’ strategies and attitudes

8. Do you take a critical stance on any text you read?
   a) Always ☐
   b) Sometimes ☐
   c) Rarely ☐
   d) Never ☐

9. Do you prefer receiving specific guidelines from teachers to help you understand and summarise the authentic language?
   a) Totally agree ☐
   b) Partially agree ☐
   c) Partially disagree ☐
   d) Totally disagree ☐

10. Do you have a given strategy to identify the following when dealing with the authenticity of language?
    a) Author’s purpose Yes ☐ Generally no ☐ No ☐
    b) The whole message of the text Yes ☐ Generally no ☐ No ☐
    c) Author’s arguments Yes ☐ Generally no ☐ No ☐
    d) Relationship between the ideas of the text Yes ☐ Generally no ☐ No ☐

11. If “yes”, please specify the procedure by which you identify each point:
    a) Author’s purpose
       ...........................................................................................................

b) The whole message of the text .................................................................

c) Author’s arguments
.................................................................

d) Relationship between the author’s ideas
.................................................................

12. Rank the following strategies according to their order of importance to you (1, 2, 3...):

a) Getting the meaning of single words and sentences

b) Understanding larger units of the whole text

c) Being able to make the distinction between the main points and details

d) Being able to summarise a passage

e) Drawing conclusions from the ideas of the text

f) Understanding the structure of a text in terms of how the parts relate to one another

g) Recognising the author's assumptions and perspectives

h) Making a complete analysis of the information provided in the text to draw conclusions

i) Recognising the main arguments of the author

Thank you for your collaboration 😊
APPENDIX B

THE STUDENTS PRE-TEST
Students’ Pre-test

The aim of this test is to gather information about students’ understanding of the basic rhetorical aspects of authentic structuring. The latter is manifested in testing students’ intention to construct meaning according to certain organisational patterns.

Accurate and careful answers will help us gain better understanding of the situation in question.

We are thankful for your cooperation and for taking time to complete this test.

I/

a) Consider the following text:

It is debatable whether a significant number of people in Britain today would work harder or more effectively if their take-home pay were increased by the cuts in income tax canvassed by Tories and Liberals in amendments to the finance Bill incentives are a grey area only measurable when you have crossed it, but the presumption must be that lower taxes would help. It is indisputable that if our present system of taxing all incomes above the lowest at high and ultimately crushing rates continues more people will work less hard and less effectively, save by moonlight. Blue collar dishonesty and white collar crime are unlikely to breed a healthy economy.

All political parties, it appears, now agree that this is so. They would be even more obtuse than the electors believe them to be if they did not. In his ‘think again’ letter to the Chancellor of the exchequer last week, John Greenborough, president of the Confederation of British industry, put the case as dispassionately as anyone could.

‘You have said that the key to growth and high employment must lie in an improvement of Britain’s industrial performance. We agree. But the budget as it now stands will not achieve this objective. It is, in effect, a tax on skill…As you yourself have recognised the acquisition of skills and incentives and the acceptance of greater responsibility need to be made much more attractive than at present. Yet by giving much smaller benefits proportionately to the skilled than to the unskilled your proposals will do exactly the opposite.’

The budget poll conducted by MORI for The Sunday Times showed that 73% agreed (only 22 disagreed) ‘that higher paid people pay so much tax that there is no incentive for them to work harder.’ Among members of trade unions the split was 70% -21%; among conservatives, 84%-15%; and among Labour supporters, 65%-30%.
b) Fill in the table by answering the following questions:

1. Identify the topic of this discourse.
2. Identify the function(s) of this discourse (explanation, exposition, description, argumentation, procedure, reporting). Justify.
3. Pick up the elements that signal the link between the ideas of this discourse.

<table>
<thead>
<tr>
<th>Topic</th>
<th>The function and justification</th>
<th>The elements that signal the link between the ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>……………………</td>
<td>The function(s):</td>
<td>……………………………………</td>
</tr>
<tr>
<td>……………………</td>
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</tr>
</tbody>
</table>

…………………..
4. The writer in the above text tries to:

- Give causes and consequences of the topic
- State the problem and derive conclusions
- Make his/her observations about the topic
- Introduce the problem and give solutions
- State opinion about the topic
- Describe events in a given order

5. Summarise the text:

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

II/

a) Consider the following kinds of discourses:

- Newspaper article
- A document in an encyclopedia
- Story
- Report
- Academic article
- Political text
- An article in psychology

Fill in the left column with the above kinds of texts by associating them with the corresponding global organisation:

<table>
<thead>
<tr>
<th>The kind of discourse</th>
<th>The whole Organisation and the content of the kind of discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The writer introduces the problem and gives the solution.</td>
<td></td>
</tr>
<tr>
<td>2. The writer introduces the argument and states the conclusion.</td>
<td></td>
</tr>
<tr>
<td>3. The writer starts from a general observation to a specific one.</td>
<td></td>
</tr>
<tr>
<td>4. The writer expresses his/her agreements and disagreements about the subject.</td>
<td></td>
</tr>
<tr>
<td>5. The writer introduces the causes and then mentions the consequences.</td>
<td></td>
</tr>
<tr>
<td>6. The writer introduces the theory and the problem, and then s/he makes comments to draw conclusions.</td>
<td></td>
</tr>
</tbody>
</table>

b) Justify each choice:

1. ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ......

2. ........................................................................................................................................
   ........................................................................................................................................
c) From the previously mentioned types of discourses (in Part II), associate the appropriate discourse with the relevant function (some of the type of discourses can be repeated):
d) Justify each choice:

1. ............................................................................................................................

2. ............................................................................................................................

3. ............................................................................................................................

4. ............................................................................................................................

5. ............................................................................................................................

6. ............................................................................................................................
APPENDIX C

A THEORETICAL LECTURE

GIVEN TO STUDENTS (Experimental Group) IN THE TREATMENT PERIOD
Discourse Cohesion and Coherence

1) Discourse Cohesion (Linguistic Signals)

Most texts display links between sentences in terms of grammatical features. Halliday and Hasan (1976) develop a model of connectives that signal the progression of the ideas of any discourse. This model involves: conjunction, ellipsis, reference, substitution, and lexical ties. Conjunction makes the link between clauses and sentences in four ways:

- Additive: and, also... (eg. ‘She is intelligent and very reliable’)
- Adversative: yet, though, however...(eg. ‘I’ve lived here for ten years; I’ve never heard of that restaurant’)
- Causal: so, hence... (eg., ‘he fel in the river and caught a chill’)
- Temporal: (‘I got up and (then) made my breakfast’)

Moreover, ellipsis as type of cohesive links can be thought of “zero ties” if the tie is obvious and there is no need to mention it.

Example: A: Were you typing

B: No, I wasn’t

Further cohesive devices can be noticed in lexical ties through repetition, synonymy, antonymy, etc.), reference, and substitution.

However, these cohesive ties are not enough in isolation for describing fully the coherence of discourse. There is a need to consider
further concepts of language functions and structures to describe and analyse the coherent body of any piece of discourse.

2) Discourse Coherence

Discourse is an important unit of any analysis. It involves the purpose and the message to be communicated. Discourse coherence cannot be achieved only by linguistic links or cohesive devices like conjunctions, ellipsis, reference, and substitution. It can be achieved by discourse functions, discourse typology or text types, macrostructure, and metadiscourse functions. Different discourses have different functions like: explanation, discussion, description, or an argumentation, (etc.). To understand the message to be communicated from the piece of discourse, we should focus on the main function(s) of any discourse, the link between the ideas of the text, the global organisation of any discourse.

a) Discourse Functions

There are different functions of language or text types. Each function has a given purpose. The various discourse functions with the purpose of use will be summarised in the following table:
<table>
<thead>
<tr>
<th>Explanation</th>
<th>Discussion</th>
<th>Description</th>
<th>Argumentation</th>
<th>Narration</th>
<th>Reviewing</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>The author explains the reasons and provides causes and effects of</td>
<td>The author expresses his/her opinions and provides arguments (Example: academic article)</td>
<td>The author describes cultural aspects, individuals, events, (etc.) (Example: abstract in an academic article)</td>
<td>The author gives facts and opinions for and against. (Example: debate, political speech, editorial) Connectives of claims (for) In this way, further, in addition, moreover, Connectives of counter-claims (against) However, on the other hand, alternatively, despite this, in contrast, nevertheless</td>
<td>To describe a sequence of events (Example: a story)</td>
<td>To make comments and assessments (Example: editorials in journals, book reviews)</td>
<td>To make a series of steps and directions to be carried out (Example: manuals)</td>
</tr>
</tbody>
</table>
It is really important to know the different structures of a number of texts. Through these functions, we can understand the discourse and see how different structures are formed.

b) The Global Organisation of Discourse (Macrostructure)

Discourse coherence also focuses on the whole organisation of the information and the relationship between the ideas (i.e., the rhetorical organisation) which explains better the structure of any discourse. In addition, it depends on the elements that signal the evolvement of the ideas (i.e., moves) and textual structures. All these aspects help in the study of how discourse is structured and follows regular patterns. Any discourse has a particular organisation that characterises the genre or register. For example, the recipe has the title of the meal and a list of ingredients. A newspaper article has a title, author, location, argument, supporting details. Academic article comprises the structure of: Abstract, Introduction, Problem, Solution, Conclusion.

Concerning the types that comprise given genres can be shown in the following:

- Report: description and explanation
- Argumentation: discussion section of an article
- Description: abstract
- Explanation: Discussion section
- Procedure: Method Section
Macrostructure guides the reader through the coherence of any discourse and helps in identifying the type of situation or the whole message of the piece of discourse. The following are examples of the macrostructure or the whole organisation of some discourses:

- Newspaper Article: Facts-Arguments-Explanation
- Academic article: Introduction Claiming Centrality-background-counterclaiming with previous research-announcing research
- A story: Setting-Complication-Resolution of the Problem
- An Expository text: Situation-Problem-Solution-Evaluation
- An Academic article: comprises the structure of: Abstract, Introduction, Problem, Solution, Conclusion

c) Metadiscourse

Metadiscourse is a tool which signals the progression of the ideas of the piece of discourse. It guides to the link between sentences and helps the reader to the main purpose of the author. There different kinds of metadiscourse markers. The following table shows some of them:

<table>
<thead>
<tr>
<th>Transitions</th>
<th>Frame Markers</th>
<th>Code Glosses</th>
<th>Hedges</th>
<th>Boosters</th>
<th>Attitude Markers</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition,</td>
<td>First,</td>
<td>For instance, for example, in other</td>
<td>Perhaps,</td>
<td>in fact, definitely,</td>
<td>Unfortunately,</td>
</tr>
<tr>
<td>However, thus,</td>
<td>second,</td>
<td>words, such as, namely…</td>
<td>might…</td>
<td>it is clear that…</td>
<td>I agree…</td>
</tr>
<tr>
<td>moreover…</td>
<td>finally, to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>conclude</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Each of the previous elements or signals has a given role in guiding the reader to understand the message to be communicated. Transitions link the ideas of the discourse. Frame Markers signal the logical order of the article or selection. Code glosses signal the explanation and illustration provided. Hedges are really important to know the writers’ doubts about the discourse topic. Boosters can show the writer emphasises on the information. Attitude Markers express writers’ agreements and disagreements about the topic to providing enough arguments about the topic.

➢ The theoretical lecture is based on the following readings:


SUMMARY OF THE MAIN ASPECTS

Macrostructure:

- The author gives causes and consequences of the topic
- The author states agreements and disagreements about the topic (claims/counter-claims)
- States observations
- Introduces problem and gives solution
- States opinion about the topic
- Describes events in a chronological order
Examples of Macrostructures:

Argumentative discourse: arguments-conclusions

Newspaper article: facts-causes, previous events, explanation, background

Editorial: Agreements-disagreements

Academic article: Abstract, Introduction, Problem, Solution, Conclusion

How to make a Summary:

To make a summary, you should keep the structure and the main features of the discourse following these guidelines:

- If the discourse is argumentative, you should summarise the arguments of the author with the main conclusion (relying on attitude markers and transitions).
- If the discourse is a newspaper article, you should mention the facts and the causes.
- If the discourse is an editorial, you should mention briefly the agreements and the disagreements of the author and the conclusion.
APPENDIX D

THE FULL VERSION OF

THE MATERIALS USED IN

THE EXPERIMENTAL STUDY
Can Europe Be Saved?

Not long ago Europeans could, with considerable justification, say that the current economic crisis was actually demonstrating the advantages of their economic and social model. Like the United States, Europe suffered a severe slump in the wake of the global financial meltdown; but the human costs of that slump seemed far less in Europe than in America. In much of Europe, rules governing worker firing helped limit job loss, while strong social-welfare programs ensured that even the jobless retained their health care and received a basic income. Europe’s gross domestic product might have fallen as much as ours, but the Europeans weren’t suffering anything like the same amount of misery. And the truth is that they still aren’t.

Yet Europe is in deep crisis — because its proudest achievement, the single currency adopted by most European nations, is now in danger. More than that, it’s looking increasingly like a trap. Ireland, hailed as the Celtic Tiger not so long ago, is now struggling to avoid bankruptcy. Spain, a booming economy until recent years, now has 20 percent unemployment and faces the prospect of years of painful, grinding deflation.

The tragedy of the Euromess is that the creation of the euro was supposed to be the finest moment in a grand and noble undertaking: the generations-long effort to bring peace, democracy and shared prosperity to a once and frequently war-torn continent. But the architects of the euro, caught up in their project’s sweep and romance, chose to ignore the mundane difficulties a shared currency would predictably encounter — to ignore warnings, which were issued right from the beginning, that Europe lacked the institutions needed to make a common currency workable. Instead, they engaged in magical thinking, acting as if the nobility of their mission transcended such concerns.

The result is a tragedy not only for Europe but also for the world, for which Europe is a crucial role model. The Europeans have shown us that peace and unity can be brought to a region with a history of violence, and in the process they have created perhaps the most decent societies in human history, combining democracy and human rights with a level of individual economic security that America comes nowhere close to matching. These achievements are now in the process of being tarnished, as the European dream turns into a nightmare for all too many people.

(A Newspaper Article : THE NEW YORK TIMES)
A Lesson on Warming

President Obama had hoped to emerge from this week’s Group of 8 summit meeting in Italy with a tentative agreement uniting rich and developing nations in a common fight against global warming. Instead he got a lesson on how divided the world remains on the issue — and how hard he will have to work to pull off an agreement.

Mr. Obama was clearly eager to restore America’s leadership role. He convened a special side meeting of 17 nations — the G-8 plus China, India and seven other developing nations — that together emit 80 percent of the world’s greenhouse gases.

Before the leaders gathered, their negotiators had already settled on a draft communiqué, committing to a 50 percent cut in worldwide greenhouse gas emissions by 2050. The industrial countries would cut theirs by 80 percent, and the developing countries would make “significant” if unquantified cuts. But on Wednesday, things fell apart. The developing nations flatly refused to commit to the 50 percent goal by 2050.

It was not immediately clear why they balked. Some repeated an old demand: that the United States and the other industrialized nations — which bear responsibility for the buildup of greenhouse gases since the beginning of the industrial revolution — should do more and do it faster. Otherwise, the developing nations would be left with an unfair share of the burden while their economies were expanding rapidly.

What is clear is that Mr. Obama and the other leaders of the developed world have yet to come up with the right mixture of pressure and incentives to get the developing countries to commit. The 17 nations did agree to an “aspirational” goal of preventing global temperatures from rising more than 3.6 degrees Fahrenheit. But with global climate talks in Copenhagen only five months away, aspirational goals won’t carry things very far.

If there is any chance of pulling this off, the developed countries are going to have to take away all excuses from China, India and other developing nations. The Europeans have already committed to deep cuts in their emissions. The United States is doing a lot better under Mr. Obama, but it is still lagging.

The House’s climate change bill requires emissions reductions of only 17 percent from 2005 levels by 2020. (The Europeans have pledged themselves to a 20 percent reduction from a much earlier base line, which will require much more aggressive cuts.) We know that getting the Senate to do as well as the House won’t be easy. But Mr. Obama will have to press them to do even better.

Mr. Obama should also continue to talk to the Chinese, who are now the world’s leading emitters of greenhouse gases. A host of top administration officials, Secretary of State Hillary Rodham Clinton included, have made the pilgrimage to Beijing.

The Europeans are concerned that Mr. Obama and the Chinese will cut a less ambitious side deal and undercut a worldwide agreement. There is no evidence to support those suspicions. Mr. Obama, like the Europeans, says he wants a strong deal to bring down emissions. Without China’s participation, the fight against global warming is essentially lost.

Past, Present, and the Quantity of the Year

How long is a year? Ask most people, and they’d say 365 days and not nearly long enough. The year, of course, is the time it takes the Earth to orbit around the Sun, a rate that is slowing fractionally each century. For many reasons, scientists need a more precise definition of the year than its length in days, yet the only unit of time defined in the International System of Units is the second, which is measured in oscillations of cesium atoms.

Recently, a task force of geologists and chemists proposed a new unit of measure called the annus — the Latin word for year — which would use the length of time between one equinox or solstice and the same equinox or solstice a year later. Because the Earth’s orbit varies in temporal length, the annus is keyed to the year 2000, which was 31,556,925.445 seconds long.

Astronomers prefer to use the Julian year — which is 31,557,600 seconds long — and they, like some scientific journals, are not likely to adopt the annus. Many working geologists are objecting to the proposed abbreviation for annus, which is “a.” To the task force, the symbol Ma means mega-annus, or million years. But to geologists, Ma means “million years ago,” and 90 Ma, for instance, means a specific point in the Cretaceous period.

However this is resolved, we are left meditating on a remark made by a pair of geologists who note that a geological date like 90 Ma, or 90 million years ago, implies “before present.” Unfortunately, these geologists write, the present “is not well defined.” We know the feeling. We also know that whatever you call it, the year gets shorter and shorter the older you get.

Copenhagen, and Beyond

The global climate negotiations in Copenhagen produced neither a grand success nor the complete meltdown that seemed almost certain as late as Friday afternoon. Despite two years of advance work, the meeting failed to convert a rare gathering of world leaders into an ambitious, legally binding action plan for reducing greenhouse gas emissions. It produced instead a softer interim accord that, at least in principle, would curb greenhouse gases, provide ways to verify countries’ emissions, save rain forests, shield vulnerable nations from the impacts of climate change, and share the costs.

The hard work has only begun, in Washington and elsewhere. But Copenhagen’s achievements are not trivial, given the complexity of the issue and the differences among rich and poor countries. President Obama deserves much of the credit. He arrived as the talks were collapsing, spent 13 hours in nonstop negotiations and played hardball with the Chinese. With time running out — and with the help of China, India, Brazil and South Africa — he forged an agreement that all but a handful of the 193 nations on hand accepted.

Mr. Obama aside, there were two keys to the deal. One was a dramatic offer of $100 billion in aid from the industrialized nations to poorer countries to help them move to less-polluting sources of energy and to deal with drought and other consequences of warming. The offer had an instant soothing effect on many poorer nations that had been threatening to walk out all week. The other was China’s willingness to submit to a verification system under which all countries would agree to report on their actions and — assuming details could be worked out — open their books to inspection. Transparency is a huge issue in Congress, and Mr. Obama made clear in his opening remarks on Friday that he would not agree to a deal unless China gave ground.

An enormous amount of work lies ahead, both for the president and for the other signatories to what is now being called the Copenhagen Accord. In order to deliver on his promises to reduce America’s greenhouse gas emissions by 17 percent by 2020 and provide a chunk of that $100 billion in aid, Mr. Obama must persuade the Senate to approve a cap-and-trade bill — a huge task.

Meanwhile, there can be no letup by the rest of the world’s negotiators, no matter how tired and beat up they may be. These talks have been so chaotic and contentious that some people believe the United Nations machinery has outlived its usefulness, and real progress will henceforth be made in smaller gatherings of the big players.

There may be some truth to this, but at the moment it is hard to see how many of the arrangements agreed to in principle at Copenhagen — the verification system, for instance — can be made to work without detailed agreements. There must also be some mechanism that holds all countries responsible for doing everything they can to tackle climate change. As it is, the pledges now on the table, from both rich and poor countries, are nowhere near enough to keep atmospheric concentrations of carbon dioxide from rising above dangerous levels.

But for the moment it is worth savoring the steps forward. China is now a player in the effort to combat climate change in a way it has never been, putting measurable emissions reductions targets on the table and accepting verification. And the United States is very much back in the game too. After eight years of playing the spoiler, it is now a leader with a president who seems to embrace the role.

Immigration’s New Year

Mayor Michael Bloomberg of New York City, at his inauguration, pledged to help the Obama administration pass immigration reform. Mr. Bloomberg is a force to reckon with, as he proved with his national campaign against illegal guns. On the same day, four young people in Miami, current or former students at Miami Dade College, began their own determined march to Washington in an effort to bring pressure from the grass roots.

Three of the four were brought to this country illegally as children. Like thousands of other young people, they bear no blame for their status, and they are frustrated that their hard work and bright promise lead to a brick wall. Their protest for a chance to become Americans is courageous because it exposes them to possible arrest and deportation. “We are risking our future because our present is unbearable,” one of them, Felipe Matos, told The Times.

The Obama administration has vowed to press ahead with reform this year. Given the hard economic times, the politics may be bleaker even than in 2007 when reform was scuttled in an ugly battle. The need is just as real — for the undocumented and for the country.

America needs to shut the path to illegal entry and employment while opening smoother and more rational routes to legal immigration. Opponents of reform say the downturn is a terrible time to fix the system, but they are wrong. When the recovery comes, the country will need a functioning system more than ever — one that encourages legal entry and bolsters all workers’ rights.

To do this, the country needs to bring its huge undocumented underclass into the light. This means putting 12 million people on a path to being assimilated. It is not a question of adding new people to the work force; they are here, many helping keep the economy afloat while tolerating low pay and abuse from lawbreaking employers who prefer them to American workers.

Representation Luis Gutierrez, a Democrat of Illinois, already has offered a sensible bill that legalizes immigrants who show that they have been employed, pay a $500 fine, learn English and undergo a criminal background check, among other things.

Opponents will try their best to scuttle reform by claiming to be open to compromise while they insist on prohibitive fees, penalties and requirements that turn the path into a fiction — not a wait of months but of decades or never. That is not reform. And it won’t solve the problem.

After years of tightening the screws, the system is hopelessly frozen. Those who want to fix it will have to shut out the choruses of no-amnestys and over-my-dead-bodys, sidestep the false arguments and press into the headwinds while holding firm to the core of the better solution. To legalize the undocumented, collect their unpaid taxes, free them to earn more and spend more, to get the immigrant escalator to the middle class moving again. The country needs it; the economy needs it; the immigrants need and deserve it.

“No city on earth has been more rewarded by immigrant labor, more renewed by immigrant ideas, more revitalized by immigrant culture,” Mr. Bloomberg said of New York City last week. Substitute “country” in that sentence, as in America, and it is every bit as true.

Britain Votes on Changes to Election System

LONDON — Britons went to the polls on Thursday to vote on a proposal that would change how members of Parliament are elected, potentially increasing the electoral chances of parties that are now perpetually in the minority.

The measure has been championed by the governing coalition’s junior partner, the Liberal Democrats, who until last year had spent a lifetime out of power, chafing at rules seemingly designed to keep them there.

Pre-election polls predict a resounding defeat for the proposal, which would do away with the current system, in which the candidate with the most votes wins the seat — even if the candidate fails to win a majority of the votes. Under the proposed system, voters would rank the candidates for a seat in order of preference, setting off a rolling recount until one candidate wins more than 50 percent of the vote.

The proposal has divided the fractious governing coalition, with the ruling Conservatives, led by Prime Minister David Cameron, vociferously opposing the measure, and the Liberal Democrats, led by Deputy Prime Minister Nick Clegg, betting their political future on its passage. One of the reasons Mr. Clegg gave for joining a Conservative-led government was to put electoral reform, long a cherished notion of his party, before the voters.

In angry scenes in cabinet meetings, prominent Liberal Democrats have accused the Conservatives of scaremongering and misleading the public. And speaking to the BBC, one Liberal Democrat cabinet minister, Chris Huhne, said: “It is frankly worrying if you have colleagues, who you have respected and who you have worked well with, who are making claims which have no foundation in truth whatsoever. If they don’t come clean on this, I am sure the law courts will.”

The “alternative vote,” or A.V., is already used in Australia and some other places. Its proponents argue that it would make voting much fairer, giving parties whose support is widespread but not concentrated in particular areas a better chance of winning more seats while making it harder for big parties to achieve clear-majority victories that usually allow them to govern without partners.

Opponents of the alternative vote maintain that it is expensive, confusing and inclined to lead to coalition governments paralyzed by policy divisions. They also say it would give extremist parties, like the right-wing British National Party, the chance to gain footholds in Parliament.

The electorate in general has not become particularly exercised about A.V.; it is hard to muster a case for voting reform when people are weary of government in the first place and when the last national election was just a year ago.

The results will not be known until Saturday. But the vote will have huge political repercussions. The most serious are likely to be for Mr. Clegg, who has been accused among other things of political miscalculation by insisting that the referendum take place on Thursday, while Britons are voting in local government elections and in elections to the Scottish Parliament and the Welsh Assembly.

Critics of Mr. Clegg’s timing say that the party should have anticipated that its approval rating would be flagging at this point in the electoral cycle, as it is, and that it should have scheduled the vote for another time.
But the complaints go deeper than that. Mr. Clegg last year justified joining a government run by the Conservatives, whose policies are anathema to his own party’s in many areas, in part by vowing to enact voting reform. The change, he promised, would allow the Liberal Democrats to win more seats in future elections.

In the past year, the government has imposed steep budget cuts and embarked on a series of unpopular measures like raising university tuition, reorganizing the National Health Service and making it harder for people to get welfare benefits. At each stage, Mr. Clegg and the Liberal Democrats have come under attack, with party members accusing them of selling out and threatening to defect at the next election.

Much of that would be forgiven, the feeling was, if the party could get its electoral reform proposal accepted.

But that has looked increasingly unlikely as the campaign has gone on. In an ICM poll for the Guardian newspaper, whose results were published on Thursday, 68 percent of those responding said they would vote no on the referendum. Just 32 percent said they would vote yes.

A Real, Unnecessary Crisis for Families

Ben Bernanke, the Federal Reserve chairman, made a strong argument for good early childhood care. In a speech in New York City, he argued that the value can be especially high for disadvantaged children with a strong payoff for the economy. These programs can increase high school graduation rates, and graduates earn more, pay more taxes, and rely less on state-provided health care.

We hope Mayor Michael Bloomberg was listening. At present, the city subsidizes child care for 98,000 children. His new budget would end that support for 16,500 of them in September, for a savings of $95 million in the city’s $65.6 billion budget.

Families receiving public assistance or welfare will not be affected. Those losing the subsidies are deemed working poor — with an income of less than 200 percent of the poverty level or $36,620 for a family of three. They pay from $5 to $100 a week for city-sponsored child care. Few will be able to pay the full cost on their own, and, without a safe and educational place for their children, many won’t be able to keep working. Their only option will be welfare.

The Independent Budget Office of New York City has suggested several better ways to save or raise money. Cutting transportation for private school students would save $37 million a year. A 6 cent tax on every plastic bag provided at stores would raise $94 million, almost exactly what is needed to maintain current child care subsidies. Mayor Bloomberg and the City Council talk about budgeting for the future. Cutting child care is not the way to do it.

(Editorial in The New York Times: Published: May 2, 2011)
Regenerative Medicine: Past and Present

Novel therapies resulting from regenerative medicine and tissue engineering technology may offer new hope for patients with injuries, end-stage organ failure, degenerative disorders and many other clinical issues. Currently, patients suffering from diseased and injured organs are treated with transplanted organs. However, there is a shortage of donor organs that is worsening yearly as the population ages and new cases of organ failure increase. Scientists in the field of regenerative medicine and tissue engineering are now applying the principles of cell transplantation, material science, and bioengineering to construct biological substitutes that can restore and maintain normal function in diseased and injured tissues. In addition, the stem cell field is a rapidly advancing part of regenerative medicine, and new discoveries in this field create new options for this type of therapy. For example, new types of stem cells, such as amniotic fluid and placental stem cells, that can circumvent the ethical issues associated with embryonic stem cells have been discovered. The process of somatic cell nuclear transfer and the creation of induced pluripotent cells provide still other potential sources of stem cells for cell-based tissue engineering applications. While stem cells are still in the research phase, some therapies arising from tissue engineering endeavors that make use of autologous, adult cells have already entered the clinical setting, indicating that regenerative medicine holds much promise for the future.

Keywords Regenerative medicine _ Stem cell _ Tissue engineering _ Cell transplantation _ Biomaterials

(An abstract from a scientific report by Anthony Atala Medicine Studies (2009))
Prevention of Youth Violence: Why not Start at the Beginning?

The product of an applied science is as good as the knowledge that gets into the hands of those who do not produce the science. From this perspective, I applaud the National Institutes of Health’s initiative to ask eminent scientists at the periphery of violence research to report on the state of knowledge for violence prevention. The NIH (2004) report provides to “prevention of violence” scientists a description of how the science is perceived by scientists not directly involved. Two other panels would have been most useful, one made up of practitioners in the field of violence prevention, and another from the general public. The advantage of the scientific panel is that they can criticize the type of science we have been doing. Their criticism should be taken seriously. I certainly share many: the lack of a common language, the lack of genetic and brain research to understand youth violence, and the lack of integration of developmental knowledge in prevention experiments are among those with which I most strongly agree. However, it was unfortunate, though not easily preventable, that the mandate of the panel suffered from some of the main weaknesses of youth violence research. These are clear in the title of the report: “Preventing violence and related health-risking social behaviours in adolescents.” My comments focus on the evidence which makes me conclude that asking the panel to concentrate its attention on preventing “violence” and “related health-risking behaviours” in adolescents was misguided. I attempt to demonstrate why an alternative perspective is needed.

(An Introduction Section in a Sociology Article)

Article written by: Richard E. Tremblay

Journal Name and Year of Publication: J Abnorm Child Psychol (2006)
The global financial (and economic) crisis has created an urgent need to fundamentally rethink how financial systems are functioning and how they are regulated. The worldwide financial collapse leads, in our opinion, also to a quite clear systematic criticism of the economics profession. Over the past three decades economists have developed and relied on models that by and large disregard key-factors (e.g., heterogeneity of decision rules, revisions of forecasting results and strategies, and changes in the social world) that influence the outcomes of financial products as well as those supplied by other markets. Moreover, the work of mainstream economists has crowded out research on major causes of the current financial crisis. There has also been little scientific exploration of early indicators of this systemic crisis and of potential ways of preventing the crisis from developing to a worldwide one. In fact, if one looks through the academic literature of macroeconomics and finance, the possibility of a systemic crisis (i.e., one leading to a collapse of the global economy) appears like a futuristic and unrealistic event that is absent from our economic models. Most economic models offer no explanation for such a crisis and, hence, provide no strategy for defeating it.\textsuperscript{12}

The implicit view behind our standard models is that markets and economies are inherently stable and that they only temporarily deviate from this stability and equilibrium. Thus, we overestimated the capacity of markets to correct disequilibria or at least underestimated the social costs that are caused by such corrections. Hardly anybody, neither politicians nor scientists, expected, for example, the consequences of Lehman Brothers’ bankruptcy—or the back-out of Bear Stearns. Otherwise, that institution probably would have been saved. Hence, the majority of economic researchers failed to warn policy makers about the possibilities of a systemic financial crisis and ignored the work of those, such as, Krugman and Stiglitz, who did.\textsuperscript{13}

Ironically, as the systemic financial crisis developed, economists had no choice but to abandon their models and their trust in markets, and they could “only” produce common-sense economic advice recommending massive government intervention. Common-sense advice, which may sometimes be quite useful, is a poor substitute for a theoretically derived and empirically tested model that can provide urgently needed policy advice, for example, in the area of financial regulation. It is simply not enough to argue that existing models do not foresee such a crisis; what we need are models accommodating the possibility of such systemic financial crises. That we do not yet have such models is astonishing because we experienced a number of somewhat smaller but, nevertheless, important financial crises before (in Asia, Mexico, Russia, the United States, and so on), that already had had tremendous impacts on the economies in the countries involved.\textsuperscript{14}
One explanation for this failure goes back to the profession’s methodological roots. The often-expressed worldview of economic researchers, namely that they are mostly concerned with the allocation of scarce resources, can be short-sighted and misleading. It reduces the work of economists to the study of optimal decisions in well-specified problems of individual choice. The danger in such research is that it loses track of the (sometimes unstable) dynamics of economic systems. Without an adequate understanding of these dynamic economic (especially financial) processes, one is likely to miss important factors that influence the economic system (especially decision-making). The use of the standard and traditional economic models often leads researchers to neglect questions about the stability of the system, a missing coordination of key actors resulting in the possibility of system failures.

One might even put forward the hypothesis that economic researchers have been captured into a sub-optimal equilibrium in which much of their research efforts are not directed towards the most prevalent needs of society. Quite often, the most relevant economic problems in our societies are not addressed; hence, our profession bears part of the responsibility for the current crisis. We have failed to provide as much insight or knowledge into the workings of the economy as possible (here, especially, the financial markets) for the good of a society.

Many of financial economists, who developed the theoretical models, which were then used in actual practice, were well aware of their models’ strong and highly unrealistic assumptions or restrictions, which had to be made to ensure stability. According to Colander et al. (2009: 3), financial economists gave little warning to the public about the fragility or instability of their models. There are a number of possible explanations why they did not warn the public. One is a lack of understanding, which is not a good explanation, because then these financial researchers did not know that their models were unstable or fragile. If it is true, what is quite often said, that financial economists are extremely bright, then they should have understood the limitations of their models. A second explanation is that they did not think that it is their task to warn the public about the fragility of these models. In our opinion, however, “economists, as all other social scientists, have an ethical responsibility to communicate the limitations of the models and the potential misuse of their research” (Colander et al. 2009: 4).

(Section or part-genre of an economic article)

The section subtitle: The Financial Crisis and the Role of Economists

Article written by: Friedrich Schneider & Gebhard Kirchgässner

Journal Name and Year of Publication: Public Choice (2009)
APPENDIX E

THE STUDENTS POST-TEST
When leaders of the world’s richest nations and the big developing countries agreed at the Group of 8 summit this month to restart global trade negotiations, they sent a powerful signal about the need for concerted action to deal with the world’s economic emergency.

It was disturbing, however, that they could not agree on a common strategy for reducing the greenhouse emissions causing global warming. Trade and climate policy have become increasingly entangled. A failure to agree on how to address global warming could undermine half a century of opening world trade.

The House of Representatives proved the point last month when it passed a climate bill that would impose trade penalties on countries that do not accept limits on carbon emissions. Last year, the European Commission approved the idea of an “equalization” levy on imports from countries that have not agreed to cut emissions.

President Obama rightly opposed the penalties in the House bill. Unilateral sanctions are unlikely to work and more than likely to provoke a dangerous protectionist tit-for-tat trade war. Yet if the world’s biggest emitters of CO2 — including the United States, China and India — fail to reach an agreement at a meeting in Copenhagen in December, the temptation for countries that accept limits on emissions to impose unilateral sanctions on countries that do not could well become irresistible.

The main reason, trade and climate change are linked is that the damage inflicted by carbon dioxide and other greenhouse gases is not mainly local or regional. If big emitters do not cut back, atmospheric concentrations of greenhouse gases will continue to rise dangerously no matter what the rest of the world does.

Moreover, without a worldwide agreement on emissions, strict limits in signatory countries would very likely lead to a fall in energy prices in countries that did not agree to cuts — encouraging even more energy consumption in those places and undermining the goal of stopping climate change.

Congress is concerned that domestic limits on carbon emissions would put American companies at a competitive disadvantage with rivals in countries with no such caps. But that is not the only problem. In the absence of a system of import duties related to carbon, industries with high emissions might relocate to no signatory countries to save money. Or they might fail, unable to compete with dirtier and cheaper foreign rivals.

There are precedents for using trade measures for environmental goals. The Montreal Agreement to curb the use of ozone-depleting gases included trade controls on such substances. And the World Trade Organization has suggested that levying taxes at the border on the carbon content of imports would be acceptable if they are devised properly — in the same sort of way as some consumption taxes are levied on imports, ensuring equal treatment with domestic products.

Such tariffs must be part of an international agreement on climate change. Unilateral penalties against fast-growing polluters like China and India would be seen as illegitimate and could easily backfire, scuttling chances of an agreement on climate issues. Congress must refrain from putting sanctions in its climate bill.

An international accord that includes trade-related enforcement measures must also include commitments on emission reductions all around, as well as financial aid for poorer countries, like India and China, to meet the caps without sacrificing economic growth.

Further, any deal must set clear guidelines on how to identify and quantify transgressions and establish appropriate countermeasures. It also must not open a backdoor for protectionism. Without such a deal, trade is going to have problems. Failing to conclude the current negotiations will be the least of them.

This is an editorial from “The New York Times” newspaper published in 2009.
1. What is the main topic of this text?

2. What is the global function of this text?

3. Justify your answer:

4. Globally, what did the author want to express here?

5. Justify your answer:
6. In paragraph no. 5, what did the author want to state?

7. Justify your answer:

8. Within the same paragraph (no. 5), what is the kind of structure or relation here?

9. Justify your answer:
10. What is the relation between the ideas of paragraph no. 10?

11. Justify your answer:

12. What is the message conveyed in the following extract?

“Congress is concerned that domestic limits on carbon emissions would put American companies at a competitive disadvantage with rivals in countries with no such caps. But that is not the only problem. In the absence of a system of import duties related to carbon, industries with high emissions might relocate to no signatory countries to save money. Or they might fail, unable to compete with dirtier and cheaper foreign rivals”. (Paragraph 7)

13. Justify your answer:
14. Based on the whole text, what are the doubts of the author?
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15. Justify your answer.
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16. What is the frequent kind of link between the ideas of this text?
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17. For what purpose having that frequent use of these items?
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18. Summarise the text.
Considérer l'aspect authenticité de la langue et trouver les meilleurs moyens pédagogiques pour initier les apprenants est d'une grande importance dans l'apprentissage de la langue anglaise. Les connaissances et la compréhension de la langue au cours du processus d'apprentissage jouent un rôle fondamental dans la conception schématique des apprenants. Cette conception schématique se reflète dans la structure conventionnelle requise lors du traitement de l'information. Pour cette raison, cette recherche étudie l'effet de l'authenticité de la langue sur les connaissances schématiques des apprenants afin de développer leur capacité à réfléchir d'une manière critique. Un corpus constitué d'une variété de textes a été retenu comme un cadre authentique de la langue afin d'étudier les diverses caractéristiques contextuelles et rhétoriques nécessaires pour la compréhension et le traitement de l'information. Une étude expérimentale avec 120 étudiants (groupe témoin et groupe expérimental) de 3ème année de licence a été réalisée suivi d'un questionnaire administré aux étudiants afin de faire un survol de leurs attitudes sur leurs connaissances schématiques. Les résultats après avoir comparé les deux groupes (groupe témoin et groupe expérimental) ont montré une amélioration remarquable dans la performance du groupe expérimental après le traitement. Ainsi, ils confirment l'hypothèse de cette recherche et prouvent que l'authenticité de la langue a un effet positif sur les connaissances schématiques des étudiants.
تعتبر النصوص الأصلية ذات أهمية كبيرة لطلبة اللغة الإنجليزية وهذا نظرًا لمكانتها البيداغوجية لتحسين المعرفة اللغوية للطلبة. لأن فهم أي نص للقراءة وخاصة عندما يكون هذا النص في سياق لغوي اصلي وواقعي يعكس صعوبة كبيرة من قبل الطلبة. ومنه فهذا البحث يهدف إلى تحسين قدرة الاستيعاب والمعرفة المكتسبة للطلبة محسنا في ذلك القدرة على التحليل المنطقي للمعلومة والذي يدوري يعرف نقص كبير عند طلبة اللغة الأجنبية. إضافة إلى ذلك، فالطلبة بحاجة إلى دراسة مختلف الخصائص الخطابية والمتمثلة في العديد من الوظائف الأسلوبية للبني اللغوي وربط بين أفكار النص الأصلي، ولتحسين هاته القدرة، يتمثل هذا البحث في دراسة تجريبية على 120 طالباً من السنة الثالثة قسم اللغة الإنجليزية في جامعة البويرة منتوري قسنطينة 1، وذلك لجعلهم يسندون قدرتهم الخطابية لفهم أسلوب النص الأصلي لما لها من تأثير كبير على تطوير القدرة الإدراكية للمتعلم. ومن هذا و بعد تحليل أدانهم بعد التجربة التي تمت على الطلبة، فالنتائج بنيت تحسن كبير مستخلصين من ذلك الامكانيات القصوى لتعليم وتوجيه الطلبة إلى المبادئ الأساسية التي تساعدهم على تطوير قدرتهم الإدراكية والمعرفية.