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SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF EARLY CHILDHOOD EDUCATION

Developing Reading Strategies in Elementary EFL Classrooms

Polyxeni G. Manoli

A thesis submitted for the degree of Doctor of Philosophy

Volos, Greece, 2013

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Abstract

The present study focuses on the development of the reading comprehension skill, which is regarded as an active and strategic process during which readers deploy a number of reading strategies in order to construct meaning from English as a foreign language (EFL) texts. In this context, this study aimed to investigate the effectiveness of implementing metacognitive multiple-strategy instruction -consisting of predicting text content, using semantic maps prior to text reading, skimming, scanning, and contextual guessing- on elementary EFL learners' reading performance. In particular, the sample consisted of 135, 11 to 12 year old, Greek-speaking EFL learners. The study, quasi experimental in design, involved an experimental group that received a three-month strategy instruction and a control group that received no such training but participated in pretest, posttest, and follow-up measurements. The instructional approach adopted in this study was Direct Explanation; the strategy instruction can be characterized as cognitive, simultaneously, emphasizing the development of students' metacognitive awareness of reading comprehension with the goal of enhancing their reading achievement and rendering them strategic and independent readers. Another aim of the study was to explore the maintenance of comprehension gains after treatment withdrawal. In addition, the study intended to examine the relationship between students' reading ability level and reading performance as well as the relationship between gender and reading performance after implementing strategy instruction. Before embarking on strategy instruction, teacher interviews and classroom observations were conducted in order to investigate whether the EFL teachers of the classes that constituted the sample of this study instructed students to use reading strategies to derive text meaning. According to the results of the study, the specific EFL teachers were not involved in teaching students how to use reading strategies to construct text meaning. The results also indicated that the EFL students who received strategy training improved their performance in both the posttest and follow-up measurements in relation to the students in the control group. However, the interaction between students' reading ability level and reading performance after strategy instruction was not found to be statistically significant, as it was revealed that all students of the experimental group regardless of their reading ability level reaped great benefits from the treatment. Similarly, the interaction between gender and reading performance was not statistically significant, which requires further research.

Overall, these findings suggest that EFL learners, in particular, young elementary students, should be explicitly taught to use reading strategies, while interacting with written texts, in order to become active, efficient, and independent readers both inside and outside the classroom.

Keywords: Multiple-reading strategy instruction, EFL reading comprehension, reading instruction, strategic reading, elementary classrooms

Abstract (Greek Version)

Η παρούσα έρευνα εστιάζει στην ανάπτυξη της κατανόησης του γραπτού λόγου, η οποία συνιστά μία από τις τέσσερις βασικές δεξιότητες του λόγου στην Αγγλική γλώσσα και μάλιστα εκλαμβάνεται ως ενεργητική δεξιότητα, καθώς ο αναγνώστης στην προσπάθειά του να κατανοήσει το νόημα ενός αγγλικού κειμένου βρίσκεται σε συνεχή αλληλεπίδραση με αυτό, χρησιμοποιώντας διάφορες στρατηγικές κατανόησης γραπτού λόγου. Μέσα σε αυτό το πλαίσιο, η συγκεκριμένη έρευνα αποσκοπούσε στη διερεύνηση της αποτελεσματικότητας της διδασκαλίας ορισμένων στρατηγικών κατανόησης γραπτού λόγου στη βελτίωση της ικανότητας των μαθητών/τριών να κατανοούν και να εντοπίζουν τις απαιτούμενες κάθε φορά πληροφορίες των γραπτών κειμένων στην Αγγλική γλώσσα. Οι στρατηγικές οι οποίες διδάχθηκαν στους μαθητές/τριες ήταν η πρόβλεψη περιεχομένου των κειμένων βάσει τίτλων, υποτίτλων, και εικόνων, η χρήση σημασιολογικού χάρτη προ της ανάγνωσης του κειμένου, η διαγώνια ανάγνωση και το μάντεμα της σημασίας άγνωστων αγγλικών λέξεων από τα συμφραζόμενα. Το δείγμα της έρευνας αποτέλεσαν 135 Έλληνες μαθητές Δημοτικού, ηλικίας 11 έως 12 ετών, οι οποίοι διδάσκονταν την Αγγλική ως ξένη γλώσσα. Η έρευνα περιελάμβανε μια πειραματική ομάδα, στην οποία διεξήχθη η διδασκαλία των στρατηγικών κατανόησης γραπτού λόγου για περίπου τρεις μήνες, και μια ομάδα ελέγχου, η οποία διδάχθηκε την κανονική ύλη με τον πιο "παραδοσιακό" τρόπο. Ωστόσο, όλα τα άτομα συμμετείχαν στις ίδιες δοκιμασίες ελέγχου κατανόησης του γραπτού λόγου, οι οποίες δόθηκαν πριν (pretest) και μετά την παρέμβαση (posttest), καθώς και τρεις μήνες μετά την ολοκλήρωση της παρέμβασης (follow-up study), προκειμένου να διαπιστωθεί η διατήρηση των αποτελεσμάτων της παρέμβασης, το οποίο αποτέλεσε έναν πρόσθετο στόχο αυτής της έρευνας. Η διδακτική προσέγγιση που υιοθετήθηκε ήταν η *Άμεση Επεξήγηση* και η παρέμβαση ήταν γνωστικού τύπου με ταυτόχρονη ενσωμάτωση μεταγνωστικών στοιχείων, προκειμένου να ενισχυθεί η κατανόηση κειμένων και να γίνουν οι μαθητές/τριες αποτελεσματικοί και ανεξάρτητοι αναγνώστες. Επιπροσθέτως, εξετάστηκε το ενδεχόμενο επίδρασης του επιπέδου της αναγνωστικής ικανότητας στην επίδοση των μαθητών/τριών, καθώς και ο ρόλος του παράγοντα του φύλου στη διαμόρφωση των τελικών αποτελεσμάτων. Πριν από την έναρξη της διδακτικής παρέμβασης πραγματοποιήθηκε αρχική συστηματική παρατήρηση στις τάξεις που αποτέλεσαν το δείγμα της έρευνας αλλά και διεξήχθη ημι-δομημένη συνέντευξη με τις δασκάλες της Αγγλικής γλώσσας των

αντίστοιχων τμημάτων, προκειμένου να διαπιστωθεί αν οι μαθητές/τριες διδάσκονται στρατηγικές κατανόησης γραπτού λόγου. Σύμφωνα με τα αποτελέσματα της έρευνας, οι μαθητές/τριες της ΣΤ' τάξης του Δημοτικού Σχολείου δε διδάσκονταν συστηματικά την εφαρμογή στρατηγικών κατανόησης γραπτού λόγου κατά την ενασχόληση τους με γραπτά κείμενα στην Αγγλική γλώσσα. Επιπροσθέτως, τα ευρήματα της έρευνας έδειξαν ότι οι μαθητές της πειραματικής ομάδας βελτίωσαν σημαντικά την επίδοση τους στις δοκιμασίες που χορηγήθηκαν μετά τη διδακτική παρέμβαση σε σχέση με τους μαθητές της ομάδας ελέγχου, αλλά και διατήρησαν τα αποτελέσματα της παρέμβασης τρεις μήνες μετά το πέρας αυτής. Ωστόσο, η αλληλεπίδραση ανάμεσα στους παράγοντες του επιπέδου αναγνωστικής κατανόησης και επίδοσης των μαθητών/τριών δε βρέθηκε να είναι στατικώς σημαντική, καθώς διαπιστώθηκε ότι όλοι οι μαθητές, ανεξάρτητα από το επίπεδο της αναγνωστικής τους ικανότητας, βελτίωσαν σημαντικά την ικανότητα κατανόησης και εντοπισμού των απαιτούμενων κάθε φορά πληροφοριών των γραπτών κειμένων στην Αγγλική γλώσσα.. Παράλληλα, η συσχέτιση φύλου και επίδοσης βρέθηκε μη στατικώς σημαντική, εύρημα που χρήζει περαιτέρω διερεύνησης. Τα πορίσματα αυτής της έρευνας καταδεικνύουν τη συμβολή των στρατηγικών στην ενίσχυση της κατανόησης κειμένων στην Αγγλική γλώσσα και αναδεικνύουν την αναγκαιότητα της συστηματικής διδασκαλίας τους, ιδιαίτερα σε μαθητές/τριες Δημοτικού σχολείου, με σκοπό την ενεργητική εμπλοκή τους στη διαδικασία κατανόησης των απαιτούμενων κάθε φορά πληροφοριών και την εξέλιξή τους σε ικανούς, αποτελεσματικούς και ανεξάρτητους από τη σχολική τάξη αναγνώστες.

Λέξεις-κλειδιά: Κατανόηση γραπτού λόγου στην Αγγλική ως ξένη γλώσσα, διδασκαλία στρατηγικών κατανόησης γραπτού λόγου, διδασκαλία της κατανόησης γραπτού λόγου, στρατηγική προσέγγιση κειμένων, μαθητές/τριες Δημοτικού σχολείου

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deployed in the study and participate in the coding process of the qualitative data of the research as well.

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Throughout the thesis, the following publications have been made:

1) Manoli, P., & Papadopoulou, M. (2012). Graphic organizers as a reading strategy: Research findings and issues. *Creative Education, 3*(3), 348-356.

2) Manoli, P., & Papadopoulou, M. (2012). Reading strategies versus reading skills: Two faces of the same coin. *Procedia-Social and Behavioral Sciences*, *46,* 817-821.

3) Manoli, P., & Papadopoulou, M. (2013**).** Greek students' familiarity with multimodal texts in EFL. *The International Journal of Literacies*, 19(1), 37-46.

4) Manoli, P., & Papadopoulou, M. (2013). Reading comprehension practices in Greek elementary EFL classrooms. *Journal of Applied Linguistics* (under publication).

At the same time, some presentations related to the topic of the thesis were made at the following conferences:

1) Μανώλη, Π., & Παπαδοπούλου, Μ. (2012, Μάρτιος-Απρίλιος). *Απόψεις των δασκάλων αγγλικής γλώσσας στην Πρωτοβάθμια Εκπαίδευση για τις στρατηγικές κατανόησης γραπτού λόγου*. Ανακοίνωση με τη μορφή Poster που

πραγματοποιήθηκε στο 3ο Πανελλήνιο Συνέδριο Γνωστικής Ψυχολογίας "Σκέψη και Μάθηση", Ιωάννινα, Ελλάδα.

2) Manoli, P., & Papadopoulou, M. (2013, February). *Elementary EFL teachers' familiarity with reading strategies.* Paper presented at the 5th International Conference on Educational Sciences, Rome, Italy.

3) Manoli, P., & Papadopoulou, M. (2013, July). *Typography, how noticeable is it? Preschoolers detecting typographic elements in illustrated books.* Paper presented at the 20th International Conference on Learning, Rhodes, Greece.

4) Manoli, P., & Papadopoulou, M. (2013, July). *Strategic reading in multimodal texts: An application in EFL.* Paper presented at the International Conference on Education and New Learning Technologies (5th edition), Barcelona, Spain.

5) Manoli, P. (2013, October). *A Multimodal approach to using comics in EFL classrooms*. Paper presented at the 10th International Conference on Semiotics, Volos, Greece.

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To my parents, George and Helen,

who believed in me and gave me courage to go on

and complete one of the toughest and most challenging tasks of my life.

List of Abbreviations

CALLA	Cognitive Academic Language Learning Approach
CEFR	Common European Framework of Reference
CSR	Collaborative Strategic Reading
EFL	English as a Foreign Language
ESL	English as a Second Language
ESP	English for Specific Purpose
FL	Foreign Language
KPG	Kratiko Pistopoiitiko Glossomatheias/National Foreign Language Exam System
L1	First Language
L2	Second Language
RRR	Round Robin Reading
RT	Reciprocal Teaching
SBI	Strategies Based Instruction
SSBI	Styles-and Strategies-Based Instruction
TSI	Transactional Strategy Instruction
VLS	Vocabulary Learning Strategies

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Chapter 1: Introduction

Reading is an essential language skill, as it is conducive to the development of general language proficiency and greater progress in all academic areas (N. J. Anderson, 1999; Bernhardt, 2005; Grabe & Stoller, 2002). Reading in any language is a cognitively demanding and complex task involving the coordination of many comprehension processes; reading in a second language (L2) can place even greater demands allowing for dual language involvement, language deficiencies, and inappropriate use of strategies, which render reading less efficient (Kern, 1989; Koda, 2005).

Over the last three decades, a considerable amount of L2 reading research has focused on strategy use and has begun to recognize its importance, emphasizing the active role of readers. Research has provided empirical evidence regarding the relationship between the use of reading strategies and successful or unsuccessful L2 reading (e.g., Block, 1986; Geladari, Griva, & Mastrothanasis, 2010; Griva, Alevriadou, & Geladari, 2009; Hosenfeld, 1977; Sheorey & Mokhtari, 2001; Zhang & Wu, 2009). In particular, research has indicated that strategy use differs in more and less proficient readers and that more proficient readers use different types of strategies, which they use in different ways from their poor counterparts. This line of research has led to the investigation of the effect of implementing strategy instruction on students' reading performance. Strategy training relies on the assumption that success in learning mainly depends on appropriate strategy use and that even unsuccessful learners can improve their learning when trained to develop strategies. More recent trends in reading strategy research have focused on conducting multiple-strategy instruction rather than individual strategy instruction highlighting that strategic readers draw on a repertoire of strategies, while interacting with written texts, according to the purpose of reading and the reading tasks (Duke & Pearson, 2002; Grabe, 2009; Pressley, 2006). Pertinent L2 empirical evidence has demonstrated that multiple-strategy instruction can improve students' reading performance (e.g., Aghaie & Zhang, 2012; Kern, 1989; Macaro & Erler, 2008; Song, 1998).

In this context, the purpose of this study was to investigate the effect of implementing multiple-strategy instruction on elementary English as a foreign

language (EFL) students' reading performance in the Greek socio-educational context. EFL is very popular in Greece taking place both in state schools and private language institutes, while it constitutes a compulsory school subject in primary and secondary education. The current study adds to the research on L2 multiple-reading strategy instruction because that population has not been widely represented in the relevant literature, as most of the studies have focused on university students in a variety of L2 learning contexts (see section 3.2.6.3.).

At the same time, allowing for technological development and the inauguration of the digital era, which gave us access to a plethora of texts, there is urgent need for students to become familiar with the appropriate tools, that is, the learning strategies, which will allow them to learn on their own in order to become independent and life-long learners (Oxford, 2011). Although the term learning strategies is mentioned in the English Curriculum (Government Gazette, 2003), the pupil's book for the sixth grade (Efraimidou, Reppa, & Frouzaki, 2009) and the teachers' textbooks (Efraimidou, Frouzaki, & Reppa, 2009) in the Greek EFL learning setting, no further guidelines are provided in terms of strategy instruction and application, failing to make clear the contribution of learning strategies to EFL acquisition. A possible lack of implementing strategy instruction in EFL classes can have detrimental effects on the way EFL educators and students approach reading comprehension, as emphasis is usually placed on *what* to read rather than *how* to read. Much more instructional attention is probably directed towards promoting students' EFL linguistic knowledge, while students' EFL comprehension problems are more commonly treated as language problems.

In this way, allowing for the current socio-educational context in Greece, it was deemed necessary to explore whether EFL teachers instructed Greek-speaking elementary learners to use reading strategies and then, investigate the effects of providing explicit instruction in a set of reading strategies emphasizing, simultaneously, *how* students read rather than what they read in order to help EFL learners self-regulate and monitor their own reading; the above principles are in accordance with the aims of the Common European Framework of Reference for language learning and teaching (CEFR, 2001), which is briefly introduced in section 4.1.1. Therefore, the current study constitutes an attempt to extend L2 multiple-strategy instruction research and provide further empirical evidence with respect to

Greek elementary students in the context of EFL learning hoping to promote strategic reading.

1.1. Defining the Terms Foreign Language (FL) and Second Language (L2)

In this section, a distinction is drawn between the terms FL and L2 that is associated with the purpose of this study. The difference between these two terms has to do with the place where the language is learned and the social and communicative functions it serves (Oxford, 1990). In particular, a FL is learned through private tutoring in a country in which daily communication in the target language is limited, as it is not officially spoken in that country (Oxford, 2003); for example, English is learned as a FL in Greece to help learners communicate elsewhere without direct social and communicative functions within the setting where it is learned. On the contrary, Oxford (2003) added that a SL implies learning the target language in a context in which that language is necessary for daily communication and interaction, as that language is spoken in that country. In this way, EFL is an acronym deployed for English as a foreign language and denotes the use of English in a non-English speaking area, while ESL is an acronym used for English as a second language and refers to the use of English in an English-speaking area.

Nonetheless, during the last few years the term L2 has prevailed throughout literature referring to either a L2 or a FL regardless of the context in which the target language is learnt and used (Oxford, 2003). Therefore, it should be noted that, though the researcher is aware of the difference between FL and L2, these two terms are used interchangeably in the thesis to refer to the learning of an unknown language.

At the same time, the use of the terms “learning” and “acquisition” are used interchangeably in this study.

1.2. The Structure of the Thesis

The current dissertation is composed of seven chapters:

Chapter 1 constitutes the introductory section of the thesis that explains the purpose of the study.

Chapter 2 provides the theoretical framework of the reading comprehension process so that theoretical connections with the concept of reading strategies can be

made explicit. In particular, it elaborates on the processes, the components, and the models of reading comprehension in an attempt to define and explain its nature; differences between first language (L1) and L2 reading are also outlined in order to further conceptualize L2 reading comprehension.

Chapter 3 introduces the concept of learning strategies and presents an overview of L2 reading strategies discussing definitions, classifications, their contribution to reading comprehension, previous research work with a special emphasis on multiple-strategy instruction, which constitutes the main focus of this study. In addition, the learner-centered variables of language proficiency and gender are discussed in relation to L2 strategy instruction, since they are associated with the aims of this study. Moreover, the set of reading strategies embedded in the strategy training programme of this study is given further consideration.

Chapter 4 explains the rationale for this study. More specifically, it presents the contribution of this study to L2 reading research, the current EFL educational setting in Greek primary education, the general design, the aims, the scope, and the research hypotheses of this study.

Chapter 5 elaborates on the methodological procedures that have been adopted in the current study. In particular, it provides information with respect to the contribution of the pilot study to the final development of the treatment, the overall procedure followed, the sample, the research instruments, the teaching intervention, and the reading materials used in the teaching intervention.

Chapter 6 reports on both the qualitative and quantitative results of the experimental design that answer all the research questions of the study. A detailed description is provided in terms of the data that have been collected and the relationships between all the variables of the study.

Chapter 7 discusses and interprets the research findings of the study in relation to similar studies and the Greek socio-educational context. Simultaneously, this chapter includes the ensuing pedagogical implications, the limitations of the present study, the suggestions for further research as well as the final concluding remarks.

The references used to document the conceptualization and the research design of this study are stated in a separate section.

At the end of the thesis there are eight appendices; Appendix A includes the first researcher-designed comprehension test; Appendix B involves the second researcher-designed comprehension test; Appendix C comprises the first two reading lessons of the 10-unit EFL course-book of the sixth grade; Appendix D consists of the categorical checklist used during classroom observation; Appendix E is composed of the interview guide; Appendix F includes the students' background questionnaire; Appendix G involves the reading section of the National FL Exam System/Kratiko Pistopoiitiko Glossomatheias (K.P.G.) (A level- May 2011); and Appendix H consists of the poster depicting the reading strategies emphasized in the intervention.

Chapter 2: Exploring Reading

This chapter provides the theoretical background adopted in this study to reading comprehension. It was deemed necessary for a study focusing on reading strategies to consider the processes involved in reading comprehension, which can be initiated and accompanied by strategies. In this context, an attempt is made to define reading comprehension and explain its nature by elaborating on the processes involved in it and its components so that theoretical connections with the concept of reading strategies can be made explicit. In addition, an overview of the most representative models of reading are presented in order to give an insight into the actual process of reading comprehension. This chapter is generally more oriented to reading ability than to a specific explanation of L2 reading comprehension, as the basic comprehension process is common across L1 and L2 contexts, though there are many differences between L1 and L2 reading that are addressed in a separate section. Grabe (2009) highlighted that complex comprehension abilities are shared across the human species and languages. At the same time, the recognition of this universal aspect of the basic cognitive processes of reading comprehension and its specific variations in different language contexts have also been addressed by other researchers (e.g., Geva & Siegal, 2000; Koda, 2007). After all, research on reading comprehension is more extensively discussed in L1 settings than it is in L2 settings; however, L2 literature is also included, where necessary. Erler and Finkbeiner (2007) held that after many years of research some understanding of what successful L1 reading consists of was achieved which began to shape and influence L2 conceptualizations.

2.1. Defining Reading Comprehension

In contemporary societies, people are engaged in the constant reading of different types of texts, such as magazines, newspapers, flyers, advertisements, posters, e-mails, and novels throughout the day; in more formal settings, such as academic or workplace contexts, they are also involved in reading, which becomes a more demanding activity, as a great deal of learning takes place requiring interpretation of text information in line with the tasks and the goals set (Grabe, 2009). What is more, a great number of people learn to read in a FL, especially in English that has been established as a global language, in order to advance their

studies, get a good job, travel, communicate with others or have access to information (Grabe, 2009). But what is reading like? What processes do skilled readers use while reading?

Reading is often defined as "the process of receiving and interpreting information" (Urquhart & Weir, 1998, p. 22). At the same time, Koda (2005) alleged that "comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is already known" (p. 4). Providing a definition of reading, though it is a common way of initiating a discussion of the concept, is a rather insufficient way of gaining an insight into the actual nature of reading comprehension. Reading comprehension is regarded as a complex, multifaceted cognitive skill drawing on many knowledge sources and processes ranging from lower level processes, such as decoding, to higher level ones involving, for example, integration of text ideas with the reader's prior knowledge, which intricately interact to yield comprehension (Grabe, 2009; Koda, 2007). At the same time, Erler and Finkbeiner (2007) highlighted that "since the 1990s reading comprehension has been seen increasingly to be the result of complex interactions between text, setting, reader, reader background, reading strategies, the L1 and the L2, and reader decision making" (p. 188). In addition, people read for different purposes and use many ways to read texts rendering the whole process more complex (Grabe & Stoller, 2002; Koda, 2005; Psaltou-Joycey, 2010). A characteristic example in literature that is indicative of the complexity of the reading process is Scarcella and Oxford's example (1992). Namely, Scarcella and Oxford paralleled the process of reading to a tapestry, mentioning that the reading process is similar to the process of weaving, where different strands of thread are deployed; in a similar manner, readers need to employ various strategies, such as predicting, comprehending main ideas, inference, contextual guessing, in order to achieve comprehension. In order to offer a more accurate account of the nature of reading comprehension, the processes included in fluent reading comprehension are presented below based on Grabe and Stoller (2002). When it comes to FL reading, in particular, the issue becomes more complicated, as it is a cross-linguistic process involving two languages (Koda, 2007), which is further discussed in section 2.3.5.

2.1.1. The processes involved in fluent reading comprehension. According to Grabe and Stoller (2002) and Grabe (2009), fluent reading comprehension is:

- A rapid and efficient process, which requires the combination of various processing components, such as automatic word recognition, syntactic parsing, text comprehension, critical evaluation, and activation of prior knowledge in relation to text content.
- An interactive process where the different processes involved in reading are carried out concurrently. For instance, while readers are recognizing words, they are analyzing the structure of sentences, identifying the main idea of text, monitoring comprehension and so forth. In addition, reading is interactive in the sense that the text information interacts with the reader's background knowledge, which are two essential components of the reader's interpretation of the text. Namely, readers construct text meaning by interpreting the author's message in terms of their previous knowledge.
- A strategic process during which the reader is required to predict text content, select key information, summarize text information, monitor comprehension, perceive text difficulties, and decide upon the most appropriate actions to adopt in order to complete tasks or overcome comprehension difficulties depending on the purposes for text reading.
- A flexible process during which readers monitor comprehension and adjust reading processes in line with their purposes.
- A purposeful process where readers are engaged in different ways of text reading according to their purposes for reading.
- An evaluating process where readers monitor comprehension and strategy use according to their purposes for reading. Additionally, evaluation occurs in the sense that readers are responsible for deciding if the text information is coherent, interesting or enjoyable, drawing on their expectation and motivation for text reading.
- A comprehending process during which the reader is expected to construct text meaning, an obvious goal of text reading.
- A learning process during which readers acquire new information and enrich their knowledge.
- A linguistic process where the various linguistic processes, such as word recognition or structural organization, contribute to text understanding.

Although reading is conceptualized in different ways and diverse definitions exist, the above processes provide a complex but more sufficient and complete

definition of reading, as they account for what fluent readers do when involved in text reading.

2.1.2. Reading for different purposes: types of reading. Readers read for different purposes and adjust their processing to fit reading purposes (Horiba, 2000; Linderholm & van den Broek, 2002; Swanborn & de Glopper, 2001). Readers, before actually being engaged in text reading, have a predetermined purpose for reading, which provides reasons for action and raises conscious awareness exerting a positive influence on comprehension (Grabe, 2009). In fact, the reader's purpose determines the time spent on reading, the attention paid to what is read, the way in which the reader approaches a reading material, and the strategies used to extract information, which will assist him/her in achieving the goal(s) set (Grabe, 2009; Psaltou-Joycey, 2010). Grabe (2009) highlighted that:

> "goals can range from basic comprehension of text information, such as carrying out simple tasks as part of functional literacy skills (e.g., finding simple information, checking facts, entertaining oneself), to advanced academic goals that may involve critically interpreting texts in the light of an array of other information and using the critical interpretation for other academic tasks (e.g., summarizing a text, synthesizing multiple sources of information, evaluating information, forming an argument, preparing for a test, studying to learn" (p. 51).

At the same time, Koda (2005) asserted that people do not merely read for the sake of reading but they have clear-cut purposes, each of which requires a different way of text-information processing; for example, they skim the newspaper to keep up with the latest news, they scan a telephone directory to find a specific telephone number, they study a biology textbook to get ready for exams or they read a novel for pleasure (Koda, 2005). Therefore, readers adjust their reading speed and strategies in line with the intended purpose for reading in order to read efficiently, as approaching all texts in the same manner would be a waste of time and failure to assimilate the desired information (Grellet, 1981).

In this context, there are different types of text reading depending on the purposes for reading, which are summarized below, though this categorization is not

exhaustive (CEFR, 2001; Grabe, 2009; Grabe & Stoller, 2002; Urquhart & Weir, 1998):

2.1.2.1. Reading to get the gist (skimming). Skimming, which is a selective type of reading, is carried out at a high speed and entails sampling parts of the text for getting the main idea (Carver, 1992; Grabe & Stoller, 2002). Readers usually skim when they are under time pressure and want to know what the text is about or when they want to find out whether it is worth spending more time reading it; they also skim when they have to go through many texts to decide on which text to focus more (Grabe, 2009). Skimming, which also becomes a reading strategy when it is consciously employed, is further explained in section 3.2.7.2.1., as it is associated with the aims of this study.

2.1.2.2. Reading to search for specific information (scanning). In a similar manner, scanning is a selective type of reading, where major parts of text content are omitted, and is conducted at a high speed (Carver, 1992). In other words, scanning allows readers to go through texts quickly in order to extract particular pieces of information, to answer questions or solve a problem and contributes to quick and efficient reading (Grellet, 1981; Urquhart & Weir, 1998). For example, readers can scan television/radio programmes to find out the time of their favorite series. Scanning, which, simultaneously, constitutes a reading strategy when it is consciously used to achieve a particular goal, is further addressed in section 3.2.7.2.2.

2.1.2.3. Reading for detailed or careful understanding. This type of reading, which is associated with reading to learn, is usually applied in academic and professional contexts in which the reader needs to get a significant amount of information and remember both the main ideas and some details (Grabe & Stoller, 2002). Its defining features are that a) it is carried out at a slower rate than the two previous types of reading, as the reader has to deal with the majority of information in the text, b) the reader accepts the writer's organization, for instance, the parts that the writer regards as important, and c) it requires more inference, which entails connection of the text information with the reader's background knowledge (Grabe, 2009; Grabe & Stoller, 2002; Urquhart & Weir, 1998).

2.1.2.4. Reading to integrate information, write, and critique texts. This kind of reading requires critical evaluation and synthesis of different pieces of information

from multiple texts or from different parts of a longer text so that the reader can decide what pieces of information to select and how to integrate them; composing, selecting, criticizing text information, and activating prior knowledge are necessary abilities that are called upon during the specific type of reading (Grabe, 2009; Grabe & Stoller, 2002).

2.1.2.5. Reading for general comprehension. This type of reading takes place when we read a novel or a newspaper story or an article in our leisure time; it requires combination of many processes, such as automatic word processing, syntactic analysis, main idea understanding or use of background knowledge under limited time constraints (Grabe, 2009; Grabe & Stoller, 2002).

It is fairly clear that the process of reading comprehension is a complex, cognitive skill that consists of many processes aligned with the different purposes for reading. Readers adapt their reading strategies according to their purpose for reading. Linderholm and van den Broek (2002) highlighted that "successful reading includes the ability to adjust processing in such a way that learning goals, as a function of reading purpose, are met" (p. 778).

2.2. Models of the Reading Process

Reading, which is viewed as a cognitive activity occurring in the human mind, has been a major interest of cognitive psychologists and has been the focus of much research; reading research, though it has a history of more than a hundred years, is the most thoroughly studied but the least understood subject in education (Urquhart & Weir, 1998). A number of models that describe the reading process from the moment the eye meets the page until the reader reaches comprehension have been put forward during approximately the last 40 years. Models' assumptions are either based on a body of prior research findings leaving, of course, room for further research exploration or are tested through additional research studies (Grabe, 2009). These models can be divided into two major categories: a) metaphorical models that present more abstract orientations to the process of reading comprehension and b) specific models that draw on empirical evidence (Grabe, 2009; Grabe & Stoller, 2002).

2.2.1. Metaphorical models of reading. Metaphorical models of reading include bottom-up, top-down, and interactive models**,** which are often mentioned in

L2 discussions to describe the complex mental process of reading. These general models present a metaphorical interpretation of the various processes involved in reading comprehension (Grabe & Stoller, 2002; Urquhart & Weir, 1998). In other words, the term top refers to higher order mental processes, such as predicting, inference, and use of the reader's prior knowledge or expectations, while the term bottom pertains to the actual text of the page, such as graphemes, words, sentences or paragraphs (Eskey & Grabe, 1988).

2.2.1.1. Bottom-up models. Bottom-up models, often characterized as text/data-driven or process/sequential models, refer to a model of the reading aloud process that focuses on letters, words, and sentences in a linear manner (Grabe, 2009; Urquhart & Weir, 1998). Namely, the reader processes the information presented in the text as a letter-by-letter, word-by-word, and sentence-by-sentence analysis, which is sequentially converted from low-level sensory information into higher-level encodings, while one stage is first completed before another begins (Rumelhart, 1994). Overall, bottom-up models present reading as a mechanical process in which the reader draws on lower-level processes and forms a piece-by-piece mental translation of the text information, while downplaying the reader's background knowledge (N. J. Anderson, 1999; Grabe & Stoller, 2002).

2.2.1.2. Top-down models. In contrast to bottom-up models, top-down models highlight the reader's active role in the comprehension process, the reader's goals, expectations, prior knowledge, and strategic processing (Grabe, 2009). Urquhart and Weir (1998) alleged that "the reader comes to the text with a previously formed plan, and perhaps omits chunks of the text which seem to be irrelevant to the reader's purpose" (p. 42). In other words, these types of models assume that the reader has a set of expectations and predictions about text information and uses enough samples of text information to verify or reject them. In this context, top-down models start with high-level processes highlighting the critical role of inference, the reader's prior knowledge and expectations in the text processing, which can, simultaneously, interact with stages occurring earlier in the sequence. Thus, top-down models view reading "as being conceptually driven by the higher-order stages rather than by low-level stimulus analysis" (Samuels & Kamil, 2002, p. 212).

Taking everything into account, an important difference between bottom-up and top-down models is that the former begin with the printed stimuli and then, proceed the recorded information to the next higher-level stages for additional transformation; the latter start with the higher-level stages focusing on readers' expectations and predictions, which they attempt to confirm working on the printed stimuli, omitting part of it or interacting with stages that were preceded (Samuels & Kamil, 2002).

2.2.1.3. Interactive models. Interactive models combine elements of both bottom-up and top-down models and include interacting hierarchical stages where "a pattern of meaning is synthesized based on information provided simultaneously from several knowledge sources" (Stanovich, 1980, p. 35). These types of models view the reading process as "the product of the simultaneous joint application of all the knowledge sources" (Rumelhart, 1994, p. 878). For instance, it is alleged that the various types of knowledge, such as background knowledge, syntactical, semantic, lexical, and orthographic processes can interact to contribute to text comprehension; all these sources can provide concurrent input to a mechanism, the pattern synthesizer, which is responsible for retaining the information and redirecting it as needed (Samuels & Kamil, 2002). Therefore, there is an interaction between bottom-up and top-down processes, as fluent reading consists of both decoding and interpretation skills (N. J. Anderson, 1999). In fact, Anderson (1999) highlighted that the interactive model is the most comprehensive account of the reading process.

2.2.2. Specific models of reading. In addition to the metaphorical models of reading, some more specific models of reading that rely on empirical reading research evidence and attempt to explain current research findings are briefly presented below. Although a number of such models have been put forward, three widely recognized models of reading that hold a prominent position in discussions of reading are introduced: a) the Construction-Integration Model, b) the Psycholinguistic Guessing Game Model, and c) the Interactive-Compensatory Model, though this list is not exhaustive.

2.2.2.1. Kintsch's construction-integration model. Van Dijk and Kintsch's (1983) construction-integration model focuses on the nature of reading comprehension process and draws a distinction between the construction phase of the

model (labeled as the text model of reading comprehension) and the integration phase ((labeled as the situation model of reader interpretation) asserting that the components of word recognition, syntactic parsing, propositional analyses, prior knowledge, and inferences are all prominent features (Kintsch, 1994, 2004). Van Dijk and Kintsch (1983) introduced the notion of strategies into their text comprehension model in the field of L1 reading. This model assumes that there are different phases or components of comprehension ranging from the most superficial to deep understanding. In particular, the construction phase of the model refers to the automatic bottom-up processing of the text during which the reader interacts with the incoming text information (via word recognition or syntactic parsing) in an attempt to have access to the information intended by the writer (Perfetti, van Dyke, & Hart, 2001). The integration phase of the model refers to the reader's interpretation of the text information and the integration of prior knowledge with the text information based on the reader goals, background knowledge, and expectations in an attempt to learn and retain the new information (Kintsch, 1994, 2004). Perfetti et al. (2001) highlighted that inference is a distinguishing feature between the construction and the integration phase, as the former is inferentially poor and the latter is inferentially rich. In this way, according to Kintsch (2004), comprehending a text requires the combination of a basic and automatic bottom-up construction and an integration process, which becomes the source of learning from texts.

Overall, these two phases or components of reading comprehension account for the ways we read different texts, which incorporate both a view of representing the author's intended meaning and the reader's interpretation and construction of text meaning according to his/her purposes for reading, the types of text, and his/her background knowledge in relation to text content (Grabe, 2009; Kintsch, 1998). More often than not, readers with minimal prior knowledge of the text topic tend to rely more on text information, while those who have sufficient prior knowledge tend to produce greater text interpretation (Kintsch, 1998). FL readers, in particular, who often have limited FL proficiency, tend to develop a minimal text-based construction, while over-relying on the integration component making extensive use of their prior knowledge (Grabe, 2009).

2.2.2.2. Goodman's model. According to Goodman's model (1967, 1973), reading was regarded as a psycholinguistic guessing game that focuses on the

interaction between language and thought within a sociolinguistic context. This model assumes that the process of reading comprehension relies on hypothesizing, sampling, and confirming information based on the reader's background knowledge and expectations about the text content and that all these processes are universal across languages. Namely, good readers bring hypotheses and expectations about the text content and sample the text to confirm their hypotheses. His model regarded as cyclical viewed the brain as responsible for information processing, which recognizes graphic cues, initiates reading, predicts and seeks confirmation of predictions or corrections in case of inconsistencies. In fact, Goodman (1988) conceptualized reading as an active, communicative, meaning-seeking kind of information processing, where the reader uses various strategies and constantly interacts with the text. In this way, Goodman's model is primarily seen as a reader-driven model that emphasizes readers' expectations, while downplaying their reliance on graphophonemic knowledge (Samuels & Kamil, 2002; Urquhart & Weir, 1998). Goodman's model has been regarded as the representative of the top-down approach to reading comprehension, though he has denied this role.

2.2.2.3. Stanovich's interactive-compensatory model of reading. According to Stanovich's model (1980), the process of reading comprehension draws on the integration of information from a variety of sources simultaneously. In addition, the term compensatory refers to the idea that a deficiency in one area of knowledge can be compensated by strength in another area on which there is heavier dependence regardless of the level in the processing system, as the various levels communicate with each other. For instance, if the reader has difficulties in understanding the meaning of a word, s/he may use context clues, which can compensate for this deficiency. This model of reading, which is probably the most prevalent and popular among reading researchers, assumes that lower-level processes operate automatically in fluent reading comprehension (Grabe, 2009; Grabe & Stoller, 2002).

2.2.3. L2 reading models. The literature review presented in the previous sections is mainly drawn from L1 contexts, as most of the knowledge available about L2 reading has relied on L1 reading research, since there is a dearth of L2 reading models with the exceptions of Coady's (1979) and Bernhatdt's (2005) models, which have attempted to explain L2 reading processes but are mainly derivations of L1 models (Nassaji, 2011). Erler and Finkbeiner (2007) pointed out that the main

challenge which L2 reading researchers face is that L2 reading cannot be easily defined, as there is not a complete model of L2 reading. Grabe (2009) has mentioned possible reasons for this lack of L2 reading models, referring to the variety of L2 learning contexts in which students of various linguistic abilities learn to read and the fewer grant-funding opportunities as well.

The early work among people involved in FL reading assumed a rather passive, bottom-up view of reading mainly focusing on decoding, the process of reconstructing the author's intended meaning through recognizing the printed words and building up meaning for texts from the smallest textual units -letters and words- to larger units -phrases and clauses (Carrell, 1988). In the 1970s, there was a shift of attention from decoding to comprehension that emphasized getting information from written texts (Urquhart & Weir, 1998). In fact, Goodman's (1967) psycholinguistic model of reading exerted a strong influence on FL reading, according to which the reader becomes an active participant in the reading process predicting text content, activating prior knowledge, and using parts of the text to confirm predictions and construct meaning. Moreover, a truly top-down approach was adopted in FL reading, when Coady (1979) elaborated on the psycholinguistic model for EFL reading and suggested a model drawing not only on the active participation of the reader in the reading process but on the use of the reader's prior knowledge and strategies to construct comprehension.

2.2.3.1. Coady's reading model. Coady (1979) relied on Goodman's psycholinguistic model and suggested a model for EFL reading that involved three variables: a) conceptual ability, b) processing strategies, and c) background knowledge. According to Coady, conceptual ability refers to the learner's overall intellectual capacity, processing strategies describe the different skills of the reading ability, such as syntactic information, grapheme-phoneme interaction or word meaning, while background knowledge suggests that the reader's existing information or experience is activated to facilitate text comprehension. Coady's model based on the interactive process of reading assumed that the interaction among the three components can produce comprehension; in this way, the EFL reader's prior knowledge is in a constant interaction with conceptual abilities and processing strategies to yield comprehension.

2.2.3.2. Bernhardt's reading model. Bernhardt's (2005) model describes an interactive-compensatory version of models that is composed of three variables: a) world knowledge, b) language, and c) literacy that interact among each other to produce meaning and compensate for deficiencies. According to Bernhardt, world knowledge refers to background knowledge, language involves elements, such as word recognition, syntax, morphology and so forth, while literacy involves operational knowledge, that is, awareness raising of how and why to approach the text through the use of strategies depending on the goal for reading. In addition, his model included other L2 factors, such as L2 proficiency and L1-L2 differences. Bernhardt's model presented a useful framework for explaining the nature of L2 reading, as it allowed for additional factors of L2 difference that are not explained in L1 reading models (Nassaji, 2011).

To sum up, all these models that attempted to explain the actual process of reading comprehension have been widely acknowledged in the reading research. L1 reading models have provided useful implications for instruction, which L2 reading research has drawn upon (Grabe, 2009). Effective FL reading comprehension, in particular, is seen as an interactive process where both bottom-up (text or data-driven) processes, such as automaticity in word recognition, and top-down (reader or conceptually-driven) processes, such as the use of prior knowledge, are intricately integrated to yield comprehension (Carrell, 1988; Eskey & Grabe, 1988; Rumelhart, 1994; Urquhart & Weir, 1998). However, L2 reading research tends to focus on the high-level processes more, such as using or building background knowledge and developing strategies to construct text meaning, which is the major aim of reading (Urquhart & Weir, 1998).

2.3. Relationship between L1-L2 Reading

In order to explain and further conceptualize FL reading comprehension, the relationship between L1 and L2 reading is explored by highlighting their major similarities and differences as well as three theoretical formulations, the developmental interdependence hypothesis (Cummins, 1979, 1991), the linguistic threshold hypothesis (Alderson, 1984; Clark, 1980; Yorio, 1971), and the dual-language processing system (Koda, 2005, 2007). The above theories, which have been put forward to explain the relationship between L1 and L2 reading, refer to two

distinct components, L1 reading abilities and L2 proficiency that seem to interfere in FL reading comprehension. The first hypothesis highlights the importance of L1 reading as a prevalent source of reading ability differences, while the second hypothesis suggests that L2 knowledge is a prime factor accounting for L2 reading ability variance; the third one assumes that L2 reading, unlike L1 reading, is cross-linguistic and more complex than L1 reading, as it consists of two languages. Pertinent research has emerged from several cross-linguistic studies holding that the nature of L2 reading combines L1 and L2 resources and involves a dual language processing system (Grabe, 2009; Koda, 2005, 2007).

2.3.1. Similarities between L1 and L2 reading. As noted in an earlier section, it is assumed that reading is a universal process (Geva, & Siegal, 2000; Goodman, 1967, 1973; Koda, 2007). In fact, research has shown that a number of aspects of reading are universal, especially those which have to do with cognitive and linguistic processing (e.g., Comrie, Matthews, & Polinsky, 2003). According to Grabe (2009), all readers:

- ✓ deploy word-recognition and phonological processing while reading
- ✓ draw on syntactic information to derive text meaning
- ✓ have predetermined goals and use reading strategies
- ✓ raise metacognitive awareness
- ✓ activate background knowledge to interpret text information
- ✓ automatize well-practised skills

Although the above aspects of reading can be regarded as universal, one limitation that has been accentuated in literature is that these aspects develop differently in various languages, which leads to pinpointing differences across languages and variability patterns of L1 and L2 transfer (Grabe, 2009). For example, though strategy use is a common aspect of reading across languages, one language may cultivate a specific set of strategies more than others deployed in another language. Moreover, heavy reliance on syntactic information occurs in languages, such as English, in which the syntax is quite rigid, while in the Greek language the emphasis is placed more on morphology than on syntax that is not so rigid. These disparities are briefly mentioned in the next section.

2.3.2. Differences between L1 and L2 reading. It is evident that FL reading is even more complex, as FL students have a wider range of language proficiencies,

come with linguistic knowledge of their L1, have different L2 knowledge, topic knowledge or reading experiences, and face transfer effects, which, simultaneously, suggest that FL reading can be quite different from L1 reading (Grabe & Stoller, 2002). In this way, there are a number of key differences between L1 and L2 reading, which can be summarized in three major sets: a) linguistic and processing differences, b) individual and experiential differences, and c) sociocultural and institutional differences (Grabe, 2009; Grabe & Stoller, 2002):

Linguistic and processing differences between L1 and L2 readers.

- ✓ Different amount of lexical, grammatical, and discourse knowledge
- ✓ linguistic differences (e.g., phonology, orthography, morphology) across any two languages
- ✓ different amount of metacognitive processing
- ✓ different amount of exposure to reading
- ✓ different L2 proficiencies
- ✓ different language transfer influences
- ✓ dual language involvement

Individual and experiential differences.

- ✓ different levels of L1 reading abilities
- ✓ different motivations for reading in a L2
- ✓ various types of texts in L2 settings
- ✓ different language resources (e.g. bilingual dictionaries, glossaries etc.) for L2 readers

Sociocultural and institutional differences.

- ✓ various sociocultural backgrounds of L2 readers
- ✓ different ways of text and discourse organization
- ✓ different expectations of educational institutions

In addition to these key differences between L1 and L2 reading outlined above (see Grabe, 2009; Grabe & Stoller, 2002; Koda, 2005, for a thorough review of L1 and L2 reading differences), there are three major theoretical formulations that have attempted to explain the relationship between L1 and L2 reading, including the developmental interdependence hypothesis (e.g., Cummins, 1979, 1991), the language threshold hypothesis (e.g., Alderson, 1984; Clarke, 1980), and the dual-language hypothesis (Koda, 2005; 2007) that are briefly discussed below.

2.3.3. The developmental interdependence hypothesis. The first major theory, the developmental interdependence hypothesis (Cummins, 1979, 1991) assumed that L1 language instruction seemed to support L2 learning implying that there is a common proficiency behind L1 and L2 language learning. In terms of reading, in particular, this hypothesis asserted that reading abilities are common across all languages and that many reading skills, such as morphosyntax (e.g., Y. Sasaki, 1993), phonology (e.g., Hancin-Bhatt & Bhatt, 1997), pragmatics (e.g., Yanco, 1985), and communicative strategies (e.g., Cohen, Olshtain, & Rosenstein, 1986) developed in L1 can be transferred to L2 reading. This theoretical formulation drawing on the concept that reading is universal, interdependent, and transferable (Cummins, 1979, 1991) deemed L1 reading ability as more critical for L2 reading development than L2 proficiency implying that poor L2 readers lacking L2 proficiency can still be successful readers due to L1 literacy skills. Further research has provided some empirical evidence supporting the transfer effect of L1 reading abilities on L2 reading and overall the developmental interdependence hypothesis (e.g., Fecteau, 1999; Sarig, 1987; H. N. Tang, 1997; Van Gelderen, Schoonen, Stoel, de Glopper, Hulstijn, 2007; Verhoeven, 1990, 1994).

Nonetheless, over the course of the years the view that L2 proficiency holds a more prominent role in L2 reading has gained more support and popularity (Grabe, 2009).

2.3.4. The linguistic threshold hypothesis. Another theoretical formulation referring to the relationship between L1 and L2 is the linguistic threshold hypothesis holding that a certain level of L2 knowledge is necessary before L1 reading ability can be transferred to L2 (Clark, 1979, 1980; Yorio, 1971). Namely, the linguistic threshold hypothesis accentuated the importance of L2 proficiency assuming that L2 readers should have sufficient L2 knowledge (e.g., vocabulary, grammar) in order to have access to their L1 reading skills and strategies, which can facilitate L2 text comprehension; namely, a limited L2 proficiency can prevent learners from efficiently transferring their L1 strategic processes to L2 contexts. Clark (1979) identified the role of L2 proficiency as the short-circuit hypothesis and asserted that there is

> "a language competence ceiling which hampers the good L1 reader in his attempts to use effective reading behaviors in the target language; apparently, limited control over the language "short circuits" the good reader's system, causing him to revert to poor reader strategies when confronted with a difficult or confusing task in the second language" (p. 138).

Based on the above contentions in terms of the relationship between L1 and L2 reading, Alderson (1984) raised the famous question of whether poor reading in a foreign language is because of global reading problems or FL problems, which gave rise to several cross-linguistic studies. In fact, Alderson's query identifies two important variables, L1 reading ability and L2 proficiency, which account for reading ability differences. Alderson reached the conclusion that FL reading is a complex interplay of both L1 reading ability and L2 proficiency emphasizing mainly the major role of L2 proficiency. The basic assertion is that L2 readers need to have adequate L2 proficiency before L1 reading abilities can be successfully transferred to L2 reading settings in order to facilitate L2 reading (Alderson, 2000). A large body of cross-linguistic research has provided empirical data that supported the linguistic threshold hypothesis (Asfaha, Beckman, Kurvers, & Kroon, 2009; August, 2006; Bernhardt & Kamil, 1995; Bossers, 1991; Brisbois, 1995; Carrell, 1991; Cziko, 1980; Davis & Bistodeau, 1993; Hulstijn, & Bossers, 1992; Kong, 2006; Laufer & Sim, 1985a; J.-W. Lee & Schallert, 1997; Maarof & Yaacob, 2011; Perkins, Brutten, & Pohlmannm, 1989; Schoonen, Hulstijn, & Bossers, 1998; Taillefer & Pugh, 1998; Tsai, Ernst, & Talley, 2010; Yamashita, 2002; Zwaan & C. M. Brown, 1996). However, some researchers have pointed out that the amount of influence of each variable on L2 reading varies depending on other variables, such as, individual learner differences and the nature of reading tasks; in this way, though the language threshold exists, it cannot be accurately specified, which requires further research (Alderson, 2000; Carrell, 1991; Hudson, 1982; Taillefer, 1996).

2.3.5. A dual-language processing system. In more recent discussions of L2 reading development, it is contented that L2 reading, unlike L1 reading, is cross-linguistic and more complex than L1 reading, as it consists of two languages (Koda, 2005, 2007). According to Koda (2007): "The dual-language involvement implies continual interactions between the two languages as well as incessant adjustments in accommodating the disparate demands each language imposes" (p. 1). In other words,

L2 reading development is a complex and multifaceted skill that is composed of further subskills, the acquisition of which involves distinct linguistic knowledge and two languages (Koda, 2007). Overall, research exploring cross-linguistic interactions maintained that, though L2 reading development is directed by insights from the two languages, L2 reading experience seems to be a stronger factor in facilitating L2 reading subskills (Koda, 2007; Wang, Koda, & Perfetti, 2003).

2.4. Essential Components of Fluent Reading Comprehension

Reading comprehension is regarded as a constellation of distinct components consisting of the interplay of many lower and higher-level processes (Koda, 2007), which are addressed below. To be more precise, the term lower-level processes refers to the more automatic and linguistic processes that are regarded as skills directed and constitute a prerequisite for fluent reading; the term higher-level processes refers to comprehension processes, such as activating the reader's background knowledge or using reading strategies to construct text meaning (Grabe, 2009; Grabe & Stoller, 2002; Koda, 2005). Grabe (2009) highlighted that "these component processes, in combination, provide the best window we have on the reading process" (p. 22). In this context, readers need to be able to develop both lower and higher-level processes in order to achieve fluent reading comprehension, though L2 reading research has focused on the higher-level processes more, as the goal of reading is text comprehension (Urquhart & Weir, 1998); readers should be able to derive text meaning despite possible linguistic shortcomings.

2.4.1. Lower-level processes. In this section, the lower-level processes, including word recognition, vocabulary knowledge, and syntactic parsing are delineated, which pave the way for the fluent reading process (Grabe, 2009).

2.4.1.1. Word recognition. Word recognition or lexical access refers to the processes of recognizing the visual input, extracting its sound, and obtaining its meaning (Urquhart & Weir, 1998). In fact, word recognition is a fast and automatic process, which requires exposure to print and many hours of reading practice; once the eye comes across a word, the reader will automatically have access to its meaning (Muljani, Koda & Moates, 1998). Automatic word recognition, though it was heavily emphasized in L1 settings, facilitates successful FL comprehension, as both low-level and high-level processes interact to yield comprehension (Grabe, 2009; Koda, 2005).

Automatic word recognition is a trait of good readers, while poor readers usually lack word recognition skills, who, thus, are discouraged from further reading, as they experience frustration (Grabe & Stoller, 2002; Koda, 2005).

Automatic and effortless word recognition involves the combination of orthographic, phonological, semantic, and morphological processing, which are delineated below (Grabe, 2009; Grabe & Stoller, 2002; Koda, 2005, 2007; Perfetti, 2007):

- Orthographic knowledge entails "an elaborate matrix of correlations among letter patterns, phonemes, syllables, and morphemes" (Seidenberg & McClelland, 1989, p. 525). It is, thus, a process that is based on the construction of inter-letter associations and requires extensive exposure to visual word input (Koda, 2005). Knowledge of how morphemes are put together to form words contributes directly to vocabulary development and indirectly to the process of reading comprehension (Grabe, 2009).
- Phonological knowledge involves correspondence of graphemes to phonemes, that is, how letters depict sounds (Psaltou-Joycey, 2010). Koda (2007) mentioned that "phonological information extraction requires segmenting spoken words into their phonological constituents, so the acquisition of this skill is substantially facilitated by children's understanding of the patterns of speech sounds" (p. 5). Ability to convert visual input into phonological information is significant for word recognition and new word learning (Koda, 2005).
- Morphological knowledge includes the processing of suffixes and prefixes of words, which helps readers identify familiar components in an unfamiliar word, and thereby extract partial information from familiar word parts (Grabe, 2009; Koda, 2007).
- Semantic processing refers to the "ability to integrate lexical and contextual information" (Koda, 2005, p. 34). In other words, effective semantic processing relies on access to stored word information and context constraints.

2.4.1.2. Vocabulary knowledge. A number of studies have accentuated the strong relationship between vocabulary and reading comprehension, which is separately discussed, as it is associated with the aims of this study. To get a better

understanding of the relationship between vocabulary and reading, it is essential to first clarify what it means to know a word, as word knowledge is complex and multifaceted (Fukkink, Blok & de Glopper, 2001; Grabe, 2009; Koda, 2005; Nation, 2001; Schmitt, 2000). When referring to word knowledge, the simple association between form and meaning is not sufficient (Nation, 2001; Schmitt, 2000). Knowing a word well entails accessing to at least nine aspects of word knowledge (Nation, 2001):

- Spelling
- Morphology
- Parts of speech
- Pronunciation
- Meanings
- Meanings associations (e.g., synonyms, antonyms)
- Collocations
- Further specific uses (e.g., technical)
- Register (e.g., the level of formality, dialect form)

The acquisition of word knowledge outlined above is not a process that develops overnight but requires time and multiple exposures to the target vocabulary in multiple contexts, as word learning is a cumulative process (N. J. Anderson, 1999; Fukkink et al., 2001; Grabe, 2009; Koda, 2005; Nation, 2001). Grabe (2009) contented that learning a word does not mean that we know everything about this word at once but we constantly add new pieces of information about this word to our mental lexical entries and fill in additional pieces of the puzzle, as word meanings modify depending on the communicative context in which we come across a specific word.

In fact, vocabulary knowledge has been inextricably linked with reading comprehension, particularly in L2 settings, as the process of text comprehension is impaired by inability to understand the text's vocabulary (N. J. Anderson, 1999; Droop & Verhoeven, 2003; Harmon, 1998; Laufer, 1997; Nassaji, 2006; Nation, 2001; Paribakht & Wesche, 1999; Qian, 2002; Schoonen et al., 1998). In addition, a considerable amount of research supported the hypothesis that in order to be able to transfer reading strategies from L1 to L2 text reading, L2 learners must firstly attain a threshold level of vocabulary knowledge in the foreign language (e.g., Alderson, 1984; Bossers, 1991, for an extensive review see chapter 2.3.4.). However, this

relationship is not one directional but there is a dual relationship between vocabulary and reading comprehension, as vocabulary knowledge facilitates reading comprehension and, simultaneously, extensive reading leads to vocabulary growth (Fraser, 1999; Grabe & Stoller, 1997; Gu & Johnson, 1996; Nation, 2001; Koda, 2005; Paribakht, & Wesche, 1993, 1999). The former aspect accentuates the importance of decontextualized word learning for building the core vocabulary, while the latter emphasizes the significance of self-regulated word-learning abilities boosting constant and long-term vocabulary development (Koda, 2005). Koda (2005) added that these two views are not mutually exclusive but they can be used conjointly to explain the different ways of learning that contribute to word knowledge expansion as well as the various ways vocabulary knowledge and reading are associated.

In terms of cultivating vocabulary, Schmitt (2002) recommended the following approaches: incidental learning, intentional learning, and independent strategy development.

2.4.1.2.1. Incidental word learning. Vocabulary learning is very different in L1 and L2 contexts. To be more precise, a L1 learner needs to know 40,000 words approximately, while a L2 learner needs to reach a level of 10,000 words approximately in order to read academic texts with a satisfactory level of fluency (Nation, 2001). Given the magnitude of this achievement, it is unlikely that students, especially in L2 settings, reach the goal of learning about 10,000 words through direct vocabulary instruction even in a very intensive language-oriented course (Grabe, 2009; Koda, 2005). In fact, learners can get the number of words required to read academic texts with some level of sufficient comprehension through incidental vocabulary learning. Hulstijn (2001) argued that "incidental vocabulary learning refers to the learning of vocabulary that is the by-product of any activity not explicitly geared to vocabulary learning" (p. 271). Nagy, Herman, and Anderson (1985) contented that "incidental learning from context during free reading is the major mode of vocabulary acquisition during the school years, and the volume of experience with written language, interacting with reading comprehension ability, is the major determinant of vocabulary growth" (p. 234). In this way, incidental vocabulary learning can be accomplished through reading extensively over an extended period of time (Nagy et al., 1985; Nation, 2001; Schmitt, 2000). When learners are engaged in extensive reading, the goal is not to learn new words but to understand; exposure to new words includes minimum attention on behalf of the readers, that is, some effort to

assign possible meaning to a word in order to construct text meaning, or total skipping, as long as text meaning is derived (Grabe, 2009). In a similar manner, Nation (2001) highlighted that "extensive reading involves reading with focus on the meaning of the text" (p. 149). In L1 contexts, research has demonstrated that extensive reading is an essential source of acquiring vocabulary (Cain, 2007; Jenkins, Stein, & Wysocki, 1984; Konopak et al., 1987; McKeown, 1985; Nagy, Anderson, & Herman, 1987; Nagy et al., 1985; Shu, Anderson, & Zhang, 1995; Swanborn & de Glopper, 1999). Drawing on L1 contexts, it was assumed that L2 vocabulary learning could follow the same way (Coady, 1997), which is congruent with Krashen's (1989) "input" hypothesis. In other words, Krashen approved of the superiority of incidental vocabulary acquisition against intentional learning supporting that L2 vocabulary growth is much the same as L1 vocabulary development. L2 experimental studies have indicated that learners can incidentally gain small but significant amounts of vocabulary knowledge as a by-product of reading (Day, Omura, & Hiramatsu, 1991; Dupuy & Krashen, 1993; Paribakht & Wesche, 1993, 1999; Pitts, White, & Krashen, 1989; Saragi, Nation, & Meister, 1978). An important finding brought to light by both L1 and L2 studies is that vocabulary learning is a gradual and incremental process, which requires multiple exposures to a word so that learners can add to or strengthen the small amounts of knowledge derived from previous exposures (Fukkink et al., 2001; Koda, 2005; Nation, 2001). Therefore, large amounts of extensive reading at suitable vocabulary levels are necessary, which exposes learners to multiple encounters with words and contributes to vocabulary growth.

2.4.1.2.2. Intentional vocabulary learning. Incidental vocabulary learning is not the sole way to acquire vocabulary. Intentional vocabulary learning is another way to help learners develop their vocabulary and reading skills. According to Hulstijn (2001), intentional vocabulary learning refers to any activity that aims at helping learners store lexical information to memory. Such learning includes explicit and focused vocabulary teaching, which requires time and special attention (Nation, 2001; Psaltou-Joycey, 2010). This type of teaching should be oriented to high-frequency words, which learners need to acquire in order to function well in the L2 (N. J. Anderson, 1999; Grabe, 2009; Nation, 2001; Psaltou-Joycey, 2010; Schmitt, 2002). Coady, Magoto, Hubbard, Graney, and Mokhtari (1993) advocated that there are approximately 2,000 words which are so frequently found in average texts that teachers should devote instructional time to help learners recognize them

automatically. Simultaneously, Coady et al. (1993) recommended that vocabulary instruction should be achieved by treating words in context. In addition, drawing on the relationship between vocabulary and reading comprehension, it is held that teachers should be involved in vocabulary teaching through a variety of vocabulary activities including matching, collocational matching, sorting or classifying that can accompany a reading material depending on the aspect of vocabulary that the activity focuses on (Nation, 2001). More often than not, in FL contexts there is much greater focus on vocabulary learning as part of explicit instruction through various activities than in L1 contexts (Grabe, 2009). However, "the type of teaching and the amount of focusing depends on the goals of the instruction" (Psaltou-Joycey, 2010, p. 172). If the goal is to have students learn vocabulary well, much time and attention should be devoted to the instruction of the form and meaning of words; if the goal is to make learners simply aware of specific words that they encounter in texts so that they can recognize them in another context and gradually learn them, incidental exposure to vocabulary learning is sufficient; if the goal is to make independent learners, explicitly instructing them in using vocabulary learning strategies (VLS) is necessary as well (Schmitt, 2002).

2.4.1.2.3. Independent strategy development. Independent strategy development refers to training students in the use of VLS so that they become independent learners (Schmitt, 2002). VLS, which are part of learning strategies, grew out of interest in the learners' active role in the learning process, as they give students the chance to take control of their learning process and become independent of teachers' help or dictionaries (Nation, 2001; Schmitt, 1997). There is a variety of VLS learners and educators can choose to focus on, while there is no consensus regarding their classification systems, as several researchers, such as Ahmed (1989), Gu and Johnson (1996) or Schmitt (1997), have identified and categorized various patterns of VLS (Nyikos & M. Fan, 2007). In addition, Psaltou-Joycey (2010) classified VLS into two categories, those that can mainly facilitate incidental vocabulary learning and those that can mainly boost intentional vocabulary learning, though overlapping can occur. VLS are particularly useful for coping with low-frequency words that teachers cannot usually teach, because, regardless of the number of words a L2 learner knows, there will always be unknown words (Nation, 2001). Nyikos and M. Fan (2007) supported that "the most efficient incidental vocabulary learning through reading

seems to occur when incidental learning is coupled with intentional VLS" (p. 263). In this context, a language learner has a lot of knowledge sources and strategies at his disposal when facing unfamiliar words (Haastrup, 1991; Paribakht & Wesche, 1999). Haastrup (1991), in particular, suggested three sources, contextual (use of co-text), intralingual (involvement of the internal structure of words), and interlingual (involvement of L1 and L2 knowledge), which readers can use during lexical inference, lending further support for the first source, contextual use.

In the FL setting, research on VLS has explored, among others, their correlation with the level of language proficiency and success in language learning as well as the most frequently employed VLS using various ways of data gathering, such as questionnaires, interviews, observations or think aloud tasks. To begin with, Ahmed (1989), who investigated Sudanese EFL learners' VLS, found that skilled learners used more strategies more frequently than their poor counterparts, who developed fewer and inappropriate strategies. For instance, good learners tended to employ context to learn new words, associate new words with already known ones, ask others for help or use dictionaries to disambiguate word meaning, whereas poor ones abstained from similar processes. In addition, Sanaoui (1995) examined the approaches to vocabulary learning deployed by students that were learning French as a FL. Sanaoui found that good learners had developed a more systematic, structured, and independent approach to vocabulary learning, as they created opportunities to use the items they had learned or review learned items during their spare moments; by contrast, their poor counterparts developed a less systematic approach, as they relied mainly on the course material and hardly ever reviewed vocabulary. Another study (Gu & Johnson, 1996), which examined VLS of Chinese EFL university students through a questionnaire, revealed a positive correlation between language proficiency and VLS use, such as guessing from context, using dictionaries, creating semantic associations or note taking processes. Simultaneously, Schmitt (1997) investigated the VLS that Japanese EFL learners used over time in relation to proficiency level through a questionnaire. Schmitt indicated that more mature learners tended more often to deploy deeper processing strategies, such as word association, imagining, or analyzing word forms, while younger ones used more surface strategies, such as memorization processes. Deep processing strategies refer to strategies that engage learners in deep interaction with the meaning and form of a word, while surface

strategies refer to processes that do not involve them in word interaction to such an extent, which concurs with the Depth of Processing Hypothesis (Craik & Tulving, 1975). The Depth of Processing Hypothesis argues that the more cognitively involved a learner becomes in the meaning and use of a word, the better the word is stored in memory. M. Y. Fan's study (2003) also corroborated the previous findings, that is, it was found that the more successful learners reported developing a range of strategies, such as, using dictionaries, guessing words from context or reviewing, more frequently than their poor counterparts. By and large, research has demonstrated that proficient readers deploy more VLS more frequently than less proficient ones. In fact, Psaltou-Joycey (2010) highlighted that there is a qualitative difference in the selection of strategies between good and poor students as well. According to research, successful strategy users draw on a range of strategies and opt for the most appropriate strategy, while they are able to switch to another strategy depending on the goal of the task (Nation, 2001; Psaltou-Joycey, 2010). In this way, it is suggested that strategy instruction can help FL learners, especially less skilled ones, who use fewer strategies and apply them rather inappropriately, become more aware of the various ways of coping with vocabulary, which constitutes a thorny problem in FL settings (Mizumoto & Takeuchi, 2009; Nation, 2001; Psaltou-Joycey, 2010).

In a nutshell, it is held that efficient vocabulary learning is a complex interplay of a) incidental word learning through extensive reading, b) intentional vocabulary learning through explicit word instruction, and c) developing VLS through training (Nation, 2001). Although the incidental and intentional approaches to vocabulary learning are often seen as rather opposing, they are, in fact, complementary approaches each of which enhances and supplements the learning outcome in its own way (Koda, 2005; Nation, 2001). At the same time, while incidental vocabulary learning from context is a major source of vocabulary growth, a deliberate focus on the strategies that are needed to carry out this learning is required through explicit instruction, in order to help learners become independent, motivated, and life-long collectors of words (Grabe, 2009; Nation, 2001).

2.4.1.3. Syntactic knowledge. In addition to word recognition and vocabulary knowledge, fluent readers must be capable of developing functional knowledge of grammatical structures in order to manipulate clause-level meaning and interpret what they read, a process known as syntactic parsing (Grabe & Stoller, 2002). More

specifically, Grabe and Stoller (2002) defined syntactic parsing as "the ability to recognize phrasal groupings, word-order information, and subordinate and superordinate relations among clauses (p. 22). Psaltou-Joycey (2010) highlighted that FL learners must be able to understand how the structure of a sentence works, recognize, and process structural patterns and chunks of language, as this ability correlates with the process of reading comprehension. Thus, research has demonstrated that syntactic parsing contributes to FL reading comprehension, as it helps readers clarify more complex and ambiguous syntactic structures, which may impede comprehension (e.g., Fender, 2001; Verhoeven, 1990).

Therefore, it is evident that readers need to master the above lower-level processes in order to be engaged in fluent and effortless reading, which will allow them to concentrate on text content and comprehension.

2.4.2. Higher-level processes. In addition to the lower-level processes, which were discussed above, as they support reading comprehension, readers need to be aware of a set of higher-level processes that represent the actual processes of reading comprehension (Grabe, 2009). Good readers usually have predetermined purposes for reading, interpret text ideas, use reading strategies, activate background knowledge, and monitor comprehension in order to derive text meaning (Grabe & Stoller, 2002). A key feature of higher-level processing is that, though many aspects of these components can be carried out automatically, readers can consciously direct attention to these components, especially when difficulties arise (Grabe, 2009). More specifically, higher-level processes, though they are not uniformly determined in reading literature, include (Grabe, 2009; Grabe & Stoller, 2002):

- use of background knowledge
- text structure knowledge and genre awareness
- strategic processing
- metacognitive knowledge

2.4.2.1. Activation/use of background knowledge in relation to text content. As noted earlier, reading comprehension is the result of a complex integration of text information, appropriate cognitive processes, and the readers' background knowledge (Grabe, 2009). In this context, the critical role of background knowledge in reading

comprehension has been widely recognized in the field of reading, which has its roots in schema theory (Anderson & Pearson, 2002; Rumelhart, 1980). Readers comprehend a text better if they are familiar with its topic, if they read about culturally familiar events or if they are familiar with the text structure (Psaltou-Joycey, 2010). Background knowledge that is often mentioned as "schema" or "schemata" (Bartlett, 1932) in the reading literature involves all the experience that readers bring to a text: life experiences, general knowledge, cultural knowledge, as well as knowledge of how texts are organized rhetorically, to name just a few (N. J. Anderson, 1999).

Within the framework of schema theory, comprehension depends on the activation or construction of a schema that provides a basis for a coherent explanation of the information mentioned in texts (R. C. Anderson, 1994). A reader's schema is viewed as a data structure for representing organized knowledge of the world stored in memory, which facilitates comprehending, learning, and remembering the information in various texts (R. C. Anderson, 1994; Rumelhart, 1980). Concurrently, Rumelhart (1980) regarded schemata as "the fundamental elements upon which all information processing depends" (p. 33) and accentuated that schema theory is virtually a theory about how knowledge is constructed into units and about how access to this knowledge representation can facilitate learning in particular ways (see also McVee, Dunsmore, & Gavelek, 2005, for a review of schema theory). According to this theory, our mind is composed of cognitive structures (schemata) of knowledge, known as prior, background, previous or existing knowledge, which accept and assimilate the newly acquired information in order to enhance learning and retention of information in texts (R. C. Anderson, 1994; Anderson & Pearson, 2002). Two different kinds of schemata have been mainly suggested as important for initiating successful interaction with the text, "content schemata" and "formal schemata". A "content schema" is the individual's knowledge pertinent to the text topic and content, while a "formal schema" refers to the individual's knowledge of the rhetorical organizational structures of the various types of texts, which is further discussed in the next section (Carrell, 1985, 1987). One has comprehended a text when s/he has found a "mental home" for the information in the text or has altered an existing one in order to accommodate the new knowledge, as the meaning of a text does not reside in the text itself but in the interaction between the reader and the text (Anderson & Pearson,

2002; Rumelhart, 1980). In this way, comprehension evolves so smoothly that readers are not aware of the process of activating a schema in order to reach a satisfactory level of comprehension (R. C. Anderson, 1994).

However, some readers, especially less proficient or young ones, seem to lack prior knowledge or fail to spontaneously integrate the new information of a text with their existing knowledge resulting in poor comprehension skills; this means that educators should build learners' prior knowledge and prepare them for reading usually through the form of teacher-directed pre-reading activities, such as vocabulary pre- teaching, semantic maps, questioning or discussions, and predictions pertinent to the text topic based on titles, pictures and so forth (N. J. Anderson, 1999; Anderson & Pearson, 2002; Bransford, 1994; Floyd & Carrell, 1987; Rumelhart, 1980). This assertion has been validated by L1 research findings (e.g., Graves, Cooke, & Laberge, 1983; Langer, 1984; McCormick, 1989; Spires & Donley, 1998).

2.4.2.1.1. L2 reading research. Several L2 studies have shown the impact of background knowledge on reading comprehension. More specifically, this line of research has demonstrated that readers' background knowledge of text content facilitates reading comprehension, as it is easier to comprehend texts with familiar content than texts with unfamiliar content (Bügel & Buunk, 1996; Carrell, 1986; Carrell & Wise, 1998; J. F. Lee, 1986; Levine & Haus, 1985). In addition, research has indicated that readers' cultural knowledge affects text comprehension, as it is easier to comprehend culturally familiar texts than culturally unfamiliar ones (Alptekin, 2006; Carrell, 1987; Erten & Razi, 2009; Floyd & Carrell, 1987; Johnson, 1982; Maghsoudi, 2012; Steffensen, Joag-Dev, & Anderson, 1979). At the same time, it was revealed that prior knowledge can compensate for linguistic deficiencies when reading L2 texts (Grabe, 2004; Hudson, 1982; Johnson, 1982; Ketchum, 2006; Levine & Haus, 1985; Taglieber, Johnson, & Yarbrough, 1988). In fact, lack of prior knowledge or failure to access an appropriate schema can hinder reading comprehension (Bensoussan, 1998; Oded & Stavans, 1994). In this way, it was found that activating prior knowledge through pre-reading activities before having students actually read the text enhanced L2 reading comprehension (Alemi & Ebadi, 2010; H. Chen & Graves, 1995; Erten & Karakas, 2007; Floyd & Carrell, 1987; Johnson, 1982; Maghsoudi, 2012; Taglieber et al., 1988; H. N. Tang & Moore, 1992; Yusuf, 2011; Zhaohua, 2004), especially at lower levels of language proficiency (Hudson, 1982).

The studies reviewed above demonstrated that background knowledge plays a critical role in L2 reading comprehension and is central to the construction of a situation model of text interpretation (Kintsch, 2004), as readers seem to have a higher level of comprehension when the text content is familiar to them. Nunan (1999) contended that "we interpret what we read in terms of what we already know, and we integrate what we already know with the content of what we are reading" (p. 256).

2.4.2.2. Text structure knowledge and genre awareness. Texts are not a random collection of sentences but they are tightly organized to depict the importance of specific ideas and the semantic relationships among their elements; the more coherent a text is, the more easily identifiable structural features it includes (Koda, 2005). Meyer and Rice (1984) defined text structure as specific ways in which "ideas in a text are interrelated to convey a message to a reader" (p. 319). It is evident that different written texts have their own structure, connective devices, and communicative demands within a language as well as across languages and can be classified into different text types belonging to different genres (CEFR, 2001; Koda, 2005). It is suggested that reader's awareness of text structure can enhance reading comprehension and information recalling (Duke & Pearson, 2002; Grabe, 2009; Koda, 2005; Psaltou-Joycey, 2010; Urquhart & Weir, 1998); the reader has background knowledge related to text organization called "formal schemata", which skilled readers employ to comprehend texts better (Carrell, 1987).

To be more precise, the various written text types (e.g., instruction manuals, comics, brochures, public signs and notices, letters, essays, notes etc.) -see CEFR, 2001, for a more detailed description- are further distinguished into more general categories, genres. Grabe (2009) supported that "genres are important for reading comprehension because they introduce distinct levels and types of discourse structuring" (p. 249). There is no consensus regarding the distinction of genres in reading literature, as there are a lot of genres taxonomies. However, a major distinction of genres includes narrative and expository texts (Koda, 2005). The former involve the author's account of events (what, why, when, how happened and who participated in these episodes) that follow a time sequence and permit possible deliberate omission or elaboration on behalf of the author, whereas the latter are essentially informational texts that intend to share new information and knowledge

among readers (Koda, 2005). De Beaugrande (1981) added two more genres, descriptive and argumentative texts (providing arguments in favor of or against a situation), though this distinction is not exhaustive.

In this context, almost all text types have various patterns of discourse organization, known as "rhetorical frames", "knowledge structure" or "discourse structure" in reading literature that depict the different ways that text information is organized (Grabe, 2009). Though there is not a definitive distinction, such structures generally include description, collection (when we mention ideas or facts), comparison-contrast (when we present similarities and differences), cause-effect (when we present the cause and effects of a problem), problem-solution (when we present a problem and its solutions), which can affect reading comprehension diversely (Carrell, 1984a; Grabe, 2009; Psaltou-Joycey, 2010). The specific patterns of text organization are supported by various cohesive devices, including lexical and anaphoric signaling, which good readers are able to recognize in order to enhance comprehension (Grabe, 2009). L1 studies have indicated that instruction designed to raise readers' structural awareness assists them in text comprehending and recalling (Armbruster, Anderson, Ostertag, 1987; Duke & pearson, 2002; Lorch & Lorch, 1996; Meyer & Poon, 2001; Taylor & Beach, 1984). In FL settings, research findings have also demonstrated a positive correlation between raising readers' awareness of text structure and reading comprehension (Carrell, 1984a, 1985, 1992; Chung, 2000; Kitajima, 1997; J. F. Lee & Riley, 1990; Raymond, 1993; Salager-Meyer, 1994; Tian, 1990). Another line of reading research has studied the depiction of text structures by means of visual displays, that is, graphic organizers, such as concept maps, semantic maps, tree diagrams and so forth, in order to raise students' awareness of the rhetorical organisation of the text providing facilitative effects on text comprehension (Alvermann & Boothby, 1986; Armbruster, Anderson, & Meyer, 1991; Berkowitz, 1986; Guri-Rozenblit, 1989; Jiang & Grabe, 2007; Lipson, 1995). FL studies, though pertinent research is not as extensive as L1 research, have indicated comprehension gains for readers when graphic organizers are used to represent the rhetorical patterns of the text (Amer, 1994; Chularut & DeBacker, 2004; El-Koumy, 1999; Jiang, 2012; G. Tang, 1992).

Taking everything into account, awareness of text structure in conjunction with background knowledge of text content can help readers disambiguate lexical

meanings and syntactic complexities and, ultimately, facilitate reading comprehension. Therefore, teaching learners to become aware of discourse organizational patterns should be an essential component of reading instruction.

Another distinction of text types related to the purposes of this study and commonly found in literature the last few years has to do with the modes of meaning-making, such as the visual or the audio mode that is employed in each text to convey information. It is likely that multimodal texts that inundate contemporary society perform the same functions as the linguistic texts, that is, they describe, they provide information, they narrate and so forth; the disparity is that they draw on a different way(s) to achieve it. The concept of using various modes to derive text meaning is further addressed in the next section.

2.4.2.2.1. Multimodal texts. Literacy pedagogy has been traditionally restricted to teaching and learning to read and write in printed and official forms of the national language (New London Group, 1996). Literacy has dominated in society and, in particular, the field of education, as it is considered to be an indication of social, cultural, scientific, and personal development. The prevalence of literacy in the so-called literate Western societies, which focused on language only, has been at the expense of other communicational modes of meaning-making, such as the visual or the audio mode (Kress, 2000a; Kress & Van Leeuwen, 2006).

However, the contention that language is a central means of communicating and deriving meaning is no longer tenable (Kress & Van Leeuwen, 2006). The inauguration of the digital era, the multiplicity of communication channels, the globalization, the cultural and linguistic diversity in contemporary societies have brought about profound changes in people's working, public, and private lives (New London Group, 1996). A revolution in the domain of communication in conjunction with the dominance of the visual element in both electronic and conventional formats has led to reconsidering the social and semiotic landscape (Unsworth, 2001). In view of these changes, which in turn, entail changes for literacy pedagogy, as new learning needs have arisen, a small group of professional colleagues met in New London, New Hampshire, in 1994 to redefine the future of literacy and put forward a new approach to literacy pedagogy. Then, there was a shift towards a new and broader concept of literacy, called Multiliteracies. The pedagogy of Multiliteracies draws on six design

elements, the linguistic, the visual (images, page layouts, screen formats etc.), the audio (music sound effects), the gestural (body language), the spatial (environmental and architectural spaces), and the multimodal pattern of meaning (the one that links the first five modes of meaning to each other and focuses on the multifarious integration of these different modes to construct meaning (Cope & Kalantzis, 2000). In other words, the core concern of the Multiliteracies Project was to formulate a theory in order to address the highly multimodal nature of texts in modern society and the ways the various semiotic modes are integrated in order to supplement or extend rather than supersede or replace the current traditional literacy practices centered only on language (Fairclough, 2000; Kalantzis & Cope, 2000). Kress, Jewitt, Ogborn, and Tsatsarelis (2001) pointed out that "Language is not absent from our discussion, but nor is it central" (p. 8). For instance, a mixture of the linguistic element with the visual, aural, and gestural elements is applied in the discourse of television; in this way, drawing solely on the linguistic element to derive meaning while interacting with the media is no longer adequate; adopting a multimodal approach that not only involves the linguistic element but also the visual, aural, and gestural elements is required. In the multimodal approach, meaning-making becomes a process in which the individual is the real active maker of meaning relying on the available semiotic resources of representation (Kress et al., 2001). The term multimodality, therefore, refers to the active and dynamic interrelationship among the different modes of meaning that individuals can use during interaction with various texts to construct meaning, though one mode can prevail over the rest (Baldry & Thibault, 2006; New London Group, 1996). In particular, each mode of communication, though it requires a different type of cognitive work in order to be understood, interacts with the other, as meaning sometimes resides in the combination of two modes which may be equivalent or complimentary or even one mode may repeat information depicted in the other (Kress et al., 2001). Thus, the term multimodal recognizes that the various types of semiotic resources are intertwined to yield a text-specific meaning (Baldry & Thibault, 2006).

In this sense, texts and, thus, contemporary communication have become highly multimodal moving, particularly, towards the incorporation of images with written language; consequently, meaning is inevitably derived from ways that are multimodal (Cope & Kalantzis, 2000; Kress et al., 2001; Unsworth, 2001).

Nowadays, almost all written texts include images, which in combination with language hold a prominent role in conveying the essential information (Kress, 2000a; Kress & Van Leeuwen, 2006). The multimodal way in which meaning is constructed becomes, particularly, evident in the mass media texts and the texts of electronic multimedia that have become part and parcel of our lives. However, Unsworth (2001) highlights that multimodality is not an exclusive trait of electronic reading materials but the extent of their use has been significantly enhanced by computer-based texts. As a result of the new information technologies and computer-mediated communication, people, especially youths, are exposed to an increasing dominance of multimodal texts -both print and digital texts, such as websites, video games, comics, picture books, school textbooks, magazine articles, advertisements, and graphic novels- that involve a complex interplay of written text, visual images, graphics, and design elements (Kress et al., 2001; Kress & Van Leeuwen, 2006; Unsworth, 2001).

As a consequence of the above social changes, the field of education, in particular, the teaching and learning of languages has been influenced, as the traditional literacy pedagogy has been challenged to expand beyond the skills of encoding and decoding texts (Kern & Schuitz, 2005). In this context, literacy pedagogy needs to be modified, as it can no longer be viewed as a process that is centrally contingent on language, but as a process where the various modes of communication are either woven jointly or are separated to produce meaning in order to keep up with the constantly changing world and meet the communicational demands of the era (Kress et al. 2001). According to Kalantzis and Cope (2012), "we need to supplement traditional reading and writing skills with multimodal communications" (p. 2). Therefore, educators need to rely on the Multiliteracies framework and reconsider their instructional approaches in order to familiarize students, especially, FL learners, with the multimodal approach applied, particularly, to text reading, by highlighting the meaning-making resources of language and image that are present in conventional and electronic texts (Unsworth, 2001).

For many years FL classes have centered on the development of communicative competence, which has often been at the expense of other modes of meaning-making, as the communicative approach has erroneously been identified with the development of the linguistic element. Royce (2007) accentuated the need to supplement students' communicative competence that focuses on the traditional,

linguistic view with a multimodal communicative competence, which adopts the integration of linguistic and visual modes of communication within a social setting. In the same context, Ajayi (2009) highlighted that multimodality could enhance literacy learning among EFL learners, since it goes beyond language, by promoting alternative ways to read, interpret, and compose texts; for instance, students can start reading a text by relying on language or/and visuals, typography, and the page layout in order to derive meaning. As a result of the multimedia technologies, regarding reading instruction, it is clearly inadequate for educators to be satisfied with the currently predominant language classroom practice of a comprehension-check level understanding of texts (Kern & Schuitz, 2005). Students, in particular, EFL students that may face extra difficulties in EFL reading, such as L2 linguistic deficit or L1 reading skills involvement (Bernhardt, 2005; Carrell, 1991; Koda, 2005; Macaro & Erler, 2008), should be taught how to take advantage of the combination of the linguistic with the visual elements to construct meaning in EFL classes, where information is often provided in different multimodal ways, such as graphs, tables or maps (Kress et al., 2001). Teaching in a multimodally aware way allows for complexities, such as the ones listed above, to take place without hindering students' ability to construct text meaning (Ajayi, 2008) and becomes a rich resource to help students comprehend text content and further develop language (Walsh, 2003).

By and large, little attention has been paid to multimodality in FL contexts (Dominguez & Maiz 2010; Kress 2000b; Royce 2007). In particular, some studies have dealt with analyzing the way in which the linguistic and visual semiotic resources are interwoven to depict meaning in EFL textbooks (e.g., Astorga, 1999; Y. Chen, 2012), while other studies focused on the visual analysis based on the elements of Kress and Van Leeuwen's (2006) approach to the grammar of visual design (e.g., Bezerra, 2011; Royce, 2002). At the same time, other researchers investigated how students perceive and respond to visual representations in multimodal texts (e.g., Ajayi, 2009; Early & Marshall 2008; Walsh, 2003). Researchers have also interviewed EFL teachers to discover how they experience visual language in their classrooms (e.g., Karchmer, 2001; Meskill & Mossop 2000; Petrie, 2003). While there are some studies that have probed into the aspect of multimodality in terms of EFL texts, textbook analyses, teachers' views, and students' interpretations, there is dearth of research on experimental studies, including teaching interventions that

instruct students to develop reading strategies in multimodal texts to derive meaning. Based on FL literature, the concept of reading strategies has so far been associated only with language texts (e.g., Kern, 1989; Macaro & Erler, 2008; Song, 1998; Zhang, 2008).

2.4.2.3. Strategic processing. The use of reading strategies and the development of strategic reader have become central issues in both L1 (e.g., Block & Pressley, 2002; Pressley, 2006) and L2 reading research (e.g., N. J. Anderson, 1999; Cohen, 1998; Grabe, 2009; Hudson, 2007; Koda, 2005; Oxford, 2011; Psaltou-Joycey, 2010). More recent trends of reading research have accentuated the development of the reader's strategic behaviour in the context of specific tasks (Grabe, 2009; Grenfell & Macaro, 2007). In fact, reading is purposeful and requires active involvement on behalf of readers, as they usually have specific and clear purposes when being engaged in text reading (Koda, 2005). In this context, good readers are seen as active readers who are involved in text reading using various strategies in order to construct text meaning (Pressley, 2002; Pressley & Afflerbach, 1995). To be more precise, strategic readers are able to perceive the nature of the problem, select, and use the appropriate strategies and effectively orchestrate their use with other strategies depending on the type of text they read, the context, and the purpose for reading (N. J. Anderson, 1991; Grabe, 2009; Koda, 2005). The use of proper reading strategies can compensate for possible lack of L2 proficiency and, thus, can facilitate reading comprehension (Clarke, 1980; Hudson, 1988). In fact, Carrell (1998) described strategic reading in the following way: "Strategic reading is a prime characteristic of expert readers because it is woven into the very fabric of "reading for meaning", and the development of this cognitive ability" (p. 4).

It is evident that a key feature of active reading is the use of a repertoire of strategies to facilitate comprehension, whose use is particularly necessary when the text is rather difficult and specific comprehension difficulties arise (Grabe, 2009). Thus, literature emphasizes the development of the learner's strategic behaviour, which is inextricably linked to his/her metacognitive awareness further addressed in the next section.

2.4.2.4. Metacognitive awareness. Developmental cognitive psychology has shown an increasingly growing interest in the child's metacognitive ability, that is, the

knowledge and monitoring the child has over his or her own thinking and learning processes, including reading (Baker & A. L. Brown, 2002). Although various terms have been used to refer to metacognition, such as "metacognitive awareness", "metacognitive knowledge", "metacognitive skills", depending on the diverse theoretical research background (Veenman, Hout-Wolters, & Afflerbach, 2006), a common conceptualization has been established both in L1 and L2 literature; metacognition is regarded as knowledge about cognition and regulation of cognition (Flavell, 1979). In a similar manner, A. L. Brown (1980) deemed metacognition to be "the deliberate conscious control of one's own cognitive actions" (p. 453), while N. J. Anderson (1994) defined metacognition as "thinking about thinking" (p. 186). According to Baker and A. L. Brown (2002), two main clusters of activities are involved in the framework of metacognition: a) knowledge of cognition and b) regulation of cognition. In other words, the former refers to a person's knowledge of his or her own cognitive resources or processes involved in a learning situation; the latter reflects on the self-regulated processes and deliberate actions employed by active learners in an attempt to solve problems. Metacognition is thought to play a critical role in the learning process (Baker & A. L. Brown, 2002; O'Malley, Chamot, Stewner-Mazanares, Russo, & Kupper, 1985).

With respect to reading research, in particular, these two facets of metacognition, knowledge of cognition and regulation of cognition, are further addressed. According to Auerbach and Paxton (1997), metacognition "entails knowledge of strategies for processing texts, the ability to monitor comprehension, and the ability to adjust strategies as needed" (pp. 240-241). Carrell, Gajdusek, and Wise (1998) further explained that the first facet of metacognition, knowledge of cognition, "includes the reader's knowledge about his or her own cognitive resources and the compatibility between the reader and the reading situation" (p. 100). For instance, if readers are aware of the cognitive processes required to meet the demands of a reading situation, they can determine what steps are needed to be taken in order to perform effectively and improve performance. The second facet of metacognition, regulation of cognition, refers to self-regulated mechanisms deployed by active readers to monitor comprehension and boost performance involving skills, such as planning, monitoring, testing, revising, and evaluating the strategies used during reading (Baker & A. L. Brown, 2002). A defining feature of metacognitive knowledge

is that the reader monitors his/her reading process, identifies whether or not comprehension is occurring or the reading goals are being met, and uses a repertoire of reading strategies to facilitate comprehension or repair any breakdowns in comprehension (Grabe, 2009). Put simply, metacognitive awareness of text comprehension represents what the reader comprehends, what strategies s/he can deploy, and how s/he can use them more efficiently to boost or restore comprehension.

At the same time, Carrell et al. (1998) highlighted that the first aspect of metacognition, knowledge about cognition, consisted of three components, declarative, procedural, and conditional knowledge (Duffy, Roehler, Meloth, Vavrus, 1986; Paris, Lipson, & Wixson, 1983). Declarative knowledge in terms of strategies comprises beliefs about strategies (knowing what strategies are available); procedural knowledge includes the learner's understanding of how to apply a specific strategy to attain different task goals (knowing how); conditional knowledge refers to awareness of when and why to employ particular strategies providing, in essence, a rationale for the application of the various actions (knowing when and why). Paris et al. (1983) alleged that these three types of knowledge constitute necessary components of strategic behavior, as they assist learners in opting for appropriate strategies to achieve specific goals.

In short, metacognitive awareness, a key element in proficient and strategic reading, entails knowledge and use of a repertoire of reading strategies during text processing as well as the ability to monitor comprehension and adopt strategies according to the reading goals and the task demands (N. J. Anderson, 1994; Auberbach & Paxton, 1997). Gabe (2009) highlighted that "choosing which strategies to use, how to use certain combinations of strategies, and when to use them or try other strategies is all part of a good reader's metacognitive awareness" (p. 53). Being aware of their abilities and inabilities proficient readers are likely to deploy strategies to offset their comprehension shortcomings, especially in demanding and challenging tasks (Koda, 2005). Therefore, it is evident that strategic reading is a trait of expert readers, which differentiates skilled from less skilled readers (Carrell, 1998; Paris et al., 1983; Sheorey & Mohktari, 2001).

2.4.2.4.1. Characteristics of proficient readers. Considerable attention has been paid to understanding what proficient readers usually do while interacting with reading materials, including identifying the strategies they use and how they use those strategies. To put it differently, this line of research has examined the relationship between learners' proficiency and reading strategy use. Pressley and Afflerbach (1995), in an attempt to examine a number of studies of verbal protocols of L1 reading, have summarized the complexity of skilled reading in the following lines:

> "Skilled readers know and use many different procedures [strategies] in coming to terms with text: They proceed generally from front to back of documents when reading. Good readers are selectively attentive. They sometimes make notes. They predict, paraphrase, and back up when confused. They try to make inferences to fill in the gaps in text and in their understanding of what they have read. Good readers intentionally attempt to integrate across the text. They do not settle for literal meanings but rather interpret what they have read, sometimes constructing images, other times identifying categories of information in text, and on still other occasions engaging in arguments with themselves about what a reading might mean. After making their way through text, they have a variety of ways of firming up their understanding and memory of the messages in the text, from explicitly attempting to summarize to self-questioning about the text to rereading and reflecting. The many procedures [strategies] used by skilled readers are appropriately and opportunistically coordinated, with the reader using the processes needed to meet current reading goals, confronting the demands of reading at the moment, and preparing for demands that are likely in the future (e.g., the need to recall text content for a test)" (pp. 79-80).

At the same time, FL reading research has focused on the ways proficient readers approach texts. To begin with, Hosenfeld (1977) in an attempt to investigate the strategies used by skilled and less skilled readers reached the conclusion that the former primarily deployed main meaning reading strategies, while the latter employed word-level strategies missing out on main meaning strategies, as they were highly concerned about vocabulary. Following Hosenfeld's study, Block (1986) demonstrated that among low-proficiency EFL learners the more successful ones developed general comprehension strategies, such as activating prior knowledge,

making predictions about the text content, finding the main idea or monitoring comprehension, while the non-successful readers mainly focused on vocabulary strategies, such as paraphrasing or asking for the meaning of unfamiliar words. In addition, Carrell (1989) in an attempt to explore both native and EFL readers' metacognitive awareness of strategies found that proficient readers tended to use more global or top-down strategies focusing on text meaning, while the less proficient ones tended to deploy more local or bottom-up strategies. Sheorey and Mohktari (2001) corroborated the above findings providing evidence that EFL proficient students reported a more frequent use and a higher level of awareness of cognitive and metacognitive reading strategies than lower reading-ability students. Simultaneously, Zhang (2001) demonstrated that strategic knowledge is inextricably linked with EFL proficiency levels, as it was found that more skilled readers reported a higher level of metacognitive knowledge and awareness of strategies than their poor counterparts. More recent studies (Ahmad & Asraf, 2004; Sarıçoban, 2002; Zhang & Wu, 2009) have also supported the contention that proficient readers differ from less proficient ones in the use and awareness of reading strategies. Another important trait of good readers is that they usually routinize the use of various reading strategies and apply them almost automatically. When the routinization of strategic processes is not adequate, a conscious level of metacognitive awareness is required (Grabe, 2009) -see section 3.2.2., for a more extensive discussion on the distinction between conscious and automatic processes.

Based on reading research evidence, there is no doubt that metacognitive awareness is a trait of proficient and strategic readers. More often than not, skilled readers use rapid decoding, have large vocabularies, deploy a variety of strategies, and monitor their strategy use while reading in order to ensure effective reading comprehension; on the contrary, less skilled students lack metacognitive awareness and control of strategy use, who usually spend more time and effort on individual words than on constructing text meaning (Carrell, 1998; Mohktari & Sheorey, 2002; Paris et al., 1983). This particular line of research has indicated the necessity of comprehension instruction, which is addressed below, in order to help all readers, especially the less skilled ones, increase their awareness and use of the strategies that skilled readers deploy and, ultimately, improve reading comprehension (Grabe, 2009; Mohktari & Sheorey, 2002).

2.5. Comprehension Instruction

According to recent trends in literature, "there has been a convergence between comprehension instruction and reading strategies instruction" (Grabe, 2009, p. 207). More often than not, teaching students to use reading strategies while trying to derive text meaning through scaffolded discussions is viewed as comprehension instruction (N. J. Anderson, 1994; Grabe, 2009; Pressley, 2002; Pressley, 2006; Pressley & Block, 2002).

To be more precise, the cognitive enterprise of effective reading comprehension requires readers' use and control of a variety of strategies when faced with comprehension difficulties (Cohen, 1998; Grabe, 2009; Hudson, 2007; Koda, 2005; Oxford, 2011; Psaltou-Joycey, 2010; Sheorey & Mohktari, 2001). However, efficient strategy use cannot be attained overnight but requires long periods of time and extensive practice with different texts in various reading situations (Carrell, 1998). Successful strategy use cannot be attained simply as a result of reading but it should be integrated in reading instruction through explicit teaching (Grabe, 2009; Oxford, 2011). Explicit strategy teaching (see section 3.2.6., for a detailed account of reading strategy instruction), which arose due to concern for struggling readers, is intentional and involves a cycle of direct explanation of strategies, modelling, guided and independent practice of strategies to help readers become self-regulated and independent (Duffy, 2002; Duke & Pearson, 2002; Oxford, 2011; Pearson & Gallagher, 1983). Although implementing these instructional approaches in classrooms is rather complex requiring time and great teacher effort, the findings of both L1 and L2 reading research have suggested that it is worth both the effort and time (N. J. Anderson, 1999; Gabe, 2009; Pressley, 2006). Grabe (1991) pointed out that "this line of research is particularly important because of the promise it holds for reading instruction" (p. 393).

Despite pertinent L1 and L2 reading research asserting that comprehension gains can be attained through strategy instruction, more emphasis has been observed on testing reading comprehension than on teaching readers how to comprehend (N. J. Anderson, 1999). Namely, both L1 (Baumann, Hoffman, Duffy-Hester, & Ro, 2000; Durkin, 1978-1979; Ness, 2011; Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998) and L2 research (Janzen, 2007) revealed that very little

comprehension instruction occurred in classes, that is, teaching students *how* to approach and process written texts developing strategies, while there was a great deal of comprehension testing.

Overall, this section strongly supports the inclusion of explicit strategy instruction as part of reading comprehension development (Grabe, 2009). Although reading strategy instruction has not been common in classrooms, either in L1 or L2 settings, research evidence strongly suggests that teaching students how to use and orchestrate strategies should be the foundation of reading comprehension development (Grabe, 2009; Pressley, 2006).

Chapter 3: An Overview of Reading Strategies

This chapter constitutes an overview of research on L2 reading strategies outlining the conceptual framework of strategies with definitions, problematic issues, classification systems and related strategy research. The reading strategies used in this intervention are further illustrated. However, before embarking on discussing reading strategies, a brief account of learning strategies is provided too, as reading strategies are part of learning strategies. The main aim of this chapter is to provide relevant research studies in an attempt to present the framework of existing research data, identify gaps in reading literature, and set the basis upon which the data of the current study will be further discussed and analyzed.

3.1. Learning Strategies: Setting the Scene

Strategies appear to have invaded language learning research via psychology, where they became popular with the advent of information processing models in the 1970s describing the actions that an individual adopts to attain a goal, referring to cognitive processes, such as rehearsal or imagery, which help individuals maintain information, and rendering the whole process more learner-centered (Afflerbach, Pearson, & Paris, 2008; McLaughlin, 1990; Oxford, 1990; Urquhart & Weir, 1998). At the same time, researchers centered on metacognition to assist students in monitoring and developing control of their learning process (Flavell, 1979). Since the 1970s, there has been a growing research interest in the use of learning strategies in the field of language learning and teaching. It is held that learners can deploy learning strategies to complete language tasks inside and outside classrooms (Cohen, Weaver, & Li, 1996). The focus on learning strategies has been associated with a shift in the philosophy of language teaching, where learners are no longer regarded as passive but as active and independent participants in the learning process, while teachers are seen as "partners" (Cohen, 1998, p. 97). In the 1970s, there was a shift in the research focus from the methods of teaching to learners' characteristics and their impact on the process of FL learning (Psaltou-Joycey, 2010). In fact, it is supported that L2 learning occurs via strategic behavior, which relies on declarative, procedural, and conditional knowledge, as strategies constitute "the raw material without which L2 learning cannot take place" (Macaro, 2006, p. 332). The contribution of learning strategies has

been acknowledged in both L1 (Dansereau, 1985; Weinstein & Mayer, 1994) and L2 contexts (Cohen, 1998; O'Malley & Chamot, 1990; Oxford, 2011; Rubin, 1981).

3.1.1. Definitions and traits of learning strategies. The word "strategy" derives from the ancient Greek term strategia, which means generalship or the art of war and implies planning, conscious manipulation, and movement towards a goal (Oxford, 1990). Throughout literature repeated attempts have been made to define learning strategies incorporating them mainly in the field of cognitive psychology. Though a lot of strategy research has been carried out since the 1970s, there is no consensus on what learning strategies are, how many they are, what they are composed of or how they differ from other types of learner activities (Ellis, 1993; O'Malley et al., 1985; Rees-Miller, 1993). Indeed, a bewildering array of definitions and terms, such as "strategies", "skills", "tactics", "techniques", "learning behaviours" or "problem- solving procedures", have been used in literature to refer to the concept of strategies (Griffiths, 2003, p. 368). Rubin (1975) defined strategies as "the techniques or devices which a learner may use to acquire knowledge" (p. 43). Bialystok (1978) regarded strategies as "optional means for exploiting available information to improve competence in a second language" (p. 71). O'Malley and Chamot (1990) viewed learning strategies as "the special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information" (p. 1). At the same time, Oxford (1990) held that learning strategies "are specific actions or behaviours accomplished by students to enhance their learning" (p. 11). According to Cohen (1998), learning strategies are defined "as those processes which are consciously selected by learners and which may result in action taken to enhance the learning or use of a second or foreign language, through the storage, retention, recall, and application of information about that language" (p. 4).

Under various names, such as "operations", "plans", "steps" or "conscious actions" (Oxford, 1990, p. 8), "consciously selected processes" (Cohen, 1998, p. 4), "techniques, approaches or deliberate actions" (Chamot, 1987, p. 71), language learning strategies share some common features (Oxford, 1990, p. 9):

- Contribute to the main goal, communicative competence.
- Allow learners to become more self-regulated.
- Expand the role of teachers.

- Are goal/problem-oriented.
- Are specific actions taken by the learner.
- Involve many aspects of the learner, not just the cognitive.
- Are not always observable.
- Are often conscious.
- Can be taught.
- Are flexible.
- Are influenced by a variety of factors

The various strategy interventions need to allow for the above traits of learning strategies, which usually aim to help learners cope with linguistic difficulties or enhance the development of a particular language skill (Macaro, 2006).

3.1.2. Research background to strategy use. L2 learning strategy research started with the "good language learner" studies in the 1970s (Naiman, Fröhlich, & Todesco, 1975; Rubin, 1975; Stern, 1975), which focused on the behaviours of successful learners assuming that they might be doing something different, which could be taught to help less-skilled students improve their learning. At the same time, attempts were made to compare the qualities between more and less successful learners using interviews, written questionnaires or classroom observations. Overall, data from the good language learner studies have indicated that good language learners deploy more or different strategies from their poor counterparts in language learning, which provided the underpinnings for future research. This line of research on good learner strategies has led researchers to provide lists of the main strategies, which good learners use to become successful in L2 learning.

In this context, the notion of strategy instruction started to take shape. Rubin is regarded as the initiator of the idea of learning strategy instruction, as she initiated research on the strategies that good learners employ (Psaltou-Joycey, 2010). Strategy instruction is conceptualized as explicit instruction in particular practices that can be autonomously used to increase students' L2 learning and self-confidence (Plonsky, 2011; Taylor, Stevens, & Asher, 2006). Cohen (1998) supported that strategy instruction aims to "empower students by allowing them to take control of the language learning process" (p. 70). On the whole, learning strategy instruction can help students become better, independent, and more motivated learners as they begin to become aware of the relationship between their strategy use and success in learning

languages (Chamot & Kupper, 1989; Chamot & O'Malley, 1994), especially if it is conducted over a long period of time and focuses on metacognition (Macaro, 2006; Oxford, 1990).

Another line of research investigated the factors affecting L2 strategy use, such as language proficiency level (e.g., Green & Oxford, 1995; K. O. Lee, 2003; Oxford & Nyikos, 1989; Sheorey, 1999; Psaltou-Joycey, 2003; Psaltou-Joycey & Kantaridou, 2009; Purdie & Oliver, 1999; Vrettou, 2009, 2011), age (e.g., K. O. Lee, 2003; Kanara, 2011; Magogwe & Oliver, 2007; Psaltou-Joycey & Sougari, 2010), gender (e.g., Kanara, 2011; Lan & Oxford, 2003; K. O. Lee, 2003; Oxford & Ehrman, 1989; Papanis, 2008; Psaltou-Joycey & Kantaridou, 2009), motivation (e.g., Kanara, 2011; Oxford & Nyikos, 1989; Sadighi & Zarafshan, 2006; Vrettou, 2009, 2011)- to name just a few variables. Based on research evidence, it was generally indicated that learners vary considerably in their strategy use because of individual and social factors. Most of this line of research has been conducted with adult L2 learners, while only a few studies focused on younger, school-aged participants (e.g., Lan & Oxford, 2003; Papanis, 2008; Psaltou-Joycey & Sougari, 2010; Purdie & Oliver, 1999; Vrettou, 2009).

Nonetheless, the idea of early research that good learners deploy more "good" language learning strategies than their poor counterparts has started to fade away. Based on more recent trends in literature, although there were a fixed number of strategies that different learners employ in different ways and under various circumstances, strategies are no longer regarded as inherently "good" or "bad" but have the potential to be used efficiently or lead to failure if used inappropriately (Grenfell & Macaro, 2007; Hsiao & Oxford, 2002). The distinction between "good" or "bad" strategies is no longer valid, which is enhanced by the fact that both good or poor learners use the same strategies but the latter usually cling to ineffective strategies, as they are not able to use the appropriate strategies in relation to specific tasks (N. J. Anderson, 1991). The move away from a general profile of the good language learner has led to the idea of boosting an individual's strategic reaction to a specific or a series of tasks, which gave rise to an interest in metacognition as the orchestrating mechanism held responsible for combining strategies efficiently in relation to task demands (Grenfell & Macaro, 2007). In this context, strategies can be taught to help learners adopt a more effective strategic behaviour while interacting

with specific texts; in fact, efficient strategic behaviour can be particularly accelerated if strategy use is linked with achievement (Grenfell & Macaro, 2007; Macaro, 2006).

In short, research on language learning strategies has been provided starting with the "good language learner studies", which gave some insight into the processes that proficient learners use to approach language learning, in order to set learning strategies in an overall framework for language teaching and learning. Nonetheless, this theoretical framework has shifted from an interest in the processes of language to an interest in the processes of the language learner, as learning strategy research focuses on what the learner does rather than what the language is (Grenfell & Macaro, 2007). In this way, strategy use and instruction, which aims to develop an individual's strategic behaviour, should be tied to particular tasks and achievement.

3.1.3. Classification of learning strategies. Classifying language learning strategies has been a rather difficult undertaking in the strategy research literature. Throughout literature there are a number of strategy classifications, as researchers starting with the "good language learner" studies have tried to classify the learning strategies that students were observed to use or reported using in the hope of passing them onto less proficient learners. This line of research has led to different strategy classification systems. Cohen (1996) commented that the classification system of strategies was characterized by "inconsistencies and mismatches" (p. 7), since there is a lack of consent on the various criteria deployed by researchers in their attempt to name and group learning strategies; in this way, many researchers often face difficulties in classifying certain strategies. This lack in consensus on a particular classification system was corroborated by Plonsky (2011), who alleged that the variety of strategies and strategy classifications constituted one of the great challenges to L2 researchers.

To cut a long story short, the most widespread taxonomies are those provided by Rubin (1981), O'Malley and Chamot, (1990), Oxford (1990) and Cohen (1998), which are briefly described below. The first classification system was provided by Rubin (1981), who drew a distinction between strategies that have a direct or an indirect impact on learning consisting of further subcategories. O'Malley and Chamot (1990) classified strategies into cognitive, which contribute to L2 processing input, metacognitive, which help learners organize, monitor, and assess their own learning,

and social/affective strategies, which facilitate interaction with others and control of feelings in L2 learning. At the same time, Oxford (1990) in an attempt to provide a comprehensive inventory of FL learning strategies grouped strategies under direct and indirect strategies; the former emphasized the target language and included subcategories of memory, cognitive, and compensation strategies, while the latter assisted the general management of learning and involved subcategories of metacognitive, affective, and social strategies. A more recent classification provided by Cohen (1998) has categorized strategies into two major groups, L2 learning strategies, which aimed to facilitate language learning, and L2 use strategies, which focused on helping learners use the target language to whatever degree required. Another strategy classification is based on the language skills (reading, listening, speaking, writing) where specific strategies can be used to enhance the development of each of these skills (Chamot, 2005).

All in all, there is no consistency in the way language learning strategies are classified (see Psaltou-Joycey, 2010, for a thorough review of strategy classification systems). What differentiates the early strategy classifications from the more recent ones was the attention paid to cognitive and metacognitive strategies in relation to social/affective ones (Griffiths, 2004, p. 4).

3.1.4. Learning strategies and learner's autonomy. As noted earlier, since the 1970s, learner-centered language teaching practices have been mainly addressed highlighting the active role of students in the learning process who are no longer viewed as passive receivers of information; in fact, learners are seen as responsible for their own learning, making decisions about actions that they follow to accomplish tasks without relying on teachers' assistance (Rubin, 1981; Wenden, 1991). Cohen (1998) accentuated that language learning strategies "can have a major role in helping shift the responsibility for learning off the shoulders of the teachers and on to those of the learners" (p. 21). Benson (2006) pointed out that the concept of autonomy in language learning has been grounded and spread with the Council of Europe's Modern Languages Project, as, since the year 2000, there has been a considerable amount of worldwide literature on autonomy. According to CEFR (2001), an action-oriented approach to language learning has been adopted, which promoted learners' use of appropriate strategies to achieve tasks and, ultimately, enhance their communicative competence. Littlewood (1996) in an attempt to provide a framework

for developing autonomy in FL contexts defined autonomy as the independent ability to decide upon choices that guide a person's actions. Oxford (2011) highlighted that the concept of autonomy is closely associated with the use of learning strategies in FL learning; learners' ability to use learning strategies helps them become more independent, as they take more responsibility for their own learning, they feel more successful and self-confident, as they experience more learning. Simultaneously, teachers assume new roles in the whole teaching process as facilitators, guides, consultants, and coordinators, who encourage students' use of strategies and instruct them in using strategies to help them become more autonomous (Oxford, 2011).

Evidently, the use of learning strategies is directly related to the development of learners' autonomy, as making decisions about the conscious actions taken to accomplish tasks in specific learning contexts boosts students' autonomy as well as self-confidence.

3.1.5. Strategy research within the language skills. Researchers have approached the development of the four language skills (reading, listening, writing, and speaking) in relation to the use of learning strategies assuming that learners' use of appropriate strategies can, on the one hand, enhance the development of these skills and, on the other hand, make learners more autonomous; in this context, strategy instruction has been regarded as beneficial to the learning process (Psaltou-Joycey, 2010). In addition, the building of FL vocabulary has been discussed in relation to the use of VLS as a relevant sub-skill. Thus, considerable research has been carried out on the use of specific strategies in each of the above skills including vocabulary (e.g., T. S. Brown & Perry, 1991; Catalan, 2003; M. Y. Fan, 2003; Gu & Johnson, 1996; Hulstijn, 1993; Nation, 2001; Sanaoui, 1995; Schmitt, 1997), with the exception of grammar, which requires further exploration (Oxford, K. R. Lee, & Park, 2007).

To be more precise, a number of studies have investigated the effect of strategy instruction on the improvement of FL learners' reading comprehension (e.g., Carrell, Pharis, & Liberto, 1989; Kern, 1989; Macaro & Erler, 2008; Song, 1998), listening (e.g., Fujiwara, 1990; Macaro, Graham, & Vanderplank, 2007; Thompson & Rubin, 1996; Vandergrift, 2003), writing (e.g., Ching, 2002; Cresswell, 2000; M. Sasaki, 2000; Sengupta, 2000), and speaking (e.g., Cohen et al., 1996; Dörnyei, 1995; Nakatani, 2005; Psaltou-Joycey & Joycey, 2001).

The present study focuses on the development of the reading comprehension skill for EFL learners through explicit instruction of a set of reading strategies, which are further addressed in the next sections.

3.2. Reading Strategies

3.2.1. Defining reading strategies. As regards reading, there was a shift of attention from decoding to comprehension (see section 2.2.3.), which was mainly viewed as the process of "getting information from written texts" (Urquhart & Weir, 1998, p. 85) or constructing meaning from written texts (Gambrell & Koskinen, 2002) implying that reading is no longer a passive skill but an interaction between the reader and the text (Grabe, 2004; Psaltou-Joycey, 2010). In the late 1970s and early 1980s, research shed light on the use of reading strategies and strategy instruction in order to boost learners' reading achievement and render them independent readers. According to Carrell (1998), "reading strategies are of interest not only for what they reveal about the way readers manage their interactions with written text, but also for how the use of strategies is related to effective reading comprehension" (p. 1). Macaro (2006) added that strategies attempt to turn a L2 text from a state in which it is not understood into different states or levels of understanding and integration into existing knowledge or experience.

A lot of L1 and L2 researchers have attempted to provide definitions of reading strategies. Among the first definitions was that a strategy was regarded as "a purposeful means of comprehending the author's message" (Olshavsky, 1977, p. 656). According to Paris et al. (1983), reading strategies were deliberate, conscious actions, identifiable to the agent and others by intentions and selected goals. Pritchard (1990) conceptualized a strategy as "a deliberate action that readers take voluntarily to develop an understanding of what they read" (p. 275). Furthermore, Dole, Duffy, Roehler and Pearson (1991) accentuated that strategies are conscious and flexible plans emphasizing reasoning that readers apply and adapt to a variety of texts in order to construct meaning from texts. In a similar manner, Urquhart and Weir (1998) regarded strategies "as ways of getting round difficulties encountered while reading" or "as responses to local problem in a text" (p. 95). At the same time, Carrell (1998) highlighted that:

> "Reading strategies -which are related to other cognitive strategies enhancing attention, memory, communication and learning- allow readers to elaborate, organize, and evaluate information derived from text. Because strategies are controllable by readers, they are personal cognitive tools that can be used selectively and flexibly. And, reading strategy use reflects both metacognition and motivation, because readers need to have both the knowledge and the disposition to use strategies" (p. 4).

Erler and Finkbeiner also (2007) viewed strategies as "intentional actions chosen to facilitate reading at any level of processing" (p. 189). Afflerbach et al. (2008) mentioned that "reading strategies are deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand words, and construct meanings of text" (p. 368).

Drawing on the above definitions, we can deduce that reading strategies refer to actions or internal mental processes and involve consciousness and awareness on behalf of the readers, who intentionally take action and select the proper strategy to cope with a specific task or a comprehension difficulty arisen, while interacting with written texts. In short, reading strategies are characterized by three core elements: they are deliberate, goal/problem-oriented, and reader-controlled.

3.2.2. Reading strategies versus reading skills. As noted earlier, strategies can be found under various names in literature, such as operations, techniques, approaches, actions, skills, or procedures. As regards, in particular, reading strategies, there is much confusion concerning the terms *skills* and *strategies* throughout literature, as researchers and educators often make use of these two terms interchangeably referring to the same process, while they sometimes draw a distinction between them (Afflerbach et al., 2008; Alexander, Graham, & Harris, 1998; Kirby, 1988; Macaro, 2006; Manoli & Papadopoulou, 2012b). Such inconsistency is particularly evident when processes, such as inference or contextual guessing, are referred to as strategies in some studies and as skills in other studies in the reading literature often causing confusion. Alexander and Jetton (2000) mentioned that "the appropriate label rests on whether the reader consciously evokes the procedure or is simply functioning in a typical, automatic way" (pp. 295-296). Shedding light on this confusion is important because the way we conceptualize

reading strategies and skills exerts influence on the way reading practices are applied in classes (Afflerbach et al., 2008).

In an attempt to clarify the confusion between these two terms we arrive at some generally accepted distinction highlighting the distinctive features of each of them. First of all, strategies are seen as deliberate actions, plans consciously deployed by learners in order to attain particular goals or cope with comprehension difficulties, such as a failure to understand the meaning of a word or find the information one was looking for (Alexander et al., 1998; Dole et al., 1991; Macaro, 2006; Paris et al., 1983; Pritchard, 1990; Urquhart & Weir, 1998). On the contrary, skills are considered to be highly routinized, almost automatic behaviors that can be developed through practice and repetition (Dole et al., 1991; Urquhart & Weir, 1998). Psaltou-Joycey (2010) also regarded skills as the abilities that an individual possesses allowing him/her after training to perform something in an easy and fast way and arrive at high levels of success. Cohen (1998) pointed out that "the element of consciousness is what distinguishes strategies from those processes that are not strategic" (p. 4). At the same time, Phakiti (2006) has pointed out the element of consciousness as a distinctive feature between strategies and skills. To take just an example, the process of contextual guessing can be regarded as a strategy, when it is characterized by a slower rate of reading and is consciously selected by the reader in his/her effort to solve a comprehension problem and guess the meaning of an unknown word based on context; while it is viewed as a skill, when, after months of practice, it is used almost automatically and effortlessly.

Taking everything into consideration, the terms strategies and skills, though they are not identical, can be associated, as strategies are seen as "cognitive processes that are open to conscious reflection but that may be on their way to becoming skills" (Grabe, 2009, p. 221). Namely, strategies, though they can be consciously developed at an initial stage of learning, can become automatic through practice and repetition, which the various reading strategies intervention programmes usually aim at (Chamot, 2005). In fact, the goal of explicit strategy instruction is to take readers from the conscious use of reading strategies to the unconscious deployment of reading skills in order to boost reading performance (Chamot, 2005; Grabe, 2009; Macaro, 2006; Phakiti, 2006). Grabe (2009) highlighted that "skills were originally learned explicitly as processes to address problems" (p. 222); an obvious example in reading is

decoding, which does not start with automaticity but with conscious attention actively deployed by novice readers and becomes automatic after practice. In a similar manner, Paris et al. (1983) alleged that "strategies are not necessarily different actions, they are skills that have been taken from their automatic contexts for closer inspection" (p. 296). Thus, we consider their relation to be two faces of the same coin, that is, two sides of any reading process or task, since skills are strategies that have become automatic through practice, whereas strategies "are skills under consideration" (Paris et al.,1983, 295).

3.2.3. Contribution of strategies to reading comprehension. According to research, an integral part of effective reading comprehension is the use of reading strategies, as readers have particular goals to attain, each of which requires a distinct mode of text-information processing (Grabe, 2009; Koda, 2005). Regardless of his/her proficiency level, every reader faces comprehension impairment of one sort or another, especially in more challenging contents; however, what differentiates successful readers from less successful ones is that the former usually perceive the nature of the problem, deploy a number of strategies and monitor comprehension in an attempt to find possible ways to overcome comprehension obstacles and achieve comprehension tasks (N. J. Anderson, 1991; Erler & Finkbeiner, 2007; Koda, 2005). In this context, the use of reading strategies is inextricably linked with reading achievement. Paris et al. (1991) suggested six reasons why the use of reading strategies is critical in the setting of school learning:

- Strategies allow readers to elaborate, organize, and evaluate information derived from text.
- The acquisition of reading strategies coincides and overlaps with the development of multiple cognitive strategies to enhance attention, memory, communication, and learning.
- Strategies are personal cognitive tools that can be used selectively and flexibly.
- Strategic reading reflects metacognition and motivation because readers need to have both the knowledge and disposition to use strategies.
- Strategies that foster reading and thinking can be taught directly by teachers.
- Strategic reading can enhance learning throughout the curriculum (p. 609).

3.2.4. Classifications of reading strategies. Throughout literature there is a broad array of reading strategies, which derived from the researchers' different views of conceptualizing reading processes and strategies (Urquhart & Weir, 1998). In fact, classifications of reading strategies have overlapped with lists of reading skills found in teacher guidance books (Grellet, 1981; Nuttall, 1996) or with lists resulting from researchers' interest in identifying the strategies that L2 readers were observed to deploy or reported using in an attempt to process a text (Erler & Finkbeiner, 2007).

To begin with, O'Malley and Chamot (1990) distinguished reading strategies into a) cognitive (help students achieve a particular cognitive task during reading, such as inference), b) metacognitive (help students monitor comprehension), and c) social-affective (help students interact with others during reading, such as asking for teacher's or peer's assistance). Another classification of reading strategies adopted by N. J. Anderson (1991) involves five categories: a) supervising (developed for monitoring comprehension, such as predicting text content), b) supporting (developed for regulating behaviors, such as skimming or scanning), c) paraphrasing strategies (facilitating local-information processing through, for example, breaking lexical items into parts), d) establishing text coherence (aiding global text-information processing through, for example, the use of background knowledge or context to guess the meaning of words), and e) test taking (used to complete tasks in reading tests). In addition, a broad distinction of reading strategies was based on the time of their use during interaction with written texts: before, during/while, and after reading (Paris, Wasik, & Turner, 1991; Psaltou-Joycey, 2010; Yiğiter, Sarıçoban, & Gürses, 2005). In this way, reading strategies are grouped under three categories, pre-reading, while-reading, and post/after-reading strategies. Pre-reading strategies mainly contribute to the activation of background knowledge relevant to the text topic with the aim of increasing reading comprehension; during/while reading strategies primarily emphasize readers' actual interaction with text content aiding main-idea detection, while post/after reading strategies facilitate reviewing, self-regulation, awareness of text comprehension and reflection of text content. Other researchers in an attempt to identify differences in strategy use between readers categorized reading strategies into global or top-down strategies and local information-processing or bottom-up strategies (Block, 1986; Carrell, 1989; Young & Oxford, 1997). The above categories are similar to the binary division put forward by Barnett (1988a): a) text-level and b)

word-level strategies. Overall, the former focus on main idea detection, text organization or use of background knowledge to derive text meaning, while the latter emphasize on grammatical structures, sentence syntax, sound-letter and word-meaning.

Based on the above research evidence, three broad distinctions can be identified in the diverse classifications found in reading literature: the first distinguishes among cognitive, metacognitive, and social-affective strategies, the second differentiates global or top-down and local or bottom-up strategies, while the third provides a distinction among pre-reading, while-reading, and post-reading strategies. Allowing for these strategies classifications, the set of strategies developed in this study (predicting text content and using semantic maps to activate prior knowledge, skimming, scanning, and contextual guessing) belong to cognitive strategies; or four of them (predicting text content and using semantic maps to activate prior knowledge, skimming and scanning) can be viewed as global or top-down strategies, while only contextual guessing is included in local or bottom-up strategies; alternatively, predicting text content and using semantic maps belong to pre-reading strategies, whereas skimming, scanning, and contextual guessing belong to while-reading strategies.

In short, drawing on literature review, though there is a variety of reading strategies classifications, there is no consensus in terms of a widely accepted taxonomy, as the categories of strategies vary from study to study because of the difference in the way researchers conceptualize the reading comprehension process. Concurrently, these distinctions are the result of studies pinpointing differences in strategy use among readers (Koda, 2005); more specifically, it has been found that successful L2 readers develop more global or text-level strategies than local or word-level ones in relation to their poor counterparts, which is further addressed in the next section.

3.2.5. Individual learner differences in the selection of reading strategies. In reading research, there was a growing interest in the relationship between reader-centered variables, such as proficiency level, age, gender, motivation or cultural background, and reading strategy use, which can exert influence on the strategic approach adopted. It is held that individual disparities between learners play a critical

role in the selection and frequency of reading strategy use, which can be indicative of the way they approach written texts and process information in order to reach desired levels of reading achievement.

This section elaborates, particularly, on the learners' variables of proficiency level and gender referring to the most representative L2 studies, as they are related to the aims of the current study.

3.2.5.1. Proficiency level. The term proficiency level refers to "the various stages of language learning which progressively allow learners to function more effectively in a second/foreign language" (Psaltou-Joycey, 2010, p. 86). Psaltou-Joycey (2010) mentioned that learners have been traditionally categorized into beginners (novices), intermediate, and advanced (experienced) based on their L2 proficiency level. On a European basis, proficiency levels have been determined by the CEFR (2001) in an attempt to provide a common basis of description and assessment of language learning and teaching (see section 4.1.1.).

Drawing on L2 reading literature, the level of L2 proficiency has been found to exert influence on reading strategy use. To begin with, in the mid 1970s, Hosenfeld (1977) in an attempt to find out the strategies deployed by successful and non-successful readers concluded that successful readers focused on main meaning reading strategies, while non-successful readers lost track of the main meaning, as they were highly concerned about unknown words. Hosenfeld's early work was very influential raising awareness in empirical research projects of reading strategies classifications through think-aloud reports, metaphoric grouping of strategies into higher and lower-level strategies, using proficiency tests to divide students into more and less skilled, and suggesting reading strategy instruction (Erler & Finkbeiner, 2007). Almost a decade later, Block (1986) found that among non-successful EFL learners, the more successful readers mostly used general comprehension strategies focusing on text meaning and monitoring comprehension, while non-successful readers were involved in developing local linguistic strategies to solve vocabulary problems. Carrell (1989) also contended that EFL proficient students tended to develop more global or top-down strategies, such as activation of prior knowledge, text gist, text organization, while less proficient students relied more on local or bottom-up strategies. A few years later, Block (1992) confirmed that proficient

readers preferred using more global or text-level strategies, whereas less proficient readers adhered to local, word-level strategies. Chamot and El-Dinary (1999) indicated that "low-rated students relied more on phonetic decoding during reading than on any other strategy, but high-rated students focused more on using background knowledge and inferencing to understand a text" (p. 332). Overall, Chamot and El-Dinary pointed out that efficient students tended to focus on monitoring and adapting strategies or to be interested in the task as a whole, while poor students seemed to stick to ineffective strategies and be highly concerned about details. Sheorey and Mokhtari (2001) in their study on identifying the differences in the metacognitive awareness of reading strategies between native and non-native readers also accentuated that more proficient students in both groups reported using more cognitive and metacognitive reading strategies than less proficient students in the respective groups. At the same time, Zhang (2001) and Zhang and Wu (2009) in an attempt to explore Chinese EFL readers' metacognitive knowledge of strategies revealed that more skilled readers differentiated themselves from less skilled ones in their reported frequency of global strategy use providing a link between EFL readers' metacognitive knowledge of strategies and their EFL proficiency. Tsai et al. (2010) who investigated L1 and L2 strategy use in reading comprehension found that L2 skilled readers used more strategies, such as activating prior knowledge or allowing for context clues to determine unknown word meanings, in an attempt to increase comprehension, whereas less-skilled readers did not deploy as many strategies as their skilled counterparts. Other researchers who investigated the relationship between L2 reading proficiency and strategy use reached similar conclusions pointing out that high and low proficiency readers seemed to differ in strategy use and that L2 readers' proficiency level was correlated with strategic knowledge (Ahmad & Asraf, 2004; Yiğiter et al., 2005). In the Greek context, it was revealed that proficient readers showed greater strategic knowledge, were more flexible in strategy employment and developed a wider variety of top-down strategies in relation to less proficient readers who showed limited awareness of the comprehension process and overly relied on bottom-up strategies (Geladari et al., 2010; Griva et al., 2009).

Nonetheless, Sarig's study (1987) failed to provide a significant difference in the use of global comprehension strategies between successful and non-successful readers. More specifically, Sarig indicated that participants (L1 Hebrew-L2 English

adolescent girls) used similar L1 and L2 reading strategies implying that there was strategy transfer from L1 to L2 and that the selection of strategies was not directly linked to proficiency level, as individual learner differences are connected in more intricate ways. Simultaneously, N. J. Anderson (1991) found that both good and poor readers deployed the same kinds of strategies while reading and answering comprehension questions. Moreover, N. J. Anderson highlighted that successful readers selected, combined, applied, and monitored strategies more efficiently. Thus, he concluded that "strategic reading is not only a matter of knowing what strategy to use, but also the reader must know how to use a strategy successfully and orchestrate its use with other strategies. It is not sufficient to know about strategies; a reader must also be able to apply them strategically" (p. 468-469).

Overall, most of the above findings of studies, which were mainly conducted with secondary and college/university students with the exception of Chamot and El-Dinary (1999), Griva et al. (2009), and Geladari et al. (2010) that focused on elementary students, have shown a linear relationship between proficiency level and reading strategy use. It was revealed that good learners deployed more general, text-level strategies, such as activating prior knowledge, predicting and inferencing, while poor learners mostly clung to decoding or vocabulary-related strategies (Brantmeier, 2002; Singhal, 2001). Therefore, the use of global or text-level and local or word-level strategies is a major distinctive trait between skilled and less-skilled L2 readers.

At the same time, a smaller number of studies have investigated the relationship between students' proficiency level and reading performance after multiple-strategy instruction. More specifically, Kern (1989), who examined the impact of strategy instruction on university students, demonstrated a statistically significant difference in comprehension gains between experimental and control subjects within the low ability level but not within either the middle or high ability level. Song (1998), who focused on the impact of implementing strategy instruction in an EFL university classroom, indicated that the low reading proficiency group benefited most from the reading strategy training, followed by the intermediate reading proficiency group. Kusiak's study (2001), which focused on a metacognitively-oriented strategy instruction, revealed particularly positive results for secondary school EFL students that were placed in the lower proficiency group.

Nonetheless, another interesting contribution to this line of research revealed that all elementary EFL students regardless of their reading proficiency benefited from strategy instruction (Klingner & Vaughn, 2000). In a similar manner, Dreyer and Nel (2003) found that both successful and less successful college students who experienced reading strategy instruction within a technology enhanced-learning environment received statistically significant comprehension gains on the three reading comprehension measures.

Based on the above research findings, though language proficiency has been found to correlate with strategy use, conclusive results regarding the specification of the learners' proficiency level that benefits most from reading strategy instruction cannot be drawn, which requires further investigation.

3.2.5.2. Gender. In addition to studies that focused on the relationship between proficiency level and reading strategy use or instruction, some researchers turned to explore gender differences in L2 reading strategy use and performance. In fact, a limited number of studies, which provided inconclusive results, examined the correlation between gender differences and strategy use or reading performance, an area that has not been extensively investigated in L2 settings. Spurling and Ilyin (1985) failed to indicate gender differences in reading test performance among adult L2 learners. Young and Oxford (1997) revealed no significant differences in strategy use and reading performance between males and females drawn from a university, while interacting with a text in both L1 and L2. Although Sheorey and Mokhtari (2001) accentuated that female, native English-speaking college students reported significantly higher frequency of strategy development, Sheorey and Mokhtari did not manage to find gender differences in the non-native English-speaking sample when reading academic materials. Phakiti (2003) in an attempt to explore gender disparities in strategy use and in reading performance in the context of an EFL reading comprehension test indicated that male and female university learners did not differ in reading performance and in the use of cognitive strategies, while males reported developing more metacognitive strategies than females.

At the same time, Bügel and Buunk's study (1996) on gender differences in FL reading comprehension provided support for the assumption that there are gender differences in high school students' performance in relation to prior knowledge and

topic interest; more specifically, Bügel and Buunk highlighted that males performed significantly better than females in the gender-neutral text. In a series of studies examining variables, such as reader's gender, topic familiarity, and passage content that influence L2 reading comprehension in a university setting, Brantmeier (2003) demonstrated that all the above factors interact and exert influence on L2 reading comprehension, as males scored higher on both comprehension tasks with a more masculine text topic, while females outperformed males on a more feminine passage topic. Sani and Zain (2011) investigated the relationship among some variables, including gender differences, in the setting of ESL reading comprehension and revealed that female adolescents comprehended significantly better than their male counterparts. Ay and Bartan (2012) in an attempt to examine the relationship between readers' gender, topic interest in the context of primary education, and FL reading comprehension reached a similar conclusion holding that females generally attained high scores.

Schueller (1999) was among the few researchers to investigate whether university males and females benefit in similar ways from strategy training and failed to provide consistent results. Namely, though she revealed that the female group outperformed the male group regardless of strategic training and comprehension assessment task, males after top-down strategy training did better than females on a multiple choice task (but not on recall). Rahmani and Sadeghi (2011) found no statistically significant effect of gender on university students' performance on the comprehension and retention tests after note-taking strategy training.

According to literature, there has not been sufficient research on the relationship between gender differences and L2 reading strategy use or reading performance (Brantmeier, 2004; Phakiti, 2003). The findings of the existing research are inconsistent, which implies the necessity for further investigation in this area, as it is important for language teachers to be aware of these differences to help both males and females achieve great gains in L2 reading comprehension.

3.2.6. Research on reading strategy instruction. A considerable body of research in the area of reading comprehension has focused on the benefits of strategy training, which is particularly necessary in the area of foreign languages. The line of research that examined the strategies that skilled and less-skilled readers deploy (see section 3.2.5.1.) in an attempt to construct meaning from written texts was conducive

to strategy training to help less proficient readers develop strategic reading and improve comprehension (Koda, 2005). Success in reading comprehension should not be taken for granted for all learners let alone FL learners. Thus, reading research assumes that success in reading comprehension can be attained through strategy instruction.

However, to guarantee improved reading comprehension simply teaching one selected strategy is not adequate, as effective readers do not usually deploy individual reading strategies but orchestrate a number of strategies flexibly during text interaction in an attempt to construct meaning (Grabe, 2009). In this context, more recent research has indicated greater effectiveness of strategy instruction when a combination of multiple strategies is taught during actual text interaction and discussion (Duke & Pearson, 2002; Pressley, 2006; Pressley & Block, 2002). Thus, there is general agreement that teaching a repertoire of strategies is more effective than teaching individual strategies.

3.2.6.1. Aims of strategy intervention programmes. It is evident that the main aim of strategy training is to make language learning more meaningful and help students become more adept at using appropriate strategies and, ultimately, improve their language skills (Cohen, 1998; Oxford, 1990). In addition, maintenance of comprehension gains in a subsequent phase, which do not disappear after treatment withdrawal, is another aim of strategy training. More often than not, such training aims at strategy transfer to new but similar learning tasks or to different learning subjects. Another major aim of strategy instruction is to render students more independent, self-directed, and responsible for their own learning, since "many students (even adults) are passive and accustomed to being spoon-fed" (Oxford, 1990, p. 10). Oxford (1990) also added that self-regulated students gradually become more involved in the learning process, more confident, and, eventually, more proficient. Another critical element -more qualitative- of strategy training is to make students aware of the contribution of strategy development to FL learning by linking their use in specific contexts with achievement (Koda, 2005; Nunan, 1997; Wenden, 1991). In short, Cohen (1998) highlighted that "the ultimate goal of strategy training is to empower students by allowing them to take control of the language learning process" (p. 70). Simultaneously, the above aims can function as criteria for assessing the effectiveness of the various strategy intervention programmes.

By and large, the major aim of reading strategy intervention programmes is to help students' improve reading performance through the flexible use of appropriate strategies, maintain comprehension gains after treatment withdrawal, and transfer this ability to new reading tasks in order to become independent and self-directed learners (Cohen, 1998; Grabe, 2009; Oxford, 1990).

In the next section, the various approaches to multiple-strategy instruction mainly developed in L1 are described, as there is relatively little research on multiple-strategy instruction in FL settings, especially for reading (Grabe, 2009), with the exception of Klingner and Vaughn (1996, 2000). In addition, three larger L2 frameworks for strategy instruction that have been suggested, though not particularly for reading, the Cognitive Academic Language Learning Approach (CALLA) (Chamot, 1995; Chamot & O'Malley, 1987), the Strategies Based Instruction (SBI) (Cohen, 1998), and the one proposed by Oxford (1990) are presented. All these three approaches have the potential for being used in multiple-reading strategy instruction. Through this literature review, it will be easier to specify the approach adopted in the programme of multiple-strategy instruction of the present study.

3.2.6.2. Approaches to multiple-strategy instruction. As noted earlier, there is overall consensus that instruction focusing on a repertoire of reading strategies is more efficient than individual strategy instruction (Duke & Pearson, 2002; Pressley, 2006; Pressley & Block, 2002). However, such training is not attained in a magical manner but there seem to be particular ways to render reading strategies efficient scaffolding for comprehension (Grabe, 2009). In fact, Bimmel (2001) referred to three components that contribute to the effectiveness of a reading strategy instruction programme, which aim at developing students' ability to work strategically when interacting with reading materials and tasks and applying reading strategies in a flexible manner:

- ✓ orientation (providing students with extensive information about reading strategies and their use through direct explanation and modelling, where teachers usually think aloud while being engaged in reading tasks)

- ✓ practice (involving teacher-directed reading activities oriented to the application of specific strategies through guided practice with feedback from the teacher
- ✓ awareness raising (this component contributes to the development of the students' metacognitive ability)

Various instructional approaches have been put forward in the reading literature that include multiple-strategy training usually focusing on four to eight strategies, though other approaches may involve more than 20 distinct strategies over a long period of time (Grabe, 2009). However, four instructional approaches mainly developed in L1 settings, since there is lack of L2 relevant research, which involve teaching a repertoire of cognitive and metacognitive strategies and draw on the combination of the above elements, are presented, as they have been strongly supported by empirical research: a) Reciprocal Teaching (RT) (Palincsar & A. L. Brown, 1984), b) Direct Instruction (Duffy, Roehler, Meloth, & Vavrus, 1986), c) Transactional Strategy Instruction (TSI) (Pressley and his colleagues), and d) Collaborative Strategic Reading (CSR) (Vaughn & Klingner, 1996).

3.2.6.2.1. Reciprocal teaching. RT was the first multiple-strategy instructional approach that was initiated by Palincsar and A. L. Brown (1984) and indicated significant comprehension improvement with a standardized measure (Baker, 2002; Grabe, 2009). RT focused on four strategies: predicting, clarifying information, summarizing, and forming questions. The basic components of this instructional approach was teachers' direct explanation and modelling of the reading strategies, the promotion of cooperative practices and dialogue among the participants during the completion of reading tasks; then, gradual release of teachers' scaffolding and prompting occurred until students became more self-regulated and efficient at applying the specific strategies and assuming the role of the teacher. Namely, the approach aimed to make even poor readers not only participate in tasks but experience some success in relatively easy tasks within the context of observing and working with an expert, who served as a model for higher level involvement (Palincsar & A. L. Brown, 1984). Within this system, students participated in reading tasks only at a level they were capable of doing in the presence of experts. The method of RT has been used in a number of studies and its effectiveness has been pointed out by L1 researchers (De Corte, Verschaffel, & DeVen, 2001; Lysynchuk, Pressley, & Vye,

1990; Palincsar & A. L. Brown, 1984). L1 literature reviews have demonstrated strong comprehension improvement (Rosenshine & Meister, 1994; Trabasso & Bouchard, 2002). Simultaneously, this method has been advocated in the EFL context (e.g., Cotterall, 1990; Salataci & Akyel, 2002; Song, 1998, Zhang, 2008). By and large, RT has led to promotion of strategy use and improvements in comprehension; one limitation that needs to be considered is that it can be applied to reading groups rather than a whole class (Grabe, 2009).

3.2.6.2.2. Direct explanation. Duffy and his colleagues focused on strategy instruction by highlighting the critical role of teacher modelling in enhancing students' reading comprehension, though no specific set of strategies was emphasized over others (Grabe, 2009). This approach relied on a cycle of teachers' direct explanation and modelling of strategies through thinking aloud during interaction with reading materials or tasks, guided practice, where there was gradual transfer of responsibility from teachers to students, leading to more independent practice (Duffy, 2002; Duffy et al., 1986; Duffy, Roehler, & Herrmann, 1988; Pearson & Gallagher, 1983; Pearson & Dole, 1987). Namely, comprehension instruction began with direct verbal explanation on behalf of the teachers in order to communicate particular information about strategies, including what the strategies are (declarative knowledge), when and why to use them (conditional knowledge), and how to use them (procedural knowledge) (Duffy et al., 1986). Then, the teacher was involved in modelling the strategy based on specific examples from a text by thinking aloud the cognitive processes taking place during strategy application in order to turn the covert comprehension processes into overt (Duke & Pearson, 2002; Pearson & Gallagher, 1983). After strategy modelling, students were given chances to put the new strategy into guided practice, where teacher and students work together gradually transferring responsibility from teachers to students (Pearson & Dole, 1987; Pearson & Gallagher, 1983). Next, teachers provided learners with opportunities to individually deploy what had been learned in new reading materials, which contributed to the transfer of the taught strategies to independent reading, so that learners could consolidate what had been taught (Duffy et al., 1986; Pearson & Dole, 1987). According to Pearson & Gallagher (1983), when the teacher was taking most of the responsibility for task completion, s/he was modelling or demonstrating the application of a strategy, while, when the student was taking all or most of that responsibility, s/he was practicing or

applying that strategy; and what fell between these two extremes was the gradual release of responsibility from teacher to student. Lessons usually concluded with reflection on strategy use. The effectiveness of this approach on reading performance has been recognized in the literature (e.g., Baumann, 1984; Dole, K. J. Brown, & Trathen, 1996; Duffy, 2002; Duffy et al., 1987). Concurrently, research on TSI (see section 3.2.6.2.3.) has led additional support for this approach, which forms the basis for the implementation of RT as well (Rosenshine & Meister, 1994), while these two instructional approaches have been combined in research (Alfassi, 2004).

3.2.6.2.3. Transactional strategy instruction. TSI is another major approach developed by Pressley and his colleagues to enhance comprehension through the use of multiple cognitive strategies, such as predicting, question asking, clarifying, rereading, summarizing, constructing images, activating prior knowledge, and evaluating comprehension (Pressley et al., 1992; Pressley, Johnson, Symons, McGoldrick, Kurita, 1989; Schuder, 1993). Strategies were also introduced, explained, modelled by the teacher and practised by students usually in groups while interacting with reading materials. Teachers constantly reminded students of what strategies are, how, when, and why they can be used after they had been introduced. However, interpretive transactions between readers and text and classroom discourse among group members were the main traits of this approach, which differentiate it from the previous strategy approaches (R. Brown, 2002; Pressley, 2006; Pressley et al., 1992). Namely, teaching usually lasted for a long period of time even for an entire school year and took place in small groups, where the construction of text meaning was a joint effort among all group members emphasizing on cooperation and readers' personal interpretive responses to texts. Students were even prompted to model strategy use for others. Therefore, the long-term goal of TSI was to make students develop strategic processing through the interaction of teacher guidance and group discussion. Research has validated the significant comprehension gains of TSI (V. Anderson, 1992; R. Brown & Coy-Ogan, 1993; R. Brown, Pressley, Van Meter, & Schuder, 1996; Schuder, 1993).

3.2.6.2.4. Collaborative strategic reading. CSR, which also focused on multiple-strategy instruction and relied on cooperative learning and RT, was designed to facilitate reading comprehension skills of struggling students in both L1 and L2 settings (Grabe, 2009). It relied on a theory assuming that cognitive learning occurred

when concepts were first learned through social interactions and then, became individual (Klingner & Vaughn, 2000). It is held that communication about academic content among peers contributed to learning and lowering anxiety levels. In this context, the teacher initially presented and demonstrated the strategies of predicting, identifying the gist, generating self-questions, clarifying, using prior knowledge, monitoring comprehension difficulties through thinking aloud in order to teach students what reading strategies are, how, when, and why they can be applied. Then, students practised the specific strategies in groups assuming different roles, such as the leader or supporter emphasizing collaboration, while the teacher circulated between groups providing guidance and feedback (Klingner & Vaughn, 1999). At the same time, CSR incorporated whole-class teaching and interactions. The effectiveness of CSR has lent support for reading comprehension development in L2 settings (Klingner & Vaughn, 1996, 2000).

The above instructional approaches to multiple-strategy instruction, though there are methodological differences among them, share some common features: a) they rely on the approach of direct explanation, b) they emphasize the active role of readers in the meaning-making process, and c) they promote the development of students' metacognitive ability and, ultimately, strategic reading.

In addition to the above instructional approaches to the reading comprehension skill developed mainly in L1 settings, three larger frameworks have been put forward referring to learning strategy instruction in FL settings: a) Oxford's approach (1990), b) CALLA (Chamot, 1995; Chamot & O'Malley, 1987), and c) SBI (Cohen, 1998), which have the potential for being adopted in multiple-reading strategy instruction.

3.2.6.2.5. Oxford's strategy training approach. This model is rather descriptive, as it presents eight steps for overall learning strategy instruction without directing students to the use of specific strategies in specific tasks (Oxford, 1990). According to Oxford (1990), the first five are planning and preparation steps for strategy use and involve: a) determination of learners' needs and the available time, b) selection of strategies, c) possible integration of strategy training with the regular language training programme, d) motivational issues, and e) materials and activities preparation. During the sixth step the actual strategy training, called "completely informed training", occurs, which consists of teachers' direct explanation and

extensive practice to fully inform the learner by showing why the strategy is useful and how it can be transferred to different language tasks. During the seventh step, the evaluation of the effectiveness of strategy training takes place in relation to specific criteria, such as general skill improvement, maintenance of the new strategies over time, and transfer of strategies to new but relevant language tasks. Based on the previous step, this last step usually involves possible revisions of the whole strategy training. This model mainly aims at raising students' awareness of strategy use and developing self-regulated learners.

3.2.6.2.6. Cognitive academic language learning approach. The CALLA model views learners as active participants in the teaching and learning process and aims at fostering students' achievement at school who are learning through the medium of ESL by focusing on explicit instruction in learning strategies (Chamot, 1995; Chamot & O'Malley, 1987). It includes a five-phase instructional sequence of a) preparation, b) presentation, c) practice, d) evaluation, and e) expansion. During this instructional approach, teachers, firstly, discuss the selected learning strategies, observe and comment on an example of strategy use by the workshop leader and then, practise the learning strategies on their own. In addition, teachers cooperate in order to develop strategies lessons for their own students and at subsequent meetings report on the implementation of the strategy instruction. In short, CALLA aims at developing a strategic approach to learning and problem solving but it seems to be more suitable for students who have already been acquainted with the use of a range of learning strategies in a variety of learning contexts (Cohen, 1998).

3.2.6.2.7. Strategies based instruction. According to Cohen (1998), SBI is a learner-centered approach to teaching during which students experience the advantages of both explicit and implicit integration of strategies into the course content. In fact, students can even discuss and share their own preferred strategies with their classmates and increase their repertoire of strategies while being engaged in the different language tasks. In a typical SBI training, teachers (Cohen, 1998):

1) describe, model, and give examples of potentially useful strategies;
2) elicit additional examples from students based on the students' own learning experiences;

3) lead small-group/whole-class discussions about strategies (e.g., reflecting on the rationale behind strategy use, planning an approach to a specific activity, evaluate the effectiveness of chosen strategies);
4) encourage their students to experiment with a broad range of strategies; and
5) integrate strategies into everyday class materials, explicitly and implicitly embedding them into the language tasks to provide for contextualized strategy practice (p. 81).

By and large, the aim of SBI is to assist learners in enhancing their language skills, becoming more effective and responsible learners for their learning process in order to learn and communicate in the target language without teachers' help.

Taking everything into account, these three instructional approaches developed in FL settings aim at enhancing learners' achievement and making them autonomous and self-regulated learners through the use of a repertoire of learning strategies. In particular, all of them draw on the principles of direct explanation, reflect on the rationale behind strategy use, encourage the conscious use of strategies and their transfer to new learning situations, and evaluate the effectiveness of strategy training. Cohen (1998) commented that "these instructional frameworks can be used in various combinations to complement each other and add variety to a strategy training program" (p. 73).

3.2.6.2.8. The instructional approach adopted in this study. The instructional approach that was chosen for the implementation of multiple-strategy training in the context of this thesis was Direct Explanation, which forms the basis of the other approaches mentioned in the previous sections. The reason for choosing the specific approach is that the aim of this study was to develop multiple-reading strategies instruction and students' metacognitive awareness of strategy use through whole class training in an EFL setting. In other words, the development of cooperative skills among learners was not the focus of this study, which constitutes a focal point of other approaches, such as the CSR, RT or TSI that are suitable for conducting multiple-strategy instruction in reading groups rather than a whole class. In addition, the exploration of issues, such as students' learning experiences or strategies, attitudes, expectations and motives did not belong to the aims of this study, which usually become the focus of other instructional approaches (e.g., Chamot, 1995;

Chamot & Omalley, 1987; Cohen, 1998; Oxford, 1990). Moreover, the CALLA approach (Chamot, 1995; Chamot & O'Malley, 1987) seems to be more suitable for students who have already been acquainted with the use of a range of learning strategies (Cohen, 1998). In this way, the steps implemented by the Direct Explanation approach, such as the explanation of what each strategy consists of, how, when, and why it can be applied, the modelling of strategy use with particular reading materials, and the extensive practice (guided practice where there is gradual removal of teachers' scaffolding leading to more independent practice) rendered the specific approach the most appropriate for the purpose of this study. Therefore, the instructional approach of Direct Explanation was considered to be more suitable for implementing multiple-reading strategy instruction in EFL whole classes with the goal of enhancing students' reading achievement and rendering them strategic readers who, however, have not previously been familiar with strategy use.

3.2.6.3. Research on FL multiple-strategy instruction. Despite the lack of a single definition or categorization of reading strategies and the criticism launched against the contribution of strategies to learning (Rees-Miller, 1993), FL reading strategy research, which has mainly concentrated on the teaching of various strategies in various learning contexts, has demonstrated the effectiveness of explicit strategy instruction on reading improvement.

To begin with, Kern (1989) based on the approach of Directed Reading and Thinking Activities examined the impact of explicit reading strategy instruction on 53 university students' reading achievement and word inference ability, who were learning French as a L2. The design of the study consisted of an experimental group that received explicit instruction in reading strategies and a control group that did not receive such training but covered the normal course curriculum. Both groups went through the same pretest and posttest comprehension and word inference measures. The reading strategies emphasized in this training programme consisted of strategies, such as identifying prefixes, suffixes, and connectives, inferring word meaning from context, generating questions to center students' attention on main ideas, skimming for gist, scanning for particular information or reading for global comprehension. According to the findings, multiple-strategy instruction benefited students' reading comprehension, particularly the lower ability readers, which indicated that strategy instruction could be particularly useful and helpful for less proficient students.

However, the impact of strategy instruction on readers' word inference ability was not so clear, as no statistically significant difference was reached, though strategy instruction seemed to favor readers' ability to derive the meanings of words from context. Cotterall (1990) who implemented RT in a pre-university ESL class in order to examine the effects of metacognitive strategy instruction lent support to the effectiveness of this approach on learners' comprehension achievement. Song (1998) examined the effects of teaching reading strategies on students' reading comprehension in an EFL university classroom in Korea composed of 68 students. The instructional approach adopted was a modified version of the RT from Palincsar and A. L. Brown (1984), which centers on four particular reading strategies: summarizing, questioning, clarifying, and predicting. The instructional programme lasted for fourteen weeks consisting of a forty-two hour training period. Participants were administered the same pretest and posttest comprehension measure. The results of this study have shown that strategy training has significantly improved students' reading performance, especially low and intermediate ability students' performance, lending support to the benefits of explicit strategy training in EFL settings. Schueller (1999) investigated the effects of both top-down and bottom-up strategy instruction on 128 university students' comprehension who were learning German as a FL. To assess comprehension, Schueller used both written recall and multiple choice questions. Overall, Schueller provided facilitative effects of the strategy training programme on students' comprehension gains; at the same time, Schueller failed to provide conclusive results regarding the effect of gender, as it was found that while the female group outperformed the male group regardless of strategic training and comprehension assessment task, males after top-down strategy training did better than females on a multiple choice task (but not on recall). Klingner and Vaughn (2000) reported on applying CSI, which combines cooperative learning and instruction in reading strategies, to 37 fifth-grade students of an ESL elementary class for a period of four weeks (two or three days per week). The results of this study indicated that the specific instruction contributed to the development of students' cooperative and strategic reading, as the participants spent a lot of time on strategic discussion and assisting each other in applying the reading strategies of inferring word meanings, getting the main idea, asking and answering questions, and relating new information to previous knowledge. Kusiak's study (2001) examined the impact of strategy training on EFL reading achievement of Polish secondary school students. The design

of this study involved an experimental group that underwent metacognitive strategy instruction and a control group that received no strategy training but both groups completed a questionnaire and a reading comprehension test before and after the intervention. Students that belonged to the experimental group were taught to apply self-regulatory strategies, such as finding the main idea of paragraphs, recognizing topic sentences, distinguishing the main idea from supporting details, distinguishing different text patterns, concentrating on key words, and inferring word meanings from context. It was revealed that the training was particularly beneficial for the less proficient students' reading comprehension and attitudes to reading, and enhanced their metacognitive knowledge of the reading process and use of strategies. Salataci and Akyel (2002) investigated the effects of reading strategy instruction on Turkish EFL university students' use of reading strategies and comprehension both in L1 (Turkish) and EFL. All subjects received a four-week (three hours per week) period of training in the reading strategies of activating prior knowledge, summarizing, predicting, clarifying, and questioning through RT. The results of this study indicated that students increased the use of reading strategies, such as prediction, activation of prior knowledge or summarizing, in both Turkish and EFL after strategy instruction, which, simultaneously, had a positive effect on EFL students' reading performance. Dreyer and Nel (2003) conducted reading strategy instruction within a technology enhanced learning environment with 131 African college students learning ESL for professional purposes. A combination of reading strategies, such as predicting, questioning, paraphrasing, and relating new information to prior knowledge was taught through Direct Explanation providing students declarative, procedural, and conditional knowledge, modelling, and practice in a technological learning environment. The participants, who were divided into experimental and control groups, were also categorized into successful and at-risk students based on scores of standardized tests. Both experimental and control groups were administered pretests and posttests to measure reading comprehension and reading strategy use. The results showed that both successful and at-risk students in the experimental group benefited from strategic instruction in terms of reading comprehension and strategy use, as they all got significantly higher marks on three comprehension measures than the students in the control group did. Banditvilai (2003) in an attempt to help EFL college students accelerate the process of reading comprehension investigated the impact of predicting, skimming, and scanning. It was found that these strategies helped students

comprehend reading materials more easily within a limited time. Zhang (2008) examined the effects of reading strategy instruction on 99 Chinese ESL university students' reading performance. The design of this study included an experimental group that received a two-month (or a 48-hour) period of reading strategy training and a control group that was exposed to the more traditional way of instruction. The reading strategies included in this programme were mainly cognitive, such as previewing or surveying a text, reading titles or subtitles to get the gist of a text, scanning for highlighted words or expressions and summarizing main ideas of a text by re-reading it, and metacognitive, such as checking correctness of comprehension and checking the effectiveness of strategy use. The above training was based on RT involving interactional and participatory discussions and direct instruction in small groups with the goal of raising students' awareness and rendering them self-regulated by means of self-questioning and self-reflection. One of the findings of this study was that the reading performance of the experimental group was significantly improved in relation to the performance of the control group based on comparisons between pretest and posttest reading comprehension measures. At the same time, Macaro and Erler (2008) investigated the impact of a longitudinal reading strategy intervention on students' reading achievement, strategy use, and attitudes to reading. A sample of 62 beginner learners of French as a FL attending seventh and eighth grade in secondary schools received reading strategy instruction that lasted fourteen months and was compared with a control group of 54 students that did not receive the intervention programme. Data were collected through two French reading comprehension tests, a reading strategy use questionnaire, and another questionnaire eliciting students' attitudes to French reading, which were administered to both groups before and after the training. Reading strategies, such as inferring unfamiliar word meanings from context, activating prior knowledge, and sounding out words, were taught through awareness raising, modelling of strategies, and extensive practice; then, students' attitudes toward reading were assessed. The results of this study suggested that the strategy intervention programme improved students' reading comprehension and attitudes to French FL reading and brought about changes in patterns of strategy use. Moghadam (2008) evaluated the impact of explicit training in a number of cognitive reading strategies on 64 university students' comprehension of English for specific purpose (ESP) texts. The reading strategies taught in this study included: previewing, identifying paragraph structure, using background knowledge, guessing word

meaning from context, directing attention, inferring, and asking questions about the passages. The instructional approach used in this study was the one that has been put forward by Janzen (1996) consisting of five stages: general strategy discussion, teacher modelling, student's reading, analysis of strategies used by teachers and/or students during the process of thinking aloud, and explanation/discussion of individual strategies on a regular basis. It was found that participants in the experimental group outperformed the control group in terms of comprehension of ESP reading texts suggesting that they benefited from the intervention. A more recent study (Lukica, 2011) investigated the effect of explicit teaching of reading strategies on 20 Croatian EFL university students' awareness of discourse structure and reading comprehension. The strategies chosen for instruction in this study were the 30 strategies listed in Mokhtari and Sheorey's study (2002); the instructional approach adopted in this study was the Styles-and Strategies-Based Instruction (SSBI), which consists of five steps: strategy preparation, strategy awareness-raising, strategy instruction, strategy practice, and personalization of strategies. The results of the study demonstrated that explicit teaching of reading strategies in an EFL Law class enhanced students' awareness of discourse structure as well as reading comprehension. Medina (2012) explored the effect of reading strategy instruction on 26 EFL students at a Colombian university. Participants were instructed in the following reading strategies: reading with a purpose in mind, previewing, skimming, scanning, predicting, inferring, using cohesive devices, guessing word meaning, and activating background knowledge. The teacher usually introduced a reading strategy by explaining and modelling how, when, and where to use it, while providing learners with the chance to practise a reading strategy or a set of strategies that had been introduced. The results of the two comprehension measures administered prior and after the intervention have shown a positive impact on students' reading achievement and self-confidence as well. At the same time, Aghaie and Zhang (2012) examined the impact of explicit instruction in cognitive and metacognitive reading strategies on Iranian intermediate-level EFL students' reading performance and strategy transfer. The treatment group in this study received explicit strategy instruction based on the CALLA model including teacher's explanation and modelling of strategies to raise students' awareness of their use, and extensive practice to help students move toward independent use of the strategies through gradual removal of the scaffolding. The reading strategies that were taught in the treatment group for four months consisted

of: a) cognitive strategies (contextual guessing, summarizing main ideas, looking for logical relationships between paragraphs, trying to find out the organizational aspects of text) and b) metacognitive strategies (determining in advance the reading purpose, reading the text with that goal in mind, looking for specific information, checking the effectiveness of strategy use). It was revealed that the treatment group performed better than those in the control group regarding reading comprehension and reading strategy transfer.

Nonetheless, few researchers managed to provide a statistically significant difference between groups who received strategy training and those who did not. To be more precise, Barnett (1988b) investigated whether 200 university students learning French as a L2 trained to deploy reading strategies (experimental group) improved reading comprehension and performed better on a standardized reading test than their untrained peers (control group). The training lasted for one year and included pre and post reading exercises practising reading strategies, such as skimming to get the gist, scanning for specific information, providing background information, inferring word meanings, encouraging guessing, and focusing on global comprehension. The results showed that, although the students of the experimental group did not reach a statistically significant difference in comprehension gains in relation to the students of the control group based on a reading comprehension measure, they did get higher test scores and made relatively greater progress than the control group did. According to Barnett, the intervention programme had a positive effect on the reading achievement of the experimental group that began with a lower mean score than the control group did. Additionally, students' overwhelmingly positive answers to a questionnaire about the reading programme compensated for the lack of reaching statistical significance, which indicated that students felt their reading comprehension had improved because of the special attention paid to the reading comprehension skill. A possible explanation for the inconsistent results was provided by Kern (1989) who alleged that learners' individual differences should be taken into consideration when evaluating the effectiveness of instructional programmes. In another study, Cotterall (1993), who implemented a reading strategy-based instruction, found inconclusive results. Cotterall suggested that participants needed to have acquired automaticity in the targeted cognitive strategies during their L1 reading before they could benefit from the related metacognitive strategy instruction during

their L2 reading; concurrently, Cotterall attributed the inconclusive results to the many strategies that her study included, a factor that seemed to have inhibited the whole strategy training process. Y.-C. Fan (2010) discussed the effect of CSR on the Taiwanese EFL university students' reading comprehension in relation to specific types of comprehension questions. This study adopted a pretest and posttest design with an experimental and control group; the intervention lasted for 14 weeks. It was revealed that CSR had a positive effect on the Taiwanese university learners' reading comprehension regarding, particularly, the comprehension questions referring to getting the main idea and finding the supporting details. However, the CSR failed to provide positive effects on EFL learners' reading comprehension in regard to questions examining predicting, making inferences and vocabulary problems. A possible explanation provided by Y.-C. Fan was that developing EFL learners' strategic reading is a long-term process requiring extensive practice.

Drawing on L1 reading research, a pool of L2 studies examined the impact of implementing multiple-reading strategy training in a range of learning settings, though the FL being learnt has often been English. In this way, comparisons among studies are rather difficult and problematic, as the strategies, participants, text types, tasks, instructional approaches, and comprehension measures used in the various studies vary (Block, 1986; Erler & Finkbeiner, 2007). Overall, most of the above studies have yielded positive results regarding the effectiveness of teaching a set of reading strategies mainly on adults' or university learners' reading performance, while support has been provided, particularly, for longer intervention studies (e.g., Macaro & Erler, 2008).

However, it is evident that there is relatively little research on reading strategy training that investigates the impact of multiple-strategy instruction in FL settings (Grabe, 2009). Based on pertinent empirical evidence, a lot of researchers pointed out the need for more rigorous intervention studies with school-aged students, especially younger participants at beginner level, allowing, mainly, for issues, such as the duration and nature of strategy training, the choice of strategies, the sample size, the text and task characteristics, the research instruments, and long-term effects measurements (Chamot, 2005; Erler & Finkbeiner, 2007; Grabe, 2004; Macaro & Erler, 2008; Taylor et al., 2006).

3.2.7. The set of reading strategies used in this study. First of all, this study emphasized the training in a set of reading strategies rather than the teaching of individual strategies, because its intention was to promote the strategic reader (Grabe, 2009), who coordinates a repertoire of strategies while actively seeking to derive text meaning (Duke & Pearson, 2002; Pressley, 2002; Trabasso & Bouchard, 2002). The reading strategies of predicting text content and using semantic mapping prior to text reading, getting the gist (skimming), identifying specific information (scanning), and guessing unfamiliar word meanings from context were included in this study. Of course, the choice of the particular reading strategies was not at random. Erler and Finkbeiner (2007) mentioned that "the choice of strategies to be taught has depended on the researchers' conceptualization of which strategies would be most effective for improving participants' reading comprehension in a particular teaching and learning setting" (p. 201). The researcher endorses the principles of planning action, compensating for deficiencies during execution, monitoring results, undertaking repair action, if needed; in this context, she conceptualizes reading as an action-oriented process involving the performance of tasks, in which readers are actively engaged by using appropriate strategies to carry out tasks (CEFR, 2001). Namely, the process of reading comprehension is seen as a strategic process during which the reader is required to predict text content, select key information, monitor comprehension, perceive text difficulties, and decide upon the most appropriate actions to overcome these difficulties or adapt these actions depending on the purposes for text reading (Grabe, 2009). At the same time, the researcher allowed for the English Curriculum that is intended for the level at which this study was carried out (A1-A2 according to the levels of CEFR, 2001) and explicitly refers to the objectives of getting the main idea of texts (skimming), locating specific information (scanning), inferring the meaning of unfamiliar vocabulary items from context (p. 4088). In addition, the relevant course-book used in the sixth grade of Greek elementary schools (Efraimidou, Reppa, et al., 2009) was looked at by the researcher, which was found to consist of reading tasks that check on students' understanding of the main idea(s) or basic information of texts that is explicitly stated. In this way, the aim of this study was to boost Greek EFL elementary students' ability to comprehend basic text information by planning and implementing lines of actions to approach the text actively, quickly, and efficiently and carry out tasks confronted without interrupting the whole reading process or relying on teachers' help, dictionaries or

glossaries (CEFR, 2001); this is what is often required to put into practice either in classrooms, standardized assessments or real life reading. Therefore, this study aimed at helping the participants go through a passage quickly without concentrating on details or unfamiliar words, because faster reading improves the readers' level of concentration and facilitates the construction of text meaning (Banditvilai, 2003), which is the main goal of reading (Grabe, 2009; Koda, 2005; Urquhart & Weir, 1998).

For the choice of the specific reading strategies, in addition to the evidence of their effectiveness provided by the literature review in the previous and the following sections, Smith's (1994) main principles of reading comprehension were concurrently considered. Namely, according to Smith, readers comprehend texts because they relate the new information to their pre-existing knowledge and experience, which is stored in the readers' minds in a complex system of categories, known as schemata. Thus, access to these schemata, prior knowledge, is a prerequisite for text comprehension. In addition, background knowledge is conducive to disambiguating lexical meanings and facilitating contextual guessing, as it provides a framework for readers, which gives them clues and guides their decisions on the meaning of unfamiliar words (Grabe, 2004). What is more, Smith (1994) attributed great importance to the cognitive process of prediction, regarding it as the core of reading comprehension highlighting that people are constantly involved in the process of making predictions, which are usually confirmed. Smith asserted that prior knowledge allows readers to predict while being engaged in reading comprehension and, thus, better comprehend texts and derive pleasure from text reading. Furthermore, predicting provides an incentive for learners to be involved in reading the whole text quickly in order to confirm predictions (Ajideh, 2003; Melendez & Pritchard, 1985). At the same time, the pre-reading strategy of semantic mapping was chosen allowing for the contribution of visual techniques in the learning and, in particular, the reading process (Carrell, et al, 1989; Oxford, 1990) and its popularity with teachers (Duke & Pearson, 2002).

Moreover, the focus on a VLS was placed because vocabulary knowledge is closely interwoven with comprehension, particularly in L2 settings (Droop & Verhoeven, 2003; Laufer, 1997; Nassaji, 2006; Nation, 2001; Psaltou-Joycey, 2010; Schoonen et al., 1998). It is well known that lack of vocabulary impedes comprehension and constitutes a thorny problem, especially for EFL novice or poor

students, who, whenever they come across an unfamiliar word, interrupt the whole reading process, stick to unknown words, lose track of meaning, and linger simply gazing at text pages (Block, 1992; Hosenfeld, 1977; Koda, 2005). The choice, in particular, of the specific VLS, contextual guessing, was made because it helps readers to be engaged in text reading without interrupting the whole process; it also helps learners save time and effort and figure out vocabulary without relying on teachers, glossaries or dictionaries, rendering, thus, readers more independent and self-regulated (M. Y. Fan, 2003; Psaltou-Joycey, 2010). Oxford (1990) highlighted that "learners can actually understand a lot of language through systematic guessing, without necessarily comprehending all the details'' (p. 90).

Regarding skimming and scanning, known as expeditious reading, the researcher decided to center on these types of reading, as they help students, especially EFL less skilled ones that usually waste time and effort thoroughly reading texts while it is not necessary, process texts quickly and efficiently (Urquhart & Weir, 1998). After all, as Smith (1994) puts it, it is better for students to go through a text quickly more than once than slowly go through it once. Concurrently, expeditious reading is conducive to boosting students' confidence and providing them with some kind of satisfaction by indicating that they can go through a text and comprehend a few things even if they spend little time and effort (Grellet, 1981). In this context, even less proficient EFL students, who usually lag behind as they are not involved in expeditious or strategic reading, can process texts, experience some degree of achievement, and derive pleasure from reading or even be involved in extensive reading.

In a nutshell, the basic goal of this study was to teach EFL students, especially the less proficient ones, as all students need to experience the pleasure of achievement, to construct meaning from texts and find the desired information through the specific set of strategies, which are separately addressed in the next sections, in order to render them active, efficient, flexible, and autonomous readers inside and outside EFL classrooms.

3.2.7.1. Activation of prior knowledge in relation to text content. There is no doubt that background knowledge plays a critical role in reading comprehension, as readers seem to have a higher level of comprehension when the text content is

familiar to them (see section 2.4.2.1.). Nonetheless, a significant problem, especially for L2 readers, is that they may lack the appropriate background knowledge or some reading materials include unfamiliar concepts or the clues given by the author are not sufficient (Rumelhart, 1980; Taglieber et al., 1988). In this way, students sometimes cannot integrate the new information provided by the text with their existing knowledge, which can cause misunderstanding and distortion of text meaning (R. C. Anderson, 1994; Carrell & Eisterhold, 1983). This entails that special attention should be paid to preparing students for reading and activating specific knowledge related to the topic of the text with the aim of enhancing text comprehension (R. C. Anderson, 1994; H. Chen & Graves, 1995; Floyd & Carrell, 1987). In this context, research suggests that teachers can deploy a number of strategies in pre-reading activities to activate readers' prior knowledge, increase their anticipation and interest in text reading and, ultimately, enhance comprehension (Ajideh, 2006; Carrell, 1984b; H. Chen & Graves, 1995; Erten & Karakas, 2007; Floyd & Carrell, 1987; Hudson, 1982; Johnson, 1982; Taglieber et al., 1988; Williams, 1987; Zhaohua, 2004). According to H. Chen and Graves (1995), "Pre-reading activities are devices for bridging the gaps between the text's content and the reader's schemata" (p. 664). At the pre-reading stage a variety of activities, such as making predictions based on text titles, subtitles, pictorial context and so forth, providing keywords, vocabulary pre-teaching, questioning, brainstorming or semantic mapping can be used with different types of texts to activate students' prior knowledge (Ajideh, 2006; Auerbach & Paxton, 1997; Melendez & Pritchard, 1985; Williams, 1987; Young, 1991). However, research has not indicated which of the above pre-reading activities is the most effective, allowing, thus, teachers to make their own choices depending on their teaching style, their class, and the reading material (Carrell & Eisterhold, 1983; Yusuf, 2011).

In this context, two strategies, often known as pre-reading strategies in the reading literature (e.g., Psaltou-Joycey, 2010), semantic mapping and predicting text content, were chosen to be included in the present study, as they seemed most practical and suitable for triggering Greek EFL learners' prior knowledge, which they may lack or cannot easily access.

3.2.7.1.1. Using semantic maps prior to text reading. Semantic maps, one of the graphic techniques that have been developed and studied in the literature, are web-like organizers (see Jiang & Grabe, 2007; Manoli & Papadopoulou, 2012a; Nesbit &

Adesope, 2006; Vekiri, 2002, for a review of graphic organizers). Throughout literature, the terms "mind maps", "spider maps" or "sunbursts" are used to refer to semantic maps. Graney (1992) held that semantic maps look "like a sun or star with rays emanating from it, as they consist of a circle with lines radiating from the circle" (p. 164). In fact, they are diagrams in which the key concept is placed in the middle of the map while the related words are linked with and arranged around the central key word or idea through arrows and lines (Oxford, 1990). Semantic maps, basically a vocabulary-building strategy, offer an overview of key vocabulary and concepts and can be used as part of the pre-reading activities to assist learners in storing and retrieving new vocabulary (Carrell et al., 1989; Oxford, 1990). In addition to contributing to vocabulary development, they depict how various ideas of a text are associated, provide a link between what students know and what they will read and induce learners' prior knowledge; in this way, semantic maps, a type of a brainstorming activity mainly used prior to text reading, better prepare students to assimilate the information of the new reading material (Carrell et al., 1989; Psaltou-Joycey, 2010). Concurrently, Carrell et al. (1989) added that semantic maps constituted an assessment tool of learners' existing knowledge pertinent to the text topic. It is suggested that teachers should deploy semantic maps in order to induce learners' existing knowledge of a specific topic and link it with the new information (Lipson, 1995). Although the semantic mapping procedure is not identical depending on teacher objectives, overall, the procedure involves a brainstorming activity during which students come up with ideas or words relevant to a key concept written down in a circle by teachers, who add students' ideas to the map and connect them with the key concept (Carrell et al., 1989). Of course, Oxford (1990) highlighted that in a semantic mapping activity, there is no single correct answer, as different students can come up with a variety of ideas and can have various approaches to grouping these ideas.

Despite the contribution of semantic maps to learning (Oxford, 1990) and their popularity with teachers (Duke & Pearson, 2002), there is limited L2 empirical research, which has demonstrated facilitative effects of using semantic maps on reading comprehension. Among the few studies, Carrell et al. (1989) that were involved in a metacognitive reading strategy training for 26 EFL university students focused on training in activation of prior knowledge through the use of semantic

mapping and the experience-text-relationship method. The design of the study consisted of two experimental groups, each of which received strategy training in one strategy and participated in pretest and posttest measurements, and a control group that received no strategy training but took part in pretest and posttest measurements. The results of this study indicated that metacognitive strategy training was effective in enhancing L2 reading comprehension. Pappa, Zafiropoulou, and Metallidou (2003) investigated whether strategy instruction in semantic mapping in combination with motivation boosting would enhance EFL reading comprehension. A sample of 119 Greek students, 14 to 15 years old, participated in the study. Strategy training, which lasted two weeks, was provided to three experimental groups, one of them receiving motivation boosting, the other received the semantic mapping instruction and the third one underwent semantic mapping training in combination with motivation boosting, while the control group received no strategy training and motivation boosting. However, all groups participated in pretest and posttest measurements. The results indicated that the students who received intervention either in the form of a semantic mapping training or motivation boosting or as a combination of both practices improved their performance in EFL reading comprehension in the posttest measurement in relation to the students in the control group. In fact, it was revealed that the performance of students who went through semantic mapping training plus motivation boosting was significantly higher than the performance of the students who received either the motivation or the semantic mapping training. Another line of research compared the effects of three different semantic mapping strategies, teacher-initiated, student-mediated, and teacher-student interactive semantic mapping on the reading comprehension of 187 EFL college students (El-Koumy, 1999). The subjects were randomly assigned to three treatment groups receiving pretest and posttest measurements. It was found that students in the teacher-student interactive semantic mapping scored significantly higher than the teacher-initiated and the student-mediated treatment groups.

3.2.7.1.2. Predicting text content prior to text reading. Making predictions about what is in a text based on previewing is another important cognitive process for readers, which can be applied when texts are rather difficult or have unfamiliar content (Ajideh, 2003; Auerbach & Paxton, 1997; H. Chen & Graves, 1995). Previewing is anything that can give readers a glimpse of the content of the reading

materials, such as titles, subtitles or pictures, and is presented to students before text reading (H. Chen & Graves, 1995; Zhaohua, 2004). The aim of previewing is to assist readers in predicting the main idea discussed in a text and, thus, build up their necessary prior knowledge to comprehend reading material more efficiently (Chia, 2001). According to H. Chen & Graves (1995), "previews provide readers with top-down semantic and structural information before reading, which can compensate for information they may not acquire from their bottom-up processing of the text" (p. 666). In this way, taking advantage of contextual clues, such as titles, subtitles, pictures, maps or graphs that often accompany texts, helps learners make predictions about the text content prior to reading (Ajideh, 2003), which makes them form expectations about the text they are to read and enhances their interest in actual text reading to test their hypothesis (Melendez & Pritchard, 1985). Thus, since each text activates a particular schema in the reader's mind, the reader makes predictions about the text content based on contextual clues and his/her schematic knowledge and then, the reader actively attempts to confirm his/her predictions by actual text reading (Gilakjani & Ahmadi, 2011). In case of an inappropriate prediction, that is, what was predicted was not confirmed after text reading, there is no particular problem, as the reader will still read for meaning getting him/her to modify the schema and what s/he had predicted (Gilakjani & Ahmadi, 2011; Melendez & Pritchard, 1985).

L2 empirical evidence has supported the use of predicting in relation to text content. Hudson (1982) explored the effect of two pre-reading activities (predicting based on pictorial context and practising in a pre-reading vocabulary activity) on 93 EFL pre-university students' reading achievement. It was revealed that the experimental group who received training in making predictions based on pictorial context had significantly more EFL comprehension gains than the experimental group who received practice in a pre-reading vocabulary activity or the control group. More specifically, the results of the study indicated that students at lower levels of proficiency reaped greater benefits from activation of prior knowledge than students at higher levels and that induced schemata can override language proficiency as a factor in comprehension. Taglieber et al. (1988) investigated the impact of three pre-reading activities (predicting text content based on pictorial context, pre-questioning, and vocabulary pre-teaching) on 40 EFL Brazilian college students' reading comprehension. It was found that these pre-reading activities improved EFL students'

reading comprehension in relation to the control group lending support, especially, to the two first pre-reading activities. H. N. Tang and Moore (1992) examined the effects of a cognitive and metacognitive strategy instruction in two pre-reading activities (predicting based on text title and vocabulary training) on EFL adult students' comprehension. The results demonstrated that both interventions were effective in raising students' comprehension levels highlighting, particularly, the importance of the metacognitive strategy instruction. Alemi and Ebadi (2010) investigated the effects of three pre-reading activities (predicting text content based on pictorial context, pre-questioning, and vocabulary pre-teaching) on ESP college students' reading comprehension. It was shown that the experimental group that was exposed to the above pre-reading activities gained considerable comprehension gains in relation to the control group that received no training in the specific activities. Ysuf (2011) investigated the effect of triggering ESL secondary students' prior knowledge through pre-reading activities (such as predicting text content based on previewing, pre-reading discussion, and brain storming activities) on their performance in reading comprehension. The results demonstrated that the experimental group that received pre-reading activities improved reading performance in relation to the control group. A more recent study, Maghsoudi (2012), attempted to activate Iranian EFL university students' prior knowledge through the use of three pre-reading activities (previewing, pre-teaching vocabulary and predicting based on pictorial context). It was revealed that the experimental group who received more background knowledge improved their comprehension of cultural texts in relation to the control group. Thereforer, literature has provided support for the strategy of predicting text content prior to text reading, since it has been included in a number of L2 studies as part of pre-reading activities; simultaneously, it was included in studies emphasizing on multiple-strategy instruction yielding positive results (see section 3.2.6.3.).

In conclusion, activation of background knowledge relevant to text content is vital for EFL readers, as it better prepares them to understand and assimilate the new information of reading materials and renders them alert for anything that can provide clues to content. Therefore, developing reading activities prior to text reading, such as semantic mapping or predicting based on previewing, can enhance comprehension, especially for the less skilled readers that may be unable to associate their prior knowledge with new information or may simply lack relevant background knowledge.

3.2.7.2. Expeditious reading. As noted earlier (see section 2.1.2.), there are different types of reading, as language users can read for the text gist (skimming), for specific information (scanning), for detailed understanding (intensive reading), for general comprehension or for pleasure (extensive reading) depending on the reason for reading (CEFR, 2001; Grabe, 2009; Grellet, 1981; Urquhart & Weir, 1998). In this context, students should adjust their reading speed and technique in line with the intended purpose for reading in order to read efficiently, as approaching all texts in the same manner would be a waste of time and failure to assimilate the desired information (Grellet, 1981). In particular, skimming and scanning -known as expeditious reading in the literature- are two widely used ways of reading, which are of paramount importance for EFL readers, as they contribute to constructing text meaning.

3.2.7.2.1. Skimming. Skimming is defined as "go[ing] through the reading material quickly in order to get the gist of it, to know how it is organized, or to get an idea of the tone or the intention of the writer" (Grellet, 1981, p. 58). Readers are involved in skimming when they want to confirm their predictions about text content, to get the main idea(s) of a text, while simultaneously ignoring details, or to decide if the text includes useful information to warrant a more careful reading. The main characteristics of skimming are that reading is silent, quick, and selective but with some concentration; whole sentences or parts of the text are either omitted or paid very little attention, as the main focus is on grasping the main point(s) discussed in texts (Urquhart & Weir, 1998). When readers attempt to skim a text, they should read titles and subtitles, inspect pictures, graphs, or diagrams, read the introductory and concluding paragraphs or the first and last sentence of each paragraph, note repeated key words, and skip details (Urquhart & Weir, 1998). Skimming induces readers' existing knowledge and provides them with a framework to better understand and assimilate the information of a text (J. F. Lee & Musumeci, 1988; Urquhart & Weir, 1998). Additionally, skimming allows readers to go through long materials without sticking to or being worried about unfamiliar words (Pritchard & Nasr, 2004).

3.2.7.2.2. Scanning. Scanning is another type of expeditious reading that allows readers to go through a document quickly in order to extract particular information, to answer questions or solve a problem and contributes to quick and efficient reading (Grellet, 1981; Urquhart & Weir, 1998). Indeed, readers can quickly

apply scanning to a number of reading materials both in their daily lives and in the school context, whenever they want to look for particular words, names, dates, facts or figures. For instance, in the context of everyday life they apply scanning to plane, bus or train schedules or tickets to check the date of departure or their seat correspondingly, television/radio programmes to find out the time of their favorite series, manuals or tables of content to spot the information they want. According to Armbruster and Armstrong (1992), even from an early age students at elementary levels are constantly engaged in the process of locating information, as they search reading materials to spot answers to questions, to find evidence in support of an argument or simply look for information regarding interesting topics. Additionally, Armbruster and Armstrong held that the importance of locating information can be traced in the fact that it is widely assessed on the various standardized tests.

It is advisable for students, before beginning the process of scanning, to look at the questions to which they are asked to provide answers in order to get a general idea about what sort of information is being sought; then, they should let their eyes move down a document as quickly as possible until they come across what they are looking for, as scanning is particularly vital for questions that demand specific pieces of information (Grellet, 1981; Banditvilai, 2003; Urquhart & Weir, 1998). While scanning, readers are mainly interested in finding the paragraph in which the information they are searching is likely to be included and then rereading the specific paragraph more carefully (Grellet, 1981). It is obvious that scanning is based on the assumption that comprehension does not rely on reading every single word or every single line; it entails selective reading focusing on word recognition and local comprehension while most of the text, which does not contain the preselected information, is ignored, as little or no syntactic, semantic, and phonological processing, lexical access or coherence checking is required (Urquhart & Weir, 1998). Therefore, emphasis on the process of scanning on behalf of the teachers in reading classrooms can help EFL students, particularly less skilled ones, abandon the slow process of paying attention to every single word or sticking to every single line from the top left-hand corner till the end of the document (Urquhart & Weir, 1998), which frequently impedes comprehension.

All in all, both skimming and scanning, known as expeditious reading in literature, assist students in processing texts quickly, selectively, and efficiently

according, of course, to their intended purpose(s) (Grabe, 2009; Koda, 2005; Urquhart & Weir, 1998). The importance of getting the gist of a text and locating specific information for EFL readers has not been examined in isolation -to the best of the researcher's knowledge- but in combination with other strategic processes yielding positive results (see section 3.2.6.3.). These two strategic ways of reading are vital, especially for EFL readers that often waste a lot of time reading texts thoroughly and, when coming across something really interesting, they do not pay the necessary attention, as they have run out of time or energy; they contribute to boosting students' confidence by giving them the pleasure of achievement, as they can derive text meaning or carry out specific tasks only by having a look at some parts of a text and understanding a few words (Grellet, 1981). Expeditious reading works more properly when applied to certain types of texts, such as expository, or lengthy texts, and when there is a strict time limit (Urquhart & Weir, 1998). However, it should be pointed out that, though these two reading techniques can be applied together to reading materials, they are not identical. In short, when skimming, readers attempt to construct a macrostructure, the main idea of a text, which requires an overall view of the text, while, when scanning, readers make an effort to locate a particular piece of information pertinent to their goal (Grellet, 1981; Urquhart & Weir, 1998).

3.2.7.3. Guessing unfamiliar word meaning from context. Drawing on L1 literature (Cain, 2007; Fukkink, 2005; Jenkins, Matlock, & Slocum 1989; Jenkins, Stein, & Wysocki 1984; Konopak et al., 1987; Kuhn & Stahl, 1998; Nagy et al., 1987), which supports the view that students can derive the meaning (or partial meaning) of vocabulary items, while reading, contributing to vocabulary growth, L2 researchers have turned to examining the specific strategy, as the number of words to be learned is too enormous to rely only on word-by-word instruction. According to Parel (2004), "Contextual guessing entails guessing the meaning of a target word based on interpretation of its immediate co-text with or without reference to knowledge of the world" (p. 848). Deriving meaning of unfamiliar words from context has been closely associated with incidental vocabulary learning (see section 2.4.1.2.1.), which helps learners be involved in extensive reading and become independent, as they can figure out the meaning of unfamiliar vocabulary items without relying on teachers' assistance, using dictionaries or overall interrupting the reading comprehension process (M. Y. Fan, 2003; Nation, 2001; Psaltou-Joycey,

2010). A line of research that focused on examining FL learners' approach to guessing from context found that FL proficiency is a major factor in successful guessing, as good users allow for a variety of context clues, check the contribution of each other to the unknown word and abstain from guessing prematurely (Arden-Close, 1993; Bensoussan & Laufer, 1984; Laufer & Sim, 1985b; McKeown, 1985; Morrison, 1996). More specifically, these studies have indicated, that though there might be a variety of context clues available, not all readers can take notice of them and make good use of them. One important way to help students improve learning from context is to provide training in guessing vocabulary based on context clues (Nation, 2001).

Regarding FL settings, however, empirical research on the effectiveness of instruction in the use of context to infer word meanings has been less extensive than L1 settings, as there are few experimental studies, while much of the literature is descriptive in nature (Walters, 2004). To begin with, Huckin and Jin (1987) investigated the effectiveness of training EFL students in using context to infer word meanings from context. The results demonstrated that the experimental group that received brief training in guessing from context was significantly more successful than the control group that received no such training. Fischer's study (1994) designed to investigate the independent and interactive effects of using context and dictionaries information on vocabulary learning supported the use of context to derive word meanings. Fraser (1999) investigated the impact of the use of three lexical strategies (ignoring unknown words, consulting dictionaries or other individuals, and contextual guessing) on EFL university students' vocabulary learning through reading. The results showed that the strategy of inferring was more frequently used than the strategies of ignoring and consulting and provided support for the efficacy of instruction aiming to improve EFL students' ability to infer unfamiliar word meanings, as the EFL francophone university students did acquire some vocabulary during text reading. At the same time, it should be mentioned that based on a literature review of multiple-strategy instruction in FL contexts the strategy of deriving word meaning from context was included in almost all studies (see section 3.2.6.3.), which is indicative of the vocabulary problem that FL learners are faced with and the contribution of the specific strategy to the reading comprehension process. Medina (2012), in particular, when examining the effects of multiple-strategy

instruction including guessing from context on EFL reading comprehension, revealed that students became more confident and reduced the use of dictionaries considerably, which, at the same time, rendered students independent of dictionaries' use or teachers' assistance.

However, while acknowledging the importance of guessing from context for autonomous and self-regulatory learning, the results of some studies did not directly favor the use of context in relation to other approaches to vocabulary learning. Qian (1996) in an attempt to explore the effectiveness of two approaches to vocabulary learning and retention, provided contextualized and decontextualized (word-list) vocabulary training to two experimental groups aiming at teaching the same amount and meanings of words to both groups. He indicated that decontextualized vocabulary learning resulted in better retention than contextualized vocabulary learning for Chinese EFL university students. One possible explanation offered by Qian is that Chinese students are accustomed to rote learning and decontextualized (word-list) vocabulary learning, which was basically a rote learning task. Zaid (2009) investigated two approaches to vocabulary instruction (direct teaching of the meanings of unfamiliar words and deriving word meaning from context. The results demonstrated that both approaches were effective in helping Arabic-speaking EFL college students acquire, retain, and further recall the lexical items instructed. At the same time, a body of researchers discussed some problematic aspects of the specific strategy mentioning that it is a complex and time consuming process with dubious learning value requiring a combination of strategies and knowledge sources including knowledge of the most surrounding words in the text (Huckin & Coady, 1999; Kelly, 1990; Nassaji, 2003). Some researchers also challenged the exclusive use of this strategy either because of text complexity or because of readers' limitations; they argued that explicit and informative context clues are not often provided, especially when reading naturally, which more often than not leads to erroneous guessing, or that learners do not always take advantage of contextual clues successfully (Bensoussan & Laufer, 1984; Frantzen, 2003; Hulstijn, 1992; Laufer, 1997; Mondria & Wit-de-boer, 1991).

All in all, despite the limitations accentuated by some researchers that should be taken into account, especially in case of instruction, research has indicated that guessing from context is an important way for students to increase vocabulary, which

can compensate to some degree for L2 students' low reading proficiency and relieve them from the anxiety of low levels of L2 vocabulary (Nation, 2001). Concurrently, contextual guessing contributes to strategic reading and enhances students' ability to independently read outside classrooms, as they can be involved in text reading without interrupting the reading process when coming across unknown words or relying on teachers, dictionaries or glossaries (M. Y. Fan, 2003; Medina, 2012; Nation, 2001; Psaltou-Joycey, 2010). Therefore, although guessing vocabulary from context is inextricably linked with incidental learning, it is worthwhile spending time and effort on deliberately developing the specific strategy in FL contexts, where students often stick to unfamiliar word meanings or result in incorrect guesses because of their inability to allow for context clues (Nation, 2001).

Chapter 4: The Present Study

This chapter explains the rationale for this study. More specifically, it presents the contribution of this study to L2 reading research, the current EFL educational setting in Greek primary education, the general design, the aims, the scope, and the research hypotheses of this study.

4.1. The Rationale for this Study

L2 reading research has yielded a number of insights focusing on vocabulary knowledge, automaticity in word recognition, reading fluency, extensive reading, activation of background knowledge in relation to text content, graphic representations, metacognitive awareness raising, and use of reading strategies in order to facilitate the process of reading comprehension (Grabe, 2002; Psaltou-Joycey, 2010). In the late 1970s, research shed light on the use of reading strategies and strategy instruction in order to enhance learners' reading achievement and render them active and independent readers. Namely, studies on reading strategies deployed by proficient and less proficient readers indicated that more proficient readers were active readers with clear goals in mind for reading and developed more reading strategies focusing on text meaning and monitoring comprehension more frequently than their poor counterparts, who were highly concerned about details, vocabulary problems or decoding (e.g., Block, 1986; Carrell, 1989; Geladari et al., 2010; Griva et al., 2009; Hosenfeld, 1977; Sheorey & Mokhtari, 2001; Zhang & Wu 2009). In this context, reading research has provided a link between reading strategy use and successful FL comprehension demonstrating that students should be instructed to use the strategies employed by the more successful counterparts, while reading, to improve reading comprehension inside and outside FL classrooms. More recent trends in reading strategy research have focused on conducting multiple-strategy instruction rather than individual strategy instruction highlighting that strategic readers draw on a repertoire of strategies, while interacting with written texts, according to the purpose of reading (Duke & Pearson, 2002; Grabe, 2009; Pressley, 2006). Consequently, the momentum gathered in reading strategy research indicated that multiple-strategy instruction has the potential of enhancing students' reading performance (e.g., Aghaie & Zhang, 2012; Dreyer & Nel, 2003; Kern, 1989; Klingner & Vaughn, 2000; Macaro & Erler, 2008; Salataci & Akyel, 2002; Song, 1998; Zhang, 2008). However, Grabe

(2009) pointed out the need for more research on multiple-reading strategy instruction in L2 settings.

In this context, the purpose of this study was to implement multiple-strategy instruction in Greek elementary students who were learning EFL. Although there has been some empirical evidence of the contribution of multiple-strategy instruction to reading improvement, very few studies have focused on younger, school-aged readers, as most of the pertinent studies were conducted with university students drawn from various socio-educational learning contexts in which Greece was not represented. More specifically, Klinger and Vaughn (2000) focused on EFL elementary students, while Kusiak (2001) as well as Macaro and Erler (2008) dealt with secondary students in FL settings. The need for further intervention studies which involve younger, school-aged students in the FL context has also been accentuated by other researchers (Chamot, 2005; Macaro & Erler, 2008). Concurrently, the need to carry out the present study has resulted from the dearth of relevant research in the Greek socio- educational context, where, to the best of the researcher's knowledge, no study has ever focused on multiple-reading strategy instruction, while few studies have investigated the effectiveness of conducting individual reading strategy instruction. In particular, Pappa et al. (2003) investigated whether strategy instruction on semantic mapping in combination with motivation boosting would produce more successful comprehension gains for EFL secondary school students yielding positive results. In addition, Hatzitheodorou (2005) taught university EFL students the reading strategy of summarizing and provided facilitative effects. Rizouli (2013) also taught two experimental groups consisting of university EFL students the reading strategies of summarizing and the rhetorical organization of text structure through graphic representation providing support for both strategies. At the same time, Gavriilidou and Papanis (2009) have probed into the effectiveness of learning strategy instruction on strategy use by Muslim students who were learning EFL in primary education and indicated a significantly increased use of strategies. Last but not least, Tsiriotakis (2013) investigated the effectiveness of writing strategy training on EFL primary school learners' writing improvement and anxiety levels and revealed a statistically significant improvement in students' writing process.

Additionally, relying on FL literature, few studies have probed into the maintenance effects of comprehension gains coming from implementing multiple-

strategy instruction in a university FL setting (Barnett, 1988b), which, however, should constitute one of the main aims of strategy intervention programmes (Cohen, 1998; Oxford, 2011); in this context, exploring the delayed effects of the teaching intervention programme belonged to the major aims of this study. Furthermore, the present study probed into variables that have not so far been explored extensively, such as the relationship between students' proficiency level or gender and reading performance, especially after strategy training. In particular, some researchers have investigated the relationship between students' proficiency level and reading performance after conducting multiple-strategy instruction in a university context (Dreyer & Nel, 2003; Kern, 1989; Song, 1998), in secondary (Kusiak, 2001) as well as primary education (Klingner & Vaughn, 2000) but provided contrasting results. At the same time, few studies have explored the correlation between university students' gender and reading proficiency particularly after strategy training showing contrasting results (Rahmani & Sadeghi, 2011; Schueller, 1999).

What is more, there is dearth of research on experimental studies that instruct and aid students in applying reading strategies to multimodal texts to construct meaning, as all the above studies refer to the application of reading strategies to linguistic texts. By and large, little attention has been paid to multimodality in FL contexts (Dominguez & Maiz, 2010; Kress, 2000; Royce, 2007), while at the same time the texts that students, in particular, Greek EFL students, are faced with are becoming increasingly multimodal (see sections 2.4.2.2.1., 4.1.2.1., and 4.1.2.3.). Kern and Schuitz (2005) highlighted that FL research, which has centered on examining many aspects under the rubric of the cognitive, such as learning strategies, reading strategies, writing strategies or transfer, needs to be extended to investigate these phenomena within the context of the socially and culturally embedded literacy.

At the same time, regarding the Greek EFL learning setting, the term "learning strategies" is mentioned in the pupil's book (Efraimidou, Reppa, et al., 2009), the teacher's textbook (Efraimidou, Frouzaki, et al., 2009) and the English Curriculum (Government Gazette, 2003) intended for the sixth grade indicating that the Greek Pedagogical Institute has leaned upon the guidelines proposed by the CEFR (Tsiriotakis, 2013). Nonetheless, no further guidelines are provided in terms of strategy instruction and application failing to make clear the contribution of learning strategies to EFL acquisition. In this context, the present study aimed to investigate the effect of multiple-strategy instruction in an attempt to make the process of reading

comprehension more meaningful and help students become more adept at using appropriate strategies and, ultimately, improve reading performance (Cohen, 1998; Oxford, 2011).

4.1.1. The Common European Framework of Reference. The CEFR (2001) in an attempt to facilitate the communication and cooperation of professionals being employed in the field of teaching and learning modern languages across Europe established a common basis for objectives, content, materials, methods, and assessment by describing what knowledge and skills learners need to develop to communicate efficiently. It mainly focused on the principles of foreign language literacy (developing the four language skills, that is, reading, writing, speaking, listening), plurilingualism (cultivating a linguistic repertoire in which all linguistic abilities can interact), strategic and lifelong learning with the aim of boosting cooperation and cultural awareness in European democratic countries. Its educational framework focused on the development of learners' communicative competence through an action-oriented approach. Namely, learners, who are considered to be "social agents", need to accomplish tasks, achieve a goal or solve a problem in various linguistic and cultural contexts by following a particular line of action(s), deploying specific linguistic means, and using appropriate strategies to achieve these tasks. In this way, both communication and learning, which primarily include language activities to produce or receive texts, consist of tasks that require the application of strategies. According to the CEFR (2001), "a strategy is any organised, purposeful and regulated line of action chosen by an individual to carry out a task which he or she sets for himself or herself or with which he or she is confronted" (p. 10). To take just an example, a FL learner that comes across an unfamiliar word during the completion of a task in the classroom may look at the glossary to see if this vocabulary item is included, consult a dictionary, try to figure out its meaning based on context, ask the teacher or his/her peers for help or simply give up and not hand in the assignment by providing the excuse that s/he does not know what this word means. All the above are specific lines of actions, strategies, which learners have at their disposal and can use when they need to accomplish tasks in different contexts and under various conditions. Therefore, the contribution of strategies to language learning has been widely recognized, which have been regarded as a "hinge" between the learner's abilities and what s/he can do when involved in communicative activities (CEFR, 2001).

4.1.2. The EFL context in Greek primary education. Allowing for the current educational context in Greece when the specific research was conducted (2011-2012), English was taught as a compulsory subject introduced in the third grade of state elementary schools -Greek primary education consists of six grades- for three hours per week -each teaching hour lasts 40 minutes approximately- with the exception of some pilot schools, where English was taught four times a week. In 2010-2011, English teaching was extended to the first and second grade of some schools for two hours within the framework of a pilot scheme. Classes are generally characterized as mixed-ability classes, where EFL teachers implement individualized or differentiated instruction, as students are of different levels of language proficiency and have different learning needs (Efraimidou, Frouzaki, et al., 2009).

A characteristic of the Greek educational system in terms of EFL learning and teaching is the co-existence of two educational systems, that is, the compulsory education in a state or private school and the private FL institutes. Namely, most of the students attend private FL institutes, called *frontisteria*, almost on a daily basis in combination with the English lessons offered at Greek state schools. In addition, private tuition is another popular means of EFL instruction, particularly, for those who can afford it. Although the age at which children start attending English lessons privately varies, the majority of children usually start in the third grade of primary education. Nonetheless, a number of children attend private pre-junior lessons in the second or even the first year of primary school. The above preference for the private foreign language lessons offered either at institutes or at home is inextricably linked with the ardent desire for the acquisition of the English language certificates in conjunction with the low prestige of EFL teaching in state education (Vrettou, 2011). Namely, foreign language certificates, especially the English ones, are regarded as mandatory qualifications for future career development and constitute the main focus of the majority of EFL courses, particularly, those provided by private language institutes. However, in the last few years the introduction of the new reading materials, the extension of EFL teaching to the third or even the first and second grades within a pilot framework, and the attempt to link EFL instruction at state schools with a National FL Exam System (K.P.G.) has constituted an effort to modernize and boost the low prestige of FL teaching in state education (Vrettou, 2011).

4.1.2.1. The new reading materials for the sixth grade in primary education. In 2010, new course-books were introduced for the two last grades of Greek primary schools. As regards the course-book used in the sixth grade of Greek elementary classes, in which the current study was conducted, it is intended for learners at Pre-Intermediate level (corresponding roughly to Level A2 of the CEFR, 2001) and consists of 10 thematic units, in which, according to its writers, a Cross-Thematic/Cross-Curricular approach is highlighted (Efraimidou, Frouzaki, et al., 2009). In addition, it involves a combination of the linguistic with the visual mode, as all units in addition to language make extensive use of images. Simultaneously, all units focus on the development of the four language skills through communicative activities, the boosting of students' cooperation through pair or group work, vocabulary extension, and the raising of students' awareness of grammar through inductive and deductive approaches; attractive topics and extracts from authentic reading and listening texts are selected to facilitate the development of the above skills (Efraimidou, Frouzaki, et al., 2009). As noted earlier, though the concept of learning strategies is introduced in the pupil's book as well as the teacher's book, there is no particular emphasis on the contribution of learning strategies to the EFL learning and no specific guidelines are provided regarding their instruction.

4.1.2.2. The cross-thematic curriculum framework for compulsory education (Government Gazette, 2003). The cross-thematic curriculum framework for foreign languages intended for primary and junior high school follows a holistic approach to knowledge and emphasizes the principles of literacy, plurilingualism, and pluriculturalism (Government Gazette, 2003), which concur with the principles highlighted in the CEFR (2001). More specifically, it aims at developing the four language skills (reading, listening, speaking, and writing) and promoting students' critical and social skills, cultural awareness, and lifelong learning through the communicative task-based approach, the action-oriented approach, cross-curricularity, and the use of technologies.

4.1.2.3. The cross-thematic English curriculum for primary school (Government Gazette, 2003). The English Curriculum referring to the fourth, fifth, and sixth grade, in particular, is based on the principles and objectives adopted by the cross-thematic curriculum framework for FL. It determines the objectives, defines the content, the selection or development of materials according to learners' needs and

interests, establishes the teaching/learning methods, the types of assessment, encourages the parallel use of L1 and L2, recommends tasks and cross-thematic projects, and highlights the use of multiple learning strategies (Government, Gazette, 2003). To be more precise, it focuses on the development of students' ability to receive and produce a variety of written/oral texts within a cross-thematic, communicative, strategic, and action-oriented framework. The main emphasis is placed on fostering students' competence to communicate in a variety of linguistic and cultural contexts through the use of strategies in order to make learners independent and life-long learners.

As far as the receptive skill of reading comprehension is concerned, it mainly delineates the objectives of getting the main idea(s) of texts (skimming), identifying the speaker's/writer's intention, attitudes or emotions, locating specific information (scanning), using external reference materials, such as dictionaries or glossaries, to determine the meaning of unknown words or inferring the meaning of unfamiliar vocabulary items from context (Government Gazette, 2003); the focus is on fostering learners' ability to construct meaning from a variety of text types by drawing on a range of resources despite the presence of unknown words. At the same time, though it does not explicitly refer to the term multimodality, which is related to the aims of this study, it accentuates the need for students to be able to derive meaning from tables, diagrams or maps and use the electronic means of communication to have access to a variety of information, where meaning is inevitably derived from ways that are multimodal (Cope & Kalantzis, 2000; Kress et al., 2001).

Evidently, the specific English Curriculum aims to raise learners' awareness of linguistic and cultural diversity, cultivate their critical skills, and promote cooperative work in order to help learners communicate effectively in various contexts based on the communicative task-based approach (Government Gazette, 2003). In the context of the new policy implementation, educators are required to abandon their old role of knowledge-transmitter and adopt new roles, mainly those of facilitator and supporter, in the learning and teaching process (Cohen, 1998; Oxford, 2011). Nonetheless, despite the new policy, its implementation on behalf of most of the teachers at schools is still in a premature stage, as the present educational context, which is exam-directed and teacher-centered, has its roots in a rather traditional teaching method emphasizing rote-learning (Tsiriotakis, 2013; Vrettou, 2011).

4.2. Significance of the Study

Allowing for the theoretical framework and the Greek socio-educational EFL setting discussed above, the present study intends to fill some voids in the L2 reading strategy research. More specifically, this study adds to research on L2 reading-strategy instruction because Greek elementary EFL learners have not been widely represented in the relevant literature. In addition, it contributes to this research area by investigating not only the immediate effects, which most of the relevant studies usually have focused on, but also the delayed effects of the treatment on EFL learners' performance. Moreover, it adds to the specific research area by probing into variables, such as the relationship between reading proficiency level or gender and reading performance, particularly, after strategy training, which have not been extensively examined. Concurrently, the current study explores new ground by expanding reading strategy instruction to multimodal texts to help Greek EFL students strategically approach and construct meaning from a variety of texts, including multimodal ones, which they are faced with on a daily basis (Prain & Waldrip, 2006). Last but not least, this study provides useful empirical evidence that should be taken into serious consideration for future FL curriculum and intervention programmes design. Therefore, bringing studies such as this to the forefront helps highlight the need for EFL teachers to be knowledgeable about the contribution of strategy instruction to the reading comprehension process in order to best serve their students, since it is not enough to *read* the text; students must know *how* to approach and comprehend the various types of texts.

4.3. Research Aims

The above theoretical underpinnings contributed to the organization and design of the present research -consisted of a preliminary and main study- which will be extensively discussed in the next chapter. The current study was designed to examine the impact of the explicit teaching of a repertoire of reading strategies on Greek EFL students' performance. However, further aims that were inextricably linked with the strategy training constituted the focus of this study. In particular:

The aim of the preliminary study was to investigate whether Greek-speaking elementary EFL school learners were taught to use reading strategies to derive meaning from EFL written texts.

The aim of the main study was to investigate the impact of implementing multiple-strategy instruction on EFL students' reading performance. In other words, the main focus was to provide an answer to the question whether a teaching intervention involving metacognitive instruction in a set of strategies could improve students' reading performance in both linguistic and multimodal texts.

Another aim of the study was to examine the delayed effects of the treatment on EFL students' reading performance after intervention withdrawal. Namely, this aim refers to exploring the maintenance effects of comprehension gains in a subsequent non-treatment measurement.

An additional aim of the study was to probe into the relationship between students' reading ability level and reading performance. In other words, this study attempted to explore which reading ability group (high, average, low) would reap the greatest benefits from the teaching intervention.

At the same time, this study attempted to examine the relationship between students' gender and reading performance. Namely, the study examined which group (male or female students) would be benefited most from the strategy training programme.

4.4. Research Hypotheses

Allowing for the purpose of this study, the following research hypotheses were formulated to direct the course of the study:

Based on L2 research (Janzen, 2007), the preliminary study relied on the premise that EFL teachers would not explicitly instruct Greek-speaking elementary students to deploy reading strategies, when interacting with written texts (*Research Hypothesis 1*).

Relevant L2 empirical research (Aghaie & Zhang, 2012; Dreyer & Nel, 2003; Kern, 1989; Klinger & Vaughn, 2000; Kusiak, 2001; Macaro & Erler, 2008; Salataci & Akyel, 2002; Song, 1998; Zhang, 2008) revealed that multiple-strategy instruction was effective in enhancing students' reading achievement. In this context, the major hypothesis of this study was that the strategy training programme would have a positive effect on EFL students' reading performance in both linguistic and

multimodal texts. It was assumed that the students of the experimental group would indicate significantly higher scores in all comprehension measures after the intervention than the students of the control group (*Research Hypothesis 2*).

Drawing on L2 literature, few studies have investigated the maintenance effects of comprehension gains after multiple-strategy withdrawal (Barnett, 1988b), which should constitute the major goal of strategy training programmes (Cohen, 1998; Oxford, 2011). In this study, it was expected that the students of the experimental group would maintain significantly higher reading comprehension scores in both linguistic and multimodal texts in a subsequent non-treatment measurement than the control subjects (*Research Hypothesis 3*).

L2 reading strategy research dealing with university students (Kern, 1989; Song, 1998) and secondary school learners (Kusiak, 2001) has indicated that low ability readers derived greater benefits from reading strategy instruction than high ability ones. Complying, thus, with previous research, it was assumed that poor or lower-reading ability students would particularly benefit from the teaching intervention in comparison with the more proficient students (*Research Hypothesis 4*).

Overall, L2 reading research provided inconsistent results regarding the relationship between students' gender and performance in reading comprehension measures. More specifically, some studies found no gender differences (Brantmeier, 2003; Phakiti, 2003; Spurling & Ilyin, 1985; Young & Oxford, 1997), while other studies revealed a higher degree of reading comprehension ability among female students (Ay & Bartan, 2012; Sani & Zain, 2011); simultaneously, Bügel and Buunk's study (1996) showed that males performed significantly better than females in the gender-neutral text. Few studies, however, focused on gender differences in students' reading performance after strategy instruction (Rahmani & Sadeghi, 2011; Schueller, 1999) and found inconsistent results. Namely, Schueller (1999) reported higher comprehension gains on multiple choice measures among the male students after receiving top-down strategy training than females but not on recall measures. A more recent study (Rahmani & Sadeghi, 2011) found no gender differences in students' reading comprehension scores after strategy instruction. According to L2 literature, the results of research on gender differences are few, ambivalent and inconclusive. It seems that the association of gender with FL reading performance has not been

clearly established yet, requiring further investigation. In this context, gender differences in reading comprehension achievement after strategy instruction are not expected to be found (*Research Hypothesis 5*).

4.5. The General Design of the Study

The thesis consisted of a preliminary and main study. To be more precise, before embarking upon multiple-reading strategy instruction, it was deemed necessary to examine the reading comprehension practices applied to the classes that constituted the sample of the main study and check whether EFL teachers instructed students to adopt a strategic approach while interacting with written texts. In particular, direct and intentional observations of the reading lessons of the EFL classes as well as individual, semi-structured interviews with the EFL teachers were conducted aiming at further investigating the reading comprehension practices adopted by the specific teachers, validating, and triangulating observation data (McDonough & McDonough, 1997; Patton, 1990).

The main study comprised the strategy intervention programme, which emphasized on a repertoire of reading strategies, predicting text content and using semantic maps to trigger students' prior knowledge, getting the main idea(s) of the text (skimming), identifying specific information (scanning), and guessing the meaning of unfamiliar words from context. The instructional approach adopted in the study was Direct Explanation, which was further composed of explaining and modelling of the strategies, as well as extensive practice, including guided and more independent practice, to help the participants internalize strategy use. To examine the immediate and delayed effects of strategy instruction on students' reading performance, quantitative data were collected through three different reading comprehension measures, a standardized and two researcher-constructed tests, before and after the teaching intervention as well as three months after the intervention withdrawal. The general design of the study, which is further addressed in the next chapter, is quasi-experimental, randomly assigning participants in the experimental and control groups (Bhattacherjee, 2012), involving pretest, posttest, and retention measurements in both groups. Namely, this study is composed of a treatment or experimental group, which received multiple-strategy instruction and went through pretest, posttest, and retention measures, and a control group design, which received

no such training but participated in the pretest, posttest, and retention measurements. The experimental and control groups came from four different schools. In short, the main study consisted of four phases:

a) pretest measurement: one week prior to the intervention the standardized test, which measured students' overall reading ability level, and the researcher-designed test were administered to the experimental and control groups
b) the teaching intervention programme: including teaching of a repertoire of strategies in the experimental group
c) posttest measurement: one week after the intervention the same comprehension measures as the ones used in the pretest measurement were administered to both groups to explore the immediate effect of the treatment on students' reading performance
d) follow-up measurement: three months after the intervention withdrawal the same constructed test as well as a new one -methodologically similar to the first one- were administered to both groups to probe into maintenance effects of the teaching intervention on students' reading performance.

Chapter 5: Method

This chapter elaborates on the design and the methodological procedures adopted in this thesis, which consists of a preliminary and main study. Namely, the sample, the data collection instruments, the strategy intervention programme, the reading materials, and the contribution of the pilot study to the final conduct of the study are presented in detail.

5.1. The Pilot Study

Before embarking on the present research, a pilot study was preceded that was also composed of two studies, a preliminary, during which the techniques of classroom observation and teacher interview were implemented, and a main study, during which the multiple-strategy instruction was applied and the data collection instruments were administered as pretest, posttest, and retention measures. The conduct of a pilot study was considered necessary by the researcher in order to specify imminent difficulties or ambiguities with the tests and reading materials and, thus, establish the reliability and validity of the research instruments. Furthermore, the researcher was highly interested in timing, that is, how many teaching hours would be required for the implementation of multiple-strategy instruction and how much time students would need to complete the research instruments and materials.

In this context, a pilot study was conducted with 23 sixth graders of a state elementary school in a provincial city of Thessaly, Trikala, before the beginning of the present study. It was determined that the teaching intervention would be carried out by the researcher herself both in the pilot and the main study, who is knowledgeable about implementing metacognitive strategy instruction. Simultaneously, all the research instruments would be administered to the students by the researcher herself to provide them with appropriate guidelines, where necessary, be consistent with time limit -which constitutes a significant parameter of the study- avoid possible interference on behalf of their EFL teacher and, overall, be in control of the testing procedure. The students were kindly asked to report on test items or any item of the reading materials that would cause difficulty or ambiguity. In addition, the whole teaching process in the pilot and main study was conducted in students' L1, Greek, to overcome possible language difficulties and ensure that all students would familiarize themselves with the strategy instruction and use.

Regarding the elicitation techniques of qualitative data, no change was made, as they worked to a great extent. As far as the reading section of the K.P.G. is concerned, the students had no difficulty in completing it; some general instructions were provided by the researcher. It should be mentioned that according to the K.P.G. guidelines, the students had to complete the test within 1 hour and 5 minutes; however, it was found that the students, though they had the required time limit at their disposal, were able to complete the test in less than an hour. Therefore, the time limit for the completion of the reading section of the K.P.G. was set at about 50 minutes after the pilot study.

With respect to the first constructed reading comprehension measure, some alterations were made, as the aim was to eliminate possible ambiguous items, ensure comprehension of all questions on behalf of the students and formulate research instruments and materials in a final version. In this context, the items of some activities were reduced starting with those that caused students difficulties, so that students could complete the test within a teaching hour. Moreover, an open-question activity, which caused great difficulties both to the students during the writing procedure and the researcher during the scoring procedure, was substituted for a multiple-choice activity, which requires no judgment on behalf of the scorer and brings greater reliability (Hughes, 2003), see Appendix A, for a more thorough description of the final version of the first constructed test after the pilot study. Concerning the second constructed comprehension measure, which was administered to students as a retention measure in the follow-up study, no change was made, as its completion flowed smoothly; therefore, exactly the same test was administered to the participants of the main study as well (see Appendix B).

As for the reading materials that were intended to be used during the instructional sessions, some modifications were made too. To be more precise, some adaptations occurred in the timing of some activities, as it was revealed that some activities required more time, while others less time to be completed. Moreover, some changes took place in the wording of some items, while some items were substituted or even deleted because of ambiguity, as the aim was to construct unambiguous items that measure the use of the reading strategies emphasized in the intervention.

5.2. The Preliminary Study

Before embarking on the main study, a preliminary study was conducted in order to investigate whether the EFL teachers of the classes that constituted the sample of this study instructed students to use reading strategies to derive text meaning. For the purpose of the present study, qualitative data in terms of different reading comprehension practices are required in order to interpret the quantitative data derived from the administration of the comprehension measures (Nunan, 1992). In this context, qualitative data were collected that consisted of teacher interviews and classroom observations drawn from both the experimental and control groups in order to triangulate data and gain an insight into what really happens in these elementary EFL classes during reading lessons before implementing multiple-strategy instruction (McDonough & McDonough, 1997; Patton, 1990).

5.2.1. Participants. Four EFL teachers, who work at state elementary schools in a provincial city of central Greece, Trikala, participated in the preliminary study. All the participants were women due to the female preference for the specific educational field, as of the total number of 60 EFL teachers employed in elementary education in Trikala during the school year 2011-2012, when this study was conducted, 59 (98,3 %) were female and one (1,7 %) was male. Their teaching experience ranged from 7 to 22 years. As for their educational level, all teachers had completed a Bachelor's degree. The teachers' names mentioned in this study are all pseudonyms in order to maintain the anonymity of the participants.

5.2.2. Data collection instruments. Qualitative data were composed of teacher interviews and classroom observations. A combination of information sources was sought in this research in order to validate and cross-check findings (Patton, 1990).

5.2.2.1. Classroom observations. At the beginning of the school year, from late September to mid November, direct and intentional observations of the reading lessons of both the experimental and control groups that constituted the sample of the main study were carried out in order to gain an insight into the ways the specific EFL teachers approach reading comprehension. To be more precise, classroom observations focused on teachers' instructional behaviors and choices with the aim of finding out whether teachers implement reading strategy instruction. The amount of

each classroom observation varied depending on the amount of time allocated to each reading lesson, though our goal was to observe the reading lessons of the two first consecutive units of a ten-unit EFL course-book used in the sixth grade of Greek elementary classes (see Appendix C). Therefore, the number of observations per class varied from four times (on condition that two teaching hours were at least spent on the reading section of each unit) to eight times. All the participating teachers knew beforehand that they were to be visited, though each of them was asked to do exactly what she would do and not to deviate from her normal routine, as if there was no visitor in the room. All the observations were conducted by the researcher herself to maintain consistency as a complete observer without participating or interrupting the whole teaching and learning process (Iosifidis, 2003). Namely, the researcher was sitting at the back of every classroom, observing the way EFL teachers approached reading comprehension and jotting down instances of instructional practices and classroom activities in the form of previously established categorical checklist (McDonough & McDonough, 1997). This categorical checklist was constructed by the researcher based on the various reading comprehension practices related to the purpose of this study, which was checked by a colleague before actual use to verify the correctness of the categories developed (see Appendix D). At the same time, the appropriateness of the specific checklist was tested through the pilot use. In this way, data involved comments about the teachers' general approach to teaching reading, use of reading strategies, reading activities, vocabulary instruction, assessment practices, and any other practice that seemed worth noting. Concurrently, interactions and events were tape-recorded, as they occurred in actual classes, for further careful analysis, a process that releases the researcher from the constraints of real time (McDonough & McDonough, 1997).

5.2.2.2. Teacher interviews. Semi-structured, face-to-face interviews were conducted with the EFL teachers of the classrooms that participated in the study, who were asked to share their approaches to reading comprehension, in order to triangulate observation data. Semi-structured interviews were chosen, as, though they draw on a list of questions designed in advance by the researcher in order to gather the same information that would elucidate the reading comprehension practices from a number of people (Patton, 1990), they, simultaneously, allow for greater flexibility or more extensive responses (McDonough & McDonough, 1997). The interviews were

conducted at the different institutional sites, where the participants were teaching EFL, and lasted from 8 to 15 minutes. All interviews were carried out by the researcher to maintain consistency and ensure that all the important topics would emerge during the interviews (Pressley et al., 1998). The language used during the interviews was Greek, that is, the participants' L1, in order to ensure that the interviewees would feel free to elaborate on questions asked without worrying about possible language difficulties. All interviews included some background questions in order to construct teachers' profile (e.g., teachers' qualifications and working experience) as well as questions about specific components of the reading comprehension process (e.g., way of approaching written EFL texts, strategy instruction, vocabulary instruction, assessment practices) (see Appendix E, for a more thorough description of the interview guide). Moreover, the appropriateness of the specific interview questions were tested through the pilot study to help the researcher eliminate possible ambiguous questions and find out whether the questions could yield the kind of data required (Nunan, 1992). In addition, interviews were tape recorded and then, were transcribed verbatim to have objective record, preserve actual language used, and reanalyze data after the interviews had been conducted (Nunan, 1992).

***5.2.2.3. Reliability of the coding process*.** Several steps were taken to ensure the reliability of these qualitative data, which will be analyzed in the next chapter. Firstly, the researcher and another colleague independently coded the results into the specific categories and met to discuss the coding scheme. They coded the data until they had reached 90% agreement (inter-rater reliability) on the coding of the instructional practices identified in this study. In cases in which disagreement on the coding occurred, they compared their coding schemes and discussed possible discrepancies in order to arrive at a high level of consistency concerning the types of categories developed (Charmaz, 2000; Patton, 1990). Once the corpus of comprehension practices started to take shape, both of them were engaged in negative cases analysis, which involved searching the data for examples that do not fit the emerging instructional practices (Charmaz, 2000; Strauss & Corbin, 1990). At the same time, methodological triangulation was achieved by drawing on a combination of information sources, that is, both observations and interviews, to derive data and validate findings (Patton, 1990). Overall, the thorough data management and analytic

procedures, such as the recordings of the interviews and the reading lessons during observation in conjunction with the verbatim transcriptions using field notes contributed to checking the coding accuracy and the validation of the research findings. According to McDonough and McDonough (1997), "putting these two sources together represents a move away from reductionist observation methods towards something one might usually call elaborative description" (p. 112).

5.3. The Main Study

The main study, quasi-experimental in design consisting of pretest, posttest, and retention measurements in the experimental and control groups, involved the implementation of metacognitive multiple-strategy instruction in order to examine the immediate and delayed effects of the teaching intervention on students' reading performance.

In order to conduct the study and gain access to state schools, permission was required and granted from the Pedagogical Institute and the Hellenic Ministry of Education and Religious Affairs. In addition to the official permission, headmasters' and EFL teachers' permission was asked, who were cooperative, helpful, and willing to participate in the whole process. Visiting the school sites and meeting the headmasters or headmistresses and the EFL teachers of each school were considered to be mandatory by the researcher in order to schedule and inform them of the procedures to be followed. The main study involved the teaching intervention and the collection of quantitative data; the whole procedure lasted from late November 2011 to early June 2012 and took place in Trikala.

To be more precise, one week before the intervention, the reading section of the K.P.G. and the first constructed comprehension test were administered to the experimental and the control groups by the researcher to measure students' overall reading ability and examine whether there was any difference in the reading ability level between these two groups. Overall, time limits for the reading tests and materials were kept constant throughout the procedure (see sections 5.3.2. and 5.3.3. respectively). Students were given clear instructions in terms of the tests' completion by the researcher and were allowed to ask clarification questions but no further assistance was provided. The participants were informed by their EFL teacher in advance and by the researcher later that they were part of a study conducted for

educational purposes. It was also explained that each student would need to write his/her class register number instead of his/her name in all the research instruments and materials, as it was necessary to match data in the pretest, posttest, and follow-up measurements for research needs. In this way, the anonymity of the participants was ensured throughout the research and afterwards.

The main study involved an experimental group undergoing a 12-week multiple-strategy training programme and a control group used as a comparison group that received no input but only the rather traditional mode of EFL language instruction. In other words, the researcher did not intentionally teach the control group how to deploy reading strategies, which were systematically taught only to the experimental group. All the reading lessons were conducted in Greek, the participants' L1, to ensure that all students would fully understand strategy instruction, while some terms, such as reading strategies and the name of each strategy, were used in English to familiarize students with the English terms as well. These lessons were tape recorded in order to be checked and analyzed later. The teaching intervention lasted 12 teaching hours (each hour lasted approximately for 40 minutes) and was conducted over 12 weeks, one teaching hour per week to avoid disruption of the normal flow of the EFL classes. Thus, the instructional programme took place from late November (28 November) 2011 to early March (5 March) 2012, allowing for the Christmas holiday. Table 1 presents the timetable of the whole procedure of the main study as well as the reading materials used in the teaching intervention.

Table 1

Timetable and Reading Materials of the Teaching Intervention

Date	Procedure	Reading Materials
21/11/11	Pretest Measurement	K.P.G. + First Researcher-Designed Test
28/11/11	1) Direct Explanation- Modelling:	Earthquakes www.weatherwizkids.com/weather-earthquake.htm
5/12/11	2) Direct Explanation- Modelling:	Earthquakes www.weatherwizkids.com/weather-earthquake.htm
12/12/11	3) Guided Practice	Stunt Performers (ΚΠΓ, A Level, May 2009)
19/12/11	4) Guided Practice	Looking for a Pen Pal http://esl.about.com/od/beginningreadingskills/a/pen_pal.htm
9/1/12	5) Guided Practice	A Journey along the Beautiful River Douro (PET 2, 2003,Test 2, pp 30-31)
16/1/12	6) Guided Practice	Dancing with the Devil http://americanfolklore.net/folklore/2010/07/dancing_with_the_devil.html
23/1/12	7) Guided Practice	Disneyland Park http://disneyland.disney.go.com/disneyland/?name=DisneylandParkLandingPage
6/2/12	8) Guided Practice (Multimodal Text 1)	New Seven Wonders of the World- The Seven Ancient Wonders http://en.wikipedia.org/wiki/Wonders_of_the_World http://en.wikipedia.org/wiki/Seven_Wonders_of_the_Ancient_World
13/2/12	9) Guided Practice (Multimodal Text 2)	Wonders of the World http://www.pbs.org/wgbh/buildingbig/wonder/structure/petronas_towers.html
20/2/12	10) Guided Practice (Multimodal Text 3)	Victoria & Albert Museum (Map) http://www.vam.ac.uk/content/visit-us/map-of-the-museum/ http://media.vam.ac.uk/media/documents/v&a_map_autumnwinter_2011.pdf
27/2/12	11) Guided Practice (Multimodal Text 4)	Asterix the Legionary
5/3/12	12) Independent Practice	Should Children Use Mobile Phones? http://www.indiaparenting.com/raising-children/133_3440/should-children-use-mobile-phones.html
12/3/12	Posttest Measurement	K.P.G. + First Researcher-Designed Test
4/6/12	Follow- up Measurement	First + Second Researcher-Designed Test

One week after the teaching intervention, the reading section of the K.P.G. and the first constructed comprehension test were administered to the experimental and control groups by the researcher to investigate the impact of the teaching intervention on students' reading performance. The same reading comprehension tests were used as pretest and posttest measures to ensure exactly comparable tests and avoid the problem of equating different forms of pretest and posttest measures. The thirteen-week interval between the two administrations was considered to be long enough to allow any short-term memory effect to interfere. After all, the correct answers were not revealed in classes after the pretest measurement, so the participants were not able to verify whether a specific answer was correct, even if they could remember how they had answered a question in the pretest measurement.

Approximately three months after the teaching intervention, that is, during the first week of June 2012 (June 1-June 8), a follow-up study took place to explore the delayed effects of the treatment on students' reading performance. In addition to administering the same researcher-designed comprehension test, which was given in the pretest and posttest measurement, a second constructed test, methodologically similar to the first one, was administered to students in order to examine the data in comparison with the posttest measure and note if there was any change in their reading performance. The decision to use a second constructed comprehension test as a retention measure was made in order to eliminate possible students' familiarity with the first constructed test, verify the results of the first constructed test, and check whether the students could transfer the strategy use in new but similar reading situations.

5.3.1. Participants. The initial sample consisted of 135 Greek-speaking young learners of EFL registered in the sixth grade of primary education in Trikala, 70 of whom were boys (51.85%) and 65 girls (48.15%). Only the sixth graders of state elementary schools aged approximately 11-12 years old that were attending EFL classes (more specifically, A2 level, according to the levels of the CEFR, 2001) took part in this study. This particular age was chosen, as it was assumed that the students would already have had a cumulative EFL learning experience of at least four years (see section 4.1.2.) at the time when the data were collected and, thus, would have been mature enough to comprehend and familiarize themselves with reading strategy instruction and use. At the same time, it was assumed that students at this age would

be more receptive to the acquisition of strategies in relation to younger or older students, as many strategies develop between the age of 7 and 13, though their spontaneous use materializes around the age of 10 or over (Garner, 1990; Paris et al., 1991). According to the official data derived from the local Bureau of Primary Education, 1279 students were enrolled in the sixth grade of state elementary schools in the city of Trikala for the school year 2011-2012, 634 of whom were male and 645 female. In this way, a satisfactory percentage of 10.55% of the total number of the sixth graders participated in the study. The participants were drawn from four different schools of the city of Trikala; more precisely, 20 came from the first school, 22 from the second school, 30 from the third school, and 27 from the fourth school. A criterion for the selection of the schools was the existence of two classes in the sixth grade and the EFL instruction by the same teacher to avoid possible discrepancies in the instructional approach between the experimental and control group, as the design of the present study demanded the presence of both experimental and control groups. In this way, the two groups were using the same course-book and were being taught the same syllabus by the same instructor in their EFL classes; the only difference between these two groups was that the control group did not receive metacognitive multiple-strategy training as the experimental group did. The choice of the experimental and control group within each school was not determined by random student assignment but the researcher used the two intact classrooms of every school as an experimental and control group in an attempt to avoid disruption of the normal flow of classes. All in all, the number of elementary schools in Trikala was 26, 10 of which included two classrooms in the sixth grade, two comprised three classrooms, and 14 had only one classroom. The schools that met the above criterion were chosen at random allowing for access to subjects or data collection sites with individuals and institutions (Nunan, 1992). However, the sample can still be regarded as representative of the student population in Greek state elementary schools due to some common features that the population shares, such as age, mother tongue, and proficiency level (Dörnyei, 2003).

Nonetheless, not all of the 135 subjects completed all the reading comprehension measures; namely, 36 subjects, who did not take all the tests because of absenteeism, were excluded from the statistical analyses. Thus, the final number of

the subjects that participated in all reading comprehension measures of this study was 99 students, consisting of 46 boys (46.46%) and 53 girls **(**53.54%) (see Table 2).

Table 2

Final Distribution of Subjects in the Experimental and Control Groups in Terms of Gender

	Gender		Total (N)
Group	Male	Female	
	N %	N %	N %
Experimental Group	22 (44)	28 (56)	50 (50.50)
Control Group	24 (48.98)	25 (51.02)	49 (49.50)
Total			99 (100.0)

As for the participants' mother tongue, 93 (93.94%) of the participants had Greek as their mother tongue, whereas six (6.06%) had a different mother tongue. The above information was collected through a background questionnaire administered prior to the teaching intervention (see Appendix F).

Additionally, within the experimental and control groups, the students were further divided into three groups according to their reading ability level, namely high, average, and low or "at risk" for failure readers. For the purpose of this study, the students were categorized in these three groups based on their scores in the reading section of the K.P.G administered before the teaching intervention (pretest measurement). Concurrently, EFL teachers' estimation of students' performance was asked and taken into consideration, which was in overall agreement with the classification of students based on the scores of the K.P.G. To be more exact, based on a scale of 50 points, students who obtained scores below 30 were categorized as poor or at risk readers, whereas the students who obtained scores between 30 and 40 were categorized as average and those who got scores between 41 and 50 were regarded as proficient readers. This classification was made for research purposes and was not revealed in class. Particular attention was paid to make the groups quite distinct, since a proficiency scale was not provided by the specific standardized

measure. Table 3 presents the distribution of subjects in the experimental and control groups in terms of their reading ability level prior to the teaching intervention:

Table 3

Distribution of Subjects in the Experimental and Control Groups in Terms of Reading Ability Level prior to the Teaching Intervention

	Reading Ability			Total (N)
Group	Proficient	Average	Poor	
	N %	N %	N %	N %
Experimental Group	24 (48)	19 (38)	7 (14)	50 (50.50)
Control Group	19 (38.77)	21 (42.86)	9(18.37)	49 (49.50)
Total				99 (100.0)

Evidently, as noted earlier, the Greek contemporary classes are characterized as mixed-ability classes, where students' performance is differentiated.

5.3.2. Data collection instruments. For the collection of the quantitative data three research instruments were deployed in this study, the reading section of the K.P.G. and two researcher-designed reading comprehension tests.

5.3.2.1. The reading section of the K.P.G[1].To begin with, the A level-May 2011 version of the reading comprehension section of the K.P.G. (see Appendix G), a state standardized measure, was used to assess sixth graders' reading performance before and after the teaching intervention. At the same time, it was used to further

[1] K.P.G. is an accepted State Certificate of Language Proficiency, which aims at measuring levels of proficiency in English, French, German, Italian, Spanish, and Turkish in a reliable way (http://rcel.enl.uoa.gr/kpg/about.htm). It is a graded pen-and-paper examination, which, according to its designers, complies with the principles of the CEFR (2001) certifying three basic levels of language competence (i.e. Basic User Level (A), which is divided into the Breakthrough or Beginner (A1) and Waystage or Elementary (A2) level, Independent User (B) consisting of the Threshold or intermediate (B1) and Vantage or Upper Intermediate level (B2), and Proficient User (C) splitting into Effective Operational Proficiency or advanced (C1) and Mastery or Proficiency (C2). K.P.G. examinations aim at assessing how well the candidates use the language to understand oral or written texts without emphasizing their knowledge about grammar and vocabulary (http://rcel.enl.uoa.gr/kpg/about.htm). Regarding the certification at levels A1 and A2, in particular, it aims at "assessing the knowledge and skills developed by candidates in the course of their language training within or outside the state educational system" (http://rcel.enl.uoa.gr/kpg/about.htm). All exams are composed of four modules designed to test reading comprehension and language awareness, writing and written mediation, listening comprehension, speaking, and oral mediation.

divide students of the experimental and control groups into three different groups according to their reading proficiency prior to the training for research purposes. It consisted of cloze texts and short texts that were accompanied by 40 multiple-choice and 10 fill-in-the-gap questions. According to the instructions provided by the K.P.G. examination board, the scoring procedure of this section relies on a 50-point scale, 1 point per correct item. As noted earlier, the time limit for the completion of the reading section of the K.P.G. was reduced from 1 hour and 5 minutes to 50 minutes after pilot use.

5.3.2.2. Constructed reading comprehension measures. Concurrently, a researcher-designed reading comprehension measure was used as a pretest, posttest, and retention measure to explore the immediate and delayed effects of multiple-strategy instruction on students' possible reading behavior change and improvement (see Appendix A). Additionally, another methodologically similar to the first constructed comprehension test was administered in the follow-up measurement to cross-check the results of the first comprehension measure, eliminate any effects of students' familiarization with the first one, and check the transfer of reading strategies in new reading situations (see Appendix B). Both tests were specifically designed to examine the reading strategies which the teaching intervention focused on: activating prior knowledge, getting the gist (skimming), locating specific information (scanning), and deriving unfamiliar word meaning based on context. Both tests included a combination of multiple-choice and short answer questions and were composed of two language texts and one multimodal text. Most of these texts were beyond the students' current reading ability level[2], because strategy use is problem-oriented and is required in trouble-reading, when students are faced with

[2] The readability of the EFL reading materials used in the constructed comprehension measures was established using the method of Flesch-Kincaid Reading Ease score, a common measure of basic readability, which has been validated for the English language and indicates how easy a text is to read; a high score implies an easy text (http://www.standards-schmandards.com/exhibits/rix/index.php). More specifically, the texts of the first constructed test entitled "TV Schedule" and "Ten Reasons to start Running" measured 61and 44 respectively; the texts of the second constructed test entitled "TV can be Good for Kids" and "London Museums" measured 47 and 37 respectively. Based on the Flesch-Kincaid Reading Ease score, all these texts -except for the one entitled "TV Schedule"- can be regarded as rather difficult when compared to students' reading ability level, since the standard reading ability level, especially for an 11-year-old student is at a Flesch score of about 60 or higher, with lower scores referring to more difficult reading materials. (http://en.wikipedia.org/wiki/Flesch%E2%80%93Kincaid _readability_tests). Namely, scores that fall within the zero to 30 range, can be understood by university students; scores that fall within the 60 to 70 range, can be easily understood by 13-15 year-old students, while scores that fall within the 90 to 100 range, can be easily understood by an average 11 year-old student.

comprehension difficulties (Bereiter & Bird, 1985; Dole et al., 1991; Urquhart & Weir, 1998). To be more precise, a short answer task accompanied the first text aimed at assessing students' reading ability to spot specific information in the text (scanning). The second text included two short answer tasks, which required that students activate prior knowledge using text titles and deduce the meaning of unfamiliar lexical items through contextual clues, and two multiple-choice tasks, which required that students predict the content of the text using text titles and skim the text to identify its gist. The part of the test, which focused on multimodality, consisted of floor maps of famous museums in England, the legends, which accompany the maps, and three tasks designed to assess students' ability to combine information from both linguistic and visual modes to derive meaning and answer the comprehension questions. In other words, it comprised three tasks, one multiple choice task and two short answer tasks: the first required that the students skim the whole text, while the second and the third task required that they scan the text (both visual and linguistic elements). The constructed tests were also scored on a 50-point scale in accordance with the scale used in the reading section of the K.P.G. Moreover, they were designed to be completed within a teaching hour, that is, no more than 40 minutes, to avoid disruptions to the normal flow of classes. Last but not least, it should be mentioned that the time limit of the tasks, particularly of those that measured the use of skimming and scanning was rather tight, as both skimming and scanning are selective types of reading, which are conducted at a high speed (Carver, 1992; Grabe & Stoller, 2002).

5.3.2.2.1. Reliability and validity of the constructed comprehension measures. Two important qualities of the testing procedure, reliability and validity, which render tests appropriate for research or certification purposes, were taken into account. According to Hughes (2003), "a test is reliable if it measures consistently" (p. 3), while "a test is said to be valid if it measures accurately what it is intended to measure" (p. 26).

Regarding reliability, it was found that Cronbach's alphas was α = .86 for the first constructed test and α = .84 for the second one, which is considered to be quite satisfactory allowing for the fact that the ideal reliability coefficient is 1 (Hughes, 2003). As for validity, a major distinction is drawn between content validity and criterion-related validity. In order to ensure content validity of the test, a specification

of the skills that it was meant to cover was made and a subsequent comparison of this specification with the designed activities in the test took place (Hughes, 2003). As far as criterion-related validity is concerned, Hughes (2003) held that it "relates to the degree to which results on the test agree with those provided by some independent and highly dependable assessment of the candidate's ability" (p. 27). In the current study, the "highly dependable assessment" was the students' performance in the reading section of the K.P.G., which was administered to the learners at the same time -concurrent validity (Hughes, 2003) and according to which the validity of the constructed tests would be checked. In this way, a satisfactory level of agreement between the results of the reading section of the K.P.G. and the first and second constructed tests was found, as the Pearson correlation was $r = .54$ ($p < .01$) and $r = .61$ ($p < .01$) respectively allowing for the fact that the ideal correlation between two sets of scores results in a coefficient of 1 (Hughes, 2003).

All reading tests were independently scored by two judges, the researcher and another colleague; the inter-rater agreement was found to be quite satisfactory (92%). Acceptable responses were determined at the outset of the scoring procedure. Nonetheless, possible discrepancies were resolved through meetings and discussion between the two scorers. Concurrently, a combination of multiple-choice and short answer comprehension questions was sought, which demand no judgment on behalf of the scorer and render the whole scoring process more objective enhancing reliability, as one of the main concerns was to write items that would permit reliable scoring (Hughes, 2003). Furthermore, in an attempt to enhance reliability in terms of scoring, attention was paid to the construction of sufficient and unambiguous items, the restriction of choice of questions in the way the answers could be provided, the legibility of the tests, and the administration of clear and explicit instructions, both oral and written ones (Hughes, 2003). In case of a specific task, which asked students to write five words or phrases related to the text title and permitted students some freedom in their answers, acceptable responses were specified with the colleague at the outset of the scoring procedure. Moreover, both comprehension measures were subjected to critical scrutiny by the colleague to check the appropriateness of activities in relation to their aims before being administered to the participants of the study.

5.3.3. The teaching intervention. The instructional approach adopted in this study was Direct Explanation that followed a cycle of awareness raising through the researcher's direct explanation and modelling of strategies and extensive practice, consisting of guided and more independent practice by means of gradual removal of scaffolding (Duffy et al., 1986; Duke & Pearson, 2002; Pearson & Gallagher, 1983). In fact, it diverged from the rather "traditional" way of approaching EFL reading comprehension in the Greek elementary classes (see section 6.1.3.) in that it aimed at raising students' awareness of the reading process, introducing and familiarizing them with a repertoire of reading strategies, and providing them with opportunities to discuss and practise these strategies while reading (Janzen & Stoller, 1998). In this context, students were asked to work on a variety of reading materials and activities that were chosen and designed to facilitate the use of the specific reading strategies applying a combination of strategies to each text. Regarding multimodal texts, students were taught how to apply reading strategies and, simultaneously, combine images and words to help them identify patterns of meaning. In addition, the time limit of the activities was tight, especially in case of skimming and scanning, as they are supposed to be conducted at a high speed (Carver, 1992; Grabe & Stoller, 2002). The final aim of the teaching intervention was to help students orchestrate a cluster of reading strategies during interaction with EFL texts inside and outside the classroom and initiate them into an active, strategic, expeditious, and flexible way of reading, which requires monitoring and a continuous metacognitive decision-making process.

By and large, the training can be regarded as a high-scaffolding one, because the researcher constantly reminded students of the strategies and the reason for their use in each activity and provided them with a visible list -a poster hanging on the board- consisting of the strategies which were emphasized in the treatment and which were encouraged to deploy independently or in combination every time a session was taking place (see Appendix H). According to Chamot (1995), a poster displaying strategies taught can be an effective manner to make the strategies more concrete for students. Grabe (2009) also mentioned that the class should keep a visible chart of the reading strategies that the treatment emphasized and that students should talk about these strategies regularly when working on understanding text meaning. Concurrently, the researcher gave students feedback both on their strategy use and how the use of the particular strategies might relate to their reading comprehension performance on a regular basis, as the researcher's major concern was to familiarize students with the

use of the specific reading strategies. After all, associating strategy use with achievement helps learners adopt a more effective strategic behavior (Grenfell & Macaro, 2007; Macaro, 2006). In the next sections, the content of each strategy training lesson is delineated (see also Table 1).

5.3.3.1. 1st reading lesson: The researcher initiated a discussion about what reading strategies were, why their learning and practising were significant, and when they could be used in order to raise students' awareness of strategy use. It should be mentioned that the researcher made references to these pieces of information not only in the initial session of the intervention but also on a recurring basis in an attempt to make sure that all students would become familiar with the concept of reading strategies. Then, she presented the strategies of using semantic maps and predicting text content based on titles, subtitles, images and so forth -simultaneously explaining the importance of activating prior knowledge- to the whole class in order to communicate particular pieces of information about what each strategy was (declarative knowledge), how it could be successfully applied (procedural knowledge), when and why it could be used (conditional knowledge) (Duffy et al., 1986; Paris et al., 1983). After direct explanation of each strategy, the researcher was engaged in modelling these strategies based on concrete examples from a text entitled "Earthquakes" by thinking aloud the cognitive processes taking place during each strategy application in order to turn the covert comprehension processes into overt ones (Dewitz, Jones, & Leahy, 2009; Duke & Pearson, 2002; Pearson & Gallagher, 1983). For instance, she showed how to construct a semantic map in order to trigger prior knowledge or how to predict text content based on titles/subtitles or the layout of the page. Relevant notes and the text that was used for the modelling of the specific strategies were distributed to the students as well.

5.3.3.2. 2nd reading lesson: Each instructional session started with a revision of the previous lesson and ended with a concise account of what had been taught aiming at further strategies consolidation. In this context, after revising the information provided in the previous lesson, the researcher was involved in direct explanation and modelling of how to skim a text to find the main idea(s), how to scan a text to locate specific information, and how to deploy context to guess unfamiliar word meanings relying on the same text as the one used in the previous lesson. During strategy explanation and modelling, which were carried out in the first two instructional

sessions, students were mainly passive observers listening to the researcher explain and model the specific reading strategies in particular activities.

5.3.3.3. 3rd reading lesson: On subsequent days, however, they were given chances to put the new strategies into guided practice, where the researcher and students worked together. More specifically, the students were asked to practice the reading strategies of developing a semantic map on the board and predicting text content based on the layout of the page and answer a multiple choice activity with the goal of having students activate their background knowledge in relation to the text entitled "Stunt Performers".

5.3.3.4. 4th reading lesson: The text entitled "Looking for a pen pal" was administered to students, who were asked to practise scanning in a multiple-choice and matching activity. The participants were constantly encouraged to reflect upon their own strategy use, that is, before and after each activity completion they were asked to talk about the strategy that they would employ and the reason why they would choose the particular strategy in order to enhance their ability to monitor the skill of reading comprehension. During the completion of the activities the researcher would circulate, supervise, and facilitate the whole process. Answers were checked in class and corrective feedback and further explanations were provided, where necessary.

5.3.3.5 5th reading lesson: The text entitled "A journey along the beautiful Douro river" was given to students, who were required to skim the text for the gist and scan it to find particular pieces of information in order to answer a multiple choice and a true/false/not given activity respectively.

5.3.3.6. 6th reading lesson: The text entitled "Dancing with the devil" was administered to students, who were requested to apply skimming, contextual guessing, and scanning, and answer two multiple choice activities and a true/false/not given activity respectively. It should be mentioned that with the passage of time, the researcher's assistance was gradually removed leading to more independent practice (Pearson & Dole, 1987; Pearson & Gallagher, 1983) to allow the students to start using these strategies on their own in order to "find their own pathways to success" (Cohen, 1998, p. 67) and achieve autonomy, an ultimate goal of the implementation of metacognitive strategy instruction.

5.3.3.7. 7th reading lesson: The text entitled "Disneyland Park" was given to students, who were asked to skim the text for the gist, to scan it for specific pieces of

information, and use context to guess the meaning of unknown words in order to answer two multiple choice activities and a short-answer activity respectively.

5.3.3.8. 8th reading lesson: The next four lessons were devoted to strategy application to multimodal texts in an attempt to indicate that meaning is derived from ways that are multimodal (Cope & Kalantzis, 2000; Kress et al., 2001; Kress & Van Leeuwen, 2006). More specifically, students were initiated into the rationale for multimodality where the process of meaning-making is usually contingent on the contribution of both the visual and linguistic elements of the text (Cope & Kalantzis, 2000; Kress et al., 2001; Kress & Van Leeuwen, 2006; Unsworth, 2001). In this context, the students were taught to use reading strategies, such as getting the main idea (skimming), identifying particular pieces of information (scanning), and guessing word meanings from context and draw on both diagrams, tables, maps, images, typography, and words to derive text meaning and answer comprehension questions. In this lesson, particularly, the students were instructed to develop skimming to answer a multiple choice activity and scanning to answer a multiple choice and a matching activity after going through two tables entitled "New seven wonders of the world" and "The seven ancient wonders"; tables usually depict information in a visual and condensed way where language is restricted to bare nominal groups or nouns labelling the various vertical columns and horizontal arrows (Bauldry & Thibault, 2006).

5.3.3.9. 9th reading lesson: After relevant guidelines, the students were asked to deploy skimming to answer a multiple choice activity and scanning to answer a multiple choice and a matching activity in a text entitled "Wonders of the world" that combined linguistic information with images and diagrams depicting the tallest buildings in the world.

5.3.3.10. 10th reading lesson: Students were instructed to use skimming and scanning on a floor map of an English museum where they had to combine information from the legends, spot the corresponding number on the map, pay attention to the colors of the various departments of the museum (each department was depicted by a different color on the map and the legends too) and then, match all these pieces of information to answer a multiple choice and a short-answer activity.

5.3.3.11. 11th reading lesson: Students were shown how to apply skimming, scanning, and contextual guessing to complete a multiple choice, a true/false/not given, and a short-answer activity in an extract of a comic, a typical example of

multimodal narratives, where the process of meaning-making relies on the integration of linguistic, visual, and graphic resources; the cartoonists usually make extensive use of caricatures paying attention to details in order to maximize meaning (Bauldry & Thibault, 2006). Namely, they were shown how to allow for linguistic and visual devices, such as images, colors, bold letters that were used by the cartoonist in the specific extract to get an insight into the protagonists' facial expressions (e.g. anger) and speech bubbles depicting the interaction with others. For instance, they were shown how to associate the red color depicted on the face of the Legionary with anger in combination with the bold letters to understand his emotional state, as the use of colour is a major communicational resource (Kress & van Leeuwen, 2002).

5.3.3.12. 12th reading lesson: In the last teaching session, the researcher provided learners with the opportunity to co-ordinate all the strategies that had been taught in a new reading material entitled "Should children use mobile phones?", without interfering in the whole learning process, in order to help students transfer the taught strategies to new but similar reading situations and enhance their autonomy inside and outside the classroom (Cohen, 1998; Duffy et al., 1986; Pearson & Dole, 1987). More specifically, students had to develop a semantic map on their own and predict text content based on the title and the subtitles of the text and complete a multiple choice activity with the goal of activating their prior knowledge; at the same time, students had to apply skimming, scanning, and contextual guessing in order to complete a multiple choice, a true/false/not given, and a short-answer activity respectively.

5.3.3.13. Reading materials. A number of factors, including the purpose of this study, students' reading ability level and interests, affected the choice of texts used during the teaching intervention (Janzen & Stoller, 1998). First of all, the reading materials were tentatively chosen to promote the practice of the particular reading strategies. Simultaneously, some texts were used because of the visual elements they were composed of, where the process of meaning-making would be contingent on the contribution of both a strategic and multimodal approach. In the selection of the texts, the researcher attempted to expose students to a range of texts, such as narrative, expository, argumentative, and descriptive (see section 2.4.2.2.), which would be helpful for further language studies. Most of them were mainly drawn from educational internet sites aiming at using authentic texts that would attract students' attention and activate their prior knowledge, which holds a prominent role in the

process of reading comprehension (see section 2.4.2.1.). In addition, these texts covered a variety of topics ranging from pen pals, museum maps, mobile phones to Disneyland park and horror stories allowing for students' interests and preferences, which according to Nuttall (1996) is the most important selection criterion; at the same time, special attention was paid to choose texts that were gender-neutral or of the same interest for both gender groups, as one of the aims of this study was to investigate the variable of gender in relation to EFL learners' reading performance. Moreover, though students' reading level was taken into consideration, most of the texts used in the treatment were of a higher reading ability level[3] than students' actual level, because, as noted earlier (see section 5.3.2.2.), strategy use is particularly necessary when students are faced with comprehension difficulties (Bereiter & Bird, 1985; Dole et al., 1991; Urquhart & Weir, 1998). Thus, texts that were fairly challenging but not overwhelmingly difficult were chosen for the teaching intervention (Janzen & Stoller, 1998). As for the activities, which accompanied the texts, they were specifically designed to practise the use of the reading strategies emphasized in the treatment. Multiple choice, matching, true/false/not given, and short-answer questions were mainly used that restrict students' choice and allow objectivity in the scoring procedures. After all, all the reading materials and activities were shown to the EFL teachers of the classes that constituted the sample of the study prior to the teaching intervention to get their consent regarding the appropriateness of the materials, who were in accordance with our choices.

[3] For instance, according to Flesch-Kincaid Reading Ease score (see section 5.3.2.2.), the texts entitled "Stunt Performers" and "Dancing with the Devil" measured 82, while the texts entitled "Disneyland Park", "Should children use mobile phones", and "Looking for a Pen Pal" measured 45, 43, and 55 respectively.

Chapter 6: Results

This chapter presents both the qualitative and quantitative results of this study. In particular, a thorough description is provided in terms of the data analysis, the results, and the relationships between all the variables of the study.

6.1. Results of the Preliminary Study

The qualitative data of the preliminary study were gathered from both teacher interviews and classroom observations and were analyzed using constant comparative method through open, axial, and selective coding (Strauss & Corbin, 1998). The aim of the current analysis was to identify patterns, sequences of behaviors that are characteristic of a reading lesson and draw conclusions from the overall picture (McDonough & McDonough, 1997). First of all, the data coming from the interviews and observations were studied to identify teachers' instructional practices. In order to determine which teachers' reading practices constituted strategy instruction, the researcher relied on literature to identify specific features of instruction that typify strategy instruction, such as direct explanation, modelling, guided or independent practice (Dewitz et al., 2009; Pearson & Gallagher, 1983). Two more categories were identified and added in order to depict the comprehension practices deployed on behalf of these EFL teachers, which are presented in Table 4.

Table 4

Codes for Instructional Comprehension Practices

Comprehension practices	Account
1. Preparation for reading	The teacher is engaged in activities, such as vocabulary pre-teaching, question-asking, or semantic mapping, prior to text reading.
2. Text translation	The teacher or/and students are involved in translating the text line-by-line in the participants' native language.
3. Direct explanation	The teacher explains a strategy providing declarative, procedural, and conditional knowledge.
4. Modelling	The teacher demonstrates how to perform a strategy during text interaction through the think-aloud process.
5. Guided practice	Students practise the strategy but the teacher offers guidelines and explanations.
6. Independent practice	Students apply the strategy to a new reading situation on their own.

To be more precise, open coding included studying the data line-by-line pulling together real examples of the texts in order to organize them into categories, identifying important information, naming initial concepts by looking at what there is and giving it a name based on literature or personal knowledge (Strauss & Corbin, 1998). Namely, applying a set of codes to the different units of texts contributed to reducing and organizing data, and finding answers to the research questions (Ryan & Bernard, 2000). After tape transcription of each interview, the data were studied line-by-line several times until a coding of the most salient information was reached. For instance, when a teacher, Ms Draft, reported that before reading the text she focused on the text title and pre-taught vocabulary, this practice was named "preparation for reading". Then, pertinent data were grouped under a bigger category (concept), a category is often composed of micro categories, aiming at connecting a category to its

subcategories (Charmaz, 2000; Strauss & Corbin, 1998). For example, the "oral questions" and "written tasks" concepts were put under the "comprehension assessment" category. Finally, cross-case comparisons were drawn to identify similar statements leading to the main patterns, which emerged from the analysis of the qualitative data (Charmaz, 2000).

In this way, the results of this qualitative analysis are presented in three sections. The first section consists of comprehension practices based on teacher interviews and the second one includes comprehension practices identified through classroom observations. The third section summarizes the main instructional practices of every teacher. Concurrently, excerpts from teacher interview transcripts and transcripts of the observed lessons appear throughout the data analysis aiming at providing rich data and objective interpretation of what really happens in these Greek elementary EFL classes.

6.1.1. Findings for reading practices based on teacher interviews. Drawing on the data derived from teacher interviews, almost all teachers mentioned that they spent time on preparing students for reading mainly through questions and vocabulary pre-teaching. Then, the focus was on text reading through Round Robin Reading (RRR)[4] (three out of four teachers deploy it). According to teacher interviews, heavy emphasis was placed on text translation into the Greek language (all teachers emphasize this activity) and vocabulary instruction through direct explanation in Greek, as it was revealed that almost all teachers were highly involved in vocabulary instruction. Ms Draft reported: "We focus on the title, discuss unknown words, move on to text reading and translation and then, we deal with comprehension tasks". Ms George also stated: "After preparing students for the text to be read, we read the text through RRR and translate every sentence explaining unknown words. Then, I ask students oral questions based on the text".

Simultaneously, comprehension assessment was mainly conducted through oral questions, as three of the four EFL teachers reported that they were engaged in oral question asking after text reading to assess comprehension and then, focused on written tasks, which accompany a reading section. Ms Taylor mentioned: "I read

[4] RRR is usually defined as an oral reading practice during which students are called on to read the text orally one after the other whether or not they volunteered to do so (Kelly, 1995). See also Durkin (1993) and Hill (1983), for more information about RRR.

aloud the text and I ask students comprehension questions orally". Nonetheless, their responses to the question regarding the assessment of students' comprehension performance were negative in terms of standardized reading tests, informal or teacher-constructed reading tests, and alternative assessment measures. For example, Ms Goodies replied: "I usually ask them to write the translation of an already taught text...I don't usually assess reading comprehension separately".

In addition, the teachers did not express any degree of familiarity with the concept and use of reading comprehension strategies. In fact, some of them answered our question negatively, while others seemed to be ignorant of the strategy use, as they misunderstood the relevant question. For instance, Ms Taylor answered: "Well, I have to teach a syllabus and according to the book or the timetable I have to teach ten units each of which includes reading, writing, speaking, and listening skills...and I will have to choose what to teach and what strategy to implement...No, I am not approaching it right, am I?". In addition, none of the teachers seemed to be involved in teaching students how to use reading strategies during reading comprehension, as there was no reference to explicit strategy instruction and all their answers to the specific question were negative. Table 5 involves the categories pertaining to reading comprehension practices derived solely from teacher interviews.

Table 5

EFL Reading Comprehension Practices Based on Teacher Interviews

Teachers	Types of classroom reading										Comprehension assessment					
	Teacher reading aloud	RRR	Silent reading	Preparation for reading	Text translation	Vocabulary instruction	Direct explanation	Modelling	Guided practice	Independent practice	Oral questions	Written tasks	Informal reading tests	Standarised reading tests	Alternative assessment measures	
1) Ms Taylor	+	-	-	+	+	+	-	-	-	-	+	+	-	-	-	
2) Ms George	-	+	-	+	+	+	-	-	-	-	+	+	-	-	-	
3) Ms Goodies	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-	
4) Ms Draft	-	+	-	+	+	+	-	-	-	-	+	+	-	-	-	

6.1.2. Findings for reading practices based on classroom observations. According to data that came from classroom observations in order to triangulate data from teacher interviews, it was revealed that all teachers prepared students for reading through question asking, brainstorming, focusing on text titles and vocabulary pre-teaching. Ms George, before dealing with the text of the second unit entitled "Going shopping" (see Appendix C), asked students questions, such as "Do you like shopping? How often do you go shopping? What do we usually buy from a supermarket?". Furthermore, it was noticed that teachers emphasized vocabulary instruction, text reading and translating in Greek mainly through the mode of RRR, which was in agreement with the findings based on teacher interviews.

Moreover, a lot of comprehension assessment took place in the reading lessons through oral questions and completion of written tasks following text reading, which was also certified by teacher interviews. For instance, after Ms Taylor finished reading aloud the text of unit one entitled "Our multicultural class" (see Appendix C), she asked students questions: "What is the main idea discussed? What does the author think about Ukrainian people? What does the author say about the country?". Regarding grouping procedures, it was revealed that the most prevalent ones were whole-class instruction and individual work de-emphasizing pair or group work; in fact, none of the teachers used pair or group work in the reading lessons, despite the fact that some activities required pair work completion according to relevant instructions provided by the course-book (see Appendix C). Last but not least, absence of strategy instruction was observed, since none of the teachers were actually engaged in teaching students how to use reading strategies to derive text meaning, which concurred with the interview findings. Table 6 presents the categories pertaining to reading comprehension practices based on classroom observations.

Table 6

EFL *Reading Comprehension Practices Based on Classroom Observations*

Teachers	Types of classroom reading											Comprehension assessment		Grouping procedures			
	Teacher reading aloud	RRR	Silent reading	Preparation for reading	Text translation	Vocabulary instruction	Vocabulary assessment	Direct explanation	Modelling	Guided practice	Indpendent practice	Oral questions	Written tasks	Whole class instruction	Individual work	Pair work	Group work
Ms Taylor:																	
Unit 1	+	-	-	-	-	+	+	-	-	-	-	+	+	+	+	-	-
Unit 2	-	+	-	+	+	+	+	-	-	-	-	+	+	+	+	-	-
Ms Draft:																	
Unit 1	-	+	-	+	+	+	+	-	-	-	-	-	+	+	+	-	-
Unit 2	-	+	-	+	+	+	+	-	-	-	-	+	+	+	+	-	-
Ms Goodies:																	
Unit 1	-	+	-	-	+	+	+	-	-	-	-	+	+	+	+	-	-
Unit 2	-	+	-	+	+	+	+	-	-	-	-	-	+	+	+	-	-
Ms George:																	
Unit 1	-	+	-	-	+	+	+	-	-	-	-	+	+	+	+	-	-
Unit 2	-	+	-	+	+	+	+	-	-	-	-	+	+	+	+	-	-

6.1.3. Teachers' central instructional comprehension practices. By and large, the most common instructional patterns identified in this study included activation of students' prior knowledge, text reading, text translation, vocabulary instruction, oral comprehension questions, and written task completion following the reading of a text. Table 7 depicts teachers' central instructional practices during EFL reading comprehension lessons.

Table 7

Teachers' Instructional Comprehension Practices

Teachers	Instructional practices
1) Ms Taylor	Some activation of prior knowledge, content heavily emphasized, teacher reading aloud /RRR, comprehension questions, written task completion, emphasis on vocabulary instruction and assessment, text translation, whole-class teacher-initiated discussions and individual work.
2) Ms George	Some activation of prior knowledge, RRR, text translation, emphasis on vocabulary instruction and assessment, comprehension questions, written task completion, content heavily emphasized, whole-class teacher-initiated discussions and individual work.
3) Ms Goodies	Some activation of prior knowledge, RRR, text translation, emphasis on vocabulary instruction and assessment, written task completion, content heavily emphasized, whole-class teacher-initiated discussions and individual work.
4) Ms Draft	Some activation of prior knowledge, RRR, text translation, emphasis on vocabulary instruction and assessment, written task completion, content heavily emphasized, whole-class teacher-initiated discussions and individual work.

6.2. Results of the Main Study

The present study involved quantitative results consisting of three sets of data: a) the pre-intervention data (pretest) that were composed of data from the reading section of the K.P.G. (K.P.G.1) and the first constructed test (ReadA1), b) the post-intervention data (posttest) that included data from the reading section of the K.P.G. (K.P.G.2) and the first constructed test (ReadA2), and c) the follow-up data that comprised the first (ReadA3) and the second constructed test (ReadB3). For the

statistical analyses of the data, the Statistical Package for Social Sciences (SPSS) version 20,0 was used. In accordance with the aims of this study, the statistical analyses of Repeated Measures of ANOVA, One-Way ANOVA, Scheffé Pairwise Comparisons, and Paired T-Test were computed. The level of significance was set at .05. To determine whether parametric analyses could be applied to the data, measures of Skewness and Kurtosis were applied to all the dependent variables. All the values of Skewness and Kurtosis were below 2 (more specifically, Skewness ranged from -.507 to -1.458 and Kurtosis from -.334 to 1.761), which are considered to be normally distributed (see Kline, 1998). In the next sections, a detailed description of the statistical methods used to analyze the data of this study is provided. A brief answer to each of the research hypothesis is also given, which is extensively discussed in the next chapter (see chapter 7).

6.2.1. Difference in reading ability level between experimental and control groups prior to the teaching intervention. Before presenting the results of the effectiveness of the strategy instruction on students' reading performance, it was deemed necessary to investigate whether there was any statistically significant difference in the reading ability level between the experimental and control groups prior to the treatment. One week before the teaching intervention, the reading section of the K.P.G. (K.P.G.1) and the first constructed test (ReadA1) were administered to all the participants in the two groups (pretest measurement). Analyses of Variance (ANOVA) were computed to investigate whether the two groups (experimental-control) significantly differed in their reading ability level (K.P.G.1 and ReadA1) before the teaching intervention. No statistically significant difference was found in the reading ability level between the experimental and the control groups prior to the training in the first constructed test (ReadA1), F (1, 98) = 1.22, $p > .05$, and K.P.G.1, F (1, 98) = .83, $p > .05$. The respective mean scores and standard deviations were: ReadA1 (M = 19.67, SD = 12.20) and K.P.G.1 (M = 37.98, SD = 7.74) for the experimental group and ReadA1 (M = 17.12, SD = 10.72), K.P.G.1 (M = 36.41, SD = 9.33) for the control group. The results showed that the two groups had similar levels of reading proficiency prior to the teaching intervention (see also Figure 1), which is an important finding, as it provides a baseline for a more reliable comparison of the post intervention data after the treatment between the two groups.

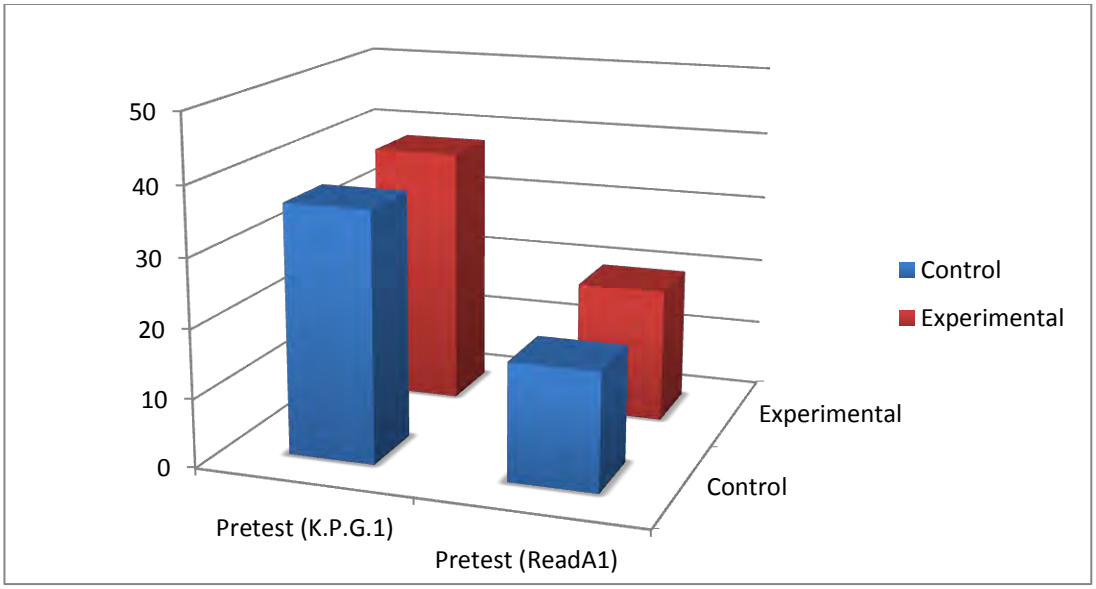


Figure 1. The performance of the experimental and control groups in both comprehension measures prior to the teaching intervention.

6.2.2. Immediate and delayed effects of the teaching intervention on students' reading performance. To examine the immediate and delayed effects of the intervention on students' EFL reading performance, a Repeated Measures ANOVA design was performed using the group (experimental-control) as the between subjects independent variable and the scores of all reading comprehension tests in the three different measurements as the dependent variable. Regarding the first constructed comprehension test, the results of Repeated Measures of ANOVA indicated that the main effects of group, F (1, 97) = 24.08, $p < .001$, $\eta^2 = .20$, and time, F (2, 194) = 130.43, $p < .001$, $\eta^2 = .57$, were statistically significant, as well as the interaction between time and group factors was statistically significant, F (2, 194) = 24.60, $p < .001$, $\eta^2 = .20$. Further Univariate Analysis of Variance with group as the independent variable has showed that the difference between the two groups was statistically significant only after the intervention in favor of the experimental group, F (1, 98) = 1.22, $p > .05$ $\eta^2 = .01$, (ReadA1-pretest measurement), F (1, 98) = 58.66, $p < .001$, $\eta^2 = .38$, (ReadA2-posttest measurement), and, F (1, 98) = 18.30, $p < .001$, $\eta^2 = .16$, (ReadA3-follow-up measurement). Furthermore, the application of Paired T-Test demonstrated that the difference in comprehension scores in the experimental group was significant between the pretest and the posttest measurement, $t(49) = -12.67$, $p < .001$, between the pretest and the follow-up measurement, $t(49) = -11.55$, $p < .001$, and between the posttest and the follow-up measurement, $t(49) = 3.68$, $p <$

.001. Even though there was a loss from the posttest to the follow-up measurement, the difference in performance between the pretest and the follow-up measurement was still statistically significant in favor of the follow-up measurement. The mean scores and standard deviations of the first constructed comprehension measure are depicted in Table 8 (see also Figure 2). The above results confirmed the immediate effects of the intervention on students' reading performance after the intervention (posttest measurement) and the maintenance effects even some months after the intervention withdrawal (follow-up measurement).

Table 8

Means and SD of the Performance Scores of the Experimental and Control Groups in the three Different Measurements

		Pretest		Posttest		Follow-up	
Group		KPG1	ReadA1	KPG2	ReadA2	ReadA3	ReadB3
Experimental (n=50)	Mean	37.98	19.67	42.44	39.73	36.57	31.55
	SD	7.74	12.20	7.47	8.86	9.77	7.42
Control (n=49)	Mean	36.41	17.12	38.06	23.71	27.27	20.34
	SD	9.33	10.72	9.74	11.77	11.77	8.67

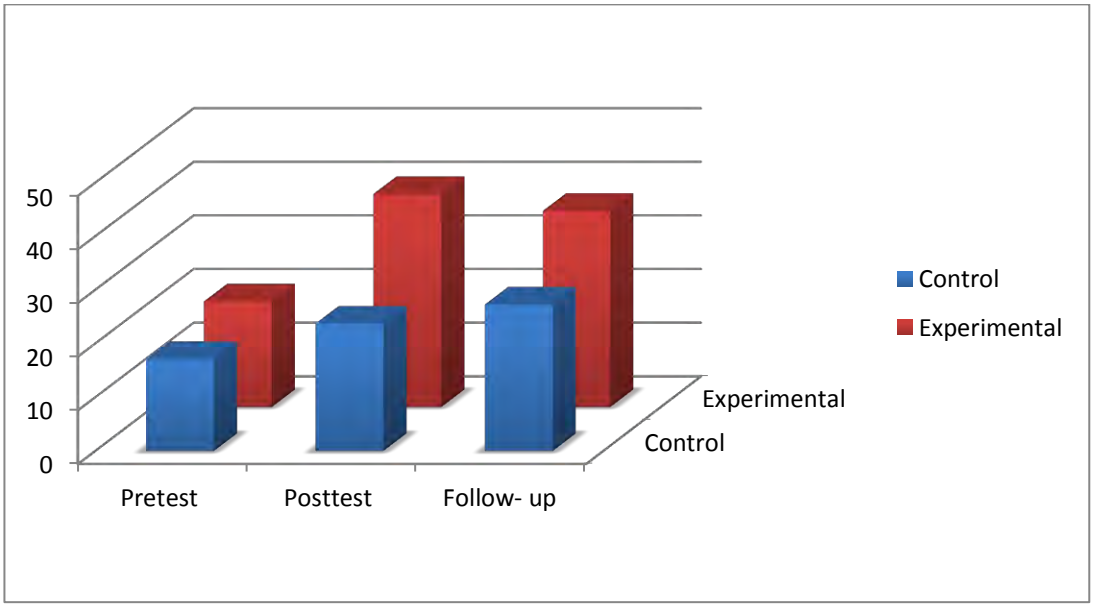


Figure 2. The performance of the experimental and control groups in the first constructed test in the three different measurements of the study.

At the same time, to further probe into the maintenance effects of the teaching intervention on students' EFL reading performance, One-Way ANOVA was conducted using the group (experimental-control) as the independent variable and the scores of the second constructed test given only in the follow-up measurement (ReadB3) as the dependent variable. The results indicated that the main effect of group was significant, F (1, 98) = 47.88, $p < .001$, $\eta^2 = .33$. Namely, it was shown that the difference between the two groups in the second constructed test was also statistically significant in the follow-up measurement in favor of the experimental group verifying, thus, the delayed effects of the strategy instruction on students' reading performance in the follow-up measurement. More specifically, the experimental group maintained comprehension gains in a subsequent measurement obtaining (M = 31.55) that did not disappear after the treatment withdrawal in comparison with the control group (M = 20.34) (see Table 8). The above finding provides additional support for the third hypothesis concerning the effectiveness of the strategy instruction on maintaining comprehension gains after treatment withdrawal.

As for the reading section of the K.P.G. administered before (K.P.G.1) and after the teaching intervention (K.P.G.2), the results of Repeated measures of ANOVA showed that the main effects of time was statistically significant, F (1, 97) = 27.95, $p < .001$, $\eta^2 = .22$, as well as the interaction between time and group factors, F (1, 97) = 5.89, $p < .05$, $\eta^2 = .06$. Further Univariate analyses of Variance with group as the independent variable have shown that the difference between the two groups was statistically significant only after the intervention in favor of the experimental group, F (1, 98) = .83, $p > .05$ $\eta^2 = .01$, (K.P.G.1-pretest measurement) and, F (1, 98) = 6.31, $p < .05$, $\eta^2 = .06$, (K.P.G.2-posttest measurement). At the same time, the application of Paired T-Test demonstrated that the difference in comprehension scores for the experimental group was statistically significant between the pretest and the posttest measurement, $t(49) = -.7.12$, $p < .001$. The mean scores of the K.P.G. before and after the intervention are depicted in Table 8 (see also Figure 3).

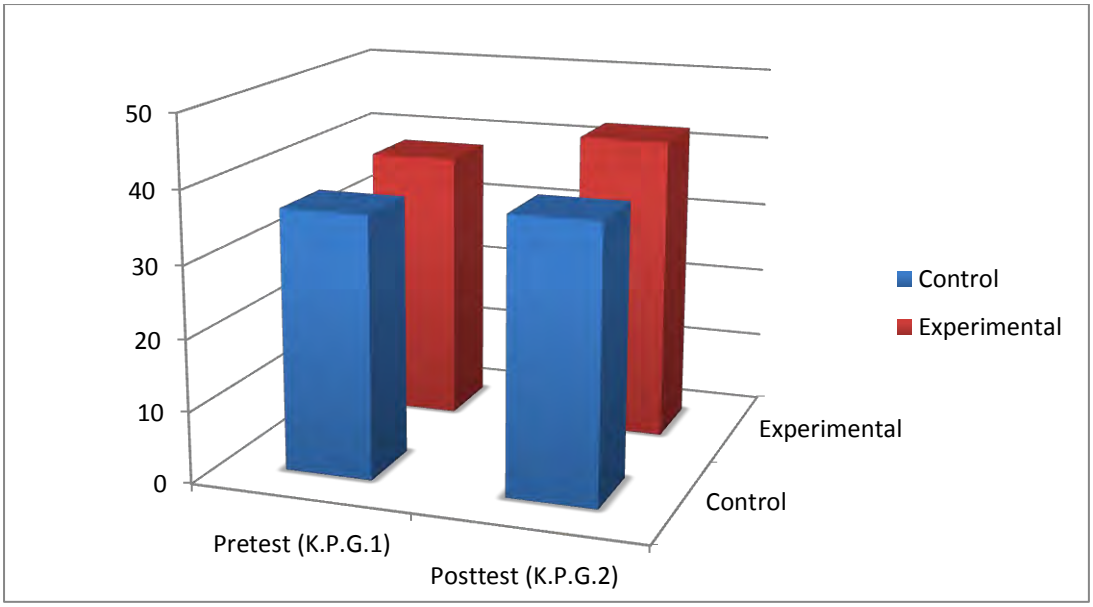


Figure 3. The performance of the experimental and control groups in the reading section of the K.P.G. before and after the treatment.

In a nutshell, though the two groups were at the same reading ability level prior to the teaching intervention (pretest measurement), it was revealed that the experimental group have benefited from the strategy instruction, since the experimental group outperformed the control on all EFL reading comprehension measures in the posttest and the follow-up measurement. The above results confirmed the second and the third hypothesis about the immediate and delayed effects of strategy instruction on EFL students' reading performance.

6.2.2.1. Immediate and delayed effects of the intervention on students' reading performance in linguistic texts. To further explore the immediate and delayed effects of the intervention on students' performance, a series of Repeated Measures of ANOVAs were conducted using the group (experimental-control) as the between subjects independent variable and the scores of the linguistic (ReadAM1, ReadAM2, ReadAM3) and the multimodal texts (ReadAP1, ReadAP2, ReadAP3) of the first constructed test in the three different measurements as the dependent variables.

The results of Repeated Measures of ANOVA indicated that the main effects of time, F (2, 194) = 109.40, $p < .001$, $\eta^2 = .53$, and group, F (1, 97) = 16.58, $p < .001$, $\eta^2 = .15$ were statistically significant for the linguistic texts, as well as the interaction

between time and group factors, F (2, 194) = 8.67, $p < .001$, $\eta^2 = .08$. Further Univariate Analysis of Variance with group as the independent variable has indicated that the difference between the two groups was significant only after the intervention in favor of the experimental group, F (1, 98) = 3.71, $p > .05$, $\eta^2 = .04$, (ReadAM1-pretest measurement), F (1, 98) = 30.04, $p < .001$, $\eta^2 = .24$, (ReadAM2-posttest measurement), and, F (1, 98) = 9.44, $p < .05$, $\eta^2 = .09$, (ReadAM3-follow-up measurement). Furthermore, the application of paired T-Test demonstrated that the difference in comprehension scores in the experimental group was significant between the pretest and the posttest measurement, t(49) = -10.23, p < .001, between the pretest and the follow-up measurement, t(49) = -9.16, p < .001, and between the posttest and the follow-up measurement, t(49) = 3.52, p < .001]. The means and standard deviations of the analytic scores in the linguistic texts (ReadAM1, ReadAM2, ReadAM3) are separately presented in Table 9.

Table 9

Means and SD of the Experimental and Control Groups in Multimodal and Linguistic Texts of the First Constructed Test in the three Different Measurements

		Pretest		Posttest		Follow-up	
Group		ReadAP1	ReadAM1	ReadAP2	ReadAM2	ReadAP3	ReadAM3
Experimental (n=50)	Mean	7.21	12.46	18.19	21.54	16.87	19.70
	SD	6.31	6.59	4.44	5.35	5.52	5.56
Control (n=49)	Mean	7.03	10.09	8.82	14.90	11.07	16.20
	SD	6.46	5.59	6.75	6.65	7.26	5.75

Note. ReadAP1= the analytic score in the multimodal texts of the first constructed text in the pretest measurement, while ReadAM1= the analytic score in the linguistic texts of the first constructed text in the pretest measurement.

6.2.2.2. Immediate and delayed effects of the intervention on students' reading performance in multimodal texts. Regarding multimodal texts, the results of Repeated Measures of ANOVA indicated that the main effects of time, F (2, 194) = 73.82, $p < .001$, $\eta^2 = .43$, and group, F (1, 97) = 25.74, $p < .001$, $\eta^2 = .21$ were statistically significant, as well as the interaction between time and group factors, F (2, 194) = 27.07, $p < .001$, $\eta^2 = .22$. Further Univariate Analysis of Variance with group as the independent variable has shown that the difference between the two

groups was statistically significant only after the intervention in favor of the experimental group, F (1, 98) = .02, p > .05, η^2 = .00 (ReadAP1-pretest measurement), F (1, 98) = 66.83, p < .001, η^2 = .41 (ReadAP2-posttest measurement), and, F (1, 98) = 20.07, p < .001, η^2 = .17 (ReadAP3-follow-up measurement). Concurrently, the application of paired T-Test demonstrated that difference in comprehension scores was statistically significant between the pretest and the posttest measurement, t(49) = -12.28, p < . 001], between the pretest and the follow-up measurement, t(49) = -10.29, p < . 001, and between the posttest and the follow-up measurement, t(49) = 2.22, p < .05]. The means and standard deviations of the analytic scores in the multimodal texts (ReadAP1, ReadAP2, ReadAP3) of the first constructed test of both groups in the three measurements of the study are depicted in Table 9.

6.2.3. The relationship between reading proficiency and reading performance. In order to investigate the performance of the experimental group in the first constructed test in relation to their reading ability level in the three different measurements of the study, a Repeated Measures ANOVA was performed using the reading ability level of the experimental group as between subject factor and their performance in the three measurements (pretest, posttest and follow-up) as within subject factor. The results indicated that the main effect of time was statistically significant regarding the first constructed test, F (2, 94) = 97.92, p < .001, η^2 = .68, as well as the main effect of reading ability level, F = (2, 47) = 16.83, p < .001, η^2 = .42, whereas the interaction between time and reading ability factors was not found to be statistically significant, F (4, 94) = .80, p > .05, η^2 = .03. Further Scheffé Pairwise Comparisons indicated that the means differentiated significantly between the poor and the average reading ability level group (p < .001), between the poor and the proficient reading ability group (p < .001) and between the average and the proficient reading ability group (p < .05). Table 10 presents the descriptive statistics of the reading performance of the experimental group according to their reading ability level (high, average, low) in the three different measurements of the study (see also Figure 4). Therefore, the above results did not confirm the fourth hypothesis of the study, which asserted that the lower ability group would benefit most from the strategy instruction.

Table 10

Means and SD of the Performance Scores for each Proficiency Group in the three Different Measurements

Reading Ability	N		Pretest	Posttest	Follow-up
			ReadA1	ReadA2	ReadA3
Low	7	Mean	8.07	28.93	22.14
		SD	5.28	14.29	11.08
Average	19	Mean	17.00	39.00	36.16
		SD	11.13	7.98	8.43
High	24	Mean	25.17	43.46	41.10
		SD	11.60	3.73	5.57

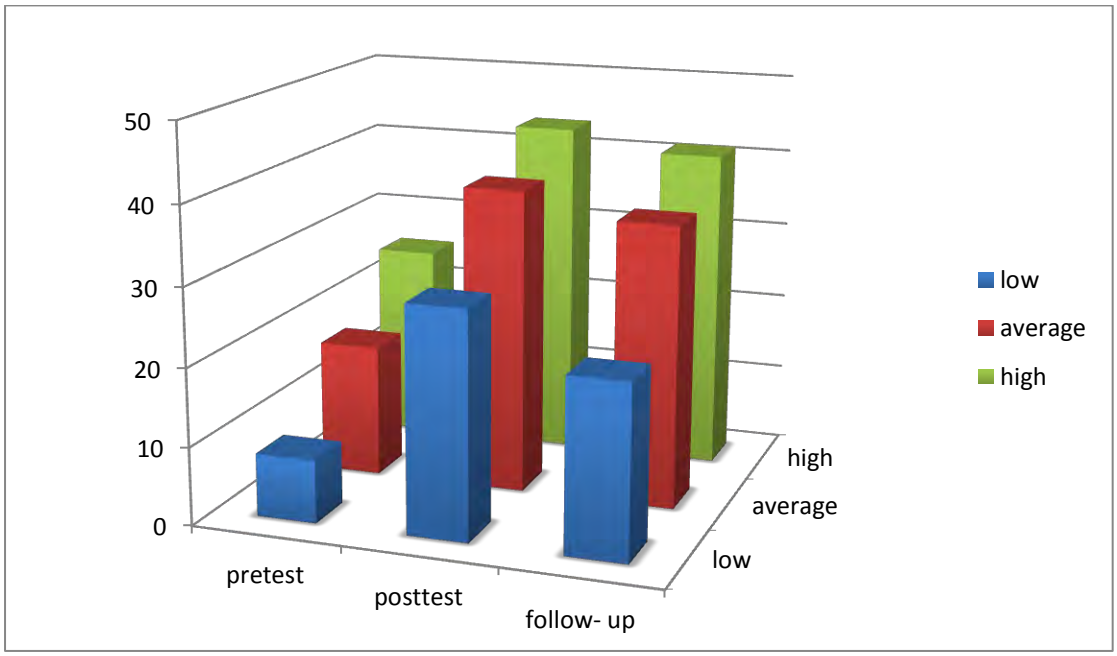


Figure 4. The performance of the experimental group in the first constructed test in relation to their reading ability level in the three different measurements of the study.

6.2.4. The relationship between gender and reading performance. To investigate possible gender differences in reading performance of the experimental group after the teaching intervention, a Repeated Measures ANOVA design was applied with gender as a between subjects variable and time (pretest, posttest, follow-

up measurement) and as a within subject factor. Separate ANOVAs were applied for the experimental group's performance in the K.P.G. and the first designed comprehension measure. The results indicated that the main effect of time was statistically significant regarding the K.P.G. measure, F (1, 48) = 48.40, $p < .001$, η^2 = .50, as well as the first constructed test, F (2, 96) = 125.61, $p < .001$, η^2 = .72. Nonetheless, the main effect of gender was not found to be statistically significant in the K.P.G. measure, F (1, 48) = .13, $p > .05$, η^2 = .00, and the first constructed test, F (1, 48) = .84, $p > .05$, η^2 = .02. Concurrently, the interaction between time and gender factors was not found to be statistically significant regarding the K. P. G., F (1, 48) = .27, $p > .05$, η^2 = .01, and the first constructed test, F = (2, 96) = 1.16, $p > .05$, η^2 = .02. At the same time, Analyses of Variance (ANOVA) were computed to investigate whether the two groups (female-male) significantly differed in their reading performance in the three different measurements of the study. More specifically, regarding the reading section of the K.P.G., no statistically significant difference was found in gender in the pretest measurement, F (1, 49) = .24, $p > .05$, and the posttest measurement, F (1, 49) = .04, $p > .05$. Concerning the first constructed test, no statistically significant difference in gender was revealed in the pretest measurement, F (1, 49) = 1.75, $p > .05$, in the posttest measurement, F (1, 49) = .49, $p > .05$, and the follow-up measurement, F (1, 49) = .40, $p > .05$. Similarly, in terms of the second constructed test, no statistically significant difference in gender was shown in the follow-up measurement, F (1, 49) = .11, $p > .05$. The respective mean scores and standard deviations of all the reading comprehension measures are presented in Table 11:

Table 11

Means and SD of the Performance Scores of the Experimental Group regarding Gender in the three Different Measurements

			Pretest		Posttest		Follow-up	
Gender	N		KPG1	ReadA1	KPG2	ReadA2	ReadA3	ReadB3
Girls	28	Mean	37.50	17.66	42.25	38.95	36.32	31.23
		SD	6.80	11.05	5.96	8.81	9.21	6.34
Boys	22	Mean	38.59	22.23	42.68	40.73	36.89	31.95
		SD	8.93	13.35	9.19	9.04	10.66	8.74
Total	50	Mean	37.98	19.67	42.44	39.73	36.57	31.55
		SD	7.74	12.20	7.47	8.86	9.77	7.42

Therefore, the above results supported the fifth hypothesis of the study, which asserted that gender differences in reading comprehension achievement after strategy instruction were not expected to be found, requiring further investigation. Though Descriptive statistics for both reading comprehension measures provided in Table 11 seem to indicate that the boys did better in all comprehension tests in the three different measurements in relation to the girls, this difference was not found to be statistically significant.

Chapter 7: Discussion

In this chapter, all the qualitative and quantitative results of the present research are discussed and conclusions are drawn in relation to the aims and the initial research hypotheses. Before embarking on strategy instruction, which constituted the focus of this study, a preliminary study was conducted in order to investigate whether EFL teachers were instructing Greek elementary students to use reading strategies while interacting with written texts. The major aim of this study was to investigate the effectiveness of implementing metacognitive multiple-strategy instruction on students' reading performance. Another aim was to explore the delayed effects of the teaching intervention on students' reading performance. In addition, this study aimed to probe into the relationship between students' proficiency level and reading performance as well as the relationship between gender and reading performance. For the purpose of this study, qualitative data were firstly gathered through classroom observations and EFL teacher interviews. Then, multiple-strategy instruction was implemented in the experimental group, while the control group received no such training; quantitative data were gathered through the administration of comprehension measures to both the experimental and control groups in three different measurements.

Moreover, in this chapter the results of the present study are discussed in relation to pertinent studies, though it is rather difficult to make direct comparisons across studies, since the age, the grade level of participants, the instructional approach, the reading materials, the assessment tasks or even the strategies taught differ from study to study (Bernhardt, 1991; Brantmeier, 2002). At the same time, possible explanations of the results with respect to the Greek socio-educational context are provided. The discussion of the results follows the order of the initial research hypotheses.

7.1. Discussion of the Results of the Preliminary Study

7.1.1. Reading comprehension practices in Greek elementary EFL classrooms. The main purpose of the preliminary study was to investigate EFL reading comprehension practices through teacher interviews and classroom observations aiming at detecting possible strategy instruction in the Greek elementary EFL classes, where the main study was to be conducted. It was initially assumed that

these Greek-speaking elementary students would not be instructed to deploy reading strategies by their EFL teachers *(Research Hypothesis 1)*. The qualitative analysis of the data confirmed the above hypothesis. Overall, there was consistency between the teachers' reported comprehension practices and those observed, which is in accordance with previous research (Janzen, 2007). Concurrently, more similarities rather than differences were identified among these Greek elementary classes regarding EFL reading comprehension practices. The major findings of this study are extensively discussed below.

The initial assumption that there would be an absence of strategy instruction in these Greek elementary EFL classes was verified by the results of this study. In other words, the contemporary portrait of EFL reading comprehension practices consisted of text introduction, vocabulary instruction, and exclusive high incidence of loud text reading through mainly RRR, text translation, oral comprehension questions, and activity completion. A very striking example is one teacher, Ms Goodies, who, when asked to refer to the way she used to teach reading comprehension, replied: "We focus on vocabulary and try to explain the text in Greek line-by-line. Practically, a text translation in Greek". Instead of comprehension instruction, teachers were engaged in a constant question asking process after reading was completed either by oral questions or questions that demanded written responses, as they were mainly concerned about students' right or wrong answers. These findings are consistent with previous studies conducted in both L1 (Baumann et al., 2000; Durkin, 1978-1979; Ness, 2011; Pressley et al., 1998) and L2 settings (Janzen, 2007).

It is evident that the results of this study indicated a lack of strategy instruction and, consequently, a lack of comprehension instruction, which means that teachers were not involved in teaching students *how* to comprehend texts (Koda, 2005). According to recent trends in literature, "there has been a convergence between comprehension instruction and reading strategies instruction" (Grabe, 2009, p. 207). Namely, teaching students to use reading strategies while trying to derive text meaning through scaffolded discussions and extensive practice is viewed as comprehension instruction (N. J. Anderson, 1994; Grabe, 2009; Pressley, 2002; Pressley, 2006; Pressley & Block, 2002). In fact, the cognitive enterprise of effective reading comprehension requires readers' use and control of a variety of strategies when faced with comprehension difficulties (N. J. Anderson, 1999; Cohen, 1998;

Grabe, 2009; Hudson, 2007; Koda, 2005; Oxford, 2011; Psaltou-Joycey, 2010; Sheorey & Mohktari, 2001). However, developing strategic reading cannot be attained simply by reading but it should be integrated in reading instruction through explicit strategy teaching involving a cycle of direct explanation, modelling, guided and independent practice of strategies (Duffy, 2002; Duke & Pearson, 2002; Oxford, 2011; Pearson & Gallagher, 1983). According to the results of this study, the specific EFL teachers were not engaged in developing strategic reading through explicit strategy instruction, as specific features that typify strategy instruction were not detected in these elementary classes, which render students active, strategic, and self-regulated readers (Duke & Pearson, 2002; Janzen & Stoller, 1998; Pearson & Gallagher, 1983; Pressley, 2006). In this way, strategy instruction, which is viewed as part of reading instruction and not as separate lessons, was not implemented (Block & Pressley, 2002; Pressley, 2006). Thus, there was no evidence that these EFL teachers taught students to deploy the various comprehension strategies validated by research, while interacting with written texts, in order to construct text meaning and facilitate reading comprehension. A possible explanation for the absence of comprehension instruction that was observed in these Greek EFL classes is that the specific teachers have not actually received training in implementing strategy training through specially designed seminars (Celani, 2006).

Concurrently, the lack of comprehension instruction went hand in hand with the absence of comprehension testing. Namely, it was revealed that almost all teachers did not assess reading comprehension through standardized tests, alternative assessment measures, like portfolios, or even informal, teacher-constructed reading tests, though relevant guidelines were provided by the course-book. The results of this study indicated that, if reading comprehension was tested, it would be a known-previously taught text in combination with grammar and vocabulary.

An additional finding of this study was that EFL teachers seemed to devote a lot of time and attention to vocabulary instruction. Namely, there was heavy emphasis on vocabulary development related to text content in almost every class, which is congruent with previous research (Janzen, 2007). Strong emphasis was placed on vocabulary teaching, copying, and assessing in a teacher's dictation test on a regular basis or through informal tests. In fact, all of these Greek teachers and students appeared to be rather "obsessed" with EFL vocabulary instruction. When teachers

were asked to name the main problem they might face in reading lessons, they unanimously referred to unfamiliar vocabulary, which was indicative of the time spent on vocabulary instruction. However, there is usually much greater focus on vocabulary learning as part of explicit instruction through various activities in L2 than in L1 contexts (Grabe, 2009). After all, this obsession with vocabulary teaching in reading lessons can be justified to some extent, since vocabulary knowledge has been inextricably linked with reading comprehension, particularly in L2 settings, (N. J. Anderson, 1999; Droop & Verhoeven, 2003; Harmon, 1998; Laufer, 1997; Nassaji, 2006; Nation, 2001; Paribakht & Wesche, 1999; Qian, 2002; Schoonen et al., 1998).

What is more, no significant differentiation was found in terms of instructional grouping, as whole-group discussion and individual work were prevalent in every class, simultaneously, downplaying cooperation among students. Although a comprehension activity following text reading in the first unit of the course-book required students to work in pairs, the book instructions were completely ignored by all teachers, who persisted in individual work (see Appendix C). The specific teacher behavior can be attributed to teachers' concern about imminent discipline problems. Another possible explanation for the absence of pair or group work that was detected in these EFL classes is that the specific teachers have not actually received training in implementing this instructional grouping through pre-service or in-service teacher education courses (Celani, 2006).

The results of this study that revealed heavy emphasis on oral text reading and word-by-word translation into Greek, and vocabulary instruction demonstrate the traditional way of approaching EFL reading comprehension. It is evident that the EFL teachers of the specific Greek elementary classes that constituted the sample of this study adopted a bottom-up view of reading, which focuses on the reading aloud process emphasizing mainly on letters, words, and sentences where text meaning is built up from the smallest textual units -letters and words- to larger units -phrases and clauses (Carrell, 1988; Grabe, 2009; Urquhart & Weir, 1998; Rumelhart, 1994). For example, the extensive use of RRR detected in these Greek elementary EFL classes, which is regarded as an ineffective and pedagogically obsolete oral reading practice (e.g., Durkin, 1993; Hill, 1983; Kelly, 1995), is indicative of the rather passive, bottom-up view of reading. According to bottom-up models, reading is seen as a mechanical process in which the reader relies on lower-level processes and forms a

piece-by-piece mental translation of the text information (N. J. Anderson, 1999; Grabe & Stoller, 2002; Rumelhart, 1994). Presumably, the teachers applied the teaching method that they were experienced as learners, as it is difficult for habits to change. In this way, it was revealed that these EFL teachers have paid much more instructional attention towards promoting a specific type of the reading process, the linguistic, which is compatible with the bottom-up view of reading, simultaneously, ignoring the other processes involved in reading comprehension. In fact, the use of reading strategies has been more directed to decoding discrete language forms to understand fragmental information than at constructing an integrated comprehension of a larger section of a text. The above reading practices revealed in this study are indicative that EFL students' reading comprehension problems are mainly viewed as language problems and not as reading comprehension problems. More often than not, it is found that many EFL Greek students, particularly, lower-level students, cannot read longer and more challenging texts with sufficient comprehension, as they are involved in a word-by-word and sentence-by-sentence translation for word identification and literal comprehension notwithstanding the years of EFL instruction offered both at state schools and private FL institutes.

Nonetheless, it is noticeable that the aim and scope of this study, which focused on promoting a strategic, expeditious, interactive, and flexible way of approaching EFL texts in order to facilitate learners' ability to construct meaning according to their purpose for reading, reflects a more top-down view of reading, where background knowledge and text gist are mainly emphasized (Goodman, 1967, 1988), and involves very different classroom practices from those that have been observed at Greek primary schools. To put it better, the approach adopted in this study reflected the interactive-compensatory view of reading, which assumes that the process of reading comprehension draws on the simultaneous integration of information from a variety of sources and that the deficiency in one area of knowledge can be offset by efficiency in another area (Stanovich, 1980). For instance, this study focused on explicitly teaching students to activate background knowledge prior to text reading, which can compensate for linguistic deficiencies when reading L2 texts (Grabe, 2004; Hudson, 1982; Johnson, 1982; Ketchum, 2006; Levine & Haus, 1985; Taglieber et al., 1988). Similarly, while this study indicated that EFL teachers placed great emphasis on direct vocabulary instruction, which is compatible

with the bottom-up view of reading, the present study focused on the development of guessing unfamiliar word meanings from context, a VLS that contributes to strategic and independent reading, as the whole reading process is not interrupted whenever learners come across unknown words (M. Y. Fan, 2003; Nation, 2001; Medina, 2012; Psaltou-Joycey, 2010). In this context, if the reader has linguistic difficulties while EFL reading, s/he can rely on background knowledge or context clues, which can compensate for a lack of linguistic knowledge.

In a nutshell, the results of this study demonstrated that the reading practices identified in these Greek elementary EFL classes followed well-trodden paths of habit or tradition, which were strongly influenced by word translations and oral reading to the detriment of comprehension instruction. Therefore, it was revealed that the EFL teachers participating in this study failed to boost strategic reading and render their students active and independent readers, which is the hallmark of the learning and, particularly, the reading process.

7.2. Discussion of the Results of the Main Study

7.2.1. The immediate effect of strategy instruction on EFL students' reading performance. The major aim of this study was to examine the impact of implementing metacognitive multiple-strategy instruction on Greek EFL students' reading performance. It was assumed that students' performance would be better in the experimental group that received the teaching intervention than in the control group that received no such training (*Research Hypothesis 2*). The statistical analyses of the research data confirmed the above hypothesis.

To be more precise, a comparison of the data collected before and after strategy instruction revealed that the students exposed to the teaching intervention significantly improved their performance on both comprehension measures in relation to the students in the control group. More specifically, the mean scores of the standardized comprehension measure, the K.P.G., and the first constructed measure suggested immediate effects of the teaching intervention from the pretest to the posttest indicating that the experimental group outperformed the control group after the teaching intervention (see section 6.2.2.). Regarding, in particular, the standardized comprehension measure, it can be observed that the mean score was relatively high in the pretest measurement showing that the effect size of the

intervention was medium. A possible explanation for the relatively high scores obtained in the reading component of the K.P.G. in the pretest measurement is that the participants found the specific comprehension measure rather easy, though it was intended for their reading ability level (A1-A2 according to the levels set by the CEFR, 2001). In other words, the students' relatively high performance in the reading section of the K.P.G. prior to the teaching intervention can be attributed to the many teaching hours of English lessons that the majority of Greek students are exposed to both at private FL institutes and at state schools even from an early age. The above tendency can be explained in terms of the emphasis placed on foreign language certificates, especially the EFL certificates, in conjunction with the low prestige of foreign language teaching in Greek state education despite the current efforts to modernize it (Vrettou, 2011).

Another outcome that is worthy of further attention is that, though the experimental and the control groups started at the same reading ability level (see section 6.2.1.), which was measured by the reading section of the standardized K.P.G. prior to the treatment, the control group did not seem to have improved as much as the experimental group did within a period of three months' time. Namely, the mean scores of the reading proficiency of both groups did not exhibit any statistically significant difference in the comprehension measures administered prior to the teaching intervention (pretest measurement). That seems to be an important finding, as it renders the comparison of the pre-intervention data with the post-intervention data between the two groups more reliable. However, after almost a three-month strategy instruction, the experimental group outperformed the control group on both comprehension measures and significantly enhanced their reading performance, indicating a strong association between strategy training and improvement in reading performance for the experimental group. In this way, allowing for the fact that the control group did not gain as much in the posttest measurement in terms of their reading performance as the experimental group did, though the same instructor was teaching both groups using the same course-book and the same teaching approach (see section 6.1.3.), the significant comprehension gains of the experimental group in the posttest measurement can be attributed to the teaching intervention. The specific finding is particularly important, as it accentuates and verifies the contribution of strategy use and instruction to the reading comprehension process, in which readers

have particular goals to attain, each of which requires a distinct mode of text-information processing (N. J. Anderson, 1991; Carrell 1998; Erler & Finkebeiner, 2007; Grabe, 2009; Koda, 2005; Paris et al., 1991).

This finding is in accordance with previous studies which have also examined the impact of implementing multiple-strategy instruction on students' reading performance in various FL learning contexts yielding positive results (Aghaie & Zhang, 2012; Banditvilai, 2003; Cotterall, 1990; Dreyer & Nel, 2003; Kern, 1989; Klingner & Vaughn, 2000; Kusiak, 2001; Lukica, 2011; Macaro & Erler, 2008; Medina, 2012; Moghadam, 2008; Salataci & Akyel, 2002; Schueller, 1999; Song, 1998; Zhang, 2008). However, no direct comparisons can be made with the above studies, as there are major differences in the characteristics of the sample, such as age, the duration of the teaching interventions, the strategies emphasized or the instructional approach adopted in each study. More specifically, it should be mentioned that almost all the above studies were conducted with university students, while only Klinger and Vaughn (2000) focused on elementary EFL students and Kusiak (2001) as well as Macaro and Erler (2008) dealt with secondary school students in FL settings. Regarding, particularly, the Greek socio-educational context, no similar study has been conducted, to the best of the researcher's knowledge, which renders the findings of the present study really interesting and crucial for the way of approaching EFL reading comprehension. In particular, few studies have dealt with reading strategy instruction, which have implemented individual strategy training in secondary EFL school students (Pappa et al., 2003) and EFL adults (Hatzitheodorou, 2005; Rizouli, 2013) yielding positive results; however, no direct comparisons can be made as the above studies have not investigated the impact of multiple-reading strategy instruction. In fact, the need for further intervention studies which involve younger, school-aged students in the FL context has also been accentuated in the reading literature (Chamot, 2005; Macaro & Erler, 2008). Therefore, the above finding is really important, as it provides empirical evidence drawn from the Greek socio-educational context that metacognitive instruction in multiple-reading strategies can improve elementary students' ability to approach EFL texts strategically in order to construct text meaning, which is the goal of reading (Gambrell & Koskinen, 2002).

All in all, based on the findings of this study, it seems that the teaching intervention, which adopted a rather interactive-compensatory view of EFL reading (Stanovich, 1980), was efficient in enhancing students' reading comprehension, as those who had received strategy training significantly improved their reading comprehension scores in the posttest measurement in relation to the students in the control group that received the more "traditional" instructional approach (see section 6.1.3.). Although there was the initial worry that multiple-reading strategy instruction would be rather unfamiliar to Greek EFL learners, when it was first introduced to the students, it was, ultimately, found that they reaped considerable gains from such instruction.

7.2.2. The delayed effect of comprehension gains after treatment withdrawal. It was initially assumed that the students of the experimental group would show significantly higher reading comprehension scores in a subsequent non-treatment measurement than the control group (*Research Hypothesis 3*). The statistical analyses of the research data confirmed the above hypothesis, as they provided strong support for the maintenance effect of comprehension gains after treatment withdrawal. Namely, it was shown that the students who received metacognitive multiple-reading strategy instruction maintained treatment gains in a subsequent measurement, which did not disappear after treatment withdrawal, and outperformed the control group on both comprehension measures. Concomitantly, the results indicated that the means differentiated significantly not only between the pretest and the posttest measurement but also between the pretest and the follow-up measurement, confirming the immediate and delayed effects of the intervention on students' reading performance both after the intervention (posttest measurement) and some months after the intervention withdrawal (follow-up measurement). Allowing for the maintenance in comprehension gains in the follow-up measurement, it can be alleged that EFL students who underwent metacognitive multiple-strategy instruction seemed to have made a move away from the rather passive, mechanical, bottom-up view of reading mainly focusing on vocabulary instruction, oral reading or word-by-word text translation (Rumelhart, 1994). Instead, it can be held that after strategy instruction the subjects of the experimental group became more active and strategic readers; they were able to approach the reading materials holistically, activate prior knowledge, predict text content, confirm predictions, use parts of the text to construct meaning, extract the desired information, get the main idea(s) of the text, ignore

possible unknown words or use context to guess their meaning in an attempt to facilitate comprehension (Grabe, 2009; Grabe & Stoller, 2002). In this way, it was shown that these EFL students had started viewing reading as the process of "getting information from written texts" (Urquhart & Weir, 1998, p. 85).

Therefore, the results of this study verified the third hypothesis; it was found that metacognitive multiple-reading strategy instruction was efficient in maintaining treatment gains in a subsequent measurement, which constitutes one of the main aims of strategy training (Cohen, 1998; Oxford, 2011). However, few studies focusing on multiple-strategy training have probed into the maintenance effect of the teaching intervention on students' reading achievement. In particular, Barnett (1988b), who investigated the immediate and delayed effects of multiple-strategy instruction on L2 French university students' performance, failed to provide statistically significant results in both the posttest and subsequent non-treatment measurements of the research. However, notwithstanding the inconclusive results, Barnett supported that the intervention programme had a positive effect on the reading achievement of the experimental group that began with a lower mean score than the control group did. Additionally, Barnett held that students' overwhelmingly positive answers to a questionnaire about the treatment compensated for the lack of reaching statistical significance, which indicated that students derived great benefits from the special attention paid to the process of reading comprehension.

In fact, the data of this study provided strong support for the effectiveness of the instructional approach adopted. It can be assumed that students' significant comprehension gains resulted mainly from the instructional approach adopted in this teaching intervention and the constant feedback on strategy use provided throughout the training, which contributed to the development of students' metacognition, which plays a critical role in the reading comprehension process (Flavell, 1979; Carrell, 1998; Koda, 2005; Sheorey & Mokhtari, 2001). In other words, the maintenance of the treatment gains retained in the subsequent measurement indicated that the instructional approach adopted in this study, Direct Explanation, which followed a cycle of awareness raising, direct explanation, modelling, and extensive practice worked to a great extent (Duffy et al., 1986; Duke & Pearson, 2002; Pearson & Gallagher, 1983). Block and Pressley (2002) succinctly stated that "instruction should include modelling, scaffolding, guided practice, and independent use of strategies so

that students develop an internalized self-regulation of comprehension processes" (p. 3). What is more, the three types of knowledge (declarative, procedural, and conditional) which the researcher's explanations relied on during the teaching intervention (Duffy et al., 1986; Paris et al., 1983) proved to be really effective in helping almost all students internalize strategy instruction and conceptualize reading as an active, communicative, meaning-seeking type of information processing, where the reader uses various strategies and constantly interacts with the text (Goodman, 1988). Paris et al. (1983) alleged that these three types of knowledge constitute necessary components of strategic behavior, as they assist learners in opting for appropriate strategies to achieve specific goals. It seems that raising students' metacognitive awareness of the reading comprehension process, which entails knowledge and use of a repertoire of strategies during text processing as well as the ability to monitor comprehension and adopt strategies according to reading goals and task demands, is a key element in proficient and strategic reading (N. J. Anderson, 1994; Auberbach & Paxton, 1997). According to the results of this study, it was found that the students that were exposed to the metacognitively oriented multiple-strategy instruction indicated significant comprehension gains that did not reverse after treatment withdrawal (follow-up measurement). The fact that the high scores obtained by the experimental group in the second constructed measure corroborated the delayed effect of the teaching intervention on students' reading achievement and demonstrated that the treatment brought about a change in students' reading behavior. Thus, it seems that the students of the experimental group managed to adopt some degree of strategic reading behaviour, since they were capable of orchestrating and applying the reading strategies emphasized in the teaching intervention to new reading situations.

In addition, the duration of this study, which lasted for three months approximately, that is, 12 instructional sessions (see section 5.3.), seemed to be conducive to the positive results yielded. Drawing on literature, developing students' strategic reading behaviour is a long-term educational process, which requires teachers' constant support, explanations, modelling, and feedback not only at the beginning but throughout strategy training (Carrell, 1998; Y.-C. Fan, 2010; Farrell, 2001; Grabe, 1991; Janzen & Stoller, 1998; Koda, 2005; Pressley, 2006).

However, it should be mentioned that an improvement in the performance of the control group in the posttest and the follow-up measurement was observed as well,

which, of course, was seen as part of the expected progress due to the passage of time and was not found to be statistically significant, when compared to the performance of the experimental group. Another possible explanation for this improvement is the many hours of English lessons that most of the Greek students usually attend both at private FL institutes and at state schools, as noted earlier. This tendency appears to stem from the high status of English in the Greek context, where language certification is sought by both parents and children from an early age, as learning EFL is regarded as a mandatory tool for further personal, professional, and social development (Vrettou, 2011).

Overall, it was found that explicit metacognitive instruction in multiple strategies helped EFL students adopt some degree of strategic and purposeful reading without relying on the teacher's assistance, while interacting with written texts, a major goal of strategy training (Cohen, 2007; Oxford, 1990). In this way, the results of the present study provided support for implementing metacognitive strategy instruction to enhance reading comprehension achievement. According to Carrell (1998), "successful reading comprehension involves the development of metacognitive awareness of the strategies" (p. 5). Simultaneously, other researchers have pointed out that explicitly teaching students to understand why and when particular strategies are important, how to use these strategies, and how to transfer them to new learning tasks helps them enhance, monitor, and self-evaluate their FL learning (Cohen, 2007; Oxford, 1990). The promising results regarding the maintenance effect of treatment gains in a subsequent non-treatment measurement are indeed critical, as they provided empirical evidence of the effectiveness of multiple-strategy instruction in EFL contexts with younger, school-aged participants.

7.2.2.1. The effectiveness of strategy instruction on EFL students' reading performance in multimodal texts. Further statistical analyses were conducted regarding students' comprehension gains in both linguistic and multimodal texts in order to specify the impact of the treatment on students' performance when working with multimodal texts, as FL reading strategy research has so far focused on linguistic texts. In particular, the results demonstrated that the performance of the experimental group in the linguistic and multimodal texts was significantly improved in the posttest and follow-up measurement when compared to the performance of the control group. The above findings are very important for the literacy pedagogy, as they are indicative that applying strategies, such as skimming, scanning or contextual guessing, in

multimodal texts can help EFL students take advantage of all the available modes of conveying information in order to construct text meaning (Kress et al. 2001; Kress & Van Leeuwen, 2006; Unsworth, 2001). For instance, applying skimming or scanning to multimodal texts which, besides language, consist of visual information, such as images, diagrams or other typographic features, requires that students should draw on all the available visual devices to derive text meaning (see section 2.4.2.2.1.). Allowing for the progress of multimedia technologies, which has rendered texts highly multimodal, where the meaning-making process is more sophisticated or more complex, it is clearly inadequate for educators to be satisfied with the currently predominant language classroom practice of a comprehension-check level understanding of only linguistic texts (Kern & Schuitz, 2005). It is evident that young people, even from an early age, are exposed to an increasing dominance of multimodal texts -both print and digital texts- such as websites, video games, comics, picture books, school textbooks, magazine articles, advertisements, and graphic novels that involve a complex interplay of written text, visual images, graphics, and design elements (Kress et al., 2001; Kress & Van Leeuwen, 2006; Unsworth, 2001). In this context, instructing students to use reading strategies and take advantage of both the linguistic and visual resources of contemporary texts can help them, especially EFL students that may face extra difficulties in FL reading, such as FL linguistic deficit or L1 reading skills involvement (Bernhardt, 2005; Carrell, 1991; Koda, 2005), comprehend written texts in a more efficient manner. Thus, teaching in a strategically and multimodally aware manner allows for complexities, such as the ones listed above, to take place without hindering students' ability to derive text meaning (Ajayi, 2008) and becomes a priceless resource to help students comprehend text content and further develop literacy (Walsh, 2003). Therefore, the semantic field of reading, which, according to the results of this study, has so far focused on a rather bottom-up view of reading mainly focusing on linguistic texts, should be expanded in order to allow for other models of reading, such as the top-down or the interactive-compensatory (Goodman, 1967, 1973; Stanovich, 1980), and promote an active, flexible, strategic as well as multimodal way of approaching EFL reading materials.

7.2.3. The interaction between reading proficiency and reading performance. With regard to the relationship between students' reading ability level and their reading performance, it was originally hypothesized that lower-reading

ability students would particularly benefit from strategy instruction and improve their reading performance more in comparison with the more skilled readers (*Research Hypothesis 4*). The above hypothesis was based on relevant research, which demonstrated that low ability readers derived greater benefits from multiple-strategy instruction (Kern, 1989; Kusiak, 2001; Song, 1998). In addition, allowing for the findings of many studies supporting that more successful students deploy more reading strategies more efficiently and flexibly than their less successful counterparts, the above hypothesis was formulated (Ahmad & Asraf, 2004; Block, 1986; Carrell, 1989; Chamot & El-Dinary, 1999; Geladari et al., 2010; Griva et al., 2009; Hosenfeld, 1977; Sheorey & Mokhtari, 2001; Yiğiter et al., 2005; Zhang, 2001; Zhang & Wu, 2009). However, this hypothesis was not confirmed. The results revealed that the interaction between students' reading ability level and reading performance was not found to be statistically significant. To be more precise, it was shown that all EFL students regardless of their reading proficiency obtained high comprehension gains in the posttest measurement, which were approximately maintained after the treatment withdrawal (follow-up measurement). It should be mentioned that, although the subjects who had the greatest difficulty in reading EFL texts showed higher gains in reading comprehension measures than their more successful counterparts, this difference was not found to be statistically significant (see section 6.2.3.). This finding suggested that all students regardless of their reading proficiency exhibited considerable improvement in reading comprehension and reaped great benefits from the teaching intervention.

In this way, the results of this study, though not anticipated, seemed to be at odds with relevant studies, which have found that low ability readers benefited more from multiple-strategy instruction than high ability readers did (Kern, 1989; Kusiak, 2001; Song, 1998). This study failed to provide additional support for previous research evidence asserting that low ability readers benefit most from multiple-strategy instruction in relation to their more successful counterparts. One possible explanation for this finding may be attributed to the relatively small number of low reading ability students identified in the pretest measurement because of the rather easy and arbitrary criterion adopted in the present study, according to which the subjects were divided into three reading ability groups. Another possible explanation may be the age of the sample of this study that consisted of younger, elementary

students in contrast with the sample of the above studies, which dealt with older secondary school students (Kusiak, 2001) and university students (Kern, 1989; Song, 1998). Namely, it is asserted that many strategies develop between the age of 7 and 13, though their spontaneous use materializes around the age of 10 or over (Paris et al., 1991). In this way, young children, who usually read non-strategically going through the text linearly from the beginning to end, are probably more receptive to the acquisition of strategies in relation to older students or adults (Garner, 1990), which can explain the great benefits that all students, regardless of their reading proficiency, reaped from the multiple-strategy instruction. Nonetheless, this finding is in line with some researchers who have demonstrated that all students benefited from strategy instruction (Dreyer & Nel, 2003; Klingner & Vaughn, 2000). At this point, it should be mentioned that, while Dreyer and Nel (2003) focused on university EFL students, Klingner and Vaughn's study (2000) dealt with younger, elementary EFL students, which somehow corroborates the explanations provided above.

According to Cohen (1998), both more proficient and less proficient students at any level of proficiency can enhance their comprehension or production of a FL after explicit instruction in learning strategies. At the same time, Fielding and Pearson (1994) highlighted that all students regardless of their proficiency level can achieve comprehension gains. The above finding of the present study implied that not only the low or middle ability readers but also the more successful counterparts were not familiar with the use of reading strategies prior to the teaching intervention, or that they were not capable of developing these strategies efficiently, even though they might be aware of their use. N. J. Anderson (1991) has highlighted that "It is not sufficient to know about strategies, but a reader must also be able to apply them strategically" (p. 19). This may also account for the reason why the amount of comprehension gains obtained by all students regardless of their reading ability levels was fairly high. This finding, thus, necessitates the implementation of a metacognitively-oriented instruction in a repertoire of reading strategies in the Greek educational context in order to help EFL elementary students adopt an active and strategic way of reading and improve their reading performance.

By and large, this study failed to provide consistent results regarding the interaction between students' proficiency level and reading performance, since it was found that all subjects regardless of their reading proficiency obtained high

comprehension gains from the teaching intervention. The above finding, however, should be interpreted with cautiousness on account of the rather arbitrary and easy criterion adopted in this study to divide the participants into groups based on their reading ability levels. Thus, the interaction between reading ability level and reading performance after strategy instruction in the context of FL learning requires further investigation, as few studies have probed into this variable and have provided contrasting results.

7.2.4. The interaction between gender and reading performance. One of the additional aims of this study was to investigate the interaction between students' gender and reading performance in an attempt to contribute to gender-related FL research, which indicated rather ambivalent and inconsistent results. Relying on FL literature, it was initially expected that no gender differences in reading performance would be found (*Research Hypothesis 5*). The results of the present study verified the original premise. It was shown that the interaction between gender and reading comprehension scores after strategy instruction was not statistically significant in all reading comprehension measures. In particular, the boys' mean scores on all comprehension measures were higher than the girls' in the different measurements without, however, reaching a statistically significant level of difference (see section 6.2.4.). In this way, this study failed to provide conclusive results regarding the gender effect on students' performance on the comprehension and retention measures after strategy training, though it demonstrated that the male group had a higher reading comprehension level than the female group, which was not found to be statistically significant. Possible explanations cannot be provided, as the lack of support for the gender effect on EFL reading performance cannot be attributed to the uneven distribution between male (n=46) and female (n=53) subjects in the sample or to the gender-oriented passages, which were tentatively chosen to be gender-neutral. In fact, the absence of gender differences in reading performance after the treatment can be simply indicative that the strategy instruction is equally effective and beneficial for both genders.

As noted earlier, few studies have explored the relationship between gender and reading proficiency and have provided inconsistent results. More specifically, Schueller (1999) reported higher comprehension gains on multiple choice measures among the male students after receiving top-down strategy training than females but

not on recall measures failing to reach conclusive results. In addition, Rahmani and Sadeghi (2011) found no gender differences in students' reading comprehension scores after implementing note-taking strategy training. Thus, this finding of the present study seems to be in line with the above studies that have provided inconsistent results regarding gender differences in reading performance. At the same time, some other studies have examined the relationship between gender and reading performance on comprehension measures without conducting strategy training and have provided contrasting results as well. In particular, some studies found no gender differences (Brantmeier, 2003; Phakiti, 2003; Spurling & Ilyin, 1985; Young & Oxford, 1997), while other studies revealed a higher degree of reading performance among female students (Ay & Bartan, 2012; Sani & Zain, 2011). Simultaneously, Bügel and Buunk's study (1996) showed that males performed significantly better than females in the gender-neutral text. In this context, the results of this study tend to concur with the body of researchers that found no statistically significant gender differences in reading performance (Brantmeier, 2003; Phakiti, 2003; Spurling and Ilyin, 1985; Young & Oxford, 1997).

In short, the results of the present study seem to suggest that the factor of gender alone does not account for disparities in FL reading achievement after strategy instruction, as both the male and female group benefited from the training equally. According to literature, the general lack of conclusive results regarding gender differences in FL reading comprehension cast doubt on the gender effect on FL reading performance. One possible explanation is that the effect of gender when it is not studied in relation with other variables, such as passage content or genre, readers' interest or prior knowledge, cannot account for differences in reading achievement. In this way, the contrasting findings of studies that have investigated gender differences in FL reading comprehension require further investigation before any generalizations can be made. Therefore, gender as a variable in FL reading literature deserves more attention and should be subjected to further research, which has also been highlighted by prior researchers (e.g., Ay & Bartan, 2012).

7.3. Conclusions

The present study sought to investigate the effect of implementing multiple-strategy instruction on elementary EFL students' reading performance in the Greek socio-educational context in an attempt to lead students to a strategic and independent

path to knowledge and success in the reading process. Oxford (2011) highlighted that self-regulated students gradually become more involved in the learning process, more confident, and, eventually, more proficient. Careful consideration of the discussion of the qualitative as well as the quantitative results of the present study has yielded the following concluding remarks:

- According to the results of the preliminary study, no strategy instruction was detected in these elementary EFL classes, which means that teachers were not involved in teaching students *how* to comprehend written texts (Koda, 2005). In fact, it was revealed that EFL teachers placed heavy emphasis on oral text reading, word-by-word translation of the text information, and vocabulary instruction, which are indicative of a rather passive and mechanical way of approaching EFL reading comprehension. Consequently, there was no evidence that these EFL instructors taught students to use and coordinate the various comprehension strategies validated by research, while interacting with written texts, in order to help them construct text meaning, and, ultimately, facilitate reading performance.
- The results of the main study seem to be consistent with the general tenor of previous FL reading strategy research indicating a direct association between metacognitive strategy instruction and reading improvement. In particular, it was revealed that the teaching intervention, which highlighted a strategic, flexible, and purposeful way of reading (Grabe, 2009), was effective in enhancing elementary EFL students' reading performance in the Greek socio-educational context.
- The implementation of a metacognitively-oriented instruction in multiple reading strategies contributed to the maintenance effect of comprehension gains in a subsequent non-treatment measurement. The results of this study provided empirical evidence that Greek elementary school students not only improved their EFL reading performance after strategy instruction but also maintained treatment gains in a subsequent measurement, indicating that these subjects did adopt some degree of active, strategic, and independent reading behaviour.
- Further statistical analyses demonstrated that EFL students improved their performance in both linguistic and multimodal texts in the posttest as well as

in the follow-up measurement. The specific finding is very important for the literacy pedagogy, as it suggests that strategies, which have so far been associated only with language texts, can be used in multimodal texts to help readers take advantage of all the available modes of conveying information in an attempt to derive text meaning (Kress et al., Kress & Van Leeuwen, 2006; Unsworth, 2001). This finding lent support to the expansion of the semantic field of reading in order to allow for the complex interplay of the strategic and multimodal way of approaching EFL reading materials, which can help EFL students cope with possible linguistic difficulties that they may come across while reading.

- The interaction between students' reading proficiency and reading performance after strategy instruction was not found to be statistically significant. It was revealed that all subjects regardless of their reading proficiency benefited from strategy instruction and obtained high comprehension gains in the posttest measurement, which were approximately maintained after the treatment withdrawal (follow-up measurement). By and large, the relationship between reading proficiency and reading performance, especially after strategy instruction, needs to be further investigated, as few studies have probed into this variable yielding contrasting results.
- With regard to gender, it was shown that the interaction between students' gender and reading performance was not found to be statistically significant in the three different comprehension measurements. It was indicated that the strategy instruction was equally beneficial for both genders. Based on the results of this study and, overall, on the FL reading literature, which provided inconsistent findings, it is suggested that the effect of gender on reading comprehension should be subjected to further research.

7.4. Pedagogical Implications

The preceding discussion of the findings of the present study as well as of those of previous research highlights the contribution of implementing a metacognitively-oriented multiple-strategy instruction to students' reading performance and leads to suggestions regarding the improvement of EFL reading design and instruction. In fact, this study provides useful empirical evidence that should be taken into serious consideration for future EFL curriculum and intervention

programmes design for the purposes of mainstream primary, secondary as well as tertiary education.

More specifically, the results of this study that provided support for the effectiveness of explicitly teaching multiple reading strategies suggest that this type of instruction should be implemented in EFL classes if the aim is to promote the strategic reader (Grabe, 2009), who coordinates a repertoire of strategies while actively seeking to construct text meaning (Duke & Pearson, 2002; Pressley, 2002; Trabasso & Bouchard, 2002). The types of reading strategies emphasized in the treatment of this study have proven to be efficient in enhancing EFL students' reading achievement if the aim of the instruction is to enhance EFL learners' ability to derive text meaning and comprehend basic information by applying lines of actions and approaching the text actively, quickly, and efficiently without interrupting the whole reading process or relying on teachers' help, dictionaries or glossaries (CEFR, 2001). In particular, skimming, scanning, contextual guessing, and activating prior knowledge through predicting text content can be applied to a variety of texts quite easily and effectively. If their use is associated with achievement in specific learning contexts, it can lead to better consolidation on behalf of EFL learners (Koda, 2005; Nunan, 1997; Wenden, 1991). Concomitantly, instructing students to apply reading strategies to multimodal texts as well, where the visual and linguistic elements are intertwined to produce meaning (Baldry & Thibault, 2006), can be proven to be efficient, particularly, for EFL learners that may face extra difficulties in EFL reading, such as EFL linguistic deficit or L1 reading skills involvement (Bernhardt, 2005; Carrell, 1991; Koda, 2005; Macaro & Erler, 2008). In addition, the findings of this study, which demonstrated that a metacognitively-oriented strategy instruction helped all the participants in the treatment regardless of their reading proficiency raise their awareness of strategy use and, ultimately, improve reading performance necessitates the implementation of similar instructional programmes in the Greek socio-educational context. According to O'Malley et al. (1985), "students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishments, and future directions" (p. 561). As a matter of fact, the specific instructional approach can be integrated in the existing teaching approach for a period of time without, however, being at the expense of the linguistic teaching. For instance, the practice of direct vocabulary instruction, which is heavily

emphasized in the Greek elementary EFL classes, could be supplemented with the direct teaching of VLS, such as guessing unfamiliar word meaning from context, in order to render students strategic, flexible, and independent readers inside and outside the classroom.

By and large, if a similar instructional approach was adopted in the Greek socio-educational context, it could help EFL students approach reading materials in a strategically and multimodally way in order to construct text meaning and derive the pleasure of achievement notwithstanding the difficulties that they may come across while reading. In this way, the semantic field of EFL reading comprehension should be redefined in order to include a strategic and multimodal way of processing text information.

However, in order to implement metacognitive reading strategy instruction in EFL classes, teachers should be made aware of the important role of strategies and the way of instruction through special training. As a matter of fact, the results of the preliminary study, which indicated that the specific Greek EFL teachers were not familiar with the use of reading strategies, signal the need for continuing English teacher education as a never-ending process (Celani, 2006). In this way, teachers would move beyond the narrow focus on vocabulary or content to student mastery of the cognitive processes validated by reading research. Above all, teachers need to be informed of the contemporary research findings of comprehension practices through pre-service and in-service teacher education courses (Celani, 2006) with a special focus on strategy instruction in order to select the strategies and methods that suit them best and make the whole EFL learning process more interesting, strategic, and self-regulated (Pressley, 2006).

7.5. Limitations of the Present Study

In the present study, there are a couple of limitations that should be considered. One limitation of this study is that the participants in the teaching intervention were not made to be involved in pair or group work during reading strategy training. Namely, there was no focus on promoting social and cooperative skills among subjects during strategy instruction, though it was highly recommended by literature (e.g., Klingner & Vaughn, 1996, 1999, 2000; Palincsar & A. L. Brown, 1984; Pressley et al., 1992; Pressley et al., 1989), as the major aim of this study was to

assist EFL learners in adopting a more strategic approach to text reading in order to construct text meaning and improve reading performance.

Another limitation of the present study is that the participants were chosen rather randomly (see section 5.3.1.). Moreover, the subjects of each school were not divided in experimental and control groups at random but the researcher used the two intact classes of every school as an experimental and control group (see section 5.3.1.) at random to avoid possible disruption. A possible implication is that the findings of this study cannot be generalized. However, this can be compensated for a) the rather large number of participants and b) the common features that the population shares, such as age, mother tongue, and proficiency level, which render the sample representative of the student population in Greek state elementary schools (Dörnyei, 2003). In addition, the non-random assignment of students to the experimental and control groups can be offset by a) the fact that the experimental and control groups did not exhibit any statistically significant difference in reading proficiency, as shown in the comprehension measures administered prior to the teaching intervention (see section 6.2.1.) and b) the fact that the participants of the study had been already divided in classrooms rather randomly according to the initial letter of their surname.

In addition, it should be noted that the teaching intervention, though it cannot be regarded as short-term, since it took place for three months approximately (12 instructional sessions), could have lasted longer and have been conducted throughout the school year to shed light on some other aspects, such as the contribution of each strategy to the improvement of students' reading achievement. Similarly, a clearer picture of which reading ability group (high, average, low) were most benefited from the treatment might have emerged if more long-term training had been implemented. At the same time, a wider range of reading materials, especially multimodal texts, could have been used to further help students consolidate strategy use. Nonetheless, the duration of the present study was satisfactory enough to help EFL learners maintain comprehension gains even after treatment withdrawal, as indicated in the follow-up measurement.

7.6. Recommendations for Further Research

Drawing on the findings of this study and on the limitations highlighted in the previous section, a series of recommendations can be made for further research. To

begin with, in an attempt to gain a deeper insight into the effectiveness of multiple strategy instruction on EFL students' reading performance and draw more valid deductions, further research needs to be conducted, especially in the Greek socio-educational context. To be more precise, the findings of this study should be replicated and similar research design should be implemented not only in the elementary but also in the secondary and tertiary educational context in order to get more tangible research evidence; students not only from different schools in Trikala but also from various parts of Greece should participate in similar teaching interventions to extend and cross-check the findings of this study. Such knowledge can further contribute to empirical research on promoting metacognitive instruction in a set of reading strategies with the aim of helping students approach challenging and demanding EFL reading materials more strategically, multimodally, and efficiently. Concomitantly, future training programmes could focus on developing both cognitive and metacognitive strategies, since this study emphasized cognitive strategy development, or promoting strategic learning in groups with the aim of boosting students' cooperative skills and optimizing the instructional effect. In addition, further studies focusing on multiple strategy instruction should probe into the maintenance effects of comprehension gains after treatment withdrawal, as few studies have dealt with subsequent non-treatment measurements; after all, the measurement of delayed effects of strategy training should constitute a major aim of similar training programmes. At the same time, future studies can explore the age at which strategy development occurs including participants from different age groups.

Moreover, drawing on the inconclusive findings of FL reading literature and, in particular, the findings of this study further research is needed on the variables of reading ability level or gender in order to determine possible discrepancies in comprehension gains after strategy instruction, which can be considered during the teaching process. In this way, more research can yield interesting and useful information in terms of the variables affecting strategic reading behavior, which can shed more light on the rather complex and multifaceted reading comprehension process (Koda, 2007).

In addition, there is urgent need for more research on applying strategy instruction to multimodal texts (see section 2.4.2.2.1.), which constitute part and parcel of young learners' lives as a result of the new information technologies and

computer-mediated communication. Given that the majority of pertinent reading studies have so far focused on linguistic texts, it is necessary that the limits of the semantic field of reading comprehension and reading strategy instruction should be expanded beyond language texts to allow for multimodal texts.

Concurrently, although previous studies have thoroughly investigated reading strategy transfer from L1 to L2 settings, more research is required to explore strategy transfer from L2 to L1 settings. Since this was not the focus of the present study, future studies on L2 reading strategy instruction can explore the parameter of strategy transfer from L2 to L1.

Last but not least, the employment of self-report data-collection instruments, such as questionnaires or student interviews, can be added to strategy instruction programmes to measure the possible change in reading strategy use before and after a teaching intervention.

Taking everything into consideration, teaching students *how* to read EFL texts or overall *how* to learn EFL developing a repertoire of strategies should constitute the main focus of future studies; strategy training programmes seem to be a promising instructional approach and be paving the way to the future.

References

Afflerbach, P., Pearson, P., & Paris, S. G. (2008). Clarifying differences between reading skills and reading strategies. *The Reading Teacher, 61*(5), 364–373.

Aghaie, R., & Zhang, L. J. (2012). Effects of explicit instruction in cognitive and metacognitive reading strategies on Iranian EFL students' reading performance and strategy transfer. *Instructional Science, 40*(6), 1063-1081.

Ahmad, I. S., & Asraf, R. M. (2004). Making sense of text: Strategies used by good and average readers. *The Reading Matrix, 4*(1), 26-37.

Ahmed, M. O. (1989). Vocabulary learning strategies. In P. Meara (Ed.), *Beyond words* (pp. 3-14). London: British Association for Applied Linguistics/Centre for Information on Language Teaching Research.

Ajayi, L. (2008). Meaning-making, multimodal representation, and transformative pedagogy: An exploration of meaning construction instructional practices in an ESL high school classroom. *Journal of Language, Identity, and Education, 7*(3&4), 206–229.

Ajayi, L. (2009). English as a second language learners' exploration of multimodal texts in a junior high school. *Journal of Adolescent & Adult Literacy, 52*(7), 585–595.

Ajideh, P. (2003). Schema theory-based pre-reading tasks: A neglected essential in the ESL reading class. *The Reading Matrix, 3*(1), 1-14.

Ajideh, P. (2006). Schema–theory based considerations on pre-reading activities in ESP textbooks. *The Asian EFL Journal, 16*, 1-19.

Alderson, J. C. (1984). Reading in a foreign language: A reading problem or a language problem? In C. Alderson & A. H. Urquhart (Eds.), *Reading in a foreign language* (pp.1-24). London: Longman.

Alderson, J. C. (2000). *Assessing reading.* New York: Cambridge University Press.

Alemi, M., & Ebadi, S. (2010). The effect of pre-reading activities on ESP reading comprehension. *Journal of Language Teaching and Research, 1*(5), 569-577. doi:10.4304/jltr.1.5.569-577

Alexander, A., Graham, S., & Harris, K. R. (1998). A perspective on strategy research: Progress and prospects. *Educational Psychology Review, 10*(2), 129-154.

Alexander, P., & Jetton, T. L. (2000). Learning from text: A multidimensional and developmental perspective. In M. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 285-310). New York: Longman.

Alfassi, M. (2004). Reading to learn: effects of combined strategy instruction on high school students. *The Journal of Educational Research, 97*(4), 171-184.

Alptekin, C. (2006). Cultural familiarity in inferential and literal comprehension in L2 reading. *System, 34*(4), 494–508.

Alvermann, D. E., & Boothby, P. R. (1986). Children's transfer of graphic organizer instruction. *Reading Psychology, 7*(2), 87-100.

Amer, A. A. (1994). The effect of knowledge map and underlining training on the reading comprehension of scientific texts. *English for Specific Purposes, 13*(1), 35-45.

Anderson, N. J. (1991). Individual differences in strategy use in second language reading and testing. *Modern Language Journal, 75*(4), 460-472.

Anderson, N. J. (1994). Developing active readers: A pedagogical framework for the second language reading classroom. *System, 22*(2), 177-194.

Anderson, N. J. (1999). *Exploring second language reading: Issues and strategies.* Canada: Heinle & Heinle Publishers.

Anderson, R. C. (1994). Role of the reader's schema in comprehension, learning, and memory. In R. B. Ruddell, M. R Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 469-482). USA: International Reading Association.

Anderson, R. C., & Pearson, P. D. (2002). A schema-theoretic view of basic processes in reading comprehension. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 255- 292). New Jersey: Lawrence Erlbaum Associates.

Anderson, V. (1992). A teacher development project in transactional strategy instruction for teachers of severely reading-disabled adolescents. *Teaching & Teacher Education, 8*(4), 391-403.

Arden-Close, C. (1993). NNS readers' strategies for inferring the meanings of unknown words. *Reading in a Foreign Language, 9*(2), 867-893.

Armbruster, B. B., Anderson, T. H., & Meyer, J. L. (1991). Improving content-area reading using instructional graphics. *Reading Research Quarterly, 26*(4), 393-416.

Armbruster, B. B., Anderson, T. H., & Ostertag, J. (1987). Does text structure/summarization instruction facilitate learning from expository text? *Reading Research Quarterly, 22*(3), 331-346.

Armbruster, B. B., & Armstrong, J. O. (1992). *Locating information in text: A focus on children in the elementary grades.* Retrieved from ERIC database. (ED347502)

Asfaha, Y. M., Beckman, D., Kurvers, J., & Kroon, S. (2009). L2 reading in multilingual Eritrea: The influences of L1 reading and English proficiency. *Journal of Research in Reading, 32*(4), 351-365.

Astorga, M. C. 1999. Text-image interaction and second language learning. *Australian Journal of Language and Culture, 22*(3), 212-233.

Auerbach, E. R. and Paxton, D. (1997). It's not the English thing: Bringing reading research into the ESL classroom. *TESOL Quarterly, 31*(2), 237-260.

August, G. (2006). So, what's behind adult English second language reading? *Bilingual Research Journal, 30(2),* 245-64.

Ay, S., & Bartan, Ö. Ş. (2012). The effect of topic interest and gender on reading test types in a second language. *The Reading Matrix, 12*(1), 62-79.

Baker, L. (2002). Metacognition in comprehension instruction. In C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 77–95). New York: Guilford Press.

Baker, L., & Brown, A. L. (2002). Metacognitive skills and reading. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 353-394). New Jersey: Lawrence Erlbaum Associates.

Baldry, A., & Thibault, P. J. (2006). *Multimodal transcription and text analysis: A multimedia toolkit and course-book*. London: Equinox.

Banditvilai, C. (2003). A study of speed reading and comprehension aided by prediction, skimming and scanning. *Journal of Language Education, 5*, 18-31. Retrieved from http://arts.kmutt.ac.th/sola/rEFL/Volume%205.pdf

Barnett, M. A. (1988a). Reading through context: How real and perceived strategy use affects L2 comprehension. *The Modern Language Journal, 72*(2), 150-162.

Barnett, M. A. (1988b). Teaching reading strategies: How methodology affects language course articulation. *Foreign Language Annals, 21*(2), 109-119.

Bartlett, F. C. (1932). *Remembering*. Cambridge: Cambridge University Press.

Baumann, J. F. (1984). The effectiveness of a direct instruction paradigm for teaching main idea comprehension. *Reading Research Quarterly, 20*(1), 93- 108.

Baumann, J. F., Hoffman, J.V., Duffy-Hester, A.M., & Ro, J.M. (2000). The first R yesterday and today: U.S. elementary reading instruction practices reported by teachers and administrators. *Reading Research Quarterly, 35*(3), 338-377.

Benson, P. (2006). Autonomy in language teaching and learning. *Language Teaching, 40*(1), 21-40.

Bensoussan, M. (1998). Schema effects in EFL reading comprehension. *Journal of Research in Reading, 21*(3), 213-227.

Bensoussan, M., & Laufer, B. (1984). Lexical guessing in context in EFL reading comprehension. *Journal of Research in Reading, 7*(1), 15-32.

Bernhardt, E. B. (1991). *Reading development in second language reading.* Norwood: NJ: Ablex.

Bernhardt, E. B. (2005). Progress and procrastination in second language reading. In M. McGroarty (Ed.), *Annual review of applied linguistics* (pp. 133-150). Cambridge: CUP.

Bernhardt, E. B., & Kamil, M. L. (1995). Interpreting relationships between L1 and L2 reading: Consolidating the linguistic threshold and the linguistic interdependence hypotheses. *Applied Linguistics, 16*(1), 15–34.

Bereiter, C., & Bird, M. (1985). Use of thinking aloud in identification and teaching of reading comprehension strategies. *Cognition and Instruction, 2*(2), 131-156.

Berkowitz, S. J. (1986). Effects of instruction in text organization on sixth-grade students' memory for expository reading. *Reading Research Quarterly, 21*(2), 161-178.

Bezerra, F. (2011). Multimodality in the EFL classroom. *Brazilian English Language Teaching Journal, 2*(2), 167-177.

Bialystok, E. (1978). A theoretical model of second language learning. *Language Learning, 28*(1), 69-83.

Bimmel, P. E. (2001). Effects of reading strategy instruction in secondary education: A review of intervention studies. *L1 Educational Studies in Language and Literature, 1*(3), 273-298.

Bhattacherjee, A. (2012). *Social science research: Principles, methods, and practices.* University of South Florida, USA: Creative Commons Attribution.

Block, E. L. (1986). The comprehension strategies of second language readers. *TESOL Quarterly, 20*(3), 463-494.

Block, E. L. (1992). See how they read: Comprehension monitoring of L1 and L2 readers. *TESOL Quarterly, 26*(2), 319-343.

Block, C. C., & Pressley, M. (2002). Introduction. In Authors (Eds.), *Comprehension instruction: Research-based best practices* (pp. 1-7). New York: Guilford Press.

Bransford, J. D. (1994). Schema activation and schema acquisition: Comments on Richard C. Anderson's Remarks. In R. B. Ruddell, M. R. Rudell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 483-495). Newark, USA: International Reading Association.

Bossers, B. (1991). On thresholds, ceilings and short-circuits: The relation between L1 reading, L2 reading and L2 knowledge. In J. H. Hulstijn & J. F. Matter *(Eds.), Reading in Two Languages: Vol. 8. AILA Review (pp.* 45-60). Alblasserdam, The Netherlands: Haveka, B.V.

Brantmeier, C. (2002). Second language reading strategy research at the secondary and university levels: Variations, disparities, and generalizability. *The Reading Matrix, 2*(3), 1-14.

Brantmeier, C. (2003). Does gender make a difference? Passage content and comprehension in second language reading. *Reading in a Foreign Language, 15*(1), 1-23.

Brantmeier, C. (2004). Gender, violence-oriented passage content and second language reading comprehension. *The Reading Matrix, 4*(2), 1-19.

Brisbois, J. I. (1995). Connections between first- and second- language reading. *Journal of Reading Behavior, 27*(4), 565-584.

Brown, A. L. (1980). Metacognitive development and reading. In R. J. Spiro (Ed.), *The psychology of reading* (pp. 453-481). New Jersey: Lawrence Erlbaum Associates.

Brown, R. (2002). Straddling two worlds: Self-directed comprehension instruction for middle schoolers. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 337–350). New York: Guilford Press.

Brown, R., & Coy-Ogan, L. (1993). The evolution of transactional strategies instruction in one teacher's classroom. *The Elementary School Journal*, *94*(2), 221-233.

Brown, R., Pressley, M., Van Meter, P., & Schuder, T. (1996). A quasi-experimental validation of transactional strategies instruction with low-achieving second grade readers. *Journal of Educational Psychology, 88*(1), 18–37.

Brown, T. S., & Perry, F. J. (1991). A comparison of three learning strategies for ESL vocabulary acquisition. *TESOL Quarterly, 25*(4), 655-669.

Bügel, K., & Buunk, B. P. (1996). Sex differences in foreign language text comprehension: The role of interests and prior knowledge. *The Modern Language Journal, 80*(1), 15–31.

Cain, K. (2007). Deriving word meanings from context: Does explanation facilitate contextual analysis? *Journal of Research in Reading, 30*(4), 347–359.

Carrell, P. L. (1984a). The effects of rhetorical organization on ESL readers. *TESOL Quarterly, 18*(3), 441-469.

Carrell, P. L. (1984b). Schema theory and ESL reading: classroom implications and applications. *The Modern Language Journal, 68*(4), 332-343.

Carrell, P. L. (1985). Facilitating ESL reading by teaching text structure. *TESOL Quarterly,19*(4), 727-752.

Carrell, P. L. (1986). Three components of background knowledge in reading comprehension. *Language Learning, 33*(2), 183-207.

Carrell, P. L. (1987). Content and formal schemata in ESL reading. *TESOL Quarterly, 21*(3), 461-481.

Carrell, P. L. (1988). Introduction: Interactive approaches to second language reading. In P. L. Carell, J. Devine, & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 1-7). New York: Cambridge University Press.

Carrell, P. L. (1989). Metacognitive awareness and second language reading. *The Modern Language Journal, 73*(2), 121-134.

Carrell, P. L. (1991). Second language reading: Reading ability or language proficiency? *Applied Linguistics*, *12*(2), 159-179.

Carrell, P. L. (1992). Awareness of text structure: Effects on recall. *Language Learning, 42*(1), 1-20.

Carrell, P. L. (1998). Can strategies be successfully taught? *Australian Review of Applied Linguistics, 21*(1), 1-20.

Carrell, P. L., & Eisterhold, J. C. (1983). Schema theory and ESL reading pedagogy. *TESOL Quarterly, 17*(4), 553-573.

Carrell, P. L., Gajdusek, L., & Wise, T. (1998). Metacognition and EFL/ESL reading. *Instructional Science, 26*(1&2), 97–112.

Carrell, P. L., Pharis, B. G., & Liberto., J. C. (1989). Metacognitive strategy training for ESL reading. *TESOL Quarterly, 23*(4), 647-678.

Carrell, P. L., & Wise, T. E. (1998). The relationship between prior knowledge and topic interest in second language reading. *Studies in Second Language Acquisition, 20*(3), 285-309.

Carver, R. (1992). Reading rate: Theory, research, and practical implications. *Journal of Reading, 36*(2), 84-95.

Catalan, R. M. J. (2003). Sex differences in L2 vocabulary strategies. *International Journal of Applied Linguistics, 13*(1), 54-77.

Celani, M. A. A. (2006). Language teacher educators in search of locally helpful understandings. In S. Gieve & I. K. Miller (Eds.), *Understanding the English classroom* (pp. 226-238). New York: Palgrave McMillan.

Chamot, A. U. (1987). The learning strategies of ESL students. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 71-84). United Kingdom: Prentice Hall International.

Chamot, A. U. (1995). Implementing the cognitive academic language learning approach: CALLA in Arlington, Virginia. *The Bilingual Research Journal, 19*(3&4), 379-394.

Chamot, A. U. (2005). Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics, 25*, 112-130.

Chamot, A. U., & El-Dinary, P. B. (1999). Children's learning strategies in language immersion classrooms. *The Modern Language Journal, 83*(3), 319-338.

Chamot, A. U., & Kupper, L. (1989). Learning strategies in foreign language instruction. *Foreign Language Annals, 22*(1), 13-24.

Chamot, A. U., & O'Malley, J. M. (1987). The cognitive academic language learning approach: A bridge to the mainstream. *TESOL Quarterly, 21*(2), 227-249.

Chamot, A. U., & O'Malley, J. M. (1994). Instructional approaches and teaching procedures. In K. Spangenberg-Urbschat & R. Pritchard (Eds.), *Kids come in all languages: Reading instruction for ESL students* (pp. 82-107). Newark, DE: International Reading Association.

Charmaz, C. (2000). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 769-802). Thousand Oaks, California: SAGE Publications.

Chen, H., & Graves, M. F. (1995). Effects of previewing and providing background knowledge on Taiwanese college students' comprehension of American short stories. *TESOL Quarterly, 29*(4), 663-686.

Chen, Y. 2012. Exploring dialogic engagement with readers in multimodal EFL textbooks in China. *Visual Communication, 9*(4), 485-506.

Chia, H. L. (2001). Reading activities for effective top-down processing. *FORUM, 39*(1), 22-36.

Ching, L. C. (2002). Strategy and self-regulation instruction as contributors to improving students' cognitive model in an EFL program. *English for Specific Purposes, 21*(3), 261-289.

Chularut, P., & DeBacker, T. K. (2004). The influence of concept mapping on achievement, self-regulation, and self-efficacy in students of English as a second language. *Contemporary Educational Psychology, 29*(3), 248-263.

Chung, J. (2000). Signals and reading comprehension-theory and practice. *System, 28*(2), 247-259.

Clarke, M. A. (1980). The short circuit hypothesis of ESL reading - or when language competence interferes with reading performance. *The Modern Language Journal, 64*(2), 203-209.

Coady, J. (1979). A Psycholinguistic model of the ESL reader. In R. Mackay, B. Barkman, & R. R Jordan (Eds.), *Reading in a second language* (pp. 5-12). Rowley, Mass: Newbury House.

Coady, J. (1997). L2 vocabulary acquisition through extensive reading. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 225-237). Cambridge: Cambridge University Press.

Coady, J., Magoto, J., Hubbard, P., Graney, J., & Mokhtari, K. (1993). High frequency vocabulary and reading proficiency in ESL readers. In T. Huckin, M. Haynes, & J. Coady (Eds.), *Second language reading and vocabulary learning* (pp. 217-228). Norwood, NJ: Ablex.

Cohen, A. D. (1996). Second language learning and use strategies: Clarifying the issues (Revised version). Retrieved from http://www.carla.umn.edu/strategies/resources/sbiclarify.pdf

Cohen, A. D. (1998) *Strategies in learning and using a second language*. London and New York: Longman.

Cohen, A. D. (2007). Coming to terms with language learner strategies: Surveying the experts. In A. D. Cohen & E. Macaro (Eds.), *Language learning strategies: Thirty years of research and practice* (pp. 29-45). Oxford: Oxford University Press.

Cohen, A. D., Olshtain, E., & Rosenstein, D. S. (1986). Advanced EFL apologies: What remains to be learned? *International Journal of the Sociology of Language, 62*(6), 51-74.

Cohen, A. D., Weaver, S. J., & Li, T. Y. (1996). The impact of strategies- based instruction on speaking a foreign language. Retrieved from http://www.carla.umn.edu/about/profiles/CohenPapers/SBIimpact.pdf

Comrie, B., Matthews, S., & Polinsky, M. (2003). *The atlas of languages.* New York: Oxford University Press.

Cope, B., & Kalantzis, M. (2000). Introduction: Multiliteracies: The Beginnings of an Idea. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 3-8). New York: Routledge.

Cotterall, S. (1990). Developing reading strategies through small-group interaction. *RELC Journal, 21*(2), 55-69.

Cotterall, S. (1993). Reading strategy training in second language contexts: Some caveats. *Australian Review of Applied linguistics, 16*(1), 71-82.

Council of Europe, (2001). *Common European framework of reference for languages: Learning, teaching, assessment.* Cambridge: Cambridge University Press.

Cross-Thematic Curriculum Framework for Compulsory Education (2003). Government Gazette (B', 303-304/13-03-03). Athens: Ministry of National Education & Religious Affairs-Pedagogical Institute.

Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research, 49*(2), 222-251.

Cummins, J. (1991). Interdependence of first- and second-language proficiency in bilingual children. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 70–89). Cambridge: Cambridge University Press.

Craik, F. I. M., & Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology, 10*(4), 268-284.

Cresswell, A. (2000). Self-monitoring in student writing: Developing learner responsibility. *ELT Journal, 54*(3), 235-244.

Cziko, G. A. (1980). Language competence and reading strategies: A comparison of first- and second- language oral reading lessons. *Language Learning, 30*(1), 101-116.

Dansereau, D. F. (1985). Learning strategy research. In J. W. Segal, S. F. Chipman, & R. Glacer (Eds.), *Thinking and learning skills: Relating instruction to research* (pp. 209-239). Hillsdale, New Jersey*:* Lawrence Erlbaum Associates.

Davis, J. N., & Bistodeau, L. (1993). How do L1 and L2 reading differ? Evidence from think aloud protocols. *The Modern Language Journal, 77*(4), 459-472.

Day, R. R., Omura, C., & Hiramatsu, M. (1991). Incidental EFL vocabulary learning and reading. *Reading in a Foreign Language, 7*(2), 541-551.

De Beaugrande, R. (1981). Design criteria for process models of reading. *Reading Research Quarterly, 16*(2), 261-315.

De Corte, E., Verschaffel, L., & DeVen, V. (2001). Improving text comprehension strategies in upper primary school children: a design experiment. *British Journal of Educational Psychology, 71*(4), 531-559.

Dewitz, P., Jones, J., & Leahy, S. (2009). Comprehension strategy instruction in core reading programs. *Reading Research Quarterly, 44*(2), 102-126.

Dole, J. A., Brown, K. J., & Trathen, W. (1996). The effects of strategy instruction on the comprehension performance of at-risk students. *Reading Research Quarterly, 31*(1), 62-88.

Dole, J. A., Duffy, G. G., Roehler, L. R., & Pearson D. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research, 61*(2), 239-264.

Domínguez, R. E., & Maíz, A. C. (2010). Multimodality and listening comprehension: Testing and implementing classroom material. *Language Value, 2*(1), 100-139.

Dörnyei, Z. (1995). On the teachability of communication strategies. *TESOL Quarterly, 29*(1), 55-85.

Dörnyei, Z. (2003). Attitudes, orientations, and motivations in language learning: Advances in theory, research and applications. *Language Learning, 53*(2), 3-32.

Dreyer, C., & Nel, C. (2003). Teaching reading strategies and reading comprehension within a technology-enhanced learning environment. *System, 31*(3), 349-365.

Droop, M., & Verhoeven, L. (2003). Language proficiency and reading ability in first and second language learners. *Reading Research Quarterly, 38*(1), 78-103.

Duffy, G. G. (2002). The case for direct explanation of strategies. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 28-41). New York: Guilford Press.

Duffy, G. G., Roehler, L. R., & Herrmann, G. (1988). Modelling mental processes helps poor readers become strategic readers. *Reading Teacher*, *41*(8), 762-767.

Duffy, G. G., Roehler, L. R., Meloth, M. S., & Vavrus, L. G. (1986). Conceptualizing instructional comprehension. *Teaching & Teacher Education*, *2*(3), 197-214.

Duffy, G. G., Roehler, L. R., Sivan, E., Rackliffe, G., Book, C., Meloth, M. S., . . . Bassiri, D. (1987). Effects of explaining the reasoning associated with reading strategies. *Reading Research Quarterly, 22*(3), 347-368.

Duke, N., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (pp. 205-242). Newark, DE: International Reading association.

Dupuy, B., & Krashen, S. (1993). Incidental vocabulary acquisition in French as a foreign language. *Applied Language Learning, 4*(1&2), 55-63.

Durkin, D. (1978-1979). What classroom observations reveal about reading comprehension instruction. *Reading Research Quarterly, 14*(4), 481-533.

Durkin, D. (1993). *Teaching them to read***.** Needham Heights MA: Allyn & Bacon.

Early, M., & Marshall, S. (2008). Adolescent ESL students' interpretation and appreciation of literary texts: A case study of multimodality. *The Canadian Modern Language Review, 64*(3), 377–397.

Efraimidou, H., Frouzaki, F., & Reppa, H. Z. (2009). *English 6th grade. Teacher's book.* Ministry of National Education & Religious Affairs, Pedagogical Institute. Athens: Institute for Educational Books. (In Greek).

Efraimidou, H., Reppa, H. Z., & Frouzaki, F. (2009). *English 6th grade. Pupil's book.* Ministry of National Education & Religious Affairs, Pedagogical Institute. Athens: Institute for Educational Books. (In Greek).

El-Koumy, A. S. A. (1999). *Effects of three semantic mapping strategies on EFL students' reading comprehension*. Retrieved from ERIC database. (ED435193)

Ellis, R. (1993). Second language acquisition research: How does it help teachers? An interview with Rod Ellis. *ELT Journal, 47*(1), 3-11.

English Curriculum for Primary School (2003). Government Gazette (B', 303-304/13-03-03). Athens: Ministry of National Education & Religious Affairs-Pedagogical Institute.

Erler, L., & Finkbeiner, C. (2007). A review of reading strategies: focus on the impact of first language. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies* (pp. 187-206). Oxford: Oxford University Press.

Erten, İ. H., & Karakas, M. (2007). Understanding the divergent influences of reading activities on the comprehension of short stories. *The Reading Matrix 7*(3), 113-133.

Erten, İ. H., & Razi, S. (2009). The effects of cultural familiarity on reading comprehension. *Reading in a Foreign Language, 21*(1), 60-77.

Eskey, D. E., & Grabe, W. (1988). In P. L. Carrell, J. Devine, & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 223-238). Cambridge: Cambridge University Press.

Fairclough, N. (2000). Multiliteracies and language: orders of discourse and intertextuality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 162-181). New York: Routledge.

Fan, M. Y. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of Hong Kong learners. *The Modern Language Journal, 87*(2), 222-241.

Fan, Y.-C. (2010). The effect of comprehension strategy instruction on EFL learners' reading comprehension. *E- Journal of Asian Social Science, 6*(8), 19-29. Retrieved from http://www.ccsenet.org/journal/index.php/ass/article/view/6841

Farrell, T. S. C. (2001). Teaching reading strategies: It takes time. *Reading in a Foreign Language, 13*(2), 631-646.

Fecteau, M. (1999). First- and second-language reading comprehension of literary texts. *The Modern Language Journal, 83*(4), 475-493.

Fender, M. (2001). A review of L1 and L2/ESL word integration skills and the nature of L2/ESL word integration development involved in lower-level text processing. *Language Learning, 51*(2), 319-396.

Fielding, L. G., & Pearson, P. D. (1994). Synthesis of research/ reading comprehension: What works. *Educational Leadership, 51*(5), 62-68.

Fischer, U. (1994). Learning words from context and from dictionaries: An experimental comparison. *Applied Psycholinguistics, 15*(4), 551-574.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive and developmental inquiry. *American Psychologist, 34*(10), 906-911.

Floyd, P., & Carrell, P. L. (1987). Effects on ESL reading of teaching cultural content schemata. *Language Learning, 37*(1), 89-108.

Frantzen, D. (2003). Factors affecting how second language Spanish students derive meaning from context. *The Modern Language Journal, 87*(2),168-199.

Fraser, C. A. (1999). Lexical processing strategy use and vocabulary learning through reading [Special issue]. *Studies in Second Language Acquisition, 21*(2), 225-241.

Fujiwara, B. (1990). Learner training in listening strategies. *Jalt Journal, 12*(2), 203-217.

Fukkink, R. G. (2005). Deriving word meaning from written context. *Learning and Instruction, 15*(1), 23–43.

Fukkink, R. G., Blok, H., & de Glopper, K. (2001). Deriving word meaning from written context: A multicomponential skill. *Language Learning, 51*(3), 477-496.

Gambrell, L. B., & Koskinen, P. T. (2002). Imagery: A strategy for enhancing comprehension. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 305-318). New York: Guilford Press.

Garner, R. (1990). When children and students do not use learning strategies: Toward a theory of settings. *Review of Educational Research, 60*(4), 517-529.

Gavriilidou, Z., & Papanis, A. (2009). The effect of strategy instruction on strategy use by Muslim pupils learning English as foreign language. *Journal of Applied Linguistics, 25,* 47- 63.

Geladari, A., Griva, E., & Mastrothanasis, K. (2010). A record of bilingual elementary students' reading strategies in Greek as a second language. *Procedia Social and Behavioral Sciences, ELSEVIER, 2*(2), 3763- 3769. Retrieved from http://www.sciencedirect.com/science/article/pii/S1877042810006257

Geva, E., & Siegal, L. (2000). Orthographic and cognitive factors in the concurrent development of basic reading skills in two languages. *Reading and Writing, 12*(1&2), 1-30.

Gilakjani, A. P., & Ahmadi, S. M. (2011). The Relationship between L2 reading comprehension and schema theory: A matter of text familiarity. *International*

Journal of Information and Education Technology, 1(2), 142-149. doi: 10.7763/IJIET.2011.V1.24

Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist, 6*(1), 126-135.

Goodman, K. S. (1973). Psycholinguistic universals of the reading process. In F. Smith (Ed.), *Psycho-linguistics and reading* (pp. 21–29). New York: Holt, Rinehart & Winston.

Goodman, K. S. (1988). The reading process. In P. L. Carrell, J. Devine, & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 11-21). Cambridge: Cambridge University Press.

Grabe, W. (1991). Current developments in second language reading research. *TESOL Quarterly, 25*(3), 375-406.

Grabe, W. (2002). Teaching reading. In J. C. Richards & W. A. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 273-286). Cambridge: Cambridge university Press.

Grabe, W. (2004). Research on teaching reading. *Annual Review of Applied Linguistics, 24,* 44-69.

Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. New York: Cambridge University Press.

Grabe, W., & Stoller, F. L. (1997). Reading and vocabulary development in a second language: A case study. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 98-124). Cambridge: Cambridge University Press.

Grabe, W., & Stoller, F. L. (2002). *Teaching and researching reading*. Great Britain: Pearson Education.

Graney, M. J. (1992). A framework for using text graphing. *System, 20*(2), 161-167.

Graves, M. F., Cooke, C. L., & Laberge, M. J. (1983). Effects of previewing short stories. *Reading Research Quarterly, 18*(3), 262-276.

Green, J. M., & Oxford, R. L. (1995). A closer look at learning strategies, L2 proficiency and gender. *TESOL Quarterly, 29*(2), 261-297.

Grenfell, M., & Macaro, E. (2007). Claims and critiques. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies: Thirty years of research and practice* (pp. 9-28). Oxford: Oxford University Press.

Grellet, F. (1981). *Developing reading skills: A practical guide to reading comprehension exercises.* Cambridge: Cambridge University Press.

Griffiths, C. (2003). Patterns of language learning strategy use. *System, 31*(3), 367-383.

Griffiths, C. (2004). Language learning strategies: Theory and practice. *Applied Linguistics, 3*(1&2), 1-35.

Griva, E., Alevriadou, A., & Geladari, A. (2009). A qualitative study of poor and good bilingual readers' strategy use in EFL reading. *International Journal of Learning, 16*(1), 51-74.

Gu, P. Y, & Johnson, R. K (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning, 46*(4), 643-679.

Guri-Rozenblit, S. (1989). Effects of a tree diagram on students' comprehension of main ideas in an expository text with multiple themes. *Reading Research Quarterly, 24*(2), 236-247.

Haastrup, K. (1991). *Lexical inferencing procedures or talking about words.* Tübingen, Germany: Gunter Narr.

Hancin-Bhatt, B., & Bhatt, R. M. (1997). Optimal L2 syllables: Interactions of transfer and developmental effects. *Studies in Second Language Acquisition, 19*(3), 331-378.

Harmon, J. M (1998). Constructing word meanings: Strategies and perceptions of four middle school learners. *Journal of Literacy Research, 30*(4), 561- 599.

Hatzitheodorou, A. M. (2005). *Comprehension and production of written discourse in a university EFL context*. (Doctoral dissertation). Retrieved from National

Archive of PhD Theses. (http://www.didaktorika.gr/eadd/handle/10442/15148?locale=en)

Hill, C. H. (1983). Round robin reading as a teaching method. *Reading Improvement, 20,* 263-266.

Horiba, Y. (2000). Reader control in reading: Effects of language competence, text type, and task. *Discourse Processes, 29*(3), 223-267.

Hosenfeld, C. (1977). A preliminary investigation of the reading strategies of successful and nonsuccessful second language learners. *System, 5*(2), 110-123.

Hsiao, T. Y., & Oxford, R. L. (2002). Comparing theories of language learning strategies: A confirmatory factor analysis. *The Modern Language Journal, 86*(3), 368-383.

Huckin, T. N., & Coady, J. (1999). Incidental vocabulary acquisition in a second language. *Studies in Second Language Acquisition, 21*(2), 181-193.

Huckin, T. N., & Jin, Z. (1987). Inferring word meaning from context: a study in second language acquisition. In *ESCOL 86: Proceedings of the Third Eastern States Conference on Linguistics*. Colombus, Ohio: Department of Linguistics.

Hudson, T. (1982). The effects of induced schemata on the "short circuit" in L2 reading: non-decoding factors in L2 reading performance. *Language Learning, 32*(1), 1-31.

Hudson, T. (1988). The effects of induced schemata on the "short circuit" in L2 reading: Non-decoding factors in L2 reading performance. In P. L. Carrell, J. Devine, & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 183-205). Cambridge: Cambridge University Press.

Hudson, T. (2007). *Teaching second language reading*. New York: Oxford University Press.

Hughes, A. (2003). *Testing for language teachers.* Cambridge: Cambridge University Press.

Hulstijn, J. H. (1992). Retention of inferred and given word meanings: Experiments in incidental vocabulary learning. In P. J. L. Arnaud & H. Béjoint (Eds.), *Vocabulary and applied linguistics* (pp. 113-125). Great Britain: MacMillan.

Hulstijn, J. H. (1993). When do foreign-language readers look up the meaning of unfamiliar words? The influence of task and learner variables. *The Modern Language Journal*, *77*, 139-147.

Hulstijn, J. H. (2001). Intentional and incidental second language vocabulary learning: A reappraisal of elaboration, rehearsal and automaticity. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 258-286). New York: Cambridge University Press.

Hulstijn, J. H., & Bossers, B. (1992). Individual differences in L2 proficiency as a function of L1 Proficiency. *European Journal of Cognitive Psychology*, *4*(4), 341-353.

Iosifidis, Th. (2003). *Analysis of qualitative data in social studies*. Athens: Kritiki. (In Greek).

Janzen, J. (1996). Teaching strategic reading. *TESOL Journal, 6*(1), 6-9.

Janzen, J. (2007). Preparing teachers of second language reading. *TESOL Quarterly*, *41*(4), 707-729.

Janzen, J., & Stoller, F. L. (1998). Integrating strategic reading in L2 instruction. *Reading in a Foreign Language, 12*(1), 251-269.

Jenkins, J. R., Matlock, B., & Slocum, T. A. (1989). Two approaches to vocabulary instruction: The teaching of individual word meanings and practice in deriving word meaning from context. *Reading Research Quarterly, 24*(2), 215-235.

Jenkins, J. R., Stein, M. L., & Wysocki, K. (1984). Learning vocabulary through reading. *American Educational Research Journal, 21*(4), 767-787.

Jiang, X. (2012). Effects of discourse structure graphic organizers on EFL reading comprehension. *Reading in a Foreign Language, 24*(1), 84-105.

Jiang, X., & Grabe, W. (2007). Graphic organizers in reading instruction: Research findings and issues. *Reading in a Foreign Language*, *19*(1), 34- 55.

Johnson, P. (1982). Effects on reading comprehension of building background knowledge. *TESOL Quarterly, 16*(4), 503-516.

Kanara, Z. (2011). *Language learning strategy use by Greek EFL secondary school learners: the effects of age, gender, proficiency level and motivation*. (Unpublished master's thesis). Aristotle University of Thessaloniki, School of English, Department of Theoretical and Applied Linguistics, Thessaloniki.

Kalantzis, M., & Cope, B. (2000). A Multiliteracies pedagogy: A pedagogical supplement. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 239-248). New York: Routledge.

Kalantzis, M., & Cope, B. (2012). *Literacies*. Australia: Cambridge University Press.

Karchmer, R. A. (2001). The journey ahead: Thirteen teachers report how the internet influences literacy and literacy instruction in their K-12 classrooms. *Reading Research Quarterly, 36*(4), 442-466.

Kelly, P. (1990). Guessing: No substitute for systematic learning of lexis. *System, 18*(2), 199-207.

Kelly, P. (1995). Round robin reading: Considering alternative instructional practices that make more sense. *Reading Horizons, 36*(2), 99-115.

Kern, R. G. (1989). Second language reading strategy instruction: Its effects on comprehension and word inference ability. *The Modern Language Journal, 73*(2), 135-149.

Kern, R. G., & Schultz, J. M. (2005). Beyond orality: Investigating literacy and the literary in second and foreign language instruction. *The Modern Language Journal, 89*(3), 381-392.

Ketchum, E. M. (2006). The cultural baggage of second language reading: An approach to understanding the practices and perspectives of a nonnative product. *Foreign Language Annals, 39*(1), 22-42.

Kintsch, W. (1994). Text comprehension, memory and learning. *American Psychologist, 49*(4), 294-303.

Kintsch, W. (1998). The role of knowledge in discourse comprehension: A construction- integration model. *Psychological Review, 95*(2), 163-182.

Kintsch, W. (2004). The construction- integration model of text comprehension and its implications for instruction. In R. B. Ruddell & N. J. Unrau (Eds.), *Theoretical models and processes of reading* (pp. 1270- 1328). Newark, USA: International Reading Association.

Kitajima, R. (1997). Referential strategy training for second language reading comprehension of Japanese texts. *Foreign Language Annals, 30*(1), 84- 97.

Kirby, J. R. (1988). Style, strategy, and skill in reading. In R. R Schmeck (Ed)., *Learning strategies and learning styles* (pp. 229-274). New York: Plenum Press.

Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford.

Klingner, J. K., & Vaughn, S. (1996). Reciprocal teaching of reading comprehension strategies for students with learning disabilities who use English as a second language. *Elementary School Journal, 96*(3), 275-293.

Klingner, J. K., & Vaughn, S. (1999). Promoting reading comprehension, content learning, and English acquisition through collaborative strategic reading. *Reading Teacher, 52*(7), 738-747.

Klingner, J. K., & Vaughn, S (2000). The helping behaviors of fifth graders while using collaborative strategic reading during ESL content classes. *TESOL Quarterly, 34*(1), 69-98.

Koda, K. (2005). *Insights into second language reading: A cross- linguistic approach*. Cambridge: Cambridge University Press.

Koda, K. (2007). Reading and language learning: Cross- linguistic constraints on second language reading development. *Language Learning, 57*(1), 1-44.

Kong, A. (2006). Connections between L1 and L2 readings: Reading strategies used by four Chinese adult readers. *The Reading Matrix, 6*(2), 19-45.

Konopak, B., Sheard, C., Longman, D., Lyman, B., Slaton, E., Atkinson, R., & Thames, D. (1987). Incidental versus intentional word learning from context. *Reading Psychology*, *8*(1), 7-21.

Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence from the input hypothesis. *The Modern Language Journal*, *73*(4), 237-270.

Kress, G. (2000a). Multimodality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 182-202). New York: Routledge.

Kress, G. (2000b). Multimodality: Challenges to thinking about language. *TESOL Quarterly*, *34*(2), 337–340.

Kress, G., Jewitt, C., Ogborn, J., & Tsatsarelis, C. (2001). *Multimodal teaching and learning: The rhetorics of the science classroom*. London: Continuum.

Kress, G., & van Leeuwen, T. (2002). Colour as a semiotic mode: Notes for a grammar of colour. *Visual Communication, 1*(3), 343-368.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design.* London: Routledge.

Kuhn, M. R., & Stahl, S. A. (1998). Teaching children to learn word meanings from context: A synthesis and some questions. *Journal of Literacy Research, 30*(1), 119-138.

Kusiak, M. (2001). The effect of metacognitive strategy training on reading comprehension and metacognitive knowledge. In S. Foster-Cohen & A. Niżegorodcew (Eds.), *EUROSLA Yearbook: Vol.1(1). Annual Conference of the European Second Language Association* (pp. 255-274). Amsterdam & Philadelphia, PA: John Benjamins Publishing Company.

Lan, R., & Oxford, R. L. (2003). Language learning strategy profiles of elementary school students in Taiwan. *IRAL, 41*(4), 339-379.

Langer, J. (1984). Examining background knowledge and text comprehension. *Reading Research Quarterly, 19*(4), 469-481.

Laufer, B. (1997). The lexical plight in second language reading: Words you don't know, words you think you know, and words you can't guess. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 20-34). Cambridge: Cambridge University Press.

Laufer, B., & Sim, D. (1985a). Measuring and explaining the reading threshold needed for English for academic purposes texts. *Foreign Language Annals,18*(5), 405-411.

Laufer, B., & Sim, D. (1985b). Taking the easy way out: non-use and misuse of clues in EFL reading. *English Teaching Forum, 23*(2), 7-10.

Lee, J. F. (1986). Background knowledge and L2 reading. *The Modern Language Journal, 70*(4), 350-354.

Lee, J. F., & Musumeci, D. (1988). On hierarchies of reading skills and text types. *The Modern Language Journal, 72*(2), 173-187.

Lee, J. F., & Riley, G.L (1990). The effects of prereading, rhetorically oriented frameworks on the recall of two structurally different expository texts. *Studies in Second Language Acquisition, 12*(1), 25-41.

Lee, J.-W., & Schallert, D. L. (1997). The relative contribution of L2 language proficiency and L1 reading ability to L2 reading performance: A test of the threshold hypothesis in an EFL context. *TESOL Quarterly, 31*(4), 713-739.

Lee, K. O. (2003). The relationship of school year, sex, and proficiency on the use of learning strategies in learning English of Korean junior high school students. *Asian EFL Journal, 5*, 1-36.

Levine, M. L., & Haus, G. J. (1985). The effect of background knowledge on the reading comprehension of second language learners. *Foreign Language Annals, 18*(5), 391-397.

Linderholm, T., & van den Broek, P. (2002). The effects of reading purposes and working memory capacity on the processing on expository text. *Journal of Educational Psychology, 94*(4), 778-784.

Lipson, M. (1995). The effect of semantic mapping instruction on prose comprehension of below-level college readers. *Reading Research and Instruction, 34*(4), 367-378.

Littlewood, W. (1996). Autonomy: An anatomy and framework. *System, 24*(4), 427-435.

Lorch, R, & Lorch, E. (1996). Effects of organizational signals on free recall of expository prose. *Journal of Educational Psychology, 88*(1), 281-290.

Lukica, I. (2011, May). *Building awareness of discourse structure through teaching reading strategies in English for legal purposes class.* Paper presented at the 1st International Conference on Foreign Language Teaching and Applied Linguistics, Sarajevo.

Lysynchuk, L., Pressley, M., & Vye, N. (1990). Reciprocal teaching improves standardized reading comprehension performance in poor comprehenders. *Elementary School Journal, 90*(5), 469-484.

Maarof, N., & Yaacob, R. (2011). Meaning-making in the first and second language: reading strategies of Malaysian students. *Procedia Social and Behavioral Sciences, ELSEVIER, 12*, 211–223. Retrieved from http://www.sciencedirect.com/science/article/pii/S1877042811001194

Macaro, E. (2006). Strategies for language learning and for language use: Revising the theoretical framework. *The Modern Language Journal, 90*(3), 320-337.

Macaro, E., & Erler, L. (2008). Raising the achievement of young-beginner readers of French through strategy instruction. *Applied Linguistics, 29*(1), 90-119.

Macaro, E., Graham, S., & Vanderplank, R. (2007). A review of listening strategies: Focus on sources of knowledge and on success. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies: Thirty years of research and practice* (pp. 165-186). Oxford: Oxford University Press.

Magogwe, J. M., & Oliver, R. (2007). The relationship between language learning strategies, proficiency, age and self-efficacy beliefs: A study of language learners in Botswana. *System, 35*(3), 338-352.

Maghsoudi, N. (2012). The impact of schema activation on reading comprehension of cultural texts among Iranian EFL learners. *Canadian Social Science,8*(5), 196-201. doi: http://dx.doi.org/10.3968%2F2914

Manoli, P., & Papadopoulou, M. (2012a). Graphic organizers as a reading strategy: Research findings and issues. *Creative Education, 3*(3), 348-356. doi: 10.4236/ce.2012.33055

Manoli, P., & Papadopoulou, M. (2012b). Reading strategies versus reading skills: Two faces of the same coin. *Procedia-Social and Behavioral Sciences, 46*, 817-821.

McCormick, S. (1989). Effects of previews on more skilled and skilled readers' comprehension of informational text. *Journal of Reading Behavior, 21*(3), 219-239.

McDonough, J., & McDonough, St. (1997). *Research methods for English language teachers.* London: Arnold.

McKeown. M. (1985). The acquisition of word meaning from context by children of high and low ability. *Reading Research Quarterly,20*(4), 482-496.

McLaughlin, B. (1990). Restructuring. *Applied Linguistics, 11*(2), 113-128.

McVee, M., Dunsmore, K., & Gavelek, J. (2005). Schema theory revisited. *Review of Educational Research, 75*(4), 531-566.

Medina, S. L. (2012). Effects of strategy instruction in an EFL reading comprehension course: A case study. *Profile Issues in Teachers' Professional Development, 14*(1), 79-89.

Melendez, E. J., & Pritchard, R. H. (1985). Applying schema theory to foreign language reading. *Foreign Language Annals,18*(5), 399-403.

Meskill, C., & Mossop, J. (2000). Technologies use with ESL learners in New York State: Preliminary report. *Journal of Educational Computing Research 22*(3), 265-284.

Meyer, B. J. F, & Poon, L. (2001). Effects of structure strategy training and signaling on recall of texts. *Journal of Educational Psychology*, *93*(1), 141-159.

Meyer, B. J. F, & Rice, G. E. (1984). The structure of text. In P. D. Pearson (Ed.), *Handbook on reading research* (pp. 319-352). New York: Longman.

Mizumoto, A., & Takeuchi, O. (2009). Examining the effectiveness of explicit instruction of vocabulary learning strategies with Japanese EFL university students. *Language Teaching Research, 13*(4), 425-449.

Moghadam, M. K. (2008). The effect of strategies-based instruction on student‘s reading comprehension of ESP Texts. *E-Journal of English for Specific Purposes World, 17*(7), 1-17. Retrieved from http://www.esp-world. info/Articles_17/issue_17.htm

Mohktari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Developmental Education, 25*(3), 2-10.

Mondria, J. A., & Wit-de-boer, M. (1991). The effects of contextual richness on the guessability and the retention of words in a foreign language. *Applied Linguistics, 12*(3), 249- 267.

Morrison, L. (1996). Talking about words: A study of French as a second language learners' lexical inferencing procedures. *Canadian Modern language Review, 53*(1), 41-75.

Muljani, D., Koda, K., & Moates, D. (1998). The development of word recognition in a second language. *Applied Psycholinguistics, 19*(1), 99-113.

Nagy, W. E., Anderson, R. C., & Herman, P. A. (1987). Learning word meanings from context during normal reading. *American Educational Research Journal, 24*(2), 237-270.

Nagy, W. E., Herman, P. A., & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly, 20*(2), 233-253.

Naiman, N., Fröhlich, H. H., & Todesco, A. (1975). The good second language learner. *TESL Talk, 6*(1), 58-75.

Nakatani, Y. (2005). The effects of awareness-raising training on oral communication strategy use. *The Modern Language Journal, 89*(1), 76-91.

Nassaji, H. (2003). L2 vocabulary learning from context: Strategies, knowledge sources, and their relationship with success in L2 lexical inferencing. *TESOL Quarterly, 37*(4), 645-670.

Nassaji, H. (2006). The relationship between depth of vocabulary knowledge and L2 learners' lexical inferencing strategy use and success. *The Modern Language Journal, 90*(3), 387-401.

Nassaji, H. (2011). Issues in second-language reading: Implications for acquisition and instruction. [Review of the book *Reading in a second language: Moving from theory to practice* by W. Grabe]. [Review of the book reading *Second language reading research and instruction: Crossing the boundaries* by Z. H. Han & N. J.Anderson]. *Reading Research Quarterly, 46*(2),173-184.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

National foreign language exam system (KPG). Retrieved from http://rcel.enl.uoa.gr /kpg/about.htm

Nesbit, J. C., & Adesope, O. O. (2006). Learning with concept and knowledge maps: A meta-analysis. *Review of Educational Research, 76*(3), 413-448.

Ness, M. (2011). Explicit reading comprehension instruction in elementary classrooms: teacher use of reading comprehension strategies. *Journal of Research in Childhood Education*, *25*(1), 98-117.

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60-92.

Nunan, D. (1992). *Research methods in language learning*. United States of America: Cambridge University Press.

Nunan, D. (1997). Strategy training in the language classroom: An empirical investigation. *RELC Journal, 28*(2), 56-81.

Nunan, D. (1999). *Second language teaching and learning*. Boston: Heinle and Heinle.

Nuttall, C. (1996). *Teaching reading skills in a foreign language*. Oxford, UK: Heinemann.

Nyikos, M., & Fan, M. (2007). A review of vocabulary learning strategies: Focus on language proficiency and learner voice. In A. D. Cohen & E. Macaro (Eds.), *Language learning strategies: Thirty years of research and practice* (pp. 251-273). Oxford: Oxford University Press.

Oded, B., & Stavans, A. (1994). The effect of "false" schema activation on the construction of meaning. *System, 22*(4), 497-507.

Olshavky, J. E. (1977). Reading as problem solving: an investigation of strategies. *Reading Research Quarterly, 12*(4), 654-674.

O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.

O'Malley, J. M., & Chamot, A. U., Stewner-Manzanares, G., Russo, R. P., & Kupper, L. (1985). Learning strategy applications with students of English as a second language. *TESOL Quarterly, 19*(3), 557-584.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle Publishers.

Oxford, R. L. (2003). Language learning styles and strategies: An overview (pp. 1-25). *Learning Styles & Strategies*. Oxford, GALA. Retrieved from http://hyxy.nankai.edu.cn/jingpinke/buchongyuedu/learning%20strategies%20by%20Oxford.pdf

Oxford, R. L. (2011). *Teaching and researching language learning strategies*. London: Pearson/Longman.

Oxford, R. L., & Ehrman, M. (1989). Effects of sex differences, career choice, and psychological type on adult language learning strategies. *The Modern Language Journal, 73*(1), 1-13.

Oxford, R. L., Lee, K. R., & Park, G. (2007). L2 grammar strategies: The second Cinderella and beyond. In A. D. Cohen & E. Macaro (Eds.), *Language learning strategies: Thirty years of research and practice* (pp. 117-140). Oxford: Oxford University Press.

Oxford, R. L., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *Modern Language Journal, 73*(3), 219-300.

Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1*(2), 117-175.

Papanis, A. (2008). *Learning strategies of Muslim children in Thrace who learn English as a foreign language*. (Doctoral dissertation). Retrieved from National Archive of PhD Theses. (http://www.didaktorika.gr/eadd/handle/10442/17435).

Pappa, E., Zafiropoulou, M., & Metallidou, P. (2003). Intervention on strategy use and on motivation of Greek pupils' reading comprehension in English classes. *Perceptual and Motor Skills, 96*(3), 773-786.

Parel, R. (2004). The impact of lexical inferencing strategies on second language reading proficiency. *Reading and Writing: An Interdisciplinary Journal, 17*(9), 847-873.

Paribakht, T. S., & Wesche, M. (1993). Reading comprehension and second language development in a comprehension-based ESL program. *TESL Canada Journal, 11*(1), 9-29.

Paribakht, T. S., & Wesche, M. (1999). Reading and incidental L2 vocabulary acquisition. *Studies in Second Language Acquisition, 21*(2), 195-224.

Paris, S. G., Lipson, M. Y., & Wixson K. K. (1983). Becoming a strategic reader. *Contemporary Educational Psychology, 8*(3), 293-316.

Paris, S. G., Wasik, B. A, & Turner, J. C. (1991). The development of strategic reading. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 609-640). New York: Longman.

Patton, M. Q. (1990). *Qualitative evaluation and research methods.* Newbury Park: SAGE Publications.

Pearson, P. D., & Dole, J. A. (1987). Explicit comprehension instruction: A review of research and a new conceptualization of instruction. *Elementary School Journal, 88*(2), 151-165.

Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology, 8*(3), 317-344.

Perfetti, C. A. (2007). Reading ability: Lexical quality to comprehension. *Scientific Studies of Reading, 11*(4), 357-383.

Perfetti, C. A., van Dyke, J., & Hart, L. (2001). The psycholinguistics of basic literacy. In M. McGroarty (Ed.), *Annual Review of Applied Linguistics* (pp. 127-149). New York: Cambridge University Press.

Perkins, K., Brutten, S. R., & Pohlmannm, J. T. (1989). First and second language reading comprehension. *RELC Journal, 20*(2), 1-9.

Petrie, G. M. (2003). ESL teachers' views on visual language: A grounded theory. *The Reading Matrix, 3*(3), 137-168.

Pitts, M., White, H., & Krshen, S. (1989). Acquiring second language vocabulary through reading: a replication of the Clockwork Orange study using second language acquirers. *Reading in a Foreign Language, 5*(2), 271-275.

Phakiti, A. (2003). A closer look at gender and strategy use in L2 reading. *Language Learning, 53*(4), 649-702.

Phakiti, A. (2006). Theoretical and pedagogical issues in ESL/EFL teaching of strategic reading. *University of Sydney Papers in TESOL*, 19-42.

Plonsky, L. (2011). The effectiveness of second language strategy Instruction: A meta-analysis. *Language Learning, 61*(4), 993-1038.

Prain, V., & Waldrip, B. (2006). An exploratory study of teachers' and students' use of multimodal representations of concepts in primary science. *International Journal of Science Education*, *28*(15), 1843-1866.

Pressley, M. (2002). Comprehension strategy instruction: A turn-of-the-century status report. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 11–27). New York: Guilford Press.

Pressley, M. (2006). *Reading instruction that works: The case for balanced teaching*. New York: The Guilford Press.

Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading*. Hillsdale, NJ: Erlbaum.

Pressley, M., & Block, C. C. (2002). Summing up: What comprehension instruction could be. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 383-392). New York: Guilford Press.

Pressley, M., El-Dinary, P. B., Gaskins, L., Schuder, T., Bergman, J. L., Almasi, J., & Brown, R. (1992). Beyond direct explanation: Transactional instruction of reading comprehension strategies. *Elementary School Journal*, *92*(5), 513-535.

Pressley, M., Johnson, C. J., Symons, S., McGoldrick, J. A., & Kurita, J. A. (1989). Strategies that improve children's memory and comprehension of text. *Elementary School Journal*, *90*(1), 3-32.

Pressley, M., R., Wharton-McDonald, J., Mistretta-Hampston, & Echevarria, M. (1998). Literacy instruction in 10 fourth- and fifth grade classrooms in upstate New York. *Scientific Studies of Reading*, *2*, 159-194.

Pritchard, R. (1990). The effects of cultural schemata on reading processing strategies. *Reading Research Quarterly*, *25*(4), 273-295.

Pritchard, R., & Nasr, A. (2004). Improving reading performance among Egyptian engineering students: principles and practices. *English for Specific Purposes, 23*(4), 425-445.

Psaltou-Joycey A. (2003). Strategy use by Greek university students of English. In E. Mela-Athanasopoulou (Ed.), *Selected Papers of the 15th International*

Symposium on Theoretical and Applied Linguistics (pp. 591-601). School of English, Aristotle University of Thessaloniki, Thessaloniki.

Psaltou-Joycey A. (2010). *Language learning strategies in the foreign language classroom.* Thessaloniki: University Studio Press.

Psaltou-Joycey, A., & Joycey, E. (2001). The effect of strategy instruction on developing speaking skills. In A. Psaltou-Joycey & M. Valiouli (Eds.), *The Contribution of Language Teaching and Learning to the Promotion of a Peace Culture* (pp. 425-437). Thessaloniki: Gramma.

Psaltou-Joycey A., & Kantaridou, Z. (2009). Foreign language learning strategy profiles of university students in Greece. *Journal of Applied Linguistics, 25*, 107-127.

Psaltou-Joycey, A., & Sougari, A. (2010). Greek young learners' perceptions about foreign language learning and teaching. In A. Psaltou-Joycey & M. Matthaioudakis (Eds.), *Advances in Research on Language Acquisition and teaching: Selected Papers* (pp. 387-401). Thessaloniki: Greek Applied Linguistics Association.

Purdie, N., & Oliver, R. (1999). Language learning strategies used by bilingual school-aged children. *System, 27*(3), 375-388.

Qian, D. D. (1996). ESL vocabulary acquisition: Contextualization and decontextualization. *Canadian Modern Language Review, 53*(1), 120-142.

Qian, D. D. (2002). Investigating the relationship between vocabulary and knowledge and academic reading performance: An assessment perspective. *Language Learning, 52*(3), 513-536.

Rahmani, M., & Sadeghi, K. (2011). Effects of note-taking training on reading comprehension and recall. *The Reading Matrix, 11*(2), 116-128.

Raymond, P. M. (1993). The effects of structure strategy training on the recall of expository prose for university students reading French as a second language. *The Modern Language Journal, 77*(4), 445-458.

Readability index calculator. Retrieved from http://www.standards-schmandards.com /exhibits/rix/index.php

Rees-Miller, J. (1993). A critical appraisal of learner training: Theoretical bases and teaching implications. *TESOL Quarterly, 27*(4), 679-689.

Ριζούλη, Θ. (2013). *Η Συμβολή των γνωστικών στρατηγικών της περίληψης και της γραφικής αναπαράστασης δομής κειμένου στη βελτίωση της κατανόησης και της χρήσης των στρατηγικών: ένα πρόγραμμα παρέμβασης σε Έλληνες φοιτητές στο μάθημα της Αγγλικής ως Ξένης Γλώσσας.* (Αδημοσίευτη διδακτορική διατριβή). Πανεπιστήμιο Μακεδονίας: Τμήμα Εκπαιδευτικής και Κοινωνικής Πολιτικής, Θεσσαλονίκη.

Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A review of the research. *Review of Educational Research, 64*(4), 479-530.

Royce, T. (2002). Multimodality in the TESOL classroom: Exploring visual-verbal synergy. *TESOL Quarterly, 36*(2), 191-205.

Royce, T. (2007). Multimodal communicative competence in second language context. In T. Royce & W. L. Bowcher (Eds.), *New directions in the analysis of multimodal discourse* (pp. 361-390). Mahwah, New Jersey: Lawrence Erlbaum.

Rubin, J. (1975). What the "good language learner" can tell us. *TESOL Quarterly, 9*(1), 41-51.

Rubin, J. (1981). Study of cognitive processes in second language learning. *Applied Linguistics, 11*(2), 117-131.

Rumelhart, D. E. (1980). Schemata: The building blocks of cognition. In R. Spiro, B. Bruce, & W. Brewer (Eds.), *Theoretical issues in reading comprehension* (pp. 33- 58). Hillsdale, NJ: Lawrence Erlbaum.

Rumelhart, D. E. (1994). Toward an interactive model of reading. In R. B. Ruddell, M. R. Rudell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 864-894). Newark, USA: International Reading Association.

Ryan, G. W., & Bernard, H. R. (2000). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 769-802). California: SAGE Publications.

Sadighi, F., & Zarafshan, M. (2006). Effects of attitude and motivation on the use of language learning strategies by Iranian EFL university students. *Journal of Social Sciences & Humanities of Shiraz University, 23*(1), 71-80.

Salager-Meyer, F. (1994). Reading medical English abstracts: A genre study of the interaction between structural variables and the reader's linguistic-conceptual competence. *Journal of Research in Reading, 17*(2), 120-146.

Salataci, R., & Akyel, A. (2002). Possible effects of Strategy instruction on L1 and L2 reading. *Reading in a Foreign Language,14*(1), 1-17.

Samuels, S. J., & Kamil, M. L. (2002). Models of the reading process. In P. D. Pearson (Ed.), *Handbook of reading research* (pp.185-224).New Jersey: Lawrence Erlbaum Associates.

Sanaoui, R. (1995). Adult learners' approach to learning vocabulary in second languages. *The Modern Language Journal, 79*(1), 15-28.

Sani, A. M., & Zain, Z. (2011). Relating adolescents' second language reading attitudes, self efficacy for reading, and reading ability in a non-supportive ESL Setting. *The Reading Matrix,11*(3), 243-254.

Saragi, T., Nation, I. S. P., & Meister, G. F. (1978). Vocabulary learning and reading. *System, 6*(2), 72-78.

Sarıçoban, A. (2002). Reading strategies of successful readers through the three phase approach. *The Reading Matrix, 2*(3), 1-16.

Sarig, G. (1987). High-level reading in the first and in the foreign language: Some comparative process data. In J. Devine, P. L. Carrell, & D. E. Eskey (Eds.), *Research in reading English as a second language* (pp. 105-20). Washington, DC: TESOL.

Sasaki, M. (2000). Toward an empirical model of EFL writing: An exploratory study. *Journal of second Language Writing, 9*(3), 259-291.

Sasaki, Y. (1993). Paths of processing strategy transfer in learning Japanese and English as foreign languages: A competition model approach. *Studies in Second Language Acquisition, 16*(1), 43-72.

Scarcella, R., & Oxford, R. L. (1992). *The tapestry of language learning: The individual in the communicative classroom*. Boston, MA: Heinle & Heinle Publishers.

Sheorey, R. (1999). An examination of language learning strategy use in the setting of an indigenized variety of English. *System, 27*(1), 173-190.

Sheorey, R., & Mokhtari, K. (2001). Differences in the metacognitive awareness of reading strategies among native and non-native readers. *System, 29*(4), 431-449.

Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition, and pedagogy* (pp. 198-227). Cambridge: Cambridge University Press.

Schmitt, N. (2000). *Vocabulary in language teaching*. New York: Cambridge University Press.

Schmitt, N. (2002). *An introduction to applied linguistics*. London: Oxford University Press.

Schoonen, R., Hulstijn, J., & Bossers, B. (1998). Metacognitive and language-specific knowledge in native and foreign language reading comprehension: An empirical study among Dutch students in grades 6, 8, and 10. *Language Learning, 48*(1), 71-106.

Schuder, T. (1993). The genesis of transactional strategies instruction in a reading program for at risk students. *The Elementary School Journal, 94*(2), 183-200.

Schueller, J. (1999). *The effects of two types of strategic training on foreign language reading comprehension. An analysis by gender and proficiency.* (Unpublished doctoral dissertation). The University of Wisconsin-Madison, Madison, WI.

Seidenberg, M. S., & McClelland, J. L. (1989). A distributed, developmental model of word recognition and naming. *Psychological Review, 96*(4), 523-568.

Sengupta, S. (2000). An investigation into the effects of revision strategy instruction on L2 secondary school learners. *System, 28*(1), 97-113.

Shu, H., Anderson, R. C., & Zhang, H. (1995). Incidental learning of word meanings while reading: A Chinese and American cross-cultural study. *Reading Research Quarterly, 30*(1), 76-95.

Singhal, M. (2001). Reading proficiency, reading strategies, metacognitive awareness and L2 readers. *The Reading Matrix, 1*(1), 1-23.

Smith, F. (1994). *Understanding reading: A psycholinguistic analysis of reading and learning to read.* Hillsdale, N.J. : L. Erlbaum.

Song, M. (1998). Teaching reading strategies in an ongoing university in an EFL university reading classroom. *Asian Journal of English Language Teaching, 8*, 41-54.

Spires, H. A., & Donley, J. (1998). Prior knowledge activation: Inducing engagement with informational texts. *Journal of Educational Psychology, 90*(2), 249-260.

Spurling, S., & Ilyin, D. (1985). The impact of learner variables on language test performance. *TESOL Quarterly, 19*(2), 283-301.

Stanovich, K. E. (1980). Toward an interactive- compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly, 16*(1), 32-71.

Steffensen, M. S., Joag-dev, C., & Anderson, R. C. (1979). A cross-cultural perspective on reading comprehension. *Reading Research Quarterly, 15*(1), 10-29.

Stern, H. H. (1975). What can we learn from the good language learner? *The Canadian Modern Language Review, 31*(3), 304-317.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Swanborn, M., & de Glopper, K. (1999). Incidental word learning while reading: A meta-analysis. *Review of Educational Research, 69*(3), 261-285.

Swanborn, M., & de Glopper, K. (2001). Impact of reading purpose on incidental word learning from context. *Language Learning, 52*(1), 95-117.

Taglieber, L. K., Johnson, L. L., & Yarbrough, D. B. (1988). Effects of prereading activities on EFL reading by Brazilian college students. *TESOL Quarterly, 22*(3), 455-472.

Taillefer, G. F. (1996). L2 reading ability: Further insight into the short-circuit hypothesis. *The Modern Language Journal, 80*(4), 461-477.

Taillefer, G. F., & Pugh, T. (1998). Strategies for professional reading in L1 and L2. *Journal of Research in Reading, 21*(2), 96-108.

Tang, G. (1992). The effect of graphic representation of knowledge structures on ESL reading comprehension. *Studies in Second Language Acquisition,14*(2), 177-195.

Tang, H. N. (1997). The relationship between reading comprehension processes in L1 and L2. *Reading Psychology, 18*(3), 249-301.

Tang, H. N., & Moore, D. W. (1992). Effects of cognitive and metacognitive pre-reading activities on the reading comprehension of ESL learners. *Educational Psychology, 12*(3&4), 315-331.

Taylor, A., Stevens, J. R., & Asher, J. W. (2006). The effects of explicit reading strategy training on L2 reading comprehension: A meta-analysis. In J. M. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 213-244). Philadelphia, USA: John Benjamins.

Taylor, B., & Beach, R. (1984). The effects of text structure instruction on middle-grade students' comprehension and production of expository text. *Reading Research Quarterly, 19*(2), 134-146.

Thompson, I., & Rubin, J. (1996). Can strategy instruction improve listening comprehension? *Foreign Language Annals, 29*(3), 331-342.

Tian, G. S. (1990). The effects of rhetorical organisation in expository prose on ESL readers in Singapore. *RELC Journal: A Journal of Language Teaching and Research in Southeast Asia, 21*(2), 1-13.

Trabasso, T., & Bouchard, E. (2002). Teaching readers how to comprehend text strategically. In C. Collins & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 176–200). New York: Guilford Press.

Tsai, R. Y., Ernst, C., & Talley, P. C. (2010). L1 and L2 strategy use in reading comprehension of Chinese EFL readers. *Reading Psychology, 31*, 1-29.

Tsiriotakis, I. (2013). *Writing difficulties and feelings of anxiety during the acquisition of English as a Foreign Language.* (Unpublished doctoral dissertation). University of Crete, Faculty of Education, Rethymnon, Crete.

Unsworth, L. (2001). *Teaching multiliteracies across the curriculum: Changing contexts of text and image in classroom practice*. Great Britain: Open University Press.

Urquhart, S., & Weir, C. (1998). *Reading in a second language: Process, product and practice.* London and New York: Longman.

Vandergrift, L. (2003). Orchestrating language use: Toward a model of the skilled second language listener. *Language Learning, 53*(3), 463-496.

Van Dijk, T. A., & Kintsch, W. (1983). *Strategies of discourse comprehension*. New York: Academic Press.

Van Gelderen, A., Schoonen, R., Stoel, R., de Glopper, K., & Hulstijn, J. (2007). Development of adolescent reading comprehension in language 1 and language 2: A longitudinal analysis of constituent components. *Journal of Educational Psychology, 99*(3), 477-491.

Veenman, M. V. J., Hout-Wolters, B. H. A. M., Afflerbach, P. (2006). Metacognition and learning: Conceptual and methodological considerations. *Metacognition Learning, 1*(1), 3-14.

Vekiri, I. (2002). What is the value of graphical displays in learning? *Educational Psychology Review, 14*(3), 261-312.

Verhoeven, L. (1990). Acquisition of reading in a second language. *Reading Research Quarterly, 25*(2), 90-114.

Verhoeven, L. (1994). Transfer in bilingual development: The linguistic interdependency hypothesis revisited. *Language Learning*, *44*(4), 381-415.

Vrettou, A. (2009). Language learning strategy employment of EFL Greek-speaking learners in junior high school. *Journal of Applied Linguistics,* 25, 85-106.

Vrettou, A. (2011). *Patterns of language learning strategy use by Greek- speaking young learners of English.* (Doctoral dissertation). Retrieved from National Archive of PhD Theses. (http://www.didaktorika.gr/eadd/handle/10442 /24616).

Walsh, M. (2003). Reading pictures: What do they reveal? Young children's reading of visual texts. *Reading*, *37*(3), 123-130.

Walters, J. D. (2004). Teaching the use of context to infer meaning: a longitudinal survey of L1 and L2 vocabulary research. *Language Teaching*, *37*(4), 243-252.

Wang, M., Koda, K., & Perfetti, C. A. (2003). Alphabetic and non-alphabetic L1effects in English semantic processing: A comparison of Korean and Chinese English L2 learners. *Cognition, 87*(2), 129-149.

Weinstein, C. E., & Mayer, D. K. (1994). Learning strategies: Teaching and testing. In T. Husen & T. N Postlthwaite (Eds.), *The international encyclopedia of education* (Vol. 11, pp. 3335-3340). Oxford: Pergamon Press.

Wenden, A. (1991). *Learner strategies for learner autonomy: Planning and implementing learner training for language learners*.UK: Prentice Hall International.

Wikipedia. Flesch-Kincaid readability tests. Retrieved from http://en.wikipedia.org/ wiki/Flesch%E2%80%93Kincaid_readability_tests

Williams, E. (1987). Classroom reading through activating content-based schemata. *Reading in a Foreign Language, 4*(1), 1-7.

Yamashita, J. (2002). Mutual compensation between L1 reading ability and L2 language proficiency in L2 reading comprehension. *Journal of Research in Reading, 25*(1), 81-95.

Yanco, J. J. (1985). Language contact and grammatical interference: Hausa and Zarma in Niamey, Niger. *Studies in African Linguistics, 9*, 318-322.

Yiğiter, K., Sarıçoban, A., & Gürses, T. (2005). Reading strategies employed by ELT learners at the advanced level. *The Reading Matrix 5*(1), 124-139.

Young, D. J. (1991). Activating student background knowledge in a take charge approach to foreign language reading. *Hispania, 74*(4), 1124-1132.

Young, D. J., & Oxford, R. (1997). A gender-related analysis of strategies used to process written input in the native language and a foreign language. *Applied Language Learning, 8*(1), 26-43.

Yorio, C. A. (1971). Some sources of reading problems in foreign language learners. *Language Learning, 21*(1), 107-115.

Yusuf, H. O. (2011). The effect of pre-reading activities on students' performance in reading comprehension in senior secondary schools. *Educational Research, 2*(9), 1451-1455.

Zaid, M. A. (2009). A comparison of inferencing and meaning-guessing of new lexicon in context versus non-context vocabulary presentation. *The Reading Matrix, 9*(1), 56-66.

Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition- poor environment. *Language Awareness, 10*(4), 268-288.

Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: exploring pathways to learner development in the English as a second language (ESL) classroom. *Instructional Science, 36*(2), 89-116.

Zhang, L. J., & Wu, A. (2009). Chinese senior high school EFL students' metacognitive awareness and reading-strategy use. *Reading in a Foreign Language, 21*(1), 37-59.

Zhaohua., S. (2004). Effects of previewing and providing background knowledge on EFL reading comprehension of American documentary narratives. *TESL Reporter, 37*(2), 50-63.

Zwaan, R., & Brown, C. M. (1996). The influence of language proficiency and comprehension skill on situation-model construction. *Discourse Processes, 21*(3), 289-327.

Appendices

Appendix A: First Researcher-designed Comprehension Test

TV Schedule

What's On?

CBC

6.00 p.m.: **National News** - join Jack Parsons for your daily news roundup.
6.30: **The Tiddles**- Peter joins Mary for a wild adventure in the park.
7.00: **Golf Review**- Watch highlights from today's final round of the Grand Master's.
8.30: **Shock from the Past**- This entertaining film by Arthur Schmidt takes a poke at the wild side of gambling.
10.30: **Nightly News**- A review of the day's most important events.
11.00: **MOMA: Art for Everyone**- A fascinating documentary that helps you enjoy the difference between pointilism and video installations.
12:00: **Hard Day's Night**- Reflections after a long, hard day.

FNB

6.00 p.m.: **In-Depth News** - In-depth coverage of the most important national and international news stories.
7.00: **Nature Revealed**- Interesting documentary taking a look at the microscopic universe in your average speck of dust. 7.30: **Ping - Pong Masters**- Live coverage from Peking.
9.30: **It's Your Money**- That's right and this favorite game show could make or break you depending on how you place your bets. 10.30: **Green Park**- Stephen King's latest monster madness. 0.30: **Late Night News**- Get the news you need to get a hard start on the upcoming day.

ABN

6.00 p.m.: **Travel Abroad** - This week we travel to sunny California!
6.30: **The Flintstones**- Fred and Barney are at it again.
7.00: **Pretty Boy**- Tom Cruise, the prettiest boy of them all, in an action packed thriller about Internet espionage.
9.00: **Tracking the Beast**- The little understood wildebeest filmed in its natural surroundings with commentary by Dick Signit.
10.00: **Pump Those Weights**- A guide to successfully using weights to develop your physique while getting fit.
11.30: **The Three Idiots**- A fun farce based on those three tenors who don't know when to call it quits.
1.00: **National Anthem**- Close the day with this salute to our country.

http://esl.about.com/od/readinglessonplan1/a/Reading-Comprehension-Skills-Scanning.htm

Πρώτα διάβασε τις παρακάτω ερωτήσεις και έπειτα χρησιμοποίησε το τηλεοπτικό πρόγραμμα για να τις απαντήσεις (γράφοντας μόνο τον τίτλο του κάθε προγράμματος- <u>ένα τίτλο</u> σε κάθε απάντηση).

1. Is there a show about getting fit .....
2. You are thinking about traveling to the USA for a vacation. Which show should you watch .....
3. You like Tom Cruise. Which film should you watch .....
4. You like modern art. Which documentary should you watch .....
5. You want to watch the news before you go to bed at about 11:00 o clock. Which news program are you going to watch .....

5 λεπτά

10 Reasons to Start Running

Runners Experience Many Benefits

People start running for a variety of reasons. Some run because they want to lose weight, improve their health, compete in races or try something new. Whatever your reason is for running, you'll experience many physical, mental and emotional benefits from the sport. Here are 10 great reasons to get started with running:

1. Running improves your health

One of the biggest benefits of running is that it's good for your health. Running is an excellent way to strengthen the heart and ensure the efficient flow of blood and oxygen throughout the body, which helps decrease your risk of a heart attack. Exercise, combined with maintaining a healthy weight, is one of the best ways to naturally reduce your blood pressure if it's above normal. If you have high cholesterol, running can also help keep it in check. Running also improves your immune system, so your body functions are more effective and efficient at fighting off germs. Running and other weight-bearing exercises increase bone density, which can fend off osteoporosis.

2. You can lose weight

Many people start running to lose some extra pounds. As one of the most vigorous exercises out there, running is an extremely efficient way to burn calories and lose weight. If you're already at a healthy weight, running can help you maintain it. Just make sure you don't think running gives you a license to eat anything you want. The basic rule of weight loss — that you must burn (through life functions and exercise) more calories than you take in — still applies to runners.

3. You can run for a cause

Running can also be used as a way to contribute to society as a whole. Many races benefit charities, and some charities offer race training in exchange for fund-raising. Running for something that's bigger than you is a great way to stay motivated to keep training and can make your races even more meaningful and fulfilling.

4. You can meet new people through running

Some runners enjoy the quiet and solitude of running on their own, but others see running time as social opportunities. Finding a running buddy or running with a group is a great way to develop a sense of community. You can set goals and accomplish them together. In addition, having a regular running buddy or running group is a great way to stay motivated to run.
Some runners also share advice and motivation with other runners in online forums, such as this site's forum . You can meet other people who share your obsession with running, celebrate your triumphs and help you overcome your obstacles.

5. You can experience something new and different

Running is a great way to expand your horizons and break away from the daily grind. The sport gives people the opportunity to explore areas of their own community or new locations, experience new physical sensations and run places they may not normally see.

6. You can train for a specific goal

Some people hate to exercise just for the sake of exercising, but with running, though, you can train for races, from 5Ks to marathons and beyond. Training for a race gives you a specific goal to work toward, which can definitely help improve your motivation to run.

7. Running improves your energy levels

When you're feeling sluggish or tired, running is a great way to boost your energy. Runners who run in the morning report that they have improved energy levels during the day. Combining running with a healthful diet will help improve your energy levels even more.

8. Running will help you feel good about yourself

Regular runners report an increase in their confidence and self-esteem, and the self-esteem benefits of running are increased if you set a specific goal, such as running a 5K or even a marathon, and accomplish it.

9. Running is versatile and inexpensive

Running requires very little equipment, and it can be done almost anywhere. All you need is a good pair of running shoes, and you can head out your door to go for a run. From city sidewalks to wooded trails, there are plenty of places for runners to explore — at no cost. If you travel a lot, it's easy to pack your running shoes and run while you're on the road.

10. Running can help with stress relief

Running — as with many forms of exercise — is a great cure for stress, emotional strain and even mild depression. Research has shown that healthy adults who exercise regularly are generally happier than those who don't.

http://running.about.com/od/benefitsofrunning/tp/reasonstorun.htm

1) Γράψτε τις 5 πρώτες λέξεις-φράσεις που σας έρχονται στο νου κοιτάζοντας τον εξής τίτλο: ***10 Reasons to Start Running.***

2) Κοιτάζοντας τον τίτλο ***10 Reasons to Start Running*** αλλά και τον υπότιτλο ***Runners Experience Many Benefits*** μπορείτε να μαντέψετε για τι πράγμα μιλάει το κείμενο  Κυκλώστε **<u>1 μόνο</u>** απάντηση.

1)This text:

a) describes ways of keeping fit and healthy

b) talks about people who start running as a hobby

c) explains the benefits that people can have if they start running

d) informs us that running can help us lose weight

Για τις 2 αυτές δραστηριότητες **5 λεπτά** 

3) Αφού διαβάσετε **γρήγορα** το κείμενο, κυκλώστε τη σωστή απάντηση (**1 μόνο** σε κάθε ερώτηση):

1)This text

a) gives us information about a sport

b) explains the benefits of running

c) gives us information about losing weight

2)The main aim of this text is to inform us

a) of the reasons why people start running

b) of a hobby that people often start

c) that running can help us lose weight

5 λεπτά 

4) Εντοπίστε στο κείμενο και γράψτε **1 μόνο** λέξη που να έχει περίπου την ίδια σημασία με:

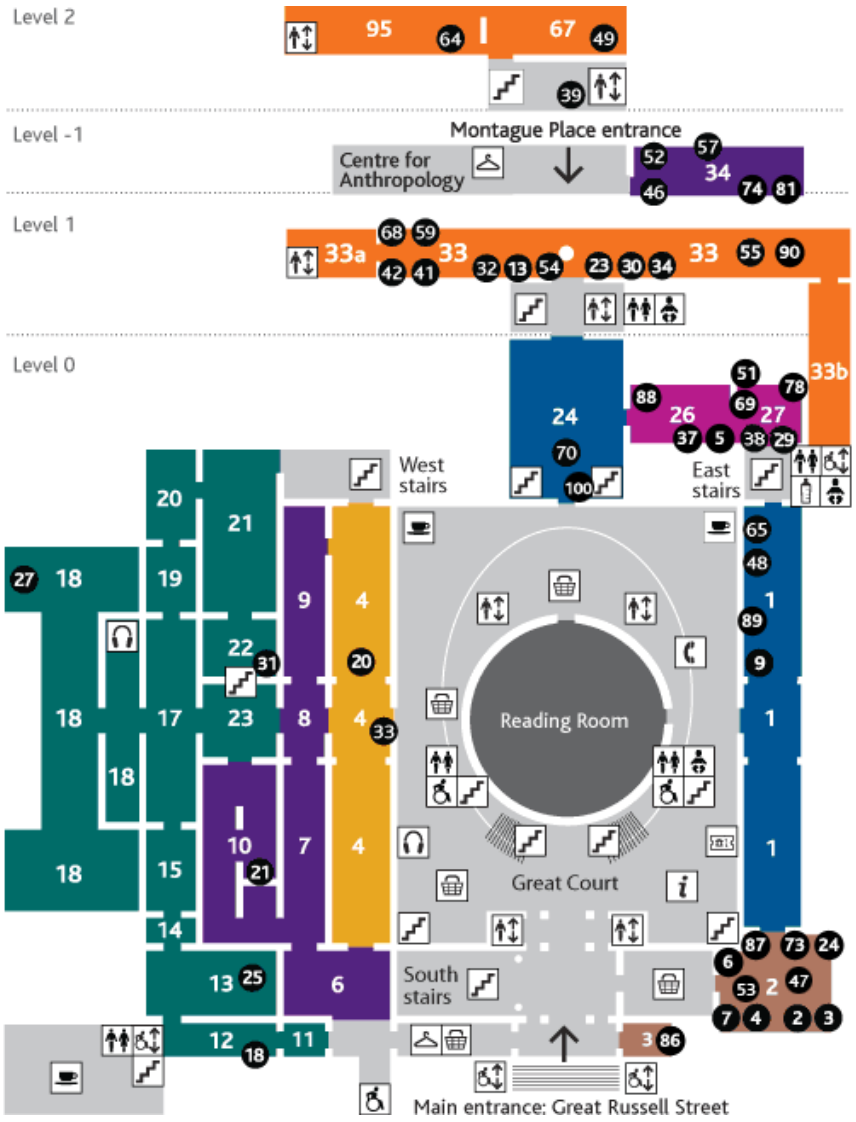
a) energetic (2nd paragraph).....

b) loneliness (4th paragraph).....

c) succeed (8th paragraph).....

5 λεπτά 

THE BRITISH MUSEUM



Americas

26 North America
27 Mexico

Ancient Egypt

4 Egyptian sculpture

Ancient Greece and Rome

11 Greece: Cycladic Islands
12 Greece: Minoans and Mycenaeans
13 Greece 1050-520 BC
14 Greek vases

15 Athens and Lycia
16 Greece: Bassai Sculptures
17 Nereid Monument
18 Greece: Parthenon
19 Greece: Athens
20 Greeks and Lycians 400-325 BC
21 Mausoleum of Halikarnassos
22 The world of Alexander
23 Greek and Roman sculpture

Asia

33 China, South Asia and Southeast Asia
33a India: Amaravati
33b Chinese jade
67 Korea
95 Chinese Ceramics

Themes

1 Enlightenment
24 Living and Dying

Exhibitions and changing displays

2 The Changing Museum
3 Special exhibitions
Reading Room

Middle East

6 Assyrian sculpture & Balawat Gates
7-8 Assyria: Nimrud
9 Assyria: Nineveh
10 Assyria: Lion hunts, Siege of Lachish and Khorsabad
34 Islamic world

A HISTORY OF THE WORLD
IN 100 OBJECTS

2 Olduvai stone chopping tool

3 Olduvai handaxe

4 Swimming reindeer

5 Clovis spear point

6 Bird-shaped pestle

7 Ain Sakhri lovers figurine

9 Maya maize god statue

13 Indus seal

18 Minoan Bull Leaper

20 Statue of Ramesses II

21 Lachish Reliefs

23 Chinese Zhou ritual bowl

24 Paracas textile

25 Gold coin of Croesus

27 Parthenon sculpture: Centaur and Lapith

29 Olmec stone mask

30 Chinese bronze bell

31 Coin with head of Alexander

32 Pillar of Ashoka

33 Rosetta Stone

34 Chinese Han lacquer cup

37 North American otter pipe

38 Ceremonial ballgame belt

41 Seated Buddha from Gandhara

42 Gold coin of Kumaragupta I

46 Gold coin of Abd al-Malik

47 Sutton Hoo helmet

48 Moche warrior pot

49 Korean roof tile

51 Maya relief of royal blood-letting

52 Harem wall painting fragments

53 Lothair Crystal

54 Statue of Tara

55 Chinese Tang tomb figures

57 Hedwig glass beaker

59 Borobudur Buddha head

64 The David Vases

65 Taino ritual seat

68 Shiva and Parvati sculpture

69 Sculpture of a Huastec Goddess

70 Hoa Hakananai'a Easter Island statue

73 Inca gold llama

74 Jade dragon cup

78 Double-headed serpent

81 Shi'a religious parade standard

86 Akan drum

87 Hawaiian feather helmet
No longer on display for conservation reasons

88 North American buckskin map

89 Australian bark shield

90 Jade *bi*

100 Solar-powered lamp and charger

More about A History of the World ▸
Children's objects for BBC series Relic ▸

Accessible toilet
Baby changing
Baby feeding
Cafe
Cloakroom
Court Restaurant
Information desk
Level access lift
Lift

1) Κοιτάξτε γρήγορα το σχεδιάγραμμα και τις σημειώσεις που το συνοδεύουν και κυκλώστε τη σωστή απάντηση (**1 μόνο**):

1)What is this text 

a)It is a history of the world

b)It is a plan showing the different departments of the British Museum

c)It is the main entrance of the British Museum

2a) Κοιτάξτε ξανά το σχεδιάγραμμα και τις σημειώσεις που το συνοδεύουν και γράψτε σύντομα *το τμήμα του μουσείου* όπου μπορεί να βρει κανείς τα εξής αντικείμενα:

1)In which department can you find *Rosetta Stone*?.....

2)In which department can you find the *Coin with the Head of Alexander*?.....

3)In which department can you find *Olmec Stone Mask?*.....

4)In which department can you find *Akan drum*?.....

b) Κοιτάξτε το σχεδιάγραμμα και τις σημειώσεις που το συνοδεύουν και απαντήστε σύντομα στις εξής ερωτήσεις:

1) Which department should you visit if you are interested in the *Enlightenment* period?.....

2) Which department should you visit if you want to learn about the *Islamic World*?.....

3) Which department should you visit if you are interested in the *Chinese civilization*?.....

3) Κοιτάξτε το σχεδιάγραμμα ξανά και τις σημειώσεις που το συνοδεύουν και απαντήστε σύντομα στην παρακάτω ερώτηση:

1) If you visit the department *"Asia"*, which countries' culture will you learn about  .....

http://www.britishmuseum.org/visiting/floor_plans_and_galleries/ground_floor.aspx

10 λεπτά 

Appendix B: Second Researcher-designed Comprehension Test (Follow-up)

London Museums

Visit top Museums in London for free with the London Pass

London is packed with some of the most exciting museums in Europe. Boasting a wide assortment of topics and subjects - there really is a something for every taste.

Winston Churchill's Britain at War Experience This top London museum creates a vivid experience of life during wartime and provides essential information about the Second World War in general. £12.95

IWM London The Imperial War Museum London covers conflicts involving Britain from the First World War through to the present day. £5.95

London Transport Museum Lively exhibitions explore the powerful link between transport and the growth of modern London, its culture and society since 1800. £13.50

Wimbledon Lawn Tennis Museum This state-of-the-art tennis museum in London has since received thousands of visitors from all over the world. £11.00

Twickenham World Rugby Museum & Stadium Tours The Museum Of Rugby is the ultimate London visitor experience for the world rugby enthusiast – and the Twickenham tours give you backstage access to this hallowed turf. £14.00

Guards Museum The London Guards Museum is a fascinating insight into the history of the military in the capital and is unique among London museums as it was not originally intended for public view. £4.00

Design Museum London The Design Museum in London is dedicated to exhibiting the best contemporary design in every form from furniture to graphics and architecture to industrial design. £10.00

National Maritime Museum The National Maritime Museum houses over 2 million objects related to seafaring; this Greenwich museum has both permanent and changing exhibitions over three floors and possesses the most important holdings in the world on the history of Britain at sea including both British and Dutch maritime art, cartography, manuscripts, and ship models. £0.00

The Garden Museum The Garden Museum in London is the only museum of its kind in Britain. The Museum is a celebration of the design and history of gardens. £6.00

Royal Air Force Museum The Royal Air Force Museum in Hendon offers one of the finest exhibitions on the history of aircraft and aviation in the country. £2.75

London Motor Museum The Museum has a unique collection of classic American Cars that relate to the story of the early motoring experience. £10.00

The Foundling Museum The Foundling Museum was originally one of the first houses in London for abandoned children and housed over 27,000 children before its closure. £7.50

Cartoon Museum This highly entertaining London tourist attraction covers the history and development of British cartoons from the 18th Century to the present day. This highly entertaining London tourist attraction covers the history and development of British cartoons from the 18th Century to the present day. £5.50

http://www.londonpass.com/london-attractions/london-museums.html

Πρώτα διάβασε τις παρακάτω ερωτήσεις και έπειτα χρησιμοποίησε το κείμενο για να τις απαντήσεις (γράφοντας μόνο τον τίτλο του κάθε μουσείου- <u>ένα τίτλο</u> σε κάθε απάντηση).

1) Which museum will you visit if you are interested in learning about sea life 
.....

2) Which museum was not originally intended for public view 
.....

2) Which museum will you visit if you want to see a collection of the American cars  .....

3) Which museum will you visit if you are interested in sports and you don't want to pay much money  .....

6) Which museum was used as one of the first house for abandoned children in London  .....

5 λεπτά 

TV Can Be Good for Kids!

By Carey Bryson, About.com Guide

Where kids are concerned, TV and movies get a bad rap, but with healthy viewing habits and parental supervision, limited "screen time" can be a positive experience for children. Here some ways children can benefit from watching TV and movies:

1. **TV can help kids learn about a variety of subjects.**

   If there's a subject your child enjoys, more likely than not, there is a TV show, movie, or educational DVD that explores the subject in detail. You might be even be surprised to find out how many kids watch and love educational shows aimed at adults. Rachael Ray, for example has a huge following among kids and tweens, and her primetime show often features kids in the kitchen.

   Children's shows, whether they bill themselves as "educational" or not, may offer opportunities to spark learning. For instance, was your child wowed by the Red Eyed Tree Frog on Go, Diego, Go!? Go online to look at pictures and read about the frog. In this way, kids are able to see how fun learning can be and establish a habit of finding out more when things interest them.

   Documentary and nature shows are also entertaining and educational for kids. A great example: *Meerkat Manor*, on the Animal Planet, makes a soap opera out of meerkat life and has kids hooked on the drama.

2. **Through media, kids can explore places, animals, or things that they couldn't see otherwise.**

   Most kids are not able to visit the rain forest or see a giraffe in the wild, but many have seen these things on TV. Thankfully, educationally minded producers have given us many shows and movies that allow viewers to see amazing footage of nature, animals, society, and other peoples. Kids and adults alike can learn from this type of media and gain a greater appreciation for our world and the animals and other people who inhabit it.

3. **TV shows can inspire kids to try new activities and engage in "unplugged" learning.**

   When kids see their favorite characters engaged in fun learning games, they want to play too. Kids also like learning activities more if they involve beloved characters. Preschoolers' shows are especially effective for generating ideas for learning activities and using characters to motivate kids.

   If you have a child who loves Blue's Clues, for example, you can create clues and a riddle for them to solve at home, or challenge your child to create the riddle and clues. Or, turn a regular activity into a challenge and encourage your child to solve it like the Super Sleuths do.

4. **TV and movies can motivate kids to read books.**

   Of the new movies that are released each year, you can bet that several of them are based on books. Parents can challenge kids to read a book with the promise of going to the theater or renting the movie when they finish it. Or, kids may see a movie and like it so much that they decide to read the book. Discuss the differences between the book and the movie to help kids develop thinking skills.

5. **Kids can build analytical skills by discussing media.**

   What do you think will happen next? Who did it? What will the result be? What could that character have done instead? Asking these types of questions as you co-view with your children will help them learn to think, problem solve, and predict, making TV viewing a more active experience. More important than just memorizing facts, developing thinking skills will benefit them for the rest of their lives.

6. **Parents can use TV to help kids learn the truth about advertising.**

   Advertising may be annoying, but it does present yet another opportunity to develop kids' thinking skills. According to the American Academy of Pediatrics, young children may not even know the difference between programs and commercials. They are just soaking it all in and applying it to their reality. As a parent, you can explain the purpose of advertising to your kids and alert them to any deceptive tactics. Allow them to analyze the methods used by advertisers to sell a product.

7. **Good role models and examples on TV can positively influence kids.**

   Children are influenced by people they see on television, especially other kids. Obviously, this can have a negative result, but it can be positive too. Lately, kids' TV shows have begun promoting some positive agendas such as healthy living and environmental awareness. As kids see their favorite characters making positive choices, they will be influenced in a good way. Parents can also point out positive traits that characters display and thereby spark valuable family discussions.

8. Daniel Anderson, a prominent researcher on the subject, sums up the situation with children and media perfectly stating, "I hope the broader impact of my research will increase awareness at many levels so that we can be cognizant of both the promise and the peril of what we are doing." Media truly can have a positive effect on children, but it is up to the parents, caregivers and educators in their lives to ensure that kids' viewing experiences are enriching and not damaging.

http://kidstvmovies.about.com/od/healthytvhabits/a/tvgoodforkids.htm

1) Γράψτε τις 5 πρώτες λέξεις-φράσεις που σας έρχονται στο νου κοιτάζοντας τον εξής τίτλο: **TV Can Be Good for Kids!**

2) Κοιτάζοντας τον τίτλο **TV Can Be Good for Kids** μπορείτε να μαντέψετε για τι πράγμα μιλάει το κείμενο  Κυκλώστε **<u>1 μόνο</u>** απάντηση.

1)This text:

a) talks about kids who love watching TV

b) describes ways of entertaining

c) informs us that TV is good for people

d) explains the benefits that children can get when watching TV

Για τις 2 αυτές δραστηριότητες **5 λεπτά** 

3) Αφού διαβάσετε **γρήγορα** το κείμενο, κυκλώστε τη σωστή απάντηση (**1 μόνο** σε κάθε ερώτηση):

1)This text

a) gives us information about TV

b) describes ways of learning through watching TV

c) explains the positive effects of TV on children

2)The main aim of this text is to:

a) describe different TV programs offered to kids

b) inform us of the positive experience that TV offers to children

c) explain the things, animals and places kids can learn about through watching TV

5 λεπτά 

4) Εντοπίστε στο κείμενο και γράψτε **1 μόνο** λέξη που να έχει περίπου την ίδια σημασία με:

a) start (paragraph 7).....

b) mystery (paragraph 3).....

c) famous (paragraph 8th).....

5 λεπτά 

Victoria & Albert Museum

Level 3

MATERIALS & TECHNIQUES	Rooms
Gold, Silver & Mosaics The Rosalinde and Arthur Gilbert Galleries	70–73
Ironwork	113–114e
Jewellery The William and Judith Bollinger Gallery	91–93
Leighton	102, 107
Metalware The Belinda Gentle Gallery	116
Paintings The Edwin and Susan Davies Galleries	81, 82, 87–88a
Photographs	100
Portrait Miniatures The International Music and Art Foundation Gallery	90a
Prints & Drawings The Julie and Robert Breckman Gallery	90
Sacred Silver & Stained Glass The Whiteley Galleries	83–84
Sculpture The Gilbert Bayes Gallery	111
Sculpture	117
Silver The Whiteley Galleries	65–70a, 89
Tapestries	94
Theatre & Performance	103–106

MODERN	Rooms
20th Century	74, 76

EUROPE	Rooms
Europe & America 1800–1900	101

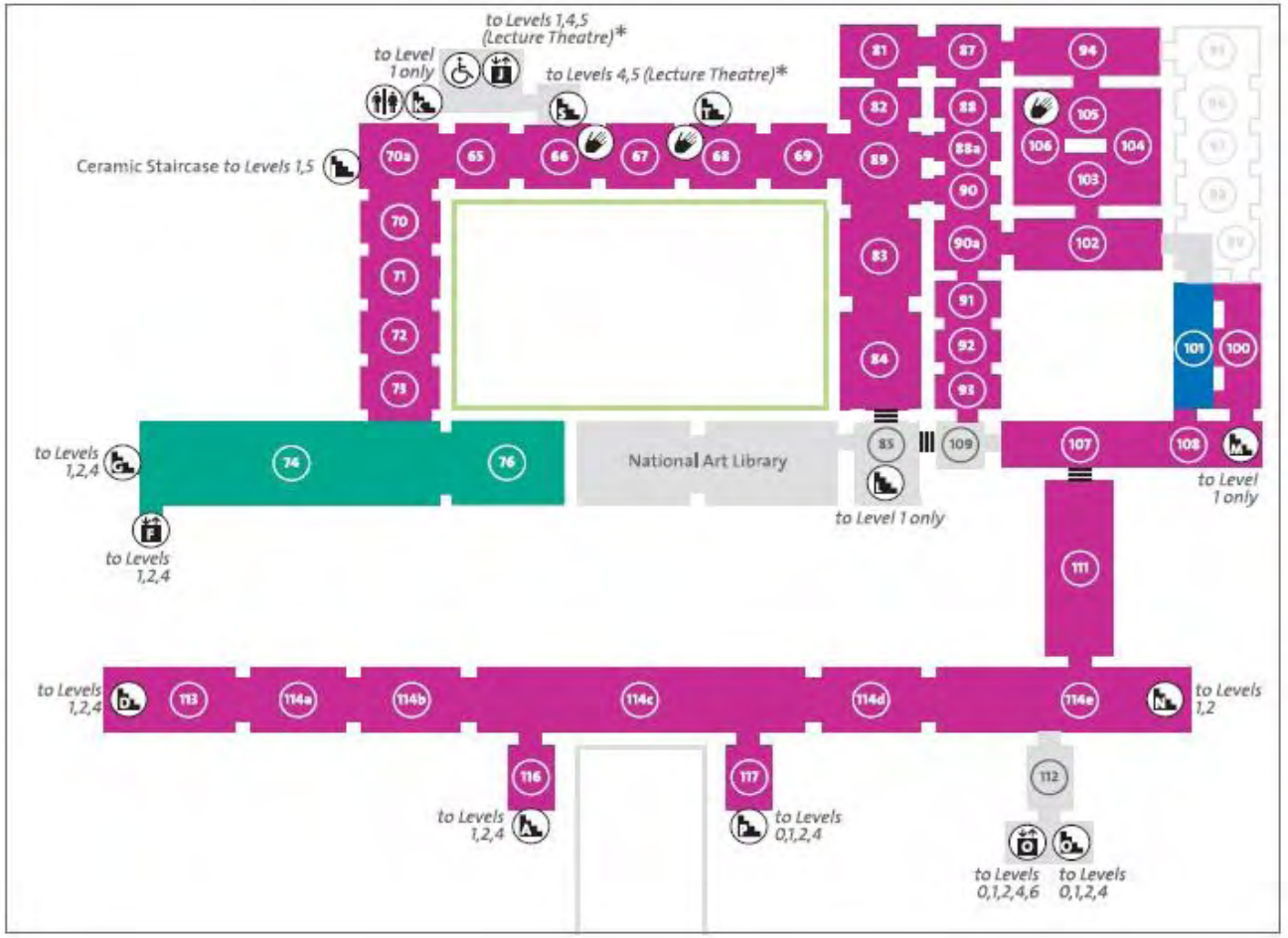
FACILITIES

Hands-on exhibits

National Art Library (Tuesday – Saturday)

Toilets

* Lecture Theatre
The Lydia and Manfred Gorvy Lecture Theatre
Take Lift J, Stair S or T to Levels 4 or 5



69 Level 3
Silver ewer and basin
Elie Pacot

72 Level 3
Snuffbox with flowers

76 Level 3
Egg Chair
Peter Ghyczy

87 Level 3
Boatbuilding
John Constable

90a Level 3
Miniature portrait of Mrs Jane Small
Hans Holbein

91 Level 3
Orchid jewel
Philippe Wolfers

101 Level 3
Cabinet
Henri-Auguste Fourdinois

106 Level 3
Prince Charming costume
Adam Ant

122 Level 4
Burges Decanter

129 Level 4
Deep Blue and Bronze Persian Set
Dale Chihuly

145 Level 6
Artist at his Easel
Pablo Picasso

1) Κοιτάξτε γρήγορα το σχεδιάγραμμα και τις σημειώσεις που το συνοδεύουν και κυκλώστε τη σωστή απάντηση (**1 μόνο**):

1)What is this text 

a) It is a floor plan of the Victoria & Albert Museum

b) It is the National Art Gallery of the Victoria & Albert Museum

c) It is the History of the Victoria & Albert Museum

2a) Κοιτάξτε ξανά το σχεδιάγραμμα και τις σημειώσεις που το συνοδεύουν και γράψτε σύντομα *το τμήμα του μουσείου* όπου μπορεί να βρει κανείς τα εξής αντικείμενα:

1) In which department can you find the *Snuffbox with Flowers*?.....

2) In which department can you find the *Cabinet Henri-Auguste Fourdinois*?.....

3) In which department can you find the *Egg Chair Peter Ghyczy*?.....

b) Κοιτάξτε το σχεδιάγραμμα και τις σημειώσεις που το συνοδεύουν και απαντήστε σύντομα στις εξής ερωτήσεις:

1) Which department will you visit if you want to learn about the *20th century*?.....

2) Which department will you visit if you are interested in learning about *Europe & America 1800-1900*?.....

3) Which department will you visit if you are interested in *Theatre & Performance*?.....

3) What facilities can you find on the 3rd level of this museum 

.....

10 λεπτά 

Appendix C: First Two Reading Lessons of the 10-unit EFL Course-book of the Sixth Grade

Unit 1 Our multicultural class

You are here to READ
maps and do a geography quiz, reports about countries, landforms and nationalities

and TALK about
countries and their culture, school subjects and every day activities

and LISTEN TO
pupils talking about school projects

and WRITE
reports about countries and people's everyday activities

and LEARN
how to use the Present Simple and the Present Continuous tense

A Geography quiz

Are these TRUE or FALSE? Tick ☑ the correct box.	TRUE	FALSE
1. Ukraine is the second largest country in Europe.	✓	
2. Ukraine borders the Aegean Sea.		
3. The accident in Chernobyl, in 1986, is still causing serious environmental problems.		
4. Earthquakes or tsunamis sometimes happen along the South coast of Albania.		
5. Albania is in the Balkan Peninsula.		
6. The Carpathians are large plains.		
7. Mother Teresa is of Albanian origin.		

ΚΕΥ: 1 True, 2 False, 3 True, 4 True, 5 True, 6 False, 7 True

UNIT 1

Lesson 1 Meeting the newcomers

1. Reading

This year the 6th Class of our International School welcomes some new pupils from different countries. All the other pupils want to know them better. They are reading the newcomers' reports about their countries in the school newsletter. Read the reports below to find answers in the Geography quiz:

OUR NEWCOMERS TO SCHOOL

I come from Ukraine, the second largest country in Europe. It is between Poland and Moldavia in the west and Russia in the east. I don't come from the capital Kiev. My hometown is Odessa, on the coast of the Black Sea. Ukraine has got large plains but also high mountains, such as the Carpathians. The River Dnipo flows across the country splitting it in two parts.
In winter the weather gets very cold. Summers are warm across the greater part of the country and cool along the Black Sea, so we spend much more time outdoors.
A nuclear power plant accident in Chernobyl, in 1986, is still causing serious environmental problems which worry Ukrainian people. Today we don't have enough drinking water supplies because of that accident.
Despite these problems, I believe Ukraine is a beautiful country with outgoing and brave people. I love it very much.

Sasha

Albania, the ancient Illyria, is where I come from. My hometown is Tirana, the capital of Albania. Albania shares borders with Serbia, Montenegro and Greece. On the west, it is bordering the Adriatic Sea and the Ionian Sea.
The beaches are beautiful and during the hot, dry summers we swim in the clear sea, but in winter the temperature usually drops and it often rains heavily, so there are a lot of forests. We often have problems with natural disasters, such as earthquakes or tsunamis that happen along the South coast.
Mother Teresa, the popular nun and humanitarian Nobel Prize winner, is of Albanian origin.
My country is not very rich and our parents sometimes go to other countries, such as Italy, France or Greece, and work there. However, we miss our homeland.

Christina

Do you remember the ancient Colchis and the myth of Jason and the Golden Fleece? That is where I come from, Georgia! It is in the West Asia, bordering the Black Sea, which the Greeks called Pontus Euxinos, Turkey and Russia. The temperature is mild and it is usually sunny and warm. The country is mountainous, but along the coast we grow vines, tea and citrus fruit. In this area the temperature rarely drops below zero. Many people work in copper and coal mines, or in oil wells. Others sometimes leave their hometown to find work. My uncle works in T'blisi, the capital of Georgia.

Georgi

LEARNING STRATEGIES
When I learn new words...
I listen carefully and try to imitate.
I repeat new words many times and try to remember them.
I write them down.
I may write them down with the translation in Greek.
I group the words by topic.
I write them down in an example sentence.

A. Look at the map and write the capital city next to each country. Then write in the relevant nationality.

Country	Capital	Nationality
Georgia	T'blisi	Georgian
Albania		
Ukraine		

B. Work in pairs. Use the information in the reports to fill in the table below:

Country	Terrain	Weather	Problems
Albania			
Georgia			
Ukraine			

Unit 2 Going Shopping

You are here to READ
a supermarket flyer, a shopping list, a school canteen menu, a receipt, an internet site

and TALK about
shopping goods and their prices

and LISTEN TO
people talking in supermarkets and department stores

and WRITE
shopping lists and on-line orders

and LEARN about
countable and uncountable nouns and how to use a/an, some/any, a few/few, a little/little, how much, how many

Look at these pictures. Listen to the people and decide where they are.

UNIT 2

Lesson 1 At the supermarket

1. Reading

A. Look at the picture of the supermarket on the flyer below. Talk about the various departments you usually visit. What items can you buy there?

A. At FFM"s *(Fresh Food Market)*, you can find a great selection of delicious and tempting cakes and desserts. Choose from fresh cream cakes and fruit flans to tasty pastries and delicious muffins – many prepared in-store. The boxes of doughnuts include a range of tempting flavours. For any special occasion there's a great range of celebration cakes too!

B. Every FFM has well trained butchers in-store, able to prepare over a hundred cuts of meat like beef and lamb ribs, pork chops and steaks. So whether it's some mince for a cottage pie or a turkey for a special occasion, our butcher can prepare the cut that's right for you.

C. At FFM's we carefully select and pack most of the fresh fruit and vegetables. You always find a superb selection of ready prepared salads and pre-washed vegetables. FFM offers a variety of organic products such as eggs, cheese, potatoes, mushrooms, tea bags and muesli that don't cost the earth. We are always on hand to help you with your selection.

B. Read the flyer of the **Fresh Food Market** and choose the correct heading for each paragraph. There is an extra heading that you don't need:

1. The dairy corner | **2. The bakery** | **3. Meat and poultry** | **4. The greengrocer's**

Read the flyer again and answer the questions below choosing from the paragraphs A-C:

Which paragraph(s) tell(s) you…

that you can buy healthy food	1. ____
that you can buy a variety of sweets	2. ____
that everything is in a good price	3. ____
what you can buy for a barbecue party	4. ____
what to buy for a rich breakfast	5. ____

C. LISTEN AND ANSWER.
Mary and her mother are at the supermarket.
What do they need the strawberries for?
How much money do they cost?

They need the strawberries for _____.

Price: _____p a box!

£1 = 100p
(one **pound** *= one hundred* **pence***)*

D. Mary is preparing the shopping list for her birthday party. Look at her list and help her to organize it:

Mary's shopping list

- 20 cans of cider
- 2 pounds of pork chops
- a carton of milk
- a dozen of eggs
- 2 packets of muffins
- 1 jar of jam
- 2 bars of chocolate
- 3 boxes of strawberries
- 2 packets of butter
- 1/2 pound of mince
- 3 bottles of orange juice
- 1 packet of flour
- 1 packet of sugar
- 2 pounds of bananas

What to buy

- dairy
- meat & poultry
- fruit & vegetables
- groceries
- sweets
- soft drinks

Appendix D: Categorical Checklist Used during Classroom Observation

Categorical Checklist

Date:

School:

Text:

Teaching and modelling of comprehension strategies	***Classroom 1***	***Classroom 2***
Activate students' background knowledge (using semantic maps, pictures, videotapes, questions, preteaching unknown words ...)		
Predict upcoming content		
Find main idea(s) of texts/skimming		
Find specific information in texts/scanning		
Summarize the content of texts		
Use mental imagery		
Take notes while reading		
Monitor comprehension (assess his or her degree of understanding of the text)		

Practice of comprehension strategies		
Activate students' background knowledge (using semantic maps, pictures, videotapes, questions, preteaching unknown words ..)		
Predict upcoming content		
Find main idea(s) of texts/skimming		
Find specific information in texts/scanning		
Summarize the content of texts		
Use mental imagery		
Take notes while reading		
Monitor comprehension (assess his or her degree of understanding of the text)		
Vocabulary		
Explicitly teach vocabulary (equivalent explanation in Greek, definitions, synonyms, glossaries…)		
Infer the meaning of unknown words based on context		
Use reference materials (such as dictionaries)		
Activities and instructional grouping		

Teacher's oral reading		
Round Robin Reading		
Silent reading		
Promotion of reading for pleasure at home		
Practice reading words out of context		
Whole class instruction		
Individual work		
Pair work		
Group work		
Comprehension assessment/indicators of reading achievement		
Oral questions following a reading material		
Written questions following a reading material (cloze-type, multiple choice, matching, T/F activity..)		
Tests		
Portfolios		
Materials		

Course books		
Authentic Newspaper/magazine/computer articles etc		
Dictionaries		
Teacher made worksheet		
Homework		
T. gives hw		
T. helps with hw		
T. checks hw		
Students' use of reading strategies (name any strategy)		
General comments regarding the reading lesson		

Appendix E: Interview Guide

Appendix E1: Interview Guide (Greek Version)

Μέρος Ι: Προφίλ δασκάλων

1) Πόσα χρόνια είστε διορισμένη?

1-5	6-10	11-15	16-20	21-25

2) Έχετε κάνει επιπλέον σπουδές?

Μεταπτυχιακό	Διδακτορικό	Άλλο Πτυχίο

Μέρος ΙΙ: Κατανόηση γραπτού λόγου

1) Πώς προσεγγίζετε-διδάσκετε την κατανόηση γραπτού λόγου (reading skill)?

2) Είστε ικανοποιημένη με τον τρόπο με τον οποίο εσείς διδάσκετε την κατανόηση γραπτού λόγου?

3) Νομίζετε ότι χρειάζεται κάτι να αλλάξει? Αν ναι, τι είναι αυτό?

4) Νομίζετε ότι πρέπει να διδάσκεται συστηματικά η κατανόηση γραπτού λόγου (να μαθαίνουν δηλαδή τα παιδιά *πώς* να κατανοούν το νόημα γραπτών κειμένων στην αγγλική γλώσσα?

5) Ποιες νομίζετε ότι είναι οι δυσκολίες που αντιμετωπίζουν τα παιδιά κατά την ενασχόλησή τους με γραπτά κείμενα στην αγγλική γλώσσα?

6) Πώς προσεγγίζετε τις άγνωστες λέξεις μέσα στα κείμενα?/Τι κάνετε για να οδηγήσετε τα παιδιά στην κατανόηση του νοήματος των άγνωστων λέξεων μέσα στα κείμενα?

7) Πιστεύετε ότι τα παιδιά πρέπει να μαθαίνουν όλες τις άγνωστες λέξεις που συναντούν σε κάθε κείμενο?

8) Εκτός από το διδακτικό εγχειρίδιο (Course book), δίνετε επιπλέον υλικό-κείμενα στους μαθητές? Αν ναι, από ποιες πηγές και τι είδους κείμενα?

9) Αξιολογείτε την πρόοδο των παιδιών στην κατανόηση γραπτού λόγου? Αν ναι, με ποιο τρόπο?

10) Υπάρχει στην τάξη/σχολείο σχολική βιβλιοθήκη με συλλογές αγγλικών βιβλίων, ώστε να ενθαρρύνονται οι μαθητές να διαβάζουν αγγλικά κείμενα κατά τον ελεύθερό τους χρόνο?

11) Ποια είναι η γνώμη σας για την επιλεκτική ανάγνωση? Εσείς τη χρησιμοποιείτε όταν προσεγγίζετε ένα κείμενο στα αγγλικά?

12) Διδάσκετε στα παιδιά να χρησιμοποιούν την επιλεκτική ανάγνωση? Ναι/Όχι, γιατί?

Μέρος ΙΙΙ: Στρατηγικές κατανόησης γραπτού λόγου

1) Γνωρίζετε τι είναι οι στρατηγικές κατανόησης γραπτού λόγου (reading comprehension strategies)?

2) Χρησιμοποιείτε στρατηγικές κατανόησης γραπτού λόγου μέσα στην τάξη? Αν ναι, ποιες στρατηγικές?

3) Διδάσκετε στα παιδιά στρατηγικές κατανόησης γραπτού? Αν ναι, ποιες στρατηγικές? Πώς διδάσκετε τις στρατηγικές κατανόησης γραπτού λόγου? Με ποιο κριτήριο επιλέγετε ποιες στρατηγικές θα διδάξετε?

4) Κατά τη γνώμη σας, νομίζετε ότι πρέπει να διδάσκονται οι μαθητές τη χρήση των στρατηγικών κατανόησης γραπτού λόγου? Ναι/Όχι. Γιατί?

Appendix E2: Interview Guide (English Version)

Part I: Teacher's profile

1) How long have you been teaching EFL in public schools?

1-5	6-10	11-15	16-20	21-25

2) Have you attended any post-graduate studies?

MA	PhD	Seminars

Part II: Reading comprehension skill

1) How do you teach L2 reading comprehension?

2) Are you satisfied with the way you approach reading comprehension?

3) Do you think that some changes need to take place? If yes, what are these changes?

4) In your opinion, should students be explicitly taught *how* to comprehend written texts in English?

5) Which is/are the main difficulty/ties that students may face during interaction with EFL texts?

6) How do you approach unknown vocabulary in written texts?

7) Do you think that students should learn all the unknown words that they come across in a written text?

8) Do you give students extra texts/material in addition to the official course-book? If yes, what kind of texts are these and where do you find them?

9) Do you assess learners' reading performance? If yes, how?

10) Is there a classroom or school library including English collection of books to which students can have access to?

11) What do you think of expeditious reading (skimming and scanning)? Do you teach students to use these processes when interacting with written texts?

Part III: Reading strategies

12) Do you know what reading comprehension strategies are?

13) Do you use reading comprehension strategies during reading lessons? If yes, which strategies do you use?

14) Do you teach students how to apply reading strategies while constructing meaning from EFL texts? If yes, how do you instruct students in deploying reading strategies?

15) Do you think that students should be taught to use reading strategies when interacting with written texts?

Appendix F: Students' Background Questionnaire

Ερωτηματολόγιο προσωπικών στοιχείων

Θα σου ζητήσω να απαντήσεις στις παρακάτω ερωτήσεις, οι οποίες αναφέρονται σε κάποια προσωπικά στοιχεία του καθενός. Οι απαντήσεις σου θα θεωρηθούν εμπιστευτικές.

ΣΤΟΙΧΕΙΑ ΤΟΥ ΜΑΘΗΤΗ: **(βάλε √ στο αντίστοιχο □)**

1) Σχολείο:____

2) Αριθμός:____

3) Φύλο: □ Αγόρι □ Κορίτσι

4) Μητρική Γλώσσα: □ Ελληνική Άλλη:____

Appendix G: Reading Section of the K.P.G. (A level-May 2011)

ACTIVITY 1

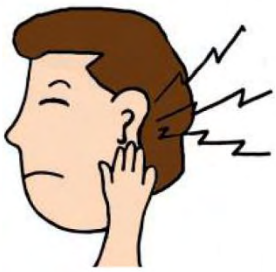
Match sentences 1-5 with pictures A-F, as in the example.

Αντιστοίχισε τις προτάσεις 1-5 με τις εικόνες A-F όπως στο παράδειγμα.

EX.	~~Tommy has a temperature!~~	**A.**
1.	John has got a toothache!	
2.	Billy's got a stomachache!	
3.	Peter has a sore throat!	
4.	Andreas has got a headache!	
5.	Alex has got an earache!	

A.

B.



C.

D.

E.

F.

ACTIVITY 2

What season or place are the post card writers referring to? Match options A-F with the content of each card (6-10), as in the example.

Σε ποια εποχή ή τόπο αναφέρεται το κάθε άτομο που γράφει; Αντιστοίχισε τις επιλογές A-F με το περιεχόμενο της κάθε κάρτας, όπως στο παράδειγμα.

A.	Autumn	**B.**	Crete	**C.**	Paris
D.	~~New York~~ ✓	**E.**	Winter	**F.**	Summer

EXAMPLE **D** [city] ✓

Hi Jenny. Here I am, in one of the most famous cities in the world! It has so many tall buildings and so much to see!

PLACE STAMP HERE

6. ☐ [season]

We're here at last! Tomorrow we'll go swimming. Sorry you're not with us to enjoy the sun!

Timmy

7. ☐ [season]

POSTCARD

We're finally here. The cabin is warm and comfortable and outside the snow is thick and white! We're going skiing early morning. Can't wait!

8. ☐ [place]

I'm writing to you from my island, which is in the southern part of Greece. We have a new house here and we love it!

Love
Katie

This is a handmade postcard

PLACE STAMP HERE

9. ☐ [place]

I'm writing to you from the capital of France, the city of my dreams. Wish you were here to see it with me!

Love ya
Jamie

10. ☐ [season]

POSTCARD

We arrived last night. This morning I can see how beautiful it is at this time of year. The leaves on the trees are yellow and red!

PLACE STAMP HERE

ACTIVITY 3

3.1 **Read the text below and choose the best answer (A, B, or C) for items 11-13, as in the example.**

Διάβασε το κείμενο και διάλεξε την καλύτερη απάντηση (A, B, or C) για τις ερωτήσεις 11-13, όπως στο παράδειγμα.

EX. Το παρακάτω κείμενο μας λέει για τα τρίκυκλα ATV.

A. Εξηγεί τι είναι. ✓ **B.** Τα διαφημίζει. **C.** Δίνει οδηγίες χειρισμού.

11. Απευθύνεται σε

A. μοτοσικλετιστές. **B.** σε μικρά παιδιά. **C.** ενδιαφερόμενους αγοραστές.

12. Μια ανησυχητική πληροφορία σχετικά με αυτά τα οχήματα αφορά

A. στον αριθμό ατυχημάτων που έχουν συμβεί. **B.** στην καταστροφή του περιβάλλοντος που προκαλούν. **C.** στο φοβερό θόρυβο που κάνουν.

13. Το κείμενο παροτρύνει τους αναγνώστες _____ ένα τέτοιο όχημα.

A. να αγοράσουν **B.** να σκεφτούν πριν αγοράσουν **C.** να νοικιάσουν

ATVs: beautiful but ... dangerous!

A. ATVs look like motorcycles for all kinds of beaches, hills or rocky mountains. They can be very big, colourful, with three or four wheels, and for one or two riders. For those who love 'racing', there are quite a few models.

B. ATVs first appeared around 1970 and are in fashion today. You can see lots of them everywhere, especially in the countryside and near holiday resorts for tourists.

C. However, they can be very dangerous because they are very 'light'. So, their riders are not as safe as in cars, even if they wear a helmet. Because of the great number of accidents, some companies have stopped producing three-wheel ATVs, and in some areas in the USA, Canada and Australia you can't ride one.

D. So, be careful: ATVs may look beautiful, but they are dangerous. Think twice before you buy or simply ride one!

3.2 **Which part of the text contains the following information? Match parts A-D with statements 14-16 as in the example.**

Ποιο τμήμα του κειμένου περιλαμβάνει τις παρακάτω πληροφορίες; Αντιστοίχισε τα τμήματα A-D με τις προτάσεις 14-16, όπως στο παράδειγμα.

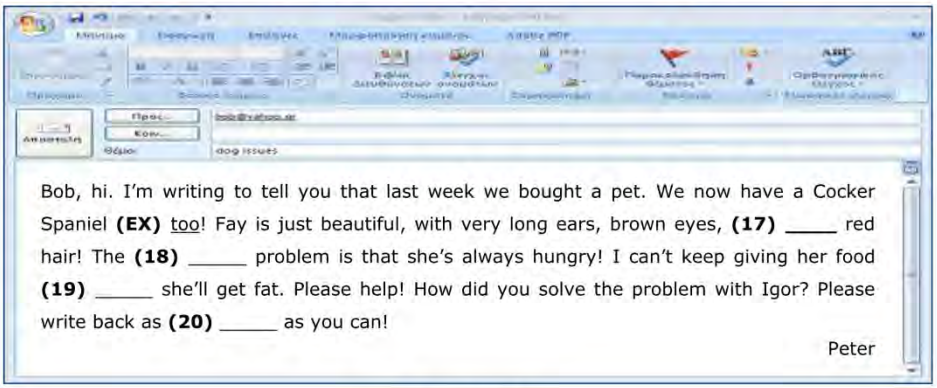
EX.	Μας συμβουλεύει να είμαστε πολύ προσεχτικοί.	**D** ✓
14.	Μας πληροφορεί ότι τα οχήματα αυτού του τύπου έχουν γίνει της μόδας.	
15.	Αναφέρεται σε χώρες που τα απαγορεύουν.	
16.	Δίνει πληροφορίες για τα χαρακτηριστικά τους.	

ACTIVITY 4

Read the email below and for each gap (17-20) choose the best word (A-F), as in the example. There are two words you do not need.

Διάβασε το παρακάτω email και για κάθε κενό (17-20) διάλεξε τη καλύτερη λέξη (A-F), όπως στο παράδειγμα. Υπάρχουν δύο λέξεις που δεν τις χρειάζεσαι.

EX. too ✓	A. soon	B. and	C. but	D. only	E. well	F. because



Bob, hi. I'm writing to tell you that last week we bought a pet. We now have a Cocker Spaniel **(EX)** too! Fay is just beautiful, with very long ears, brown eyes, **(17)** _____ red hair! The **(18)** _____ problem is that she's always hungry! I can't keep giving her food **(19)** _____ she'll get fat. Please help! How did you solve the problem with Igor? Please write back as **(20)** _____ as you can!

Peter

ACTIVITY 5

Fill in gaps 21-25 with the right word, as in the example. The first letter will help you.

Συμπλήρωσε τα κενά 21-25 με τη σωστή λέξη, όπως στο παράδειγμα. Το πρώτο γράμμα θα σε βοηθήσει.

COUNTRYSIDE * COUNTRYSIDE * COUNTRYSIDE * COUNTRYSIDE

EX.	The island has a wonderful h_____ with boats and ships, and a few cafeterias by the sea.	H	A	R	B	O	U	R ✓	

21.	In July, my parents and I often go to the **b**_____ and swim there all day, till late in the afternoon!	B							
22.	My little brother likes swimming but he also likes making castles in the **s**_____!	S							
23.	In winter you can ski on this **m**_____. It's got a lot of snow from November till April or May!	M							
24.	I don't really like big cities. I prefer places like my uncle's **v**_____ where everything's so quiet!	V							
25.	This is the most beautiful **f**_____ in Greece. It's full of pine trees, rare birds and other wild animals.	F							

ACTIVITY 6

Read the text below and for each gap (26-28) choose the best word (A-E), as in the example. There are two words you do not need.

Διάβασε το κείμενο και για κάθε κενό (26-28) διάλεξε την καλύτερη λέξη (A-E), όπως στο παράδειγμα. Υπάρχουν δυο λέξεις που δεν τις χρειάζεσαι.

EX.	~~then~~ ✓	**A.**	if	**B.**	around	**C.**	between	**D.**	with	**E.**	so

The History of Ice cream...

Did you know that ice cream was first made in China around 200 BC? People 'invented' it (EX) then, but we know that it was also popular in Rome. Nero, for instance, was very keen on ice cream and regularly mixed it (26) _____ fruit!

Italian and French kings soon discovered ice cream, too. But the kind of ice cream we have come to know today appeared in the USA around the middle of the 19th century. The first recipes were sold in the eighteen hundreds. However, it was (27) _____ 1926 that we had the first freezer for ice cream. (28) _____ you want to learn more about ice creams, you can go to www.icecream.com/info.

ACTIVITY 7

Match statements 29-32 (COLUMN A) with the appropriate answers A-F (COLUMN B), as in the example. There is one answer you do not need.

Αντιστοίχισε τις προτάσεις 29-32 (COLUMN A) με τις απαντήσεις A-F (COLUMN B), όπως στο παράδειγμα. Υπάρχει μια απάντηση την οποία δεν χρειάζεσαι.

	COLUMN A		COLUMN B
EX.	**My car broke down this morning!**	**A.**	I hope he brings me a present!
29.	Shall we buy this souvenir?	**B.**	That's right and I will.
30.	You don't need to wash the dishes!	**C.**	**Gee, sorry, I'll come and pick you up!** ✓
31.	You must return the book today.	**D.**	I know but I don't mind helping!
32.	Uncle Peter may visit us today.	**E.**	That's a good idea! It's very nice!
		F.	How nice to see you here!

ACTIVITY 8

Match the questions on the left (33-36) with the answers on the right (A-E). There is one answer you do not need.

Αντιστοίχισε τις ερωτήσεις στα αριστερά (33-36) με τις απαντήσεις (A-E) στα δεξιά. Υπάρχει μια απάντηση που δεν χρειάζεσαι.

The squirrel: a pet for you?

Interview with Jim Handling, pet shop owner

33. Jim, is it true that pet shops are selling more and more squirrels nowadays? ☐

34. What do you have to buy if you want a squirrel at home? ☐

35. Sounds great but … what about its food? I suppose that can be a problem for some? ☐

36. Are there many kinds of squirrels, like cats or dogs, and how can we choose one? ☐

A. Oh, not much! You will of course need a cage, big or small, but you will also need some branches: squirrels love to climb up and down all day long!

B. The pet shop owner will help you for sure: there are more than 280 kinds to choose from! So, you will certainly find the kind of squirrel you like best!

C. Yes, this kind of pet can be dangerous. Actually, there have been quite a few accidents lately.

D. Well, yes! A lot of people - children in particular - love little animals. But people love them not only for their tiny size: they are also fond of their soft fur, their big tail, their soft feet and their big eyes!

E. No, not really! Don't worry about it. Squirrels eat almost anything: seeds, nuts, fruits…

ACTIVITY 9

Read the 4 texts below and choose the best answer (A, B, or C) for items 37-41, as in the example.

Διάβασε τα 4 κείμενα και διάλεξε την καλύτερη απάντηση (A, B, ή C) για τα ερωτήματα 37-41, όπως στο παράδειγμα.

A.

The best way to really enjoy the tropical beauty of the island is by booking a round-the-island tour. Our cruise ships offer a great number of tours from €20.00 - €60.00 per person. All are popular in the summer time, so book as early as possible. More info available at all hotel receptions.

B.

The Silver Scarf

Peter Ryan is an ordinary teenager who suddenly starts to bring a girl's silver scarf to school with him every day. No one knows why. Everyone in school starts to wonder about him. Until one day...

This is a story about feelings and friends, and what sometimes makes people suddenly change. Written by Ernest Halley.

C.

In a large bowl, mix the dried fruits, the apple bits, and half a cup of sweet wine. Heat the orange juice for 1 -2 minutes. Pour it over the fruits. Cover and wait for about 2 hours, or keep in the fridge for at least 30 minutes.

D.

Start with one card and make sure you use your right hand. Hold the card between two fingers and have the face of the card towards the audience. Throw it up into the air and make sure it lands on the table in front of you. As you do this, with your left hand take the hidden card from the middle of the table and place it on top of the first card. Then, ...

EX. Text A may be useful to
A. hotel receptionists. **B.** ship captains. **C.** tourists. ✔

37. Text A is from
A. a brochure. **B.** a recipe. **C.** a poster.

38. Text B is probably about
A. a new theatrical play. **B.** two teenagers. **C.** a teacher and a student.

39. Text C is
A. an announcement. **B.** an advertisement. **C.** a recipe.

40. Text D gives information about
A. doing a card trick. **B.** playing a card game. **C.** using your hands.

41. All four texts
A. are only for kids. **B.** are informative. **C.** give a solution to a problem.

ACTIVITY 10

Read the text and for each gap (42-45) choose the best word (A-F). There is one word you do not need.

Διάβασε το κείμενο και για κάθε κενό (42-45) διάλεξε την πιο κατάλληλη λέξη (A-F). Υπάρχει μία λέξη που δεν χρειάζεσαι.

A.	~~much-loved~~	**B.**	lonely	**C.**	ready	**D.**	wrong	**E.**	thin	**F.**	typical

Since 1997, Harry Potter has become one of the **(EX)** much-loved idols of millions of teenagers all over the world. But how? Well, the answer is very simple: he looks like a **(42)** _____ English boy with a kind face who knows how to deal with life and solve problems on his own. In the seven books about the years of his life, Harry Potter is not afraid of danger. So, he never gives up, he is always **(43)**_____ to fight and always tries to be nice to everyone. He knows what is right and what is **(44)**_____, and although he feels very **(45)**_____ at times, he has friends ready to help him and fight with him.

ACTIVITY 11

Use the correct form of the words in parentheses in statements 46-50, as in the example.

Χρησιμοποίησε τη σωστή μορφή των λέξεων σε παρένθεση στις προτάσεις 46-50, όπως στο παράδειγμα.

Cleaning products: who said they are all safe?

We all like to have a clean home. But are all cleaning products safe? No, Not really!

- Always wear gloves: some products are not very skin-**(EX) friendly** (friend)!
- Breathing detergents may be **(46)**_____ (danger) to your health!
- Keep products away from the sun, in a safe place, and **(47)**_____ (natural) keep them away from children!
- If you need a short **(48)**_____ (relax) break, just stop cleaning for a while!
- **(49)**_____ (Final), wash your hands very well after using any of these products!
- Be very **(50)** _____ (care) and remember to have doors and windows open while using cleaning products.

ΣΑΣ ΥΠΕΝΘΥΜΙΖΟΥΜΕ ΟΤΙ ΠΡΕΠΕΙ ΝΑ ΜΕΤΑΦΕΡΕΤΕ ΟΛΕΣ ΤΙΣ ΑΠΑΝΤΗΣΕΙΣ ΣΤΟ ΕΝΤΥΠΟ 1

ΤΕΛΟΣ ΜΗΝΥΜΑΤΟΣ

Appendix H: Poster of the Reading Strategies Emphasized in the Intervention