INSTRUCTIONAL STRATEGIES FOR ENHANCING LEARNING DISABLED STUDENTS' READING COMPREHENSION AND COMPREHENSION TEST PERFORMANCE

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Instructional Strategies for Enhancing Learning Disabled Students' Reading

Comprehension and Comprehension Test Performance

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I hereby certify that the present study *Instructional Strategies for Enhancing Learning Disabled Students' Reading Comprehension and Comprehension Test Performance*, presented by Ghada Awada for the award of the degree of Doctor, has been carried out under my supervision at the Department of English and German Studies of the Rovir i Virgili University.

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DEDICATION

I dedicate this dissertation to my children who have inspired me very profoundly.

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ABSTRACT

This experimental study was set to investigate the effect of combined strategy instruction on improving the reading comprehension of narrative texts by grade 7 and 8 (12-14 and 13-15- year –old) dyslexic learners of English as a foreign language as well as the comprehension of expository texts by their grade 9 and 10 (14-16 and 15-17 –year old) counterparts. In addition, the study looked into the interaction effects of the treatment with combined strategies and the gender of the participants (male versus female) and the school type of the study participants (control versus experimental, using a mixed method factorial design where the variable of the treatment conditions with two levels (control versus experimental) was used as an independent variable, the variables of gender and school were used as moderator variable, and reading comprehension as dependent variable. The combined strategy instruction consists of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning on improving the reading comprehension of narrative texts for students with dyslexia in grades 7 and 8 (12-14 and 13-15-year –old). However, the study combined strategy instruction did not include computer exercise for students with dyslexia in grade 9 and 10 (14-16 and 15-17 –year old), and the expository texts and not the narrative ones were used in grades 9 and 10 (14-16 and 15-17 –year old). The study findings were reported and discussed in light of previous research and study context as well as implications for classroom instruction and further research.

Key words: graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification,

summarization, questioning , reading comprehension ,expository and narrative texts,

dyslexia, LD

List of Acronyms used in the study

The following terms and Acronyms are defined operationally for this study.

IDEA Individuals with Disabilities Education Act Amendments (1997)

IEE Independent Educational Evaluation

IEP Individualized Education Program

IQ Intelligence Quotient

ITP Individualized Transition Program

JTPA Job Training Partnership Act

LD Learning Disabilities

LEA Local Educational Agency

LRE Least Restrictive Environment

MR Mental Retardation

NASDSE National Association of State Directors of Special Education

NASP National Association of School Psychologists

NIH National Institutes of Health

OCR Office of Civil Rights

OHI Other Health Impaired

OSEP Office of Special Education Programs

SEA State Education Agency

SLD Specific Learning Disabilities

USC United States Code

USDOE United States Department of Education

Definition of terms

Author and Me: A QAR strategy in which the answer is an inference from the text. The reader puts together the information the author provides with information the reader already knows to come up with the answer (Montali, & Lewandowski, 1996).

Background Knowledge: The relevant content knowledge that the students already have had about the topic of the reading text through previous experience or learning (Longman Dictionary of Language Teaching and Applied Linguistics).

Conversation: Establishing a conversational setting and coaching students to discuss personal experiences or opinions that relate to the topic of an upcoming reading assignment (Adult Literacy Reading, 2007).

Information Methods: Teaching students strategies for note-taking, highlighting, outlining and memorization for the purposes of clarifying and organizing their thoughts as well as consolidating information (Adult Literacy Reading, 2007).

Inferential Question: A question about a reading passage, which can be answered either entirely from prior knowledge or prior knowledge and text clues provided by the author.

Phonology: The study of sounds and how they work within their environment. A phoneme is the smallest unit of sound in a given language that can be recognized as being distinct from other sounds in the language. Phonological awareness is the understanding of the internal linguistic structure of words. An important aspect of phonological awareness is phonemic awareness or the ability to segment words into their component sounds (Vadasy, Sanders, & Peyton, 2005).

Reading Strategy: A systematic plan for achieving successful   comprehension (Longman Dictionary Language Teaching and Applied Linguistics).

Reading Ability: Skill in processing text accurately and rapidly, in interpreting, and in using it (Longman Dictionary of Language Teaching And Applied Linguistics).

Reading Fluency: Having students re-read materials to develop the ability to read quickly and accurately **(**Adult Literacy Reading, 2007**).**

Scanning: Glancing from point to point in search of a particular item (Webster's Ninth New Collegiate Dictionary).

Semantics: The study of meaning; especially the study of the relations between referents and names and between concepts and names (Webster's Ninth New Collegiate Dictionary).

Semantic clue: Evidence from the general sense or meaning of a written or spoken communication that aids in the identification of an unknown word (Webster's Ninth New Collegiate Dictionary).

Semantic Components: Understanding meanings of phrases, clauses, and sentences (Webster's Ninth New Collegiate Dictionary).

Skimming: Reading superficially and rapidly, especially glancing through for the chief ideas processing (Webster's Ninth New Collegiate Dictionary).

Syntax: The study of the structure of grammatical sentences in a language (Webster's Ninth New Collegiate Dictionary).

Syntactic components: Recognizing and use grammatical sentences and correct English word order (Webster's Ninth New Collegiate Dictionary).

Syntactic Clue: It is the Evidence from knowledge of the rules and patterns of language that aids in identification of an unknown word from the way it is used (Webster's Ninth New Collegiate Dictionary).

Skills Instruction: Teaching the reading comprehension skills of retelling, inference-prediction, sequence, main idea, fact versus opinion, and drawing conclusions (Adult Literacy Reading, 2007).

Structured Overview: When introducing a reading or story, presenting a general survey about a certain concept (Adult Literacy Reading, 2007).

Tutoring: Having students engage in additional reading, learning and study development with the help of peer, cross-age, or paraprofessional tutors who are in the classroom **(**Adult Literacy Reading, 2007**).**

Visualization: Using visual prompts or asking students to visualize and imagine elements of the information they are reading and learning **(**Adult Literacy Reading, 2007**).**

CHAPTER I— INTRODUCTION

The education of students with disabilities has been and continues to be a focus of educational reform. The cornerstone of the issue is identifying students with special needs and placing them away; that is, they are placed in a segregated setting whereas students with special needs are grouped together, and the other regular peer students are placed in a more inclusive setting where they are integrated with normally developing peers. However, other educationalists assert that the learning disabled students should move to be integrated with the regular students. This movement is best described as the basic flowing integration and the regular education initiative. Integration/mainstreaming can be defined as the placement of learners with disabilities in regular classes on a full-time or part-time basis with typically developing peers. In this model, the special education support examinations and help can be given inside of the regular classroom, but more typically involve sending the student out of the regular class during some part of the school day to receive special instruction (Bunch, Finnegan, Humphries, Doré, & Doré, 2005). While integration differs from full inclusion where students with special needs are unquestionably placed in a regular classroom with normally developing peers for the whole day and have special instruction delivered in the regular class (Bunch, Finnegan, Humphries, Doré, & Doré, 2005), integration can be seen as a constructive step in the acceptance of students with special needs into the regular classrooms of their locality schools. Thus, the current study will explore the efficiency of integrating the normally developing students with the dyslexic.

Disorders which may occur together with dyslexia, probably complicating the dyslexic problems, comprise dyspraxia, attention disorders, and visual difficulties, in addition to wider impairments in language development. Nicolson and Fawcett (1995) have suggested that a cerebella abnormality underlies a more general difficulty affecting speech processing (and thus phonological skills) as well as more general motor control processes. Attention problems have also been observed to co-occur with dyslexia: research suggests, however, that Disorder (ADHD) which is characterized by supervisory function insufficiency in sustaining attention, Planning and organization, the attention problems may have shown as a consequence of the Dyslexic difficulties (Pennington, Grosier & Welsh, 1993). The additional effort and concentration needed for study can result in tiredness, and loss of attention – which in turn may be exacerbated by pressure (Gilroy & Miles, 1996).Thus, this study will examine the impact of a combination of strategies employed with the aim of alleviating the problems that might arise along with dyslexia.

A research study conducted by Cohen's (1988) demonstrated that Visual dependent strategies proved that the visual reading Interventions involving the metacognitive strategies helped students with learning disabilities to improve their thinking and learning skills . as such , the cohort of the experimental participants showed that teaching reading disabled students how to use cognitive strategies such as the visually or auditor language dependent strategies will result in improvement of their reading comprehension. Moore and McCabe (2003) reported as well that the meta-analysis of the reading comprehension interventions implemented in several studies concluded that the statistical data demonstrated that the Visual dependent strategies were efficacious in producing gains in the reading comprehension achievement. In addition to Cohen's (1988) study, Moore and McCabe (2003) demonstrated that the visual and

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auditory/language dependent strategies produced positive outcomes for student with learning disabilities or reading disabilities.

Some literature reported that the dyslexics can compensate for their reading difficulties and can be high-functioning individuals with dyslexia; based on the data gathered from samples of postsecondary or adult samples, the reading comprehension scores achieved by the compensated readers were reported as comparable to those achieved by same age peers (Birch & Chase, 2004; Deacon et al. 2006; Fink, 1998). This evidence base indicates that many individuals with dyslexia can and do achieve reading comprehension and academic achievement results that are comparable to their peers when the appropriate intervention response are utilized (Corkett, Parrila, & Hein, 2006; Deacon, Parrila, & Kirby, 2006; Murray & Wren, 2003).

Kemp, Segal & Cutter (2009) posit that children with a learning disability need support and cannot exert effort, pay closer attention, or improve motivation for school and that their own learning disability, or learning disorder, is not a problem related to intelligence. Learning disorders seem to be caused by a difference in the brain that affects how information is received, processed, or communicated. Children and adults with learning disabilities have trouble processing sensory information because they see, hear, and understand things differently. Using a telephone analogy, these researchers further maintain that, faulty wiring in the brain disrupts normal lines of communication and makes it difficult to process information easily. If service was down in a certain area of the city, the phone company might fix the problem by re–wiring the connections. Similarly, under the right learning conditions, the brain has the ability to reorganize itself by forming new neural connections. These new connections facilitate skills like reading and writing that had been difficult using the old connections. Collinson and Penketh (2010) report cases of teachers who had treated unfairly dyslexic students because the

school work of these students did not match their verbal and practical participation in the class. Several studies have shown that dyslexia, when undiagnosed, can cause a lot of frustration and anxiety in the individuals involved (Riddick, 1996; Edwards, 1994). Dyslexia is a 'hidden' disability (Riddick, 1996) as it is different from other disabilities, such as Down syndrome, or cerebral palsy whose manifestations make them easy to identify from the moment people see them. People usually assume different reasons such as laziness and stupidity for the children's poor performance in school. As such, the lack of assessment and the inability to identify dyslexia may result in low self-esteem compared to non-dyslexic students (Miles, 1996; Humphrey, 2002) and lack of appropriate help and support can have long-term effects for people with dyslexia when reaching adulthood (Morgan & Klein, 2000). Dyslexia, as a concept, was controversial in the academic and medical world since several definitions and perspectives have been noted to describe the phenomenon of dyslexia which has a few characteristics. The abundance of the dyslexia attributes doesn't facilitate the identification and assessment processes and it also causes skepticism for its existence (Elliott, 2008). There is no common definition for Dyslexia. Ng (1996) refers the failure of having one universally acceptable definition of dyslexia for the inability to locate stable correlates of dyslexia, poor understanding of the relationship between the reading skill and language, and the existence of a lot of words coined to describe this reading difficulty or disability. Malatesha and Dougan (1982) believe that one of the main reasons for this controversy is the fact that a lot of scientists have not accepted the possibility that dyslexia is not a single isolated syndrome but a group of disorders.

There are many different definitions of dyslexia written by scholars, institutions or governmental bodies. One common characteristic among all these definitions is the reading accuracy deficit; followed by the cognitive impairment, age discrepancy, IQ

discrepancy and spelling fluency accuracy (Rice &Brooks, 2004). The word dyslexia

derives from the Greek prefix *'dys'* meaning 'difficulty' and the root-word *'lexis'*

meaning 'word or language' (Ott, 1997; Hornsby, 1992). It can be best translated as

'difficulty with words'. Historically, dyslexia or the reading disability is identified as

the difficulty in reading that exists in the *absence* of other problems (e.g. mental

retardation or socio-cultural deprivation) and that could explain it. The so-called

discrepancy theory states that, if there is a substantial difference between the student's

level of reading, writing and spelling abilities on the one hand and his or her general

cognitive abilities, measured by an intelligence test, on the other, one can assume that

he or she has a specific reading and writing disability, or dyslexia (Siegel, 1992;

Snowling, 2000).

The most internationally acceptable definition of dyslexia is the IDA

(International Dyslexia Association) definition, which states that Dyslexia is a difficulty

in forming the association between the spelling pattern of words and their

pronunciations (APA, 2010). The IDA and NICHD convened a scientific consensus

meeting to produce the research definition, used by NICHD since 1994 (National

Institute of Child Health & Human Development USA, 2002).

The World Federation of Neurology at Texas Scottish Rite Hospital for Children

gave the first definition of dyslexia in 1968. This definition of dyslexia has been

modified with the several developments in research. The current definition specifies that

children might be diagnosed with dyslexia when they are challenged by the production

of the accurate and efficient sounding out or decoding of single words associated with

difficulties processing the sound (phonological) structure of language (Lyon, Shaywitz

& Shaywitz, 2003).

As such, the dyslexia definition given on August 3, 2002 is in line with recent research: Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.

Dyslexia is mainly associated with language problems such as reading, writing, and spelling although people with dyslexia might also experience difficulties with vision, memory and/or orientation. Some research (Snowling & Hulme, 2012) asserted that dyslexic children have difficulties learning to read accurately and with adequate speed.

1.1 Significance of the Study

The present study is conducted in two private and two public schools in Lebanon where English is taught as a school subject starting with pre-school and up to grade 12. The significance of this study is that it employs a pre-test- post-test control group factorial design to investigate the efficacy of combined strategy instruction consisting of ten different strategies (graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning) on improving the reading comprehension of narrative and expository texts for students with dyslexia. The ten chosen strategies have been chosen based on a thorough literature review conducted by the researcher whereby many theories maintained the efficacy and the effectiveness of some of them without having one study examining the effectiveness of all these strategies albeit the researcher, based on her long teaching experience had found out that all selected

strategies should be implemented to ensure improvement in the reading comprehension of the dyslexic learners. Furthermore, another more important reason was that the researcher conducted a pilot study after being in charge of teaching her own dyslexic child with whom she didn't spare investigating the effectiveness of different strategies. Above all, long time ago before conducting the present study, the researcher carried out a lot literature review aiming at finding the proper strategies that would help her own son to enhance his comprehension skills .As such, after noting success with her own son and after 14 years of teaching experience , the researcher decided to examine the extent of generalizability of her findings ;thus, the researcher decided to use the study treatment so that she could ensure the implementation of the treatment in general education classes and not only in special education classes ,especially that the researcher had to work very hard on raising the morale of his son who in turn passed through a lot of hardships when he used to feel inferior to his peers when his teachers used to teach him in separation and not in inclusion from his peers as if he were obliged to deal with a stigma of being dyslexic. In alignment with the aforementioned, the researcher intended to investigate the feasibility of implementing the suggested treatment in general education school settings of both private and public schools. A basic assumption behind the study is that no previous research has investigated the combination of the strategies in the proposed treatment on improving the comprehension of dyslexic learners. The study aims to investigate the efficacy of the above mentioned strategies, using the variables of gender (male versus female) and school type (public versus private) as moderator variables in order to examine possible interaction between the treatment conditions (control versus experimental) and these variables with regard to the comprehension of grade 7and 8 (12-14 and 13-15-year –old) dyslexic learners of narrative texts and the comprehension of grade 9 and 10 (14-16 and 15-17-year –old) dyslexic learners of expository texts.

This study was conducted to explore the changes that, 7th, 8th and 9th and 10th graders at 2 Public Schools and 2 private ones could demonstrate within the school year 2013-2014. It is important to point out that these students with dyslexia were given instruction based on the new English Language curriculum and covering adequate reading comprehension as well as the following language components: vocabulary, syntax, and morphology. Moreover, most of the strategies and the activities conducted in the study were implemented in accordance to the principles and methodologies proclaimed by the new English language curriculum issued by the Lebanese Ministry of Education ten years ago. Moreover, the research methodology presented in this chapter and conducted in this study included the following components: instruments, materials, pilot study, participants, reliability and validity of the study, and the procedures. The instruments employed in the study were tests that included same procedures for administration and scoring in order to have the results from different people comparable. In addition, the instruments included the treatment consists of the following adopted strategies: 1.graphic organizers, 2.visual displays, 3. Mnemonic illustrations, 4.computer-assisted instruction , 5.predicting ,6.text structure, 7. main idea identification, 8.summarization, 9.questioning

This study has utilized findings from research about comprehension processes, comprehension strategies, and teaching strategies in order to inform instructional practice in reading comprehension. A view of comprehension based on recent models of the reading process is investigated as a basis for conceptualizing the comprehension curriculum as a set of five effective comprehension strategies. From research on teaching comes a foundation for establishing a new view of instruction, one that focuses on the negotiation of meaning among students and teachers through teachers' instructional actions. This conducted research on the interventions and strategies needed for

enhancing the comprehension of narrative and expository texts for students with learning disabilities is innovative because it brings together analysis of discourses with a study of the practices and choices of the disabled readers whose reading abilities are at issue.

The present research study on the interventions needed for enhancing the comprehension of narrative and expository texts for students with learning disabilities is innovative because it brings together analysis of discourses with a study of the practices and choices of the disabled readers whose reading abilities are at issue. It is assumed that this present research can be helpful to schools, development educational centers, and academic institutions especially that learning disabilities in general and dyslexia in particular can only be reduced by adopting the precise strategies and methodology that would be the remedy for such disabilities. I am particularly committed to sharing the results of my analysis with the people with whom I work, in the hopes that my work will not just be an analysis of results, but will give them information with which they can better control their readings and resources.

Given the importance of helping students with learning difficulty (LD) has become a requisite in public and private schools. As such, this study used the treatment that incorporates the combination of certain instructional intervention strategies in samples of grades 7, 8, 9 and 10 (12-14 ,13-15, 14-16 and 15-17-year –old) learners in certain sampled two private and two public schools in order to benefit the cohort of the experimental participants and to collect data that will be shared with the sampled schools in order to help the decision and policy makers and the stake holders to utilize the study data in finding remedies that might improve the reading comprehension of the dyslexic students in the sampled schools in particular and in Lebanon in general. The findings of this study are significant as well to the teachers who might use such data when trying to teach comprehension strategies, models of strategy instruction they find

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feasible and students find engaging and to the students with dyslexia to help them overcome the challenges caused by being dyslexic by classroom observation.

The current study is also significant for it can help the counselors of the Ministry of Education and Higher Education in Lebanon, the public school administrators, and educators who seek sound strategies to help students with learning disabilities (LD) and English language learners (ELLs) to improve their reading comprehension, to make decisions about how to evaluate and reform curriculum and teaching methods related to ELL and LD reading instruction. The study provides teachers of public and private schools of students (ELL and LD) enrolled in grades 7, 8, 9 and 10 (12-14 , 13-15, 14-16 and 15-17-year –old) learners with more efficacious intervention strategies for teaching reading comprehension . As such, the study findings should be useful to teachers who have ELL and LD students in the same classroom. As such, this study might be very useful for teachers who feel accountable for helping their students develop their academic literacy. Many educators would like to acquire more strategies to help their students, with or without learning disabilities, to read. In addition, this study provides teachers with thorough illustration on how to use each component of the combined strategy instruction; graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning. Thus, teachers might use the findings and literature reviewed in the present study to benefit themselves and not only the students. With more innovative reading strategies, teachers might have more approaches to meeting different needs of students and will be able to apply them in different situations. Finally, this study may present remedies and solutions along with identification and intervention strategies that can be useful for overcoming the challenges of reading assessments. This study addresses the concern of suggesting remedies to a teacher who

gets faced with students with dyslexia or with reading difficulties when that teacher would like to know what reading methods and strategies might be able to be effectively employed for each type of students.

1.2 Introduction to the Employed Methodology

This experimental study employs a pre-test- post-test control group factorial design to investigate the efficacy of combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning on improving the reading comprehension of narrative and expository texts for students with dyslexia in grades 7 and 8 as well as 8 and 9 and 10, respectively. The purpose of the present study is to review the findings of narrative and expository text reading intervention research studies designed and conducted on students with dyslexia in order to document effective approaches to expository and narrative text comprehension, and to provide directions for classroom practice and future research in content area instruction. The review will also provide methodological insights into designing related studies on the subject as well as provide baseline data and findings to compare and discuss results in various socio-cultural and international contexts.

As indicated earlier, the present study employed a pre-test – post-test control group experimental factorial design. At total 8 intact classes (2 classes from each of grades 7, 8, 9, and 10 that are 12-14 ,13-15, 14-16 and 15-17-year –old learners) were randomly assigned to control and experimental conditions. All the participating students in the study were considered dyslexic according to the screening study measure.

The treatment conditions with two levels (experimental and control) constituted the independent variable manipulated in the study. The experimental groups received instruction according to the procedures of combined strategy instruction described earlier

and the control groups received regular instruction. Furthermore, the gender variable (male versus female) and the school type (public versus private) served as moderator variables. Finally, the scores of the participants on the comprehension of narrative texts (grades 7 and 8; that are 12-14 and 13-15 year –old) and the expository texts (grades 9 and 10; 14-16 and 15-17-year –old) were used as measures of the as dependent variables.

The treatment lasted for four months at the rate of 6 contact hours of integrated instruction per week, for grades 7, 8 and 9 (12-14 ,13-15, and 14-16 year –old), whereby the instruction is given in accordance with the curriculum requirements proclaimed by the National Ministry of Education and 5 hours of integrated instruction per week for grade 10 (15-17-year –old). The treatment given to 7 and 8 (12-14 and 13-15- year old) graders in only the private schools included the combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning , whereas the treatment given to grades 7 and 8 (12-14 and 13-15-year –old) in the public schools was the same combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning yet lacking the computer exercises due to the lack of equipment needed .In addition, the treatment given to grades 9 and 10 (14-16 and 15-17-year –old) in both the private and public schools included the combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning but lacking computer exercises due to the unavailability of equipment in the public schools and due to the administrative decision taken in both types of schools concerning the schedule decided for the 9 graders (14-16 -year –old) who were receiving more

instruction covering the requirements of the Brevet official examinations they had to pass at the end of the academic year to be promoted to grade 10 (15-17-year –old).The study aimed at investigating the efficacy of this treatment on improving the reading comprehension of narrative texts for 7 and 8 (12-14 and 13-15-year –old) graders with dyslexia. However, the treatment given to grades 9 and 10 (14-16 and 15-17-year –old) included the same combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, predicting, inference, text structure awareness, main idea identification, summarization, and questioning, yet lacking the computer exercises. The study also aimed at investigating the efficacy of this treatment on improving the reading comprehension of expository texts for 9 and 10 (14-16 and 15-17-year –old) graders with dyslexia. The reason behind determining the narrative texts for grades 7 and 8 (12-14 and 13-15-year –old) and the expository texts for grades 9 and 10 (14-16 and 15-17-year –old) was due to the different themes and text genres used in the government textbooks of grades 7, 8 ,9 and 10 (12-14 ,13-15, 14-16 and 15-17-year – old) whereby the majority of the texts of grades 7 and 8 (12-14 and 13-15-year –old) are narrative and those of grades 9 and 10 (14-16 and 15-17-year –old) are expository. In addition, the researcher of this study, in agreement with other educationalists, Bunch, Finnegan, Humphries, Doré, & Doré, 2005, asserted that learning disabled students should move to be integrated with the regular students.

As such, the current study explored the efficiency of integrating the normally developing students with their dyslexic peers since the dyslexic students weren't segregated from their normal peers. All the sampled classes of grades 7, 8, 9 and 10 (12-14, 13-15, 14-16 and 15-17-year –old) included normal and dyslexic students .

The Statistical Package for Social Sciences (SPSS, version 21) was used for data analysis of collected data.

1.3 Statement of the Problem

Students with learning disabilities (LD) in general, and with dyslexia in particular, are often challenged by severe problems in comprehending narrative and expository texts even when they gain fluent decoding skills. Although students who have difficulties in text comprehension might have different traits, the general commonalities among the individuals of such students include poor recall of textual ideas (Warren & Fitzgerald, 1997) and problems with identifying main ideas and supporting details (Baumann, 1984), drawing inferences (Holmes, 1985), relating new information to prior knowledge (Johnson, Graham, & Harris, 1997), and actively monitoring their comprehension (Wong, 1994). Moreover, students with reading difficulties, or with dyslexia, suffer more while challenged by the structures and the organization of the narrative and expository text patterns and while using text structure knowledge to improve the retrieval of content area information.

Some research (Troia, 1999) asserted that the lack of comprehending the interrelationship between learning and teaching strategies and the performance of dyslexic high achievers is a major hurdle for reading comprehension progress. Other researchers like Zimmerman also assert that reading difficulty and dyslexia problems might be compensated especially upon the implementation of "….such methods as organizing and transforming information, self con-sequencing, seeking information, and rehearsing or using memory aids" (Zimmerman, 1989: 329). Therefore, the major reading problems of individuals with dyslexia may be alleviated upon the implementation of strategies that are helpful in assisting the students in their self-regulation of their own learning. Zimmerman (1989) defined self regulated learning strategies as "actions and processes directed at acquiring information or skill that involve agency, purpose, and instrumentality perceptions by learners" (p. 329). This suggests that

strategy instruction may particularly be useful and efficacious in enhancing the reading comprehension of dyslexic learners.

Previous research, however, is scanty or even non-existent with regard to the effectiveness of appropriate implementation of a combined instructional strategy in public and private schools in Lebanon that would ensure activating prior knowledge and understanding the text organization, which might affect positively the reading comprehension of dyslexic students in middle and secondary schools. Consequently, the present study aimed to provide a literature review of the directly-related literature on the efficacy of each component of combined strategy instruction in improving reading comprehension as well as empirically test the relative effectiveness of combined strategy instruction in promoting the reading comprehension of narrative and expository texts by middle school learners in Lebanon, both in the public and private sectors of school as well as across gender.

In addition, another rationale that prompted the implementation of this study is to investigate Troia's (1999) assertion that the reading comprehension of dyslexic learners might not be improved and many previous studies using intervention strategies have in fact suffered from several methodological limitations that have been identified. Along similar lines, Sheryl & Handle (2010) indicated that children with dyslexia might lose their place because they get challenged by decoding the words or the letters while reading and would not be able to comprehend the texts they read as they might have difficulties with memory or attention.

The "tracking abnormality" problem as the ramification of being dyslexic and not the cause of the reading problem, provides an additional rationale for conducting the present study based on the assumption that intervention treatments rather than vision therapy is needed. This is especially so given that the education of students with

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disabilities has been and continues to be a focus of educational reforms whose

cornerstone should be mainstreaming and integration of special needs students rather

than identifying students with special needs and placing them away in segregated

settings. The regular education initiative advocates that special needs students should not

be grouped together and not integrated with their normally developing peers whereas the

other "regular" peer students are placed in more inclusive settings.

Integration/mainstreaming in education can be defined as the placement of learners with

disabilities in regular classes on a full-time or part-time basis along with their typically

developing peers. In this model, the special education support examinations and needed

support for special needs learners can be given inside of the regular classroom, but more

typically may involve sending the learners out of the regular class during some part of

the school day to receive special instruction (Bunch, Finnegan, Humphries, Doré, &

Doré, 2005). While integration differs from full inclusion where students with special

needs are unquestionably placed in a regular classroom with normally developing peers

for the whole day and have special instruction delivered in the regular class (Bunch,

Finnegan, Humphries, Doré, & Doré, 2005), integration can be seen as a constructive

step in the acceptance of students with special needs into the regular classrooms of their

locality schools. Thus, the current study will explore the efficiency of integrating the

normally developing students with their dyslexic peers.

      As a matter of fact, the researcher of this study, in agreement with other

educationalists such as Dulay, H. C., Burt, M. K., & Krashen, S. D. (1982), and Bunch,

G., Finnegan, K., Humphries, C., Doré, R., & Doré, L. (2005) concur with the belief that

the learning disabled students should move to be integrated with the regular students. A

basic assumption in this regard is that learning a second language can be interesting and

useful or "painful and useless" depending on the learning context. A learner's efforts can

result in the acquisition of "native-like fluency or a stumbling repertoire of sentences soon forgotten. The difference often lies in how language is taught the degree of interaction and meaningful linguistic input provided as suggested by"   (Dulay, Burt, Krashen1982, p.3). It should also be noted that the present study is conducted from the theoretical perspective on the reading process as interactive act of communication and comprehension. This study addresses the major problems and challenges facing the students with dyslexia by integrating them with the regular students.

Finally, the literature review conducted by the researcher has shown inconclusive findings that are controversial concerning the significance of instructional strategies for enhancing learning disabled students' reading comprehension. By reviewing the related literature, it has become evident and clear that the present study is needed for many important reasons. A number of previous research has established that although reading comprehension for learning disabled students has not received as much attention as other skills, there is presently a general agreement that the ultimate goal of reading is to derive meaning from text. Essentially, the focus in second language acquisition in primary grades is on "learning to read," whereas the emphasis shifts in later grades to "reading to learn." This emphasis is particularly relevant in content areas, where there is an increase in the bulk of information (e.g., unfamiliar content, specialized vocabulary, complex and varied syntactical structures, abstract concepts) presented (Armbruster, 1984).

Conversely, another set of research studies has pointed out that the struggling readers often "fail to link new information with prior knowledge or monitor their comprehension of what they are reading" (Narkon & Wells, 2010, p. 2). Other researchers considered the instructional strategy as "a purposeful activity to engage learners in acquiring new behaviors or knowledge" (Shyyan et al., 2008: 148). Many students with LD are not efficient in learning because they are not aware of their own

cognitive processes and do not know how to determine the specific demands of learning tasks. Their lack of knowledge of how and when to use comprehension strategies appropriately, keeps these students from taking full advantage of their own abilities (Klinger & Vaughn, 1996). As such, the present study was designed and conducted to address controversial and inconsistencies in the extant literature and add to the knowledge base regarding the interface of strategy instruction and reading comprehension of dyslexic learners of English as a language other than their own.

1.4 Study Hypotheses

Specifically, the following research questions and related null hypotheses are addressed:

1. Assuming that combined strategy instruction is more effective than regular instruction in improving the reading comprehension of dyslexic students, it is hypothesized that participants in the experimental group will outperform their counterparts in the control group in comprehending expository and narrative texts across all the grade levels under study. This is because participants in the experimental group will receive instruction according to the procedures of a number of effective strategies such as graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning that have been proven to be effective in improving reading comprehension. .

However, the study combined strategy instruction included computer exercise for students with dyslexia in grades 7 and 8 (12-14 and 13-15 –year- old learners)grade 9 and 10 (14-16 and 15-17 –year old), and the expository texts and not the narrative ones were used in grades 9 and 10 (14-16 and 15-17 –year old).

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2. It is also assumed that there will be gender-related differences in the reading comprehension scores of dyslexic male and female participants in favor of the latter. Consequently, it is also hypothesized that in the present study the females will do better than their male counterparts in comprehending the expository and narrative texts under study.

3. Finally, given that the private schools in the context of the present study are generally better equipped with technology than the public schools as well as they enroll students from higher socio-economic backgrounds and employ more trained teachers, it is hypothesized that the study participants who come from private schools will surpass their counterparts from public schools in comprehending expository and narrative texts.

1.5 Background of the Study

Research in general and this study in particular have taken into consideration the challenges encountering learners with reading difficulties in general and those with dyslexia in particular, in order to address the concerns of schools, educational centers, institutions of learning disabilities, and academic institutions based on the assumption that learning disabilities can be reduced by adopting appropriate strategies and instructional methodologies that would be the remedy for such disabilities. The subsequent section sheds light on the definitions of dyslexia, reading difficulties, dyslexia consequences, society's role and perceptions towards the learners with disabilities and with dyslexia in particular, interventions and treatments.

The term "dyslexia" is derived from Greek and means "difficulty with reading words." Dyslexia is a receptive language-based learning disability that is characterized by difficulties with decoding, fluent word recognition, and/or reading-comprehension skills. Dyslexia is characterized by a deficit in the phonologic components of language, which makes it difficult to use the alphabetic code to decode the written word. Dyslexia

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has been defined as a problem of letter or word reversals due to a prevalent common misconception. Individuals with dyslexia might not do reversals of letters or words; such reversals might occur normally in early readers and writers. However, reversal of letters or words is not incorporated in the definition of dyslexia. Other consequences of dyslexia may include reduced reading experience that can hinder the growth of vocabulary, written expression, and background knowledge (Shaywitz, 2003).

People with disabilities refrain from disclosing the problems they experience (McLoughlin, Leather, & Stringer, 2002). Students with dyslexia don't usually inform their colleagues and friends about their reading difficulties to avoid embarrassment and awkward situations although it is imperative for the dyslexic people to inform their peers and teachers about their problems because the best help and support should be provided by their immediate environment. McLoughlin, Leather, & Stringer (2002) added that people with dyslexia should identify their strengths and weaknesses. They should be able to describe any manifestations caused by dyslexia and how such manifestations affected them.

Some people with dyslexia can compensate for their reading difficulties (Birch & Chase, 2004; Braten, Amundsen, & Samuelstein, 2010; Coleman, Gregg, McCain, & Bellair, 2009; Fink, 1998). These researchers indicated that the use of some strategies helps individuals with dyslexia to overcome their word decoding difficulties and, to a certain extent, like their peers, they can eventually achieve reading comprehension levels (Corkett, Parrila, & Hein, 2006; Deacon, Parrila, & Kirby, 2006; Murray & Wren, 2003). Availability of the proper learning and study strategies enables the individuals with dyslexia in grades 9-12 to comprehend the texts they read (Corkett, Parrila, & Hein, 2006; Deacon, Parrila, & Kirby, 2006; Murray & Wren, 2003).

The social model of disability indicates that the society has prejudice and negative perceptions towards the individuals with learning disabilities or impairments and due to practiced prejudice, the impairment can be transformed into a disability which is relentlessly challenged by the societal characteristics (Reid and Valle, 2004; Riddick, 2001). Around 4- 8 % of people in the UK are dyslexic (NHS, 2012). In Lebanon, the researcher and a lot of other parents of disabled students agonized observing their dyslexic children complaining and suffering from feelings of low self esteem and inferiority for being obliged to be put in special education classes due to the system of the school that doesn't permit inclusion or integration of learning disabled and non-disabled students .Furthermore, the society does not deal with the disabled people on equal basis with the "non-disabled " ones. As such, people with disabilities keep encountering prejudice and discrimination although they have the right for equal opportunities like the non-disabled people. Also, the amount of work allocated to the disabled people can be a constraint when it is beyond their capacities (Shakespeare, 2008). However, in Lebanon, the unbalanced amount of work and the segregation imposed in some schools and practiced against the disabled learners are amongst the manifestations of discrimination against the dyslexic people. In addition, some students who become labeled 'disabled' get to be stigmatized and consequently excluded from the workforce since they are not perceived as competent to join the workforce (Reid &Valle, 2004). Thus, disabled people in general and, the dyslexic ones in particular, have to strive to have a normal life in many places in this world. Dyslexia is a 'hidden' disability (Riddick, 2002). Although the International Dyslexia Association (2010) indicted that individuals with dyslexia might be creative, people with dyslexia have been exposed to prejudice and discrimination and their academic failure was attributed to poor intellect (Macdonald, 2009: 354). Such students usually demonstrate high cognitive skills, for

they may be gifted in mathematics, science, and arts. Greene (1996) asserted the significance of the awareness of the text features of a reading passage, such as subtitles, paragraph structures, transitional words, signals and phrases, stylistic devices, sentence patterns, and figures of speech, in promoting students' reading ability and reading comprehension. Students' short and choppy sentences and the struggle with reading passages are indicators of dyslexia. However, each of the cited challenges can be remedied by adopting the appropriate intervention strategies that should be tailored in accordance with students' needs and age.

Teaching older students with reading difficulties is very challenging and difficult since some learners with reading disabilities who are enrolled in the upper classes have not practiced reading and avoid reading because reading is challenging and frustrating (Ackerman & Dyckman, 1996; Cunningham & Stanovich, 1997). The teaching process will be difficult because these students lack the motivation to read due to their unpleasant reading experiences.

These old, poor readers are challenged by reading passages because the words are difficult for them. Over time, their comprehension skills become poorer due to the lack of reading practices, and they also become poor spellers and poor writers. As such, the base of the reading problem is referred to phonological and word recognition deficit and later it turns to be associated with other language weaknesses which might be spoken or written.

Poor reading ability might be experienced by all readers at all ages (Catts et al., 1999; Shaywitz et al., 1999). At any age, poor readers might demonstrate weaknesses in phonological processing and word recognition accuracy and fluency (Stanovich & Siegel, 1994; Shankweiler et al., 1995). The individual's reading comprehension is

usually more impaired than the listening comprehension skills of the individual with reading difficulties (Shankweiler et al., 1999).

Williams (2003) asserted that interventions focusing on learning the text structures might facilitate the comprehension of the expository text .Some intervention models are student centered, where teacher direct instruction in the strategy itself is not noticeable (Fuchs, Fuchs, Mathes, & Simmons, 1997; Klingner, Vaughn, & Schumm, 1997).

Researchers have demonstrated that comprehension strategy instruction can be efficient for learners with reading difficulty (RD), specifically, on immediate measures of reading comprehension (Gersten et al., 2001; Wong, Harris, Graham, & Butler, 2003). Comprehension strategy instruction tailored for students with RD typically includes pre-reading, during reading, and post reading activities tailored to achieve the gains in the reading ability of metacognitive and cognitive strategies used by good readers. Other researchers asserted the significance of the strategic approach, which urges the students with eading difficulties use their prior knowledge of the topic and clues to anticipate what may happen in the upcoming narrative and to summarize structural features such as main characters, the problem, and problem resolution.

On the other hand, other researchers focused on the awareness of the text structure of the expository text. For instance, these researchers asserted the importance of summarization of the main ideas, and questioning as important strategies to comprehend the important and main ideas (Manset-Williamson & Nelson, 2005).

Reading difficulties might occur with other types of learning disabilities that include dyslexia, visual or hearing disorders, intellectual disability, experiential and/or instructional deficits, and other problems (Shaywitz 2003). There is considerable variation in how the reading comprehension studies were designed and conducted. For

example, many studies of repeated reading (e.g. Swain & Allinder, 1996; Weinstein & Cooke, 1992), and studies of previewing (e.g.Rose & Beattie, 1986; Rose & Sherry, 1984;) used single subject designs and subjects were not randomly assigned to conditions (e.g., Rasinski, 1990). Further, many studies did not include a control group (e.g., Rasinski, 1990; Sindelar, Monda, & O'Shea, 1990). Without a control group, it is difficult to determine whether the interventions were strongly connected to student performance. In other studies (e.g., Rashotte & Torgesen, 1985), the measures used were not reliable, resulting in an absence of improvement in student performance. In summary the intervention studies varied significantly by their design, methods, measurement, and effects on student reading comprehension. To gain a more accurate picture of these effects, the researcher included studies in the literature review that employ true or quasi-experimental designs.

1.6 Summary of Chapter 1

This experimental study was set to investigate the effect of combined strategy instruction on improving the reading comprehension of narrative texts by grade 7 and 8 (12-14 and 13-15-year –old) dyslexic learners of English as a foreign language as well as the comprehension of expository texts by their grade 9 and 10 (14-16 and 15-17 –year old)counterparts. In addition, the study looked into the interaction effects of the treatment with combined strategies and the gender of the participants (male versus female) and the school type of the study participants (control versus experimental, using a mixed method factorial design where the variable of the treatment conditions with two levels (control versus experimental) was used as an independent variable, the variables of gender and school were used as moderator variable, and reading comprehension as dependent variable. The combined strategy instruction consists of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text

structure awareness, main idea identification, summarization, and questioning on improving the reading comprehension of narrative texts for students with dyslexia in grades 7 and 8(12-14 and 13-15-year –old). However, the study combined strategy instruction did not include computer exercise for students with dyslexia in grade 9 and 10 (14-16 and 15-17 –year old),and the expository texts and not the narrative ones were used in grades 9 and 10(14-16 and 15-17 –year old).

The present study is conducted in two private and two public schools in Lebanon where English is taught as a school subject starting with pre-school and up to grade 12. The significance of study is that it employs a pre-test- post-test control group factorial design to investigate the efficacy of combined strategy instruction consisting of ten different strategies (graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning) on improving the reading comprehension of narrative and expository texts for students with dyslexia. The ten chosen strategies have been chosen based on a thorough literature review conducted by the researcher. A basic assumption behind the study is that no previous research has investigated the combination of the strategies in the proposed treatment on improving the comprehension of dyslexic learners. The study aims to investigate the efficacy of the above mentioned strategies, using the variables of gender (male versus female) and school type (public versus private) as moderator variables in order to examine possible interaction between the treatment conditions (control versus experimental) and these variables with regard to the comprehension of grade 7and 8 ((12-14 and 13-15-year –old) dyslexic learners of narrative texts and the comprehension of grade 9 and 10 ((14-16 and 15-17-year –old) dyslexic learners of expository texts.

In order to investigate the proposed study, three hypotheses were addressed. In the following chapter the review of the existing literature will be presented. The literature review of the present study is related to the efficacy of each component of the combined strategy instruction used and tested in this study. The literature review of the present study incorporates a section that can be illuminating and crucial in detecting dyslexia indicators ,so the researcher intends to include such section so that teachers and parents could seek the early intervention plans and methods that would spare the students with dyslexia the frustration rendered by late detection.

The sections of review of related literature include the effect of text structure and features analysis as well as inferences and main identification and summarization on enhancing the reading comprehension and performance of students with learning disabilities. It also reviews the studies on mnemonic illustrations, learning disabilities of dyslexic students, graphic organizers, comprehension strategies, visual displays, and computer exercises on the comprehension of dyslexic students. Furthermore, the literature review is organized into the following subsections: 1. Learning Disabilities and the Comprehension of English as a Second Foreign Language, 2. Dyslexia Characteristics, Identification and Recognition3. Phonological Awareness as Dyslexia Indicator and Dyslexia Early Detection, 4. Learning Process of Disabled Students: Integration or Segregation , 5. Significance of Seeking Instructional Strategies for Improving Learning Disabled Students' Reading Comprehension, 6.Impact of Graphic Organizers on the Reading Comprehension of Reading Disabled Learners ,7. Impact of Questioning on Reading Comprehension, 8.Impact of Visualization on Reading Difficulties and Dyslexia .Moreover, the inference and prediction strategies used in the present study play a crucial role in enhancing the reading comprehension, yet some researchers highlighted the significance of

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previewing and anticipation as vital strategies that replace prediction and inference .Thus, the ninth review section is titled "9. Impact of Inference, Prediction, Previewing, and Anticipation on Reading Ability and Reading Comprehension of Learning Disabled Students,10. The Influence of Text Features in Enhancing the Reading Comprehension and the Test Comprehension Performance of Learning Disabled Students. Furthermore, the researcher intends to stress the significance of implementing the suggested strategies of the treatment by using modeling, practice and application. As such, the researcher included a section titled 11.Impact of Modeling, Practice, and Application on Strengthening Strategies,12. The Effect of Mnemonics on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties , 13.Impact of Computers Exercises on Improving Reading Ability , 14. Impact of summarization on Enhancing the Reading Comprehension of Learners with Dyslexia, 15. The use of Dyslexia and Reading Difficulties Intervention Treatment in Public Schools, and 16. Effect of Gender on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties. It is noteworthy that many studies reported different findings even after using the same strategies and the same materials due to age factor and the current study investigate the impact of the same treatment but on students of different ages (12-14 , 13-15, 14-16 and 15-17-year –old).Thus, the literature review includes a section titled   17. Interaction between comprehension, treatment and age of dyslexic learners.

The present study employed a relatively small and convenient sample size of grades 7, 8, 9 and 10 dyslexic students. This may not allow the extrapolation of the findings into other contexts.   Second, the researcher has not found any study reporting the impact of the combined strategy instruction on the dependent variable of the present

study: comprehension narrative and expository texts by dyslexic middle school learners in Lebanon. Further, the majority of the reviewed studies did not provide adequate information regarding the subjects' sex, ethnicity, age, and reading level of all the cited research precluding the possibility to examine the relationships between treatment effects and characteristics of subject as represented by these variables. Third, no intervention strategy was used so often that a reliable estimate of effect size of comprehension improvement would be possible. Also, variations across studies are subtle in terms of material selection and duration or types of treatments. As a result, the studies included may be susceptible to the question as to how representative they were of the efficient body of literature needed to improve the reading comprehension of dyslexic students of grades 7, 8, 9, and 10 participants enrolled in the two different types of schools, the public and the private ones which adopt different criteria of dyslexia assessment, identification and treatment methods.

Despite these limitations, the literature review of the present study has helped answer the research questions it set out to answer and has yielded interesting and possibly practical, statistically significant findings.

1.7 Limitations of the Present Study

The present study employed a relatively small and convenient sample size of grades 7, 8, 9 and 10 dyslexic students. This may not allow the extrapolation of the findings into other contexts. Further research with a larger and more representative sample size should be conducted in order to test the extrapolation of the findings as well as examine the interaction of the treatment effects of with other contextual variables such as students' level of language proficiency and technology apprehension.

Second, this experimental study employs a combined strategy instructional intervention consisting of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning and aiming at improving the reading comprehension of narrative and narrative and expository texts for students with dyslexia. The researcher has not found any study reporting the impact of the combined strategy instruction on the dependent variable of the present study: comprehension narrative and expository texts by dyslexic middle school learners in Lebanon. Further, the majority of the reviewed studies did not provide adequate information regarding the subjects' sex, ethnicity, age, and reading level of all the cited research precluding the possibility to examine the relationships between treatment effects and characteristics of subject as represented by these variables.

Third, within the plethora of the cited studies, many different instructional procedures were examined, so many that it is difficult to determine the best instructional procedures that improve comprehension. No intervention strategy was used so often that a reliable estimate of effect size of comprehension improvement would be possible. Also, variations across studies are subtle in terms of material selection and duration or types of treatments. Some treatments were delivered by teachers or researchers, and some with computers or tape recorders. This wide variability in treatments created difficulty in categorizing them.

Fourth, although the researcher categorized the treatment strategies into several groups such as: 1. Research Related t Impact of Phonological Awareness as Dyslexia Indicator, 2. Research Related to Learning Disabled Students: Integration or Segregation, 3. Research Related to Instructional Strategies for Improving Learning Disabled Students' Reading Comprehension, the researcher put these strategies in one category

based on the practice they provided. As a result, the studies included may be susceptible to the question as to how representative they were of the efficient body of literature needed to improve the reading comprehension of dyslexic students of grades 7, 8, 9, and 10 participants enrolled in the two different types of schools, the public and the private ones which adopt different criteria of dyslexia assessment, identification and treatment methods.

Fifth, many studies in the literature review did not report the fidelity of treatment implementation; therefore, it is difficult to determine how generalizable the findings of the cited studies are and how accurate the various interventions in the addressed studies are.

Despite these limitations, the literature review of the present study has helped answer the research questions it set out to answer and has yielded interesting and possibly practical, statistically significant findings. The information coded for the studies has helped answer to what extent the reading comprehension interventions improve reading comprehension for students with dyslexia; to what extent the average effect sizes of different interventions were significantly different from zero and to what extent those effect sizes differed from each other. Moreover, the analyses of the cited studies shed light on designing and developing fluency programs and strategies, provided practical guides to teaching reading comprehension and for further questions for future research.

In summary, this study has a number of limitations in that the findings might not be generalizable into various socio-cultural and international contexts unless a bigger sample is tested. But we also have to say that the study is significant in our educacional context in Lebanon. The researcher was restricted in the data collection to 2 Public Schools and 2 private ones; this fact inhibited the possibility of getting a clear picture about the results of this study if it were applied to private schools of different

data. More significantly, the researcher experienced a the lack of Lebanese research studies in which other researchers investigate the impact of the instruction based on the special education curriculum on the progress of reading comprehension of learning disabled students in general and on students with dyslexia.

In summary, this study has a number of limitations in that the findings might not be generalizable into various socio-cultural and international contexts unless a bigger sample is tested.

CHAPTER II- LITERATURE REVIEW

Over the past 15 years, a plethora of research has been conducted on reading comprehension and employed numerous interventions which led to insights and empirical findings with significant implications for sound and effective classroom practices and applications. These research studies have usually described the significance of the used interventions and contributed significantly to building a knowledge base and repertoire of instructional strategies designed to improve comprehension. Such reading comprehension interventions have indeed generated remarkable gains in reading for students with learning disabilities (Torgesen et al., 2001; Vaughn et al., 2002), especially when the instructional process utilizes strategy instruction to help the students with organization of the reading material into meaningful structures and themes of related content (Deshler, Ellis, & Lenz, 1996).

Shaywitz, Gruen, and Shaywitz (2003) have reported that "There is now a strong consensus that the central difficulty in dyslexia reflects a deficit within the language system and, more particularly, in a lower levels component, phonology" (p. 25). However, some other research studies have asserted that comprehending the interrelationship between learning and study strategies and the performance of dyslexic high-achievers is a requisite for reading comprehension progress. The strategies include "such methods as organizing and transforming information, self consequence, seeking information, and rehearsing or using memory aids" (Zimmerman, 1989, p. 329). These strategies are helpful in assisting the students in their self-regulation and monitoring of their own of their own learning. Zimmerman (1989) defined self regulated learning strategies as "actions and processes directed at

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acquiring information or skill that involve agency, purpose, and instrumentality perceptions by learners" (p. 329).

Likewise, it is been established that upon receiving the appropriate instructional strategies, learners with dyslexia can demonstrate good reading comprehension that is comparable to same age peers (Birch & Chase, 2004; Deacon et al. 2006; Fink, 1998). Researchers, Thurlow, Shyyan, Barrera, and Liu (2008), for instance, examined the instructional strategies recommended for ELLs with disabilities by middle school teachers and used the Delphi survey process to gather information from a group of participants who were 18 educators from states with high ELL populations and 21 educators from states with low ELL populations. The survey process resulted in the recognition of relating reading to students' previous experiences, using visual aids, activating background knowledge, chunking and questioning aloud, pre-reading and prediction about the text, using vocabulary in context, and retelling in groups as significant in improving the reading comprehension of learners. As such, activating prior knowledge, understanding the text organization and summarizing affect positively the reading comprehension of students in middle schools (Mastropieri & Scruggs, 1997). The current study presents a literature review related to the efficacy of each component of the combined strategy instruction used and tested in this study.

The subsequent sections below include a review of related literature on the effect of text structure and features analysis as well as inferences and main identification and summarization on enhancing the reading comprehension and performance of students with learning disabilities. It also reviews the studies on mnemonic illustrations, learning disabilities of dyslexic students, graphic organizers, comprehension strategies, visual displays, text feature analysis, and computer

exercises on the comprehension of dyslexic students. Furthermore, the literature

review of the present study incorporates a section that can be illuminating and

crucial in detecting dyslexia indicators ,so the researcher intends to include such

section so that teachers and parents could seek the early intervention plans and

methods that would spare the students with dyslexia the frustration rendered by late

detection . Specifically, the literature review is organized into the following

subsections: 1. Learning Disabilities and the Comprehension of English as a Second

Foreign Language, 2. Dyslexia Characteristics, Identification and Recognition3.

Phonological Awareness as Dyslexia Indicator and Dyslexia Early Detection,4.

Learning Process of Disabled Students: Integration or Segregation , 5. Significance

of Seeking Instructional Strategies for Improving Learning Disabled Students'

Reading Comprehension, 6.Impact of Graphic Organizers on the Reading

Comprehension of Reading Disabled Learners ,7. Impact of Questioning on Reading

Comprehension, 8.Impact of Visualization on Reading Difficulties and Dyslexia

.Moreover, the inference and prediction strategies used in the present study play a

crucial role in enhancing the reading comprehension, yet some researchers

highlighted the significance of previewing and anticipation as vital strategies that

replace prediction and inference. Thus, the ninth review section is titled "9. Impact of

Inference, Prediction, Previewing, and Anticipation on Reading Ability and Reading

Comprehension of Learning Disabled Students,10. The Influence of Text Features in

Enhancing the Reading Comprehension and the Test Comprehension Performance of

Learning Disabled Students, Furthermore, the researcher intends to stress the

significance of implementing the suggested strategies of the treatment by using

modeling, practice and application. As such, the researcher included a section titled

11: Impact of Modeling, Practice, and Application on Strengthening Strategies, 12.

The Effect of Mnemonics on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties, 13.Impact of Computers Exercises on Improving Reading Ability, 14: Impact of summarization on Enhancing the Reading Comprehension of Learners with Dyslexia. 15. The use of Dyslexia and Reading Difficulties Intervention Treatment in Public Schools, and 16: Effect of Gender on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties. It is noteworthy that many studies reported different findings even after using the same strategies and the same materials due to age factor and the current study investigate the impact of the same treatment but on students of different ages (12-14, 13-15, 14-16 and 15-17-year –old). Thus, the literature review includes a section titled   17: Interaction between Comprehension Treatment   and Age of the Dyslexic Learners.

2.1. Learning Disabilities and the Comprehension of English as a Second Foreign Language

Struggling readers often "fail to link new information with prior knowledge or monitor their comprehension of what they are reading" (Narkon & Wells, 2010, p. 2). An instructional strategy is "a purposeful activity to engage learners in acquiring new behaviors or knowledge" (Shyyan et al., 2008, p. 148). Many students with LD are not efficient in learning because they are not aware of their own cognitive processes and do not know how to determine the specific demands of learning tasks. Their lack of knowledge of how and when to use comprehension strategies appropriately, keeps these students from taking full advantage of their own abilities (Klinger & Vaughn, 1996).

Learning a second language can be interesting and useful or "painful and useless". One's efforts can result in the acquisition of "native-like fluency or a stumbling repertoire of sentences soon forgotten. The difference often lies in how" (Dulay, Burt, Krashen1982, p.3) .One learns the new language and how a teacher teaches it. Also, learners are not by necessity born talented to be successful in learning languages. Several studies have been done comparing the outcomes of the condition that learners and teachers should merely act properly. Dulay, Burt, and Krashen (1982) add that there is no natural approach to those of other methods that do not demand a definite "two-way communication period", but Terrell's (1980) own experience demonstrates that the natural approach leads to quick acquisition of listening comprehension and speaking skills.

Birch and Chase(2004) investigated the word and non-word reading performance of a cohort of 41 adult participants of two private and one public colleges and the participants' mean age was 23, and their WAIS-R scores was 85 or higher. The plethora of the participants were all given the "Adult Reading History Questionnaire, the comprehension subtest of the Nelson-Denny, and the word identification and word attack tests of the Woodcock Johnson Reading Mastery Test-Revised'. The cohort of participants were divided into three groups in accordance with one criterion which is the account of the reading issues whereby the control group included 13 adults with no record of reading issues ;the second group consisted of 14 participants forming the compensated participants because they were to compensate for dyslexia and the third group of participants consisted of 14 participants who were labeled as the uncompensated readers for being unable to compensate for dyslexia as indicated by their reading comprehension scores. The second group, the compensated readers with dyslexia, had a reading performance

score that was lower than that of the control group and higher than that of the

uncompensated group .

The weaknesses of the compensated group were almost the same as those

of the control group who had similar irregular nonword reading scores; however , the

uncompensated readers showed certain greater deficits than those reported by the

compensated readers. The compensated readers did not perform significantly lower

than the control group readers although they performed slower on Pig Latin

translation, which was employed as an indicator of reader's ability to read non words

called the phonological processing. As such, the compensated readers reported fewer

deficits in phonological coding and analysis than the uncompensated readers.

2.2 Dyslexia Characteristics, Identification and Recognition

Shaywitz et al. (2003) defined dyslexia as a neuro-psychological disorder

characterized by phonemic awareness that doesn't allow the individuals to make

easily the connection between phonemes and graphemes. 80% of learning disability

diagnoses in American special education were reported as reading difficulties

(Shaywitz, 1998). The diagnosis policies and the provision of services that are called

the response to intervention have been recently in alignment with the current

definitions of dyslexia (Shaywitz et al. 2008).

Sheryl and Handler (2010) indicated that "…dyslexia is the most common

learning disability. They added that 1 out of every 5 people of the children in the

U.S. have dyslexia. Dyslexia can vary from mild to severe. It occurs in boys slightly

more than in girls. But boys are diagnosed significantly more often than girls,

perhaps because they tend to "act out" when they are unable to do a task properly

while girls tend to try to become "invisible" in the classroom".

Dyslexia is a language-based disorder of learning to read and write originating from a core or basic problem with phonological processing intrinsic to the individual. Its primary symptoms are inaccurate and/or slow printed word recognition and poor spelling – problems that in turn affect reading fluency and comprehension and written expression. Other types of reading disabilities include specific difficulties with reading comprehension and/or speed of processing (reading fluency). These problems may exist in relative isolation or may overlap extensively in individuals with reading difficulties.

Chang (2003) demonstrated that dyslexia often exists in individuals with brilliance, talents, and abilities that enable them to be successful in many domains. In addition, dyslexia often coexists with other developmental difficulties and disabilities, including problems with attention, information retrieval and memory. Chang (2003) added that the underlying problem challenging the children with dyslexia is that many students with milder forms of dyslexia are never officially diagnosed and consequently they are denied the eligibility for special education services. As such, the cited dyslexic children don't usually receive the appropriate instruction in the regular classroom and through other intervention programs. In fact, Chang (2003) asserted that all educators, school administrators ,teachers should be accountable for ensuring the appropriate dyslexia identification and for maintaining the treatment of dyslexia , and children with dyslexia shouldn't be the responsibility of just the reading or special education teacher. More importantly , Chang (2003) pointed out that early intervention usually result in major gains in the reading comprehension achievement, yet individuals with dyslexia and other reading difficulties can be supported at any age.

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Dyslexia is a learning disability that commonly runs in families and this learning disability is not determined by the intelligence quotient of the individual. It has also reported by International Dyslexia Association, Professional Standards and Practices Committee report (2010) that around 40% of siblings, children, or parents of a dyslexic individual will have dyslexia.; as such , family history of an individual might be an identification instrument of a reading disability .In addition, the reading disability is often recognized in the child's early language development and performance in lower school classes ,mainly in the pre-school and elementary school. Thus, the dyslexic learner might be a bright child with high intelligence quotient since dyslexia is a language processing problem not associated with intelligence. Dyslexia is not a temporary developmental lag condition; it is a life-long problem, for example, the treatment might result in remarkable reading gain, yet some dyslexics might continue being challenged by reading fluency even when they learn to read words accurately. They won't achieve remarkable and efficient gains as the unimpaired readers (Sheryl &Handler, 2010)**.**

Juliet Freud (2009) stated that disorders which may occur together with dyslexia, probably complicating the dyslexic problems, comprise dyspraxia, attention disorders, and visual difficulties, in addition to wider impairments in language development.

Nicolson and Fawcett (1995) suggested that a cerebella abnormality underlies a more general difficulty affecting speech processing (and thus phonological skills) as well as more general motor control processes.

Attention problems have also been observed to co-occur with dyslexia; research suggests, however, attention deficit disorder (ADHD) which is characterized by management function insufficiency in sustaining attention, planning and

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organization, might have appeared as a result of the Dyslexic difficulties (Pennington, Grosier & Welsh, 1993). The additional effort and concentration required for the study can result in tiredness, and loss of attention – which in turn may be exacerbated by pressure (Gilroy & Miles, 1996).As such, this present study aimed to examine the impact of a combination of strategies employed with the purpose of alleviating the problems that might arise along with dyslexia.

Some literature reported that the dyslexics can compensate for their reading difficulties and can be high-functioning individuals with dyslexia; based on the data gathered from samples of postsecondary or adult samples, the reading comprehension scores achieved by the compensated readers were reported as comparable to those achieved by same age peers (Birch & Chase, 2004; Deacon et al. 2006; Fink, 1998). This evidence base indicates that many individuals with dyslexia can and do achieve reading comprehension and academic achievement results that are comparable to their peers when the appropriate intervention response are utilized (Corkett, Parrila, & Hein, 2006; Deacon, Parrila, & Kirby, 2006; Murray & Wren, 2003).

Sheryl and Handle (2010) indicated that children with dyslexia might lose their place because they get challenged by decoding the words or the letters while reading. As such, the dyslexics won't be able to comprehend the text and they might have difficulties with memory or attention. The "tracking abnormality" problem is the ramification of being dyslexic and not the cause of the reading problem. Therefore, what is needed will be intervention treatment and not a vision therapy. However, some teachers might note mistakenly that the dyslexic student who is challenged by writing or reading problems might have a vision problem. However,

dyslexia is a reading problem that is not due to a visual disorder. The reading fluency challenges are not based on problems with "eye tracking."

One more association between the occurrence of dyslexia and another learning disability as reported by a number of studies will be the association of dyslexia with the Working Memory deficit. Baddeley (1986) reported that dyslexia is associated with a deficit affecting the verbal component of Working Memory (WM). WM is defined as the memory system accountable for the temporary storage of information during the execution of complex cognitive tasks such as language comprehension, learning and reasoning (Baddeley 1986). Some psychological literature provides evidence that typical measures of verbal working memory skills are significantly associated with reading difficulties, reading school achievement , language comprehension, phonological awareness measures, and with the type of meta-linguistics knowledge that was most directly involved in learning to read and write (Gathercole & Baddeley 1990; Mann & Liebermann 1984; Alloway et al. 2004;Gathercole and Alloway 2006; Gathercole et al. 2006; Siegal & Linder 1984; Stanovich et al. 1984). The correlation between early reading ability and later reading ability is relatively high. Teachers should be accountable for detecting the children with poor reading comprehension in order to take timely action ensuring help and support for the dyslexic students who should receive ,upon being assessed and identified as dyslexic, the proper teaching methods, the appropriate materials that decrease the struggles of these students ;however, many children with dyslexia remain get challenged by reading passages because their cases don't get identified or recognized at an early stage .As such, the children who fall behind in reading should be noticed appropriate action should be taken in such cases(Francis, 1992; Lerkkanen, Rasku-Puttonen, Aunola & Nurmi, 2004); nevertheless, many dyslexic

children whose early reading ability and their later reading ability were both poor ,weren't assessed at an early stage due to the shortcomings of ignorance and carelessness. However, poor early reading ability per se is not by itself a very good predictor of later literacy difficulties in individual cases (Fletcher et al., 2002b; Paris, 2005; Singleton, Thomas & Horne, 2000).

'Trajectories' of reading development are determined by many factors, including vocabulary knowledge, teaching approaches and reading materials. Teaching methods that address the sub skills of letter identification, whole-word recognition, awareness of phonic components, phoneme identification, blending and segmenting awareness, is crucial in enhancing the poor reading ability of the students with dyslexia (Paris, 2005). Consequently, a child with dyslexia might make adequate early progress in word recognition at an early age and might perform within age-expectations on a standardized test of word recognition ,so it won't be feasible for the teacher to notice him . As such, this child won't be properly helped because his case and problem with the dyslexic challenges will remain unaddressed .However, the use of investigative measures which are more precise and accurate to detect dyslexia, such as formal or informal tests of phonic decoding skills, verbal memory and phonological awareness, remains the underlying type of dyslexia screening and assessment batteries .As such, the use of the cited formal or informal tests can help such children overcome their the reading challenges caused by dyslexia .

The regulations, systems and methods of dyslexia evaluation and identification vary among states, cities, clinics and even amongst schools. The evaluators in private centers, adopt less specific assessment methods than those used in public schools. As such, the diagnostic methods and standards used to diagnose

learning disabilities in public schools are different from those used by evaluators in

private practice. In fact, the administrative regulations and policies used in the

diagnosis in the public schools are different from those used outside the public

schools . Public schools and private evaluators are governed by different government

agencies, boards, and regulations which give even different definitions of the

learning disability. As such, there are differences from place to place in the

diagnostic criteria. A learner who qualifies as learning disabled in one state may not

be identified as dyslexic in another, which can affect families who move from state

to state (Ann Logsdon, 2014).

2.3 Impact of Phonological Awareness as Dyslexia Indicator

Share and Stanovich (1995) demonstrated that phonological skills

arecrucial in learning to read. Also, the structure of language and the phonological

awareness have also proven to be good predictor of early reading comprehension

(Goswami & Bryant, 1990; Wagner & Torgesen, 1987). Rack et al. (1992), Snowling

(1981) and Stanovich(1988b) demonstrated that dyslexic learners achieve reading

comprehension below normal on different measures of phonological processing. As

such, phonological processing can serve as an indicator of dyslexia, and it has been

proven that giving instruction covering the phonological awareness skills can

enhance the phonological awareness and the reading skills of young learners (Ball &

Blachman, 1988; Lundberg, Frost, & Petersen, 1988; Schneider, Ennemoser, Roth, &

Kuspert, 1999; Torgesen, Morgan, & Davis, 1992).

Research studies based on longitudinal interventions provided evidence

for an underlying interaction between phonological processing skills and reading

comprehension progress. Some research studies have indicated that phonological

interventions in which the phonological activities are explicitly associated to the

orthography of written language might be effective for beginning readers (Hatcher, Hulme, & Ellis, 1994).

Troia (1999) asserted that reading comprehension might not be improved and many studies using intervention strategies have reported that a lot of methodological limitations have been identified in some studies that were conducted on young learners with reading difficulties and on those with no learning disabilities. Accordingly, Birch and Chase (2004) concluded that stronger phonological awareness is a good prognosis required for reading success at the college level, but they also suggested that the lack of this skill is not clearly decisive since the uncompensated group had been admitted into a competitive college as well. As such, Birch and Chase(2004) prove , like similar studies cited earlier, that readers can compensate for dyslexia, yet they failed to report how and when these readers developed the phonological compensation strategies. Unfortunately, Birch and Chase (2004) along with other previously cited studies do not identify the compensation strategies that would facilitate comprehension processes to help participants increase their phonological awareness and/or their reading comprehension processes as indicated in the content of the secondary/postsecondary curriculum were not mentioned as well.

2.4 Learning Disabled Students: Integration or Segregation

The education of students with disabilities has been and continues to be a focus of educational reform. The cornerstone of the issue is identifying students with special needs and placing them away; that is, they are placed in a segregated setting whereas students with special needs are grouped together, and the other regular peer students are placed in a more inclusive setting where they are integrated with normally-developing peers. However, other educationalists assert that the learning

disabled students should move to be integrated with the regular students. This movement is best described as the basic flowing integration and the regular education initiative. Integration/mainstreaming can be defined as the placement of learners with disabilities in regular classes on a full-time or part-time basis with typically developing peers. In this model, the special education support examinations and help can be given inside of the regular classroom, but more typically involve sending the student out of the regular class during some part of the school day to receive special instruction (Bunch, Finnegan, Humphries, Doré, & Doré, 2005). While integration differs from full inclusion where students with special needs are unquestionably placed in a regular classroom with normally developing peers for the whole day and have special instruction delivered in the regular class (Bunch, Finnegan, Humphries, Doré, & Doré, 2005), integration can be seen as a constructive step in the acceptance of students with special needs into the regular classrooms of their locality schools. Thus, the current study will explore the efficiency of integrating the normally developing students with the disorders which may occur together with dyslexia, probably complicating the dyslexic problems, comprise dyspraxia, attention disorders, and visual difficulties, in addition to wider impairments in language development. Nicolson and Fawcett (1995) have suggested that a cerebella abnormality underlies a more general difficulty affecting speech processing (and thus phonological skills) as well as more general motor control processes. Attention problems have also been observed to co-occur with dyslexia: research suggests, however, that Disorder (ADHD) which is characterized by supervisory function insufficiency in sustaining attention, planning and organization, the attention problems may have shown as a consequence of the dyslexic difficulties (Pennington, Grosier & Welsh, 1993). The additional effort and concentration

needed for study can result in tiredness, and loss of attention – which in turn may be exacerbated by pressure (Gilroy & Miles, 1996).Thus, this study will examine the impact of a combination of strategies employed with the aim of alleviating the problems that might arise along with dyslexia.

A research study conducted by Cohen (1988) demonstrated that visual dependent strategies proved that the visual reading interventions involving the metacognitive strategies helped students with learning disabilities to improve their thinking and learning skills, as such, the cohort of the experimental participants showed that teaching reading disabled students how to use cognitive strategies such as the visually or auditor language dependent strategies will result in improvement of their reading comprehension. Moore and McCabe (2003) reported as well that the meta-analysis of the reading comprehension interventions implemented in several studies concluded that the statistical data demonstrated that the visual dependent strategies were efficacious in producing gains in the reading comprehension achievement. In addition to Cohen's (1988) study Moore and McCabe (2003) demonstrated that the visual and auditory/language dependent strategies produced positive outcomes for student with learning disabilities or reading disabilities.

2.5 Significance of Seeking Instructional Strategies for Improving Learning Disabled Students' Reading Comprehension

Although reading comprehension has not received as much attention as other skills, there is general agreement that the ultimate goal of reading is to derive meaning from text. Essentially, the focus in primary grades is on "learning to read," whereas the emphasis shifts in later grades to "reading to learn." This emphasis is particularly relevant in content areas, where there is an increase in the bulk of information (e.g., unfamiliar content, specialized vocabulary, complex

and varied syntactical structures, abstract concepts) presented (Armbruster, 1984).
Many content area textbooks are often written beyond students' grade level reading
ability and lack clear organization. Students with learning disabilities (LD) often
experience severe problems in comprehending expository texts despite fluent
decoding skills (Williams, 2005). Although the group of students who have
difficulties in text comprehension is very heterogeneous, its general characteristics
include meager recollection of textual main ideas (Spring & Prager, 1992; Warren
& Fitzgerald, 1997) and difficulties with identifying main ideas and supporting
details (Baumann, 1984),nullifying irrelevant information (Williams, 1993),
drawing inferences (Holmes, 1985), relating new information to prior knowledge
(Johnson, Graham, & Harris, 1997), and actively monitoring their comprehension
(Wong, 1994). Moreover, these students experience complexity in understanding
expository text patterns and using text structure knowledge to foster the retrieval of
content area information (Englert & Thomas, 1987). Characterized as passive
readers (Torgesen, 1982), students with learning disabilities either fail to activate
reading comprehension strategies to access information in textual material and,
typically, do not monitor and evaluate their understanding of text. Thus, this study
will examine the impact of employing expository texts in contrast to narrative texts
on enhancing the reading comprehension of dyslexic students.

The use of intervention strategies has demonstrated gains in improving the
reading comprehension of a cohort of LD students (Justice and Pullen, 2003; Logemann,
2000). The use of instructional strategies in the classroom can significantly improve the
learning more than remediation programs (Shinn & McConnell, 1994).

Research studies (Maisog, Einbinder, Flowers, Turkeltaub, & Eden, 2008;
Richlan, and Sun, Lee, & Kirby, 2010) proved that there are significant differences in

how brain structures during reading are used by dyslexics and non-dyslexics. Some research conducted studies (Bos, Anders, Filip, & Jaffe, 1989 & Kim, Vaughn, Wanzek, & Wei, 2004) showed positive results when the interventions incorporated a graphic organizer. Previously conducted research studies have proven that graphic organizers produce positive effect for students with learning disabilities.

Conversely, some other studies, for example, a study conducted by Rose (1986) demonstrated that a medium size effect = 0.50 was reported when the graphic organizer was utilized, which indicates that graphic organizers might be more distracting than useful for students with learning disabilities. In addition, Logemann (2000) argued that the use of procedures does not enable the teachers to improve the learning of the students; on the contrary, it hinders the teachers' efforts to invest properly the time in developing students' learning.

Mastropieri and Scruggs (1997) demonstrated that the intervention strategies,cognitive and direct instruction, when combined showed remarkable gains in reading comprehension and Swanson's (1999) findings of a research study conducted on the effectiveness of the combined treatment and consisting of a cohort of 72 participants showed that gains in reading comprehension have been the direct result of the instructional components. The impact on the effect size was remarkable when the strategies were combined in a study context marked by small group interactive instruction and strategy processing. As such, the research synthesis of the cited studies demonstrates that the implementation of specific interventions including combined treatment could result in good reading comprehension.

Metacognitive strategies including the self-regulated strategy development (SRSD) model, which involves teaching learners with learning disabilities how to become

strategic readers and comprehend the text, were identified in a study conducted by Swanson and De La Paz (1998) who formally evaluated strategies that were effective for improving the reading comprehension of students with learning disabilities. The first study identified by Swanson and De La Paz (1998) implemented a treatment-comparison design and demonstrated the effectiveness of the treatment when interventions including semantic feature analysis, visual attention therapy, and illustrations are utilized .Two other studies conducted by Bos, Anders, Filip, & Jaffe(1989) demonstrated positive results in enhancing the reading comprehension of learners with reading difficulties. These two cited studies implemented an intervention treatment including the graphic organizer. In addition, some other conducted research studies reported by Kim, Vaughn, Wanzek, & Wei (2004) have proven that graphic organizers help students with learning disabilities improve their reading comprehension ability.

Although students with learning disabilities may have the ability to discern information, they do so with enormous inefficiency. It is not unusual for students with learning disabilities to be ignorant of basic strategies that good readers use as they read because they make connections that help them remember and interpret *what* and *how* they are reading. These new connections become part of what readers know. Instruction in reading comprehension, especially for poor readers and students with learning disabilities, has been the focus of research over the last 35 years. Several reviews have been conducted to summarize the results of reading comprehension interventions for students with learning disabilities. For example, Talbott, Lloyd, and Tankersley (1994) reported an overall mean effect size of 1.10 for reading comprehension interventions in general, based on a meta-analysis of

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group research design studies. Moreover, strong effect sizes were evident when students' performance was assessed on lower level comprehension measures, instruction was provided by a researcher as opposed to by the teacher, and students in the control groups received no treatment.

Chang (2003) as a special education expert who has researched and written about English language learners and special education found that the students she has focused on have generally been non-native English speakers with low-income condition who scored weakly on standardized reading tests. It is possible that they were placed in special education programming in elementary schools but removed from special education in middle schools to make room for more troublesome students. If the students were placed in a learning disability resource room, their English language development would suffer as a result since the resource room is a placement not a service. She explained that a group of dedicated classroom teachers working as a team can make a difference in the lives of English language learners. However, this researcher has emphasized that different programs designed to meet the needs of special students frequently conflict with one another. Furthermore, school leaders do not make the whole difference and policies may change, thus, negating the efforts of the group of dedicated classroom teachers.

Stanovich (1986) asserted that reading comprehension skills of students with learning disabilities have a positive effect on the learners' achievement; this finding was endorsed by the the important findings that emerged from the synthesis of the auditory/language dependent strategies which have a great impact on the compared to visually dependent strategies and the questioning strategies involving self-instruction and paragraph restatements along with text-structure-based strategies that yield the most significant outcomes.

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Stanovich (1986) also asserted that comprehension is closely related to background knowledge, vocabulary, fluency, and decoding skills. Stanovich (1986) explained that students' inability to comprehend what they are reading will affect negatively their ability to learn, assimilate knowledge. Accordingly, these learners would not be able to keep up with their classmates. This is especially critical as children advance through elementary school and transition from learning to read, to reading to learn. As students get older, many students might fail to pass tests, participate in discussions or write reports because of their inability to comprehend what they read or keep up with their reading assignments. Some struggling readers are challenged with lower expectations and decreased motivation (Stanovich, 1986). What is worse is that the struggling learners' low motivation will also let them independently read much less than their counterparts which results in their further reading comprehension . According to the NPR, "…reading comprehension is a complex cognitive process that cannot be understood without a clear description of the role that vocabulary development and vocabulary instruction play in the understanding of what has been read… (And) comprehension is an active process that requires an intentional and thoughtful interaction between the reader and the text".

The National Assessment of Educational Progress reported that reading difficulties are the most common cause of academic failure and underachievement. Many learners are challenged with learning to read and write since learning to read and write isn't a natural or easy thing for many students, especially for those with dyslexia and related language problems. The National Assessment of Educational Progress consistently finds that about 36% of all the fourth graders read at a level described as "below basic." In addition, some learners , between 15 and 20% of

young students are overcome with academic failure because of the poor reading and language processing ;however, such learners can achieve good reading comprehension scores when their weaknesses are early recognized and skillfully treated. Moreover, some learners ,around 20–30% of the learners, are vulnerable to inadequate reading and writing development due to the extent of effectiveness of the instruction and teaching methods adopted.

Most of these at-risk learners are ineligible for special education services and are completely dependent on the instruction given in the regular classroom or the supplementary services they might seek. However, approximately 85% of the at-risk students who are referred to special education services in public schools are also challenged with the severe difficulties with language, reading, and writing. Therefore, teachers, reading specialists, and special education personnel should be all accountable to ensure the success of the teaching, reading and writing processes that must be shared by classroom.

Kymes (2005) suggested the adoption of different strategies from the ones cited earlier. Kymes (2005) asserted that teachers should use think-aloud strategies to train or teach students to become proficient or skilled readers. She identified several specific strategies that teachers should teach to serve the purpose. Kymes (2005) highlighted that the teacher should provide the students with the purpose of reading before they start reading ;skimming or scanning text should be carried out in accordance with the relevance to the purpose; reading the text should be selective, concentrating only on sections relevant to purpose; making associations between the new ideas and the prior knowledge should be a requisite; making assumptions and hypotheses and then revising them when necessary is crucial; 6) maintaining a consistent comparison between new ideas and prior knowledge in order to revise the

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prior knowledge that is inaccurate based on the text or rejecting new ideas from text that are inconsistent with prior knowledge; the new meanings of words should be explored; rereading or note-taking to recall the key ideas, questioning and interpreting or paraphrasing the text to the point of having imaginary conversations with authors should be timely implemented ; reviewing and evaluating text structure and quality and thinking about how to use the information later on should be done (Kymes, 2005).

Bender (2004) states that many students with learning disabilities do not plan their educational tasks in a straightforward manner; therefore, teachers must accept responsibility for training students on the implementation of the metacognitive strategies in order to successfully complete educational tasks. Students with learning disabilities or reading disabilities should be trained in the implementation of metacognitive instructional strategies, which involves questioning the purpose and structure of the text along with activating prior knowledge to organize the material that assist in reading comprehension.

More importantly, Think-pair-share, developed by Lyman (1981), has been supported by many researchers. Lyman (1981) suggested teachers use the think-pair-share strategy to give 25 students opportunities to discuss their ideas. The strategy helps students start to construct their knowledge and understand what they do and do not know about a topic. Santa (2006) asserted that think-pair-share is a very good strategy for activating students' background knowledge. Haager and Klingner (2005) noted that think-pair-share is a useful strategy for increasing students' involvement and peer interaction and for enhancing critical thinking.

Fuhler, Farris, and Nelson (2006) stated that teacher modeling is an effective way to increase students' higher-level thinking and comprehension abilities

especially for reading and writing. Teachers should demonstrate the process that they model using a"Doing" rather than a "telling" strategy. They also claimed that it is useful to teach students how to summarize information from a variety of different kinds of texts. This strategy has a positive effect on their comprehension and recall of the texts. In addition, they suggest using think-aloud. In this strategy, teachers model how they think as they interact with the task at hand, making their thinking .visible in the process. Students benefit from actually seeing .how various reading processes or strategies work (p.649).They also stated that asking the right types of questions encourages higher-level thinking. A teacher's modeling and guidance will move students beyond the literal level of questions to questions that require .application, analysis, synthesis, and evaluation. (p.649). they believed that asking the right kinds of questions drives quality learning (p.649).

In addition to the above-mentioned specific fluency building strategies, researchers have examined the effects on reading of strategies such as explicit teaching, effective teaching, direct instruction, and reciprocal teaching. For example, Simmons, Fuchs, Fuchs, Mathes, Hodge (1995) examined the effects of explicit teaching and peer tutoring on the reading achievement of students with learning disabilities (LD) and non-disabled, low-performing readers in academically integrated general education classrooms.

Marston, Deno, Kim, Diment, and Rogers (1995) examined the effects of direct instruction, effective teaching, computerized decoding training, and peer tutoring, reciprocal teaching on reading performance of students with mild disabilities. Results show that direct instruction and computerized decoding training had statistically higher scores than the control and among the treatment groups, the computerized decoding training group did significantly better than the peer tutoring

and effective teaching groups. Direct instruction students did significantly better than those in peer tutoring group. Further, reciprocal teaching group and direct instruction group did significantly better than the peer tutoring group.

McCray (2001) indicated that millions of youngsters at the intermediate and middle school levels read below a fourth-grade level and experience deficiencies in basic reading skills such as word recognition, decoding, reading fluency, and reading Comprehension. McCray (2001) also reported that reading underachievement in the U.S. in The intermediate and middle school grades, and subsequent academic failure and dropout after eighth grade, indicates the need for immediate, explicit, and effective reading interventions for students at risk and with reading disabilities. Typically, middle school teachers expect students to be independent learners who are capable of completing reading assignments, homework, and projects, and who can demonstrate mastery of subject content on tests. Thus, the middle school represents a critical transition period for readers in which some struggle with the basics while their teachers may expect them to make applications of established reading skills to subject matter reading and learning. According to the International Reading Association, many researchers and educators believe that students must acquire and develop reading skills as early as possible and must be taught effectively. However, little evidence is available on how these abilities are best acquired and taught during secondary school (International Reading Association, 2002).

Demonstrating effective reading comprehension applications to students orally and probing students to respond about how they completed their reading are highly effective for enhancing the reading comprehension of LD students (Afflerbach and Johnson, 1984)."Think aloud" is a good strategy for teachers to

demonstrate how to think critically when they read. Abadiano and Turner (2002) claimed that reading strategies will be more effective if teachers use think-aloud to model them to students and then gradually withdraw support in order to move students toward independent application of the strategies.

Fuhler, Farris, and Nelson (2006) stated that teacher modeling is an effective way to increase students' higher-level thinking and comprehension abilities especially for reading and writing. Teachers should demonstrate the process that they model using a "Doing" rather than a "telling" strategy. They also claimed that it is useful to teach students how to summarize information from a variety of different kinds of texts. This strategy has a positive effect on their comprehension and recall of the texts. In addition, they suggest using think-aloud. In this strategy, teachers model how they think as they interact with the task at hand, making their thinking visible in the process. Students benefit from actually seeing .how various reading processes or strategies work (Fuhler, Farris, and Nelson 2006, p.649).

Fuhler, Farris, and Nelson (2006) also stated that asking the right types of questions encourages higher-level thinking. A teacher's modeling and guidance will move students beyond the literal level of questions to questions that require application, analysis, synthesis, and evaluation (p. 649). Farstrup and Samuels (2002) pointed out that reading comprehension strategy instruction has been a major research topic for more than 20 years.

There is consensus among researchers that good readers, competent readers have a plan for comprehending; they use their Meta cognitive knowledge to implement their plan (Flood and Lapp, 1991, p. 732). Kymes (2005) suggested that teachers need to use think-aloud strategies to train or teach students to become strong or skilled readers. She identifies several specific strategies that teachers should teach

in this manner: 1) being aware of purpose; 2) skimming or scanning text to determine relevance to purpose; 3) reading selectively, focusing on sections relevant to purpose; 4) making associations with new ideas to prior knowledge; 5) making assumptions and hypotheses and then revising them, if necessary; 6) maintaining a dialectic between new ideas and prior knowledge and revising prior knowledge that is inaccurate based on text or rejecting new ideas from text that are inconsistent with prior knowledge; 7) discovering new meanings of words; 8) rereading or note-taking to remember key ideas; 9) questioning and interpreting or paraphrasing text to the point of having imaginary conversations with authors; 10) evaluating text structure and quality; 11) reviewing; and 12) thinking about how to use the information in the future.

Several researchers have conducted investigations showing that comprehension is a key strategy in helping ELL and LD students read more effectively. To successfully read to learn, students must be able to read with comprehension. In other words, they must get meaning from the written text (Vaughn and Edmonds, 2006, p. 131). Therefore, comprehension strategies are considered the most important to all students, including English language learners and students with learning disabilities. Reading to learn is a strategy for all students, especially English language learners and students with learning disabilities.

2.6 Impact of Graphic Organizers on the Reading Comprehension of Reading Disabled Learners

Marilee Sprengers (1999) has demonstrated that strategies that can help students learn and "store semantic information are graphic organizers, peer teaching, questioning strategies, summarizing, role playing debate, outlining, time lines, practice tests, paraphrasing, and mnemonic devices "(p.65). Graphic organizers,

Sprenger (1999) defined as follows: "One of the most powerful ways to build semantic memories. Power pictures are excellent graphic organizers" (pp.65-66).

Cavalier and Klein (1998) reported on the performance of fifth and sixth grade students who previewed a list of instructional objectives performed significantly better than those who read an advance organizer paragraph or who completed no orienting activity. Analysis of posttest scores showed that viewing the objectives improved student performance on intentional learning However, viewing the objectives had no significant impact on incidental learning .These results held true both for individual students and for student working cooperatively. Cavalier and Klein speculated "objectives enhanced performance on intentional scores because the objectives provided a clear link between expectancies for learning and incentive for learning" (p.51).On the other hand, the advance organizer may have been less effective because [the tutorial] was intended following a systematical approach and included most of the elements of effective instruction proposed by instructional design theorists. This explanation is consistent with the assumption that advance organizers may put in the most value when content is not well organized or presented effectively. Kang (1996) found that fifth, sixth and seventh grade students who read an advance organizer passage outlining the main points of a Wilderness Survival simulation performed significantly better on the posttest than students who read an introductory paragraph with no specific or useful information for completing the simulation. Scores on the posttest, which involved having students mirror their simulation experiences and choices, were higher across all three grade levels for students who finished the advance organizer version. It is possible that the advance organizer provided students with a structured way of taking place through the relatively open-ended simulation.

Hoffman and Kossack (1987) stated that "The teacher must know what each student knows, what is possible (level of development according to Piaget, Kohlberg, Hunt, and others), and what is important" (p.76). The process can be described as a kind of "cultural diagnosis" and can prove to be very insightful (Wallace 1981, pp. 80and 90). Thus, the researcher of this study decided to employ graphic organizers in order to examine their efficiency in improving the reading comprehension and the test performance of students in general and dyslexic ones in particular.

Using Graphic organizers and discussion of the experience will enable students to turn their experiences into words and verbal concepts. Nichols and Rupley (2004) stated that experiential and conceptual backgrounds are crucial in reading development. They argued that background experiences are what the learners rely on to develop, expand, and refine concepts represented by words and Graphic organizers encountered in speech and texts. Furthermore, they stated that since individuals' background knowledge development is continuous, refinement, elaboration, and acquisition occur throughout their lives. This led them to conclude that vocabulary that reflects this background knowledge is also in an endless state of development. They added that students must go beyond just memorizing definitions, to integrating the word meaning with their existing knowledge in order to build theoretical representations of vocabulary in multiple contextual situations throughout the use of *Graphic organizers*. They also stated that as students expand their pragmatic and conceptual backgrounds, they expand and refine their knowledge of words. Haager and Klingner (2005) mentioned that students with learning disabilities (LD students) require careful, systematic planning and instruction to help them acquire new vocabulary. They argued that when LD students lack the background

knowledge and experiences essential to comprehend new words, learning can be pretty difficult. Then, .the center should be helping students make connections or associations between new words and previously learned information (Haager and Klingner, 2005, p. 347); thus, this study aims at using different graphic organizers along with other strategies in order to examine the validity of the aforementioned.

Minskoff and Allsopp (2003) clearly claimed that organizing information into abstract categories is an efficient way of handling large amounts of data (p. 287). They further emphasized that categorization is extremely important to most subject matter areas at the high school level. Several studies found evidence for the benefits of animated graphics. Calvert, Watson, Brinkley and Penny (1990) experimented with different versions of a graphic organizer .In one version, a still-frame object would appear accompanied by a spoken verbal   label (using synthesized speech). In another version, an animated object would appear without a spoken label. Poor-reading second graders who used the version with animated objects recalled significantly more words than similar students who used the version with spoken labels did. The animated version improved the poor readers' verbal recall to the level of their better reading classmates. Szabo and Poohkay (1996) similarly found that students in a math education class learned better from animated illustrations than from static graphics or text-only descriptions. On the posttest, which included a hands-on triangle construction problem and multiple choice questions, students who read text and viewed animated graphics showing how to construct a triangle using a compass performed better than students who read a text explanation only or students who read a text explanation accompanied by static graphic illustrations. As such, graphic organizers can be utilized to facilitate the analysis required for tackling

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scientific and abstract information as well. Hence, the researcher decided to explore the benefits and the disadvantages of employing such types of graphic organizers.

Using Vocabulary graphic organizers with students such as concept maps, semantic maps, spider maps, and cognitive maps can reinforce word relationships and establish the main idea Nagy (1988). Nagy (1988) *stated* that there is a strong relationship between word knowledge and reading comprehension by arguing that one cannot understand oral and written language without knowing what most words mean. Haager and Klingner (2005) stated that graphic organizers give a visual or spatial framework for organizing the imperative conceptual relationships among new vocabulary words and help students who have difficulty comprehend a concept. Lenz, Deshler, Kissam (2003) recommended that teachers use graphic organizers to map the critical content, and organize the topics or ideas that are most essential to the class, to show the students where they are going, and where they have been in the class. As a result, the researcher intends to use graphic organizers to examine their efficiency in helping students discern the main ideas.

Ausubel (1963) demonstrated that the learner's existing knowledge ,or the cognitive structure as he called it, necessitated the use of graphic organizers to facilitate the progress of the learner's learning process. Ausubel (1963) rationalized the use of the graphic organizer by referring to the cognitive structure the graphic organizer develops and strengthens while incorporating new information to eventually facilitates the occurrence of learning .To facilitate this process, graphic organizers provide learners with a significant framework for associating their prior knowledge to the new information (Ausubel, 1963; Wittrock, 1992). Mayer (1984) reaffirmed the usefulness of graphic organizers by examining reading as an information processing and storage process during which graphic organizers may be

used to demonstrate connections among concepts. Within the reading process, Mayer (1984) recommended that the use of such organizers allows readers to associate their prior knowledge base with the new text information.

The visual representations of key terms, concepts and the relationships among them is provided by the use of graphic organizers; educators demonstrate that the graphic organizers smooth the progress of the readers' understanding of the text (Simmons, Griffin, & Kame'enui, 1988).In fact, improving all students' reading comprehension is important, but making such reading comprehension progress is specifically crucial and significant when focusing on students with learning disabilities (LD). The reading comprehension process becomes more difficult as students progress through school, and reading increasingly involves expository text from which students are expected to learn; however, this type of text may pose more challenges than other reading assignments .For example, expository text encompasses more information and may include unfamiliar scientific vocabulary. Moreover, such text is often organized inadequately and, consequently, requires students to carry out complex cognitive tasks in order to understand the material (Lapp, Flood, & Ranck-Buhr, 1995). Many students with LD who possibly already have difficulty with reading and study skills are challenged by the academic domains of reading and interpreting expository text (Bryant, Ugel, Thompson, & Hamff, 1999; Bryant et al., 2000). Therefore, these students can benefit from learning strategies that facilitate the comprehension of this type of text. One strategy that has often been recommended to assist students with LD in learning from expository text is the use of graphic organizers (Bos & Vaughn, 2002; Rivera & Smith, 1997; Taylor, Harris, & Pearson, 1988).

Griffin and Tulbert (1995) reviewed several studies relating the use of graphic organizers to reading comprehension that yielded inconclusive findings, which they attributed to variations in intervention designs and instructional processes. Similarly, Rice (1994) argued that the lack of consistent operational criteria in studies using graphic organizers contributed to inconclusive findings. For example, instructional procedures for using graphic organizers varied by such factors as text variables, originators, position relative to the text and outcome measures. Many research studies indicated that the use of graphic organizers is an effectual and efficient strategy required to promote the comprehension of the expository texts (Blachowicz & Ogle, 2001; Boyle & Yeager, 1997; Hudson, Lignugaris-Kraft, & Miller, 1993).Yet, the previously mentioned research studies don't provide convincing findings for sustaining such a conclusion and inference about the effectiveness of the graphic organized.

Some researchers have argued that the use of the graphic organizer is beneficial to promote the reading comprehension of students with LD who have strengths in spatial or visual modes of conceptualization (Pirozzolo & Rayner, 1979; Witelson, 1977). In fact, students with LD might be challenged with organizing and recalling verbal information (Wong, 1978), yet they may carry out nonverbal tasks fairly or successfully (Vellutino, Harding, Stager, & Phillips, 1975). Therefore, some research studies indicated that visual displays of information, such as graphic organizers, might help students with LD achieve good reading comprehension because they help the students with LD organize and recall the verbal information; thereby, they enhance their reading comprehension (Griffin & Tulbert, 1995; Jiang & Grabe, 2007; Kim, Vaughn, Wanzek, & Wei, 2004; Tang, 1992).

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Graphic organizers are visual representations of information from a text that depict the relationships amongst concepts, text structure, and/or key concepts of the text (Griffin & Tulbert, 1995; Jiang & Grabe, 2007; Kim, Vaughn, Wanzek, & Wei, 2004; Tang, 1992).

Ausubel (1960, 1963) is the one who formerly rationalized the use of the graphic organizer. In fact , Ausubel is the originator of graphic organizers, which he called structured overviews. He hypothesized that new learning is affected by a learner's prior knowledge, which he referred to as the cognitive structure. He proposed that structured overviews, or graphic organizers provide an organized framework for the learner's prior knowledge, which would facilitate learning by associating the new information to the prior knowledge of the learners (Ausubel, 1963; Griffin & Tulbert, 1995; Kim et al., 2004). The research on the effectiveness of the graphic organizers is often based on the assumption that all texts have organizational patterns and that there are a small number of patterns that are frequently found in texts; such organizational patterns are the "cause-effect, problem-solution, comparison-contrast, classification, definition, process, argument-reasoning, for against, time sequence, and description" (Jiang & Grabe, 2007, p. 43). Graphic organizers present a means of teaching students how to recognize text structures. "Students are expected to comprehend texts better when shown visually how information in the text is organized" (Jiang & Grabe, 2007, p. 39). Gersten and Baker (2003) propose that for ELLs with LD who have to learn content knowledge and acquire language at the same time, graphic organizers "give students a concrete system to process, reflect on, and integrate information" (p. 106).

Many researchers have investigated the effect of using graphic organizers on the reading comprehension of general education students and students with LD.

Yet, a fewer number of studies have been conducted investigating their use with ELLs. Gersten, Baker, and Marks (1998) proposed the use of graphic organizers with ELLs with LD; however, there weren't many empirical studies that investigated the use of graphic organizers on the reading comprehension of ELLs with LD. However, the insufficiency in the number of studies examining the effectiveness of the graphic organizer as an intervention response with ELLs with LD was reported .The majority of the conducted studies have shown that the graphic organizer as a comprehension intervention strategy might be effective for the activation of prior knowledge and the use of visual aids with ELLs with LD, and the graphic organizer has been identified as important reading instructional strategy mainly due to its visual and prior and new information association impacts (Thurlow, Shyyan, Barrera, & Liu, 2008).

Graphic organizers are visual and spatial displays designed to facilitate the teaching and learning of textual material through the use of lines, arrows, and a spatial arrangement that describe text content, structure, and key conceptual relationships. Graphic organizers include semantic maps, semantic feature analysis, cognitive maps, story maps, framed outlines, and Venn diagrams (Kim et al. 2004, p.105).

Advance organizers provide learners with the help and support necessary to orient students to focus attention at the beginning of a lesson; therefore, the graphic organizers can carry out any of the following functions:"…… (1) state the concepts to be learned; (2) provide relevant background information; (3) explain task requirements; (4) introduce the goals or outcomes for the lesson. Advance organizers can take many forms, including written questions at the beginning of a unit of text, or a graphic organizer" (Harrison 2003, p.140).

Some researchers have argued that students with learning disabilities have strengths in spatial or visual modes of conceptualization and that visual displays of information, such as graphic organizers, may help these students to organize and recall verbal information, enhancing their reading comprehension (Kim et al. 2004,p. 106). Mastropieri (1997) also reported a substantial effect of illustrations on reading comprehension of students with learning disabilities. It appears that pictures that graphically display and organize text material; and mnemonic pictures, which are intended to facilitate memory of key vocabulary or important content information from text materials, are useful.

Kim, Vaughn, Wanzek, and Wei (2004) conducted a meta-analysis of research on the effect of graphic organizers on the reading comprehension of students with LD with studies that ranged from 1963 to 2001. The authors reported that the 21 studies that met their selection criteria were the studies that employed a group design intervention, used K-12 students with LD, a treatment-comparison or a single-group design, and whereby the graphic organizers were the independent variable and the reading comprehension was the dependent variable. Kim et al. (2004) found that when students with LD are taught to use graphic organizers, whether by their teacher or a researcher, the students' reading comprehension improved. All of the reading comprehension assessments that showed large effect sizes were researcher-developed content tests. Of the 21 studies investigated in the study of Kim et al. (2004), only two included standardized testing measures and none yielded statistically significant gains. Therefore, it was not shown whether graphic organizer interventions can result in improvements in reading comprehension measures of standardized assessments. As such , Kim et al.(2004) concluded that the

use of graphic organizers in treatment-comparison studies was found to be related to large effect sizes across grade levels, (i.e., within studies that examined either elementary, middle school, or high school students with LD).

Tang (1992) proposed that the use of graphic organizers "facilitates the acquisition of a second language for academic purposes" (p. 189). Jiang & Grabe (2007), in a review of graphic organizer research, proposed that the type of graphic organizer used in an intervention determines its effectiveness in reporting students' reading comprehension improvement. Jiang & Grabe (2007) rationalized their assumption on the previously conducted research that investigated the effectiveness of the graphic organizers, such as the synthesis of research conducted by Griffin & Tulbert (1995) which reported that the research studies on graphic organizers spanning 20 years resulted in inconclusive and contradictory findings. The review of research conducted by Jiang & Grabe (2007) included 13 studies, and only one study investigated the effectiveness of the graphic organizer with the students with LD and one study included ESL students. According to Jiang and Grabe, graphic organizers "that do not represent the discourse structures of the text may be less effective than the ones that represent the discourse structure" (p. 37). Jiang and Grabe (2007) added that the graphic organizers are more effective when "... students are involved in the construction of the graphic organizer, (b) they are used as a post-reading activity, as opposed to a pre-reading activity, (c) instruction on graphic organizers is combined with instruction on summarization, and (d) the intervention period is extended for a longer time frame, such as more than a few weeks" (p. 46). Jiang and Grabe (2007) also asserted the importance of having more studies aiming at investigating the effectiveness of graphic organizers in enhancing the reading comprehension of students with LD.

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Jiang and Grabe (2007) conducted a study in which they assumed that the graphic organizers are more effective when students themselves contribute to the construction of the graphic organizer, when the graphic organizers are utilized as a post-reading activity, and finally, when graphic organizer instruction is combined with instruction on summarization. Jiang and Grabe (2007) reported gains in the improvement of reading comprehension of students with LD , upon the utilization of the graphic organizer under the conditions mentioned earlier.

Jiang and Grabe (2007) reported in their study that working with graphic organizers should be the next step after teaching students the proper use of signal words and phrases. Students should be provided with instruction related to the graphic organizers at the beginning; afterwards, students should prepare the students to complete the graphic organizer before they start working on the text. Jiang and Grabe (2007) assert the significance of creating order and hierarchy of ideas and their interrelationships in order to ensure the effectual use of graphic organizers that help students' list major ideas under the main idea of the text and put the supporting details under the related major idea. As such, a graphic representation of the text's ideas might help readers comprehend and retain the content when it is appropriately used .

Students' awareness of the different kinds of graphic organizers is a requisite necessary for the improvement of reading comprehension of learners. Students should use the graphic organizer as a post reading activity aiming at asking students to complete a graphic organizer after they finish reading the passage. At this stage, the students would be able to work on a blank graphic organizer independently, elicit the ideas from the text, and demonstrate the hierarchy of the ideas in a graphic organizer. The graphic organizer activities may vary from partially

blank graphic organizers to totally blank schematic representations. The text length

and text difficulty are variables that will determine how much of the text may appear

in the schematic diagram called graphic organizer (Jiang & Grabe, 2007)   .

Conversely, over the past decades, many researchers have conducted

several syntheses of the research literature to investigate how the use of graphic

organizers with expository text affects students" comprehension (Griffin & Tulbert,

1995; Moore & Readence, 1980, 1984). In fact, the yielded syntheses revealed that

using graphic organizers has relatively small general effects on students'

comprehension of expository text. For instance, Moore and Readence (1980, 1984)

conducted two meta-analyses to look into the effects of graphic organizers on the

reading comprehension of expository texts. Their findings revealed that small overall

gain in effect have been noticeable, which suggests that the use of graphic organizers

doesn't necessarily promote reading comprehension.

Stein and Trabasso (1982) stated that story grammar is a pattern that helps

students from different ages and cultures comprehend better when they read a story.

Story grammar involves articulation of the character's problem or conflict, a

description of attempts to solve the problem, and an analysis of how characters react

to the events in the story. (p. 20). Therefore, students of all ages can use the

knowledge of how stories are structured to help them remember important details

(Mandler & Johnson, 1977).

2.7 Impact of Questioning on Reading Comprehension

Questioning and paraphrasing text are useful in improving the reading

comprehension of learners. Questioning text involves generating questions about the

contents of the text before, during, and after reading text. Teaching students to

generate their own factual and inferential questions might enhance students

comprehension of the reading text .Comprehension is mainly developed by the students who understand the text better when they formulate and answer their own questions. For instance, such students, using questioning and answering strategy can easily enable them to predict the events of the story (Beck, McKeown, Sandora, Kucan, & Worthy, 1996).

The learners should practice paraphrasing very often to develop their comprehension skills .The learners should restate using own words what was recently read, and retelling refers to using the exact words contained in the text that was just read. Paraphrasing indicates retelling what is read .As such, some research studies, Morrow, 1985; Simmons,Fuchs, Fuchs, Mathes, & Hodges, 1995, demonstrated that retelling and paraphrasing ,especially the guided ones , contribute remarkably to gains in the comprehension performance ,especially if these learners are asked to carry out paraphrasing and retellings very often . To investigate the effectiveness of paraphrasing and retelling in increasing the rate of text comprehension ,some research studies, Freeland et al., 2000 and Neddenriep, Hale, Skinner, Hawkins,& Winn, 2007 were carried out . the finding of the cited studies indicated that the use of paraphrasing and retelling proved to be effective but not efficient in enhancing the reading comprehension of the students with reading comprehension because such student s are taking much time to carry out these tasks properly, which makes the comprehension task dull and uninteresting .As such, it is useful to teach these students how to be quick while conducting paraphrasing and retelling . The rate at which students understand text material needs to be assessed as well as increased (Neddenriep, Hale, Skinner, Hawkins,& Winn, 2007).

To assess the comprehension rate , Freeland et al.(2000) proposed multiplying the percent of questions a student answered correctly by 60 (i.e., 60

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seconds) and dividing by the time (in seconds) . Some studies, Neddenriep, Hale, Skinner, Hawkins, & Winn, 2007,have supported its use as a valid measure of reading comprehension. The repeated readings should be timed in accordance with the timed repeated drills on answering comprehension questions to help students monitor the rate at which they are comprehending text per minute of reading text.

However, many teachers do not employ reading strategies in their classrooms (Barry, 2002; Ivey, 2002). Teachers have three primary reasons for failing to use reading strategies: 1) teachers feel inadequate to handle reading problems in their classrooms; 2) teachers feel that reading instruction infringes on subject matter learning time, and, 3) many teachers deny the importance of reading techniques (Barry, 2002; Rhoder, 2002; Snow, 2002).

Similarly, many teachers also deny responsibility for teaching students to read and write (D.Arcangelo, 2002; Forget & Bottoms, 2000; Jacobs, 2002). These reasons explain why many content area teachers do not teach or reinforce reading in their content areas. Secondary teachers expect students to have the reading abilities necessary to read in the content areas. They perceive their primary function as preparing students in their subject areas for high school or for college (Vacca, 2002). Content area teachers can make a difference in students' education by incorporating reading strategies into mini lessons as they teach their content area information (Vacca, 2002). Rhoder (2002) insisted that reading instruction should promote active, mindful reading and should teach students to use strategies. McKenna and Robinson (2002) insisted that teachers can help students activate their prior knowledge and define purposes for reading; teaching students strategies for this requires explanation, modeling, practice, and application.

Comprehension for students with learning disabilities might be empowered by the use of questioning posed and monitored by the teacher .The analysis of the earlier research studies reported the strongest outcomes for facilitating reading comprehension for students with learning disabilities whereby teacher-led questioning and self-questioning strategies will be followed by text-enhancement strategies, and strategies involving basic skills and reinforcement. Therefore, specific interventions in reading comprehension should improve the reading comprehension of learners and should accordingly make a difference in performance (Mastropieri & Scruggs, 1997).

Generalizations from research studies indicated that students with learning disabilities who are trained to use specific cognitive strategies such as self-questioning techniques using summarization or paragraph restatement strategies along with self-monitoring components significantly improve performance. Strategy instruction ameliorates the critical thinking skills of students with learning disabilities while increasing their active participation in the learning process (Bakken, Mastropieri, & Scruggs, 1997; Graves, 1986; Jenkins, Heliotis, Stein, & Haynes, 1987).

Haager and Klingner (2005) stated that students with learning disabilities (LD) often have problems locating specific information in text. As such, they introduced a strategy called 'Answering Comprehension Questions (ACQ)' to ensure the proper assessment of students' reading comprehension of a text. They identified the Question-Answer Relationship (QAR) strategy as one Component of the ACQ strategy. Haager and Klingner (2005) asserted that students should receive instruction covering the identification of the different kinds of information required for answering comprehension questions, as well as covering where to find the

information ;before, during, and after reading. Abadiano and Turner (2002) argued that modeling is a requisite for the successful use of reading strategies that will be more effective only when teachers use think-aloud to model them to students and then gradually withdraw support in order to move students toward independent application of the strategies.

Fordham (2006) argued that teachers need to guide students to use meta-cognitive thinking during reading in order to achieve comprehension. She stated that 'strategic questions' and embedded questions are two types of good comprehension strategies to induce students to use met- cognitive thinking and monitor their comprehension. Strategic questions focus on ways to .make meaning to help us while passing through unfamiliar area by prompting us to think deliberately (p. 393). Strategic questions not only can be asked about any topic or process, but also are especially useful in fostering reading comprehension. She claimed that strategic questions need to be applied in the context of content reading, and that they focus more on how to comprehend challenging material than on what has been comprehended.

Questioning/Answer Relationship (QAR) studied by Raphael (1982; 1986) has been found to improve reading comprehension for students at several grade levels. Flood and Lapp (1991) suggest teachers accept entirety responsibility for the five key elements of the [QAR] activity: 1) assigning the text; 2) generating the questions; 3) providing answers; 4) identifying the QAR; 5) providing a justification for the QAR identified (p.738).

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for the QAR identified (p. 738).

2.8. Impact of Visualization on Reading Difficulties and Dyslexia

Several research studies, Bell 1991, Bell 1986, Meyer 1999, Long 1989, Pressley

1976 and Smith 1987, asserted the significance of the visual image training in

helping students achieve gains in comprehension skills. The cited studies

demonstrated that there is an interrelationship between good reading comprehension

and good image making, and the learners who are good at comprehension are usually

good at making images makers and students with poor comprehension seem to be

poor at making visual images (Bell 1991 ,Bell 1986). The teachers should teach the

students how to create visual images in their minds to be able to recall words,

phrases, sentences, paragraphs and texts. Modeling to students how to create a visual

image is useful since the students will be encouraged to carry out the task and the

time will be efficiently used in order not to cause frustration to these students.

As such, it is useful for a student to report to their teacher what they see in

a clear and concise manner. The teachers should model at the beginning making a

visual image of a word, paragraph or a text and then the teacher should ask the

students to repeatedly do the same task. The mental or visual images will represent

the information in the reading passage. After the teacher reads aloud and describes

what has been read, the students should continue making images of the remaining

ideas, words or concepts of reading selection. Effective mental imagery techniques

are useful in enhancing the reading comprehension of a text (Bell 1991, Bell 1986,

Meyer 1999, Long 1989, Pressley 1976 and Smith 1987). Thus, good readers will be

see visual images in their heads as they are reading. So, when students imagine the text as a moving picture, they find that reading the passage can be beneficial.

Carreker (2002) gave explanations and details on how to help students create visual images as they read. First, the teachers model this by reading a story aloud and drawing simple pictures that represent important features or information as they read. Second, the teachers retell the story using the pictures as a guide while including new vocabulary from the story. Afterwards, the teachers ask the students to take turns retelling the same story following the same way. Then, the students do another visual making practice using a new story and drawing their own pictures, and then retelling while using these pictures as a guide.

The students can also help comprehension by creating mental imagery that is auditory, kinesthetic, or tactile .The sense of taste and smell can also be imagined to help with memory and comprehension. Acting out words, actions, or feelings in a text can also be very effective (Carreker, 2002). Using visual prompts or asking students to visualize and imagine elements of the information they are reading and learning. A picture is worth a thousand words.

Zimmerman and Keene (1997) emphasized that proficient readers create mental pictures or mental imagery as they read as a way of enhancing and monitoring their developing textual understandings. However, when reading content area materials, some readers struggle to apply their visualization skills to expository text structure and information. By utilizing graphic organizers, readers are more likely to see the concepts of a text in a way that supports meaning making. Miller (2004) stated that visualizing text is very effective to improve reading comprehension. Once again, the researcher pointed out the importance of pictures and graphic organizers and decided to employ them in the current study in order to

analyze their impact and their ramifications observed upon providing them to dyslexic students.

Sight word recognition refers to words that readers recognize automatically. In other words, readers do not need to apply sounding out strategies to read these words. A goal of reading instruction is to build up a reader's sight word vocabulary. Words that often appear in students' readings become sight words most readily. The number of words that students who struggle with reading can recognize fluently and easily is usually quite limited (e.g., Manis,Custodio, & Szeszulski, 1993). Studies of word recognition instruction often incorporate sight word instruction into their word recognition programs as a necessary component to improve reading for disabled readers (e.g., Gaskins, Downer, & Anderson, 1988; Lovett et al., 2000;Vellutino et al., 1996). Effective sight word instruction for students who struggle with reading involves the introduction of words in groups, which are taught to mastery each week and followed by activities, repeated readings, and sentence reading practice with the sight words (e.g.,Bryant, Fayne, & Gettinger, 1982; Lovett et al., 2000; Vellutino et al., 1996).

Zimmerman defined self-regulated learning strategies as "actions and processes directed at acquiring information or skill that involve agency, purpose, and instrumentality perceptions by learners" (p. 329). These strategies include "such methods as organizing and transforming information, self-consequencing, seeking information, and rehearsing or using memory aids" (Zimmerman, 1989, p. 329). "Visualizing is necessary for comprehending any text. This ability can be enhanced by helping readers concentrate on the pictures they create in their minds " (Manning, 2002, p. 89). Manning (2002) emphasized that prior knowledge is important because readers cannot build a mental picture of an event or situation they do not understand or with

which they are unfamiliar. Burns and Martinez (2002) stated that "students must be visually literate -- able to decode, comprehend, and analyze the elements, messages, and values communicated by images, particularly in advertising" (p.33).Guided Imagery is one of the visualization strategies that capitalize on students active imaginations. Buehl (2001,p.61) stated that there are several advantages to using this strategy: .students are stimulated to generate their own images when they read; students create vivid mental images of ideas and concepts that help them remember information longer; students who are visual learners become more actively involved with their reading, which is especially true for low achieving students; students find imagery techniques motivational, and they become more personally engaged with the material .As skilled readers build inferences from connections made between what is on the page and what they have already read or experienced, they often create visual images (Geary, 2006, p. 182).

2.9. Impact of Inference and Prediction on Reading Ability

Inference has been defined as the connections people establish when they try to interpret texts (Nassaji, 2004). It is one of the central cognitive processes in reading comprehension (Anderson and Pearson, 1984; Wyver, Markham, and Hlavacek, 2000). Bartlett (1932) mentioned that inference skills help students activate different knowledge. Wyver, Markham, and Hlavacek (2000) added that these skills help students go beyond what is provided, and thus, implicitly fill in the gaps. Since there is no text that is completely explicit, students, especially students with learning disabilities (LD), must be skilled/trained at .making inferences in order to fully comprehend what they read (Heerman, 2007). Inference training helps students activate prior knowledge and generate predictions (Hansen, 1981). Teachers need to use direct instruction to directly teach students how to use inference to strengthen comprehension (Alfassi, 2004). Alfassi (2004) stated that this direct

instruction includes explanation, modeling, and scaffolding, and that it should be used until students become successful independently.

In Alfassi's (2004) study, instructors were asked to list and define vocabulary instruction. They were advised to make use of direct instruction in which the teacher would say the word, display the word, use the word in a sentence, ask students to write an original sentence using the word, and give a precise definition for the word. Stahl (1983) stated that when definitional information is combined with contextual cues, students are more likely to learn new vocabulary than when contextual analysis is used in isolation.

Al-Hazza and Gupta (2006, p.19) stated that word study enables students to identify words in their reading by using strategies such as phonics, context clues, sentence structure, background knowledge, and pictures. Massengill's (2006) study showed that word study strategies were very effective for young poor readers.

Students with learning disabilities not only encounter challenges with basic reading skills at a young age, e.g. phonemic and phonological awareness, but they are unable to analyze the context of the word, which leads to an inability to interpret or understand the meaning of the text. Students with learning disabilities in reading comprehension have difficulty connecting meaning with words. They are challenged while recognizing and recalling specific details, making inferences, drawing conclusions, and predicting outcomes, due to a lack of metacognitive skills (Massengill, 2006). According to Bender (2004), metacognition involves the complete process including the planning of a cognitive task, self-instructions to carry out the task, and the performance of self-monitoring, or examining the appropriate completion of the task and its correct order.

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The basic techniques of reading are "skimming", "scanning", "extensive and intensive reading" (Grellet, 1981,p.4). Françoise Grellet (1981) has added that reading includes several sub-skills. Basic ones are the "recognizing the script of a language", inferring the meaning and use of unfamiliar "lexical items", understanding "explicitly stated information", and information implicitly mentioned. Reading is an activity involving "predictions", "previewing", and "anticipation" (p.4). Grellet (1981) mentioned that the aim of predicting is to train the students to make "guesses when reading a text". Predicting means that one depends on certain words or "clues" to form an idea that a kind of sentence (e.g. an example, an explanation) is likely to indicate, whereas the goal of previewing is to train the students to use titles and tables of contents, and to form a general idea about the content of the passage. Previewing can be used to enable the learning disabled students to know how much they can know about a passage by simply reading its titles and the table of contents. Grellet (1981) indicates that the more students look forward to reading and anticipate in their minds what the text could hold in store for them, the easier it would be to comprehend the basic points of the passage"(p.62). In the exercise of anticipation, questions are asked before the text is read to make the students recognize what they know, what they don't know and what they are eager to learn about the topic.

2.10 Influence of Text Features in Enhancing the Reading Comprehension and the Test Comprehension Performance of Learning Disabled Students

When introducing a reading or story, presenting a vocabulary web to familiarize students with its keywords and main points is extremely important. Slater, Graves and Piche (1985) stated that teachers need to focus students' attention on the ways a text is organized. They argued that prior to reading a text, teachers should

give students the basic framework by identifying cause-effect relationships, problem solution pairs, main ideas, keywords, and by providing a vocabulary web.

Research shows that authentic texts based on experiential learning will help students integrate academic study and real-world work experience. Such texts will enhance Experiential learning that empowers students to take responsibility for their own learning. As students gain more life experience they become more likely to consider learning as an internal and experience-based process (Saljo, 1979).

Lewin (1942) was the first person to advocate authentic texts based on experiential learning model. Kolb (1975) explained that the underlying insight of experiential learning is conceived as a four-stage cycle and is best facilitated by an integrated process that begins with. The data he collected were then analyzed and the conclusions of this analysis indicated the importance of feedback to the actors in the experience for their use in the modification of their behavior and choice of new experiences (p. 33). Kolb (2001) further explained that Experiential learning theory (ELT) provides a holistic model of the learning process and a multi-linear model of adult development, both of which are consistent with what we know about how people learn, grow, and develop. (p. 227). DeRolf (1995) argued that without practical learning both in and out of the classroom, learning how to live and communicate in given language will never take place (Para. 4). Stauffer (1980) believed that experience is important because experience encompasses an individual's perceptual and conceptual world, his interests and curiosities, his creativity, his culture, his capacity to adjust, to learn, to use, and above all his extraordinary flexibility. (p. 60). Anders and Lloyd (1989 and 1996) acknowledged the importance of developing language skills through experience. In their schema theory, they stated that teachers need to be concerned with the adequacy of student's

background schemata. They argued that if students have inadequate amounts of schemata or background knowledge on the subject to be taught, teachers should directly build up the amount of schemata that students have on the subject or provide more experiential teaching and more vocabulary teaching.

Smith (2002) recognized the value of background knowledge developed through experience and wrote .as emergent readers hear, sing, discuss, play with, and write songs, they are building important background knowledge that they will draw upon during later reading and writing experiences (p. 190).

Pierson and Glaeser (2003) stated that the language experience approach (LEA) to reading is a technique that uses the real life experiences of students and improves the reading comprehension (p. 123). On the other hand, LeClair (2006) stated that authentic texts have been found to be successful when used with second language (L2) learners of all ages. Peregoy and Boyle (2000) argued that building background knowledge on a topic through first-hand experiences such as science experiments, museum visits, and manipulative can facilitate success in reading comprehension for students with learning disabilities (p. 5).

Taylor (1992) pointed out the importance of texts based on the language experience approach (LEA) in enhancing the reading comprehension of learning disabled students. Zhang and Schumm (2000) also asserted that the experiences and prior knowledge of learners affected positively the comprehension and recall, and that vocabulary knowledge, typically, may be a highly significant variable in United States ESL learners' success. (p. 205).

Griffin and Tulbert(1995) asserted the significance of text structure in affecting the reading comprehension of the learners with dyslexia .The awareness of text structure resulted in statistically significant gains in reading comprehension. The

students had diverse L1 backgrounds and low English proficiency. Griffin & Tulbert (1995) used expository texts due to the difficulties posed by the structures of the such texts since the expository texts are "often crowded with difficult vocabulary, complex concepts and principles, unfamiliar typographical features, peculiar organizational structures, and numerous tables and figures" (p. 73). The graphic organizer intervention employed by Griffin & Tulbert(1995) organizers conveyed the semantic relations of the expository text passages and significantly noted the improvement in the reading comprehension of the experimental group.

As such, studies (Meyer, 2003, Armbruster, 2004, Meyer, Brandt, & Bluth, 1980, & RAND Reading Study Group, 2002) asserted the importance of raising the awareness of all readers irrespective of the age of the text structures if they aim to achieve good reading comprehension. The text structure and organization conveys the ideas and the relationships among the ideas, such as cause-effect, compare-contrast relationships. In case of the lack of awareness of the text structure, the learners won't be able to significantly comprehend the text in general due to the need of a plan. However, readers who are aware of the text structures and organization will have anticipation and prediction of the information that will unfold in certain ways (RAND Reading Study Group, 2002).

Expository texts have more difficult structures and organization than the narrative ones .As such, it is crucial that students first learning to read narrative texts structures, which are story-like structures that ease their learning to read. Consequently, students enter school having a sense of narrative structures as they appear in texts. This is why readers are required to mainly read narrative texts in the lower levels and to read expository text structures in upper lower, intermediate and higher levels of school. Across the years of school, their awareness of text structures

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must increase as they gradually move from reading a story –like text to reading for

information (Lorch & Lorch, 1996).By the fourth grade , there is a noticeable shift

to reading texts for information, which is much and written in lengthy passages

(Gillet, Temple, & Crawford, 2004; RAND Reading Study Group, 2002).

Readers who aware of text structures and organization can analyze and

comprehend the text more than the students who lack this understanding (RAND

Reading Study Group, 2002). The text structure instruction has a positive effect on

the students' memory. The knowledge of the rhetorical relationship of the main ideas

and the supporting details improve the reading comprehension of the expository

texts. Many researchers have argued that awareness of text organization or structure

is a requisite for text comprehension. The awareness of text features, structures and

organization facilitates the location, identification and organization of readers'

information in the text and reinforces holding the information in the short term

memory and eventually each held piece of information will be easily processed and

connected to the prior knowledge of the readers to be subsequently stored in the long

term memory of the readers who receive text awareness instruction. To elucidate, the

headings, titles, subtitles help students learn the specific bits of information processes

(Aebersold & Field, 1997; Carrell 1985, Fletcher, 2006; Grabe, 1991, 2004, 2008;

Hall, Sabey, & McClellan, 2005; Horiba, 2000; Kendeou & van den Broek, 2007;

Meyer, 2003; Meyer & Poon, 2001; Snyder, 2010).

It is crucial that students receive an instruction covering the various

elements in expository texts; consequently, it is important as well to introduce

students to a variety of expository texts throughout the school year. What remain

imperative is teaching and modeling the use of the expository texts features properly.

Thus, information comprehension and retention will be expedited   by the awareness

and use of text organization processes (Fletcher, 2006; Grabe, 1991, 2004, 2008; Hall, Sabey, & McClellan, 2005; Horiba, 2000; Kendeou & van den Broek, 2007; Meyer, 2003; Meyer & Poon, 2001; Snyder, 2010).

Teaching expository texts structures entails three steps as argued by Tompkins (1998) . First, the teacher should start with the Introduction of an organizational pattern whereby the teacher introduces the signal words and phrases that help recognize each text structure and gives students a graphic organizer for each pattern. Second, the teacher provides the students with instructions and guidelines to analyze the text structures in expository books and eventually to work on the text. During this stage, students learn the transitional words and phrases in the text that identify the pattern of the text. Moreover, teachers can increase and facilitate the reading comprehension of the text by using graphic organizers to illustrate the text patterns. Third, the teachers should ask the students to work as a whole class in order to write paragraphs using each text structure pattern. Then the students' second writing activity should be followed by small-group, pair , and individual writing activities. As such, the teacher encourages the students to use a graphic organizer to plan the paragraphs. Finally, the students should be asked to write a rough draft using transitional words and phrases to ensure coherence, organization of the text structure; afterwards, students revise and edit their paragraph to produce the final product. The teacher should model and repeat the above steps for each of the five text structures to ensure a comprehensive text structure coverage.

Tompkins (1998) indicated that teachers should before they prepare any instructional plan as tailored to serve training students on doing reading activities, teachers must model all the procedures. Meanwhile, the students should focus on discerning the steps required for effective reading comprehension   starting from

recognizing the signal words and phrases to applying the graphic organizers to each text. The teachers should practice doing the reading activities for two or three sessions until students collect enough background on what they are going to do while using the following recommended procedure:

First, Tompkins (1998) asserted that the teacher should introduce and present the text structures in order, starting with description and ending with compare/ contrast pattern. Second, the teacher should present one text structure in each lesson, and the teacher should work on the text without   confusing the texts altogether; they should cover only one text structure for three or four sessions; afterwards, they should proceed to the next one. Third, the teachers should prepare short passages (about six to eight lines) for the text structure they intend to work on in each session. In case the texts are not long and in case of time availability, the teacher can work on at least four texts according to the time allocated for each session.

Fourth, the teacher should stress the importance of the signal words and phrases in each text and explain the use of the signal words for each text structure. The teacher should provide the students with information about the authors and the expository texts that use specific signal words and phrases for each rhetorical structure.

The last step as indicated by Tompkins (1998) is that the teacher should familiarize the students with signal words and phrases that should be employed by giving them clues in structure of each text to find these signal words and phrases. Then, the teacher should finally ask the students to write some short paragraphs and use some of the signal words and phrases suitable to each text structure.

Reading expository texts is crucial for improving reading comprehension and for ranking the normal achievers; thus, reading strategies such as identifying main idea, major ideas, and supporting details, help the students to enhance their ability to read, comprehend, and analyze texts and these strategies could be good criteria to rate students' academic reading achievement. Text structures are a way to measure and rate students' reading achievement of the expository texts and to teach reading. These strategies unfold the text structure awareness and lead to a constant and progressive improvement in reading skills (McNulty, 2003).

The text awareness and the text structure have significantly shaped the reading comprehension of dyslexic students in different schools (McNulty, 2003). As such, the poor reading comprehension of the dyslexics has caused low overall school achievement (Meisinger, Bloom, & Hynd, 2010).

Mastropieri, Scruggs, Bakken, and Whedon (1996) extended the previously cited review by conducting a comprehensive review of 82 studies that included both group and single-subject research design studies. Although they reported substantial effect sizes for expository passages (ES = 1.02) and narrative passages (ES = 0.86), the results were not presented separately for the two types of texts with respect to subject characteristics and intervention strategies that are critical to discerning the effects of such variables on outcomes. In contrast, Swanson's (1999) findings from an extensive meta-analysis of reading research on students with LD indicated a moderate effect size of 0.72 for a prototypical intervention study in reading comprehension. Furthermore, higher effect sizes were noted for reading comprehension studies that included derivatives of both cognitive strategy and direct instruction

A more recent descriptive review of both narrative and expository text comprehension research by Gersten, Fuchs, Williams, and Baker (2001) indicated that whereas instruction in reading strategies consistently improved comprehension performance for students with LD, sustainability and variable effects remained not confirmed and not decisive. Other studies have focused on one content area, such as those conducted by De La Paz & MacArthur, 2003 or on a explicit intervention (e.g., technology-based practices; Maccini, Gagnon, & Hughes, 2002). Furthermore, Kim, Vaughn, Wanzek, and Wei (2004) used meta-analytic techniques to appraise the effectiveness of one type of text enhancement on comprehension. Collectively, these studies have provided evidence for an extensive knowledge base of research-validated interventions for enhancing reading comprehension in students with learning disabilities. However, it seems important to repeat and extend the previous studies by conducting a synthesis of intervention studies to determine how responsive students with dyslexia are to expository and narrative text comprehension interventions and what factors restrain treatment effects. Expository text is notably different in its structure, vocabulary, and difficulty level from narrative prose. Expository texts present unique challenges to students with LD because it requires the application of more complex cognitive tasks to extract meaning during reading (Kim, Vaughn, Wanzek, andWei, 2004).

2.11. Impact of Modeling, Practice, and Application on Strengthening Strategies

Teaching students strategies to enhance reading comprehension requires explanation, /modeling, practice, and application. Duke and Pearson (2002) stated that teaching collections or packages of reading comprehension strategies improves student comprehension of many kinds of texts. Research has demonstrated that when teachers infuse reading strategies into their content area lessons and develop

structured reading assignments in the classroom, student performance and learning increase (McKenna & Robinson, 2002; Meltzer, 2001; Snow, 2002; Vacca 2002). According to the U.S. Department of Education and National Center for Education Statistics (2005a), in the 2002-03 school years, English language learner (ELL) services were provided to 4 million students (8 percent of all students in grades K-12 in public schools). .The number of children ages 5-17 who spoke a language other than English at home more than doubled between 1979 and 2003(U.S. Department of Education, National Center for Education Statistics, 2005a, p. 34). It is clear that there is an increasing need for school districts and educators to help English language learners (ELLs) succeed in the inclusive learning classroom.

2.12. Effect of Mnemonics on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties

Some research studies defined reading comprehension as a process of formulating, eliciting meaning from written texts, and a mainstream of a number of interrelated sources of information (Anderson, Hiebert, Scott, & Wilkinson, 1985; Mastropieri & Scruggs, 1997). Many proficient readers don't realize that the reading tasks they undertake require metacognitive skills; good readers get involved in these strategic behaviors because they have proven, over time, to be beneficial (Swanson & De La Paz, 1998). Many students with learning disabilities, around 90% , demonstrate significant challenges learning to read (Lyon, 1995; Vaughn, Levy, Coleman, & Bos, 2002). Good readers typically carry out more met- cognitive behaviors while reading; for instance, they employ self-questioning techniques to monitor their understanding of the material as they read a passage in order to identify significant information and reread the passage (Swanson & De La Paz, 1998).

Mastropieri and Scruggs (1993) indicted that mnemonic strategies are systematic procedures for empowering memory. Mnemonic strategies use contributes to developing better methods for holding in the information so that each piece of information will be easily retrieved and recalled . Research has demonstrated that the way learners with disabilities encode information should be effective to ensure the use of the information .Memory and retrieval strategies can be employed to retrieve information that has been forgotten when learners implement the facilitates that foster better memory work . The particular task in developing mnemonic strategies is to find a way to associate the new information to information related to the background knowledge of students who have already locked in the long-term memory. The extent of strength of the firm connection learners can achieve sets the strength and the effectiveness of the memory that will last for a very long time. For example, when a student learns the capital of a certain country so well because the mnemonic strategy had carefully linked it to things that learner was very familiar with at the moment of association, so the recall process will be expedited and the name of the city, such as 'Florida' would sound like the keyword 'flower' as it was easy to teach the learner to make an automatic connection between and the city and the rose .In addition , Mastropieri and Scruggs (1993) added that the teacher can teach the students how to construct a close connection between 'Tallahassee' and 'television' because television was very familiar to the learners and the two words, again, sound very similar.

For instance, the below figure What's the keyword for Tallahassee? Television, good! And, what capital is television the keyword for? Good, Tallahassee!
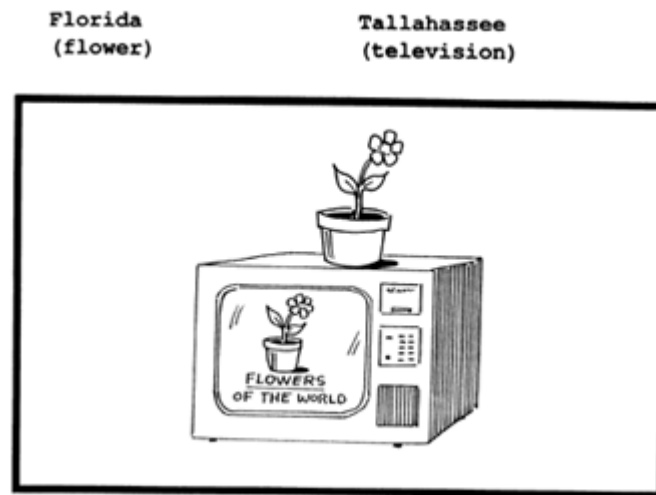
Figure 1. Mnemonic representation of Tallahassee, capital of Florida.

Copyright 1993 by M. A. Mastropieri and T. E. Scruggs)

Mastropieri & Scruggs (1993) assert that making an association between the two words (Florida, Tallahassee) and the familiar and tangible words that sound similar (flower, television), will enable the memory to easily all link the two familiar words together. Indeed , the association between the new words and the already known words through a mnemonic visualization will not only empower the memory but also facilitates the use and the retrieval of the old and the new information especially when the two keywords are pictured in some meaningful interaction. In the below example of Florida instance, Mastropieri & Scruggs (1993) give a picture that had been created and displayed on an overhead projector of a flower sitting on a television set, as shown in Figure 1

As such, mnemonic strategies are recommended for being great memory triggers since they keep proving being extremely efficient in helping people recall and retrieve things (Bulgren, Schumaker, & Deshler, 1994; Mastropieri & Scruggs, 1989).

Mnemonic strategies can be described as memory strategies, and not comprehension strategies. Students who keep receiving instruction including mnemonic devices perform well on comprehension tests of similar content (e.g., Mastropieri, Scruggs, & Fulk, 1990; Scruggs, Mastropieri, McLoone, Levin, & Morrison, 1987),especially because mnemonic devices act as memory triggers that help learners remember more information that can be applied on comprehension tests. However, good reading comprehension requires in addition to the use of mnemonic devices the consideratiof using specific comprehension strategies, such as the activation of students' schemata, prior knowledge, questioning, prediction and verification (Mastropieri & Scruggs, 1997; Scruggs, Mastropieri, Sullivan, & Hesser, 1993).

However, mnemonic strategies are considered as inhibitors of reading comprehension, as argued by some research (Kilpatrick, 1985). More importantly, there are many instances whereby the students who achieved good comprehension of a concept, have forgotten the facts associated with that concept . For example, Kilpatrick (1985) demonstrates that it is entirely feasible to comprehend the nature of states and capitals while being unable to retrieve the capital of Florida. Another example might be the case of the comprehension of certain scientific concepts, yet without being able to comprehend the concepts related and associated with them.

Scruggs and Mastropieri (1992) indicated that mnemonic strategies can't be a complete teaching method or curricular approach. The mnemonic strategies are so specific that they are intended to be used to improve the recall of the components of any lesson for which memory is needed. An example about the main focus of the mnemonic strategies can be their contribution to the retrieval of certain scientific concept as explained and highlighted in the curriculum that   requires a

textbook/lecture format (Scruggs & Mastropieri, 1992) or when the curriculum involves a hands-on, inquiry learning format (Mastropieri, Scruggs, & Chung, 1997). There are different approaches to science learning which require using mnemonic strategies that be employed to facilitate the recall of necessary information (Mastropieri & Scruggs, 1994).

Scruggs, Mastropieri, Bakken, and Brigham (1993) investigated the impact of using mnemonic devices on improving the reading comprehension of learners who are engaged in active manipulation of recalling and retrieving more information about 'electricity and rocks and minerals' than students who merely studied from textbooks without being exposed to relevant mnemonic devices . However, none of the employed cohort of students showed progressed recall of critical vocabulary or terminology, the area where mnemonic strategies are most effective.

Several research studies have described the positive gains of training students with memory problems on using mnemonic strategies independently to facilitate the retrieval and the recall of the information (Fulk, Mastropieri et al., 1985; McLoone et al., 1986, Mastropieri, & Scruggs, 1992; King-Sears, Mercer, & Sindelar, 1992; Mastropieri, Scruggs, Levin, Gaffney, & McLoone, 1985; McLoone, Scruggs, Mastropieri, & Zucker, 1986; Scruggs & Mastropieri, 1992). Some studies demonstrated some positive gains for training students to use mnemonic strategies in isolation from other strategies. More importantly, some studies effectively trained students with disabilities to use the mnemonic procedures and then to generalize the procedures for learning new vocabulary words. Many studies trained as well students with disabilities to use the mnemonic strategies across different content areas, including science and social studies (Fulk et al., 1992; King-Sears et al., 1992; Scruggs & Mastropieri, 1992).

Fulk (1994) and Bulgren et al. (1994) summarized mnemonic strategies in carrying out the following steps .

First ,as step 1 , the teachers should provide students with the purpose of the instruction and the rationale for employing the strategy training. The teacher should make it clear to the learners that the students should recognize that the strategy training will be useful for them and that their attempts at using the strategies will yield better reading comprehension .The teacher should provide examples of how the strategy can be useful across a variety of learning situations and content areas. For instance, in teaching students how to apply the strategy to learn science vocabulary, the teacher should model to the students how the method can also be useful in learning social studies content and for learning English and vocabulary of English as a foreign language.

Second, as step 2, the teacher should provide strategy instruction that will result in positive gains toward strategy use . The teacher should demonstrate, model, and guide students using many examples to ensure their complete understanding of the mnemonic process during the strategy component training. As such, the teacher should provide common and uncommon, correct and incorrect examples of the usage and should ask the students to identify and correct any incorrect examples.

Pumam (1992a) also examined the types of questions teachers asked on tests. He found that the vast majority of test questions students were asked required factual recall based on information elicited from the text .The majority of questions on tests administered by mainstream secondary classroom teachers required the student to recall a specific fact, such as answering the questions related to historical events. A sample question that required a specific fact might be "…..Who discovered America?.....and Other possible responses, such as conclusion, sequence,

opinion, discrimination, compare and contrast, purpose, correct an example, and summary, appeared about one per test (Pumam, 1992a, p.131).

As such, it can be noted that route learning and the ability to use efficiently the memory for factual information is absolutely essential for success in school in general and to succeed at the secondary level in particular. Unfortunately, it is also true that students with learning disabilities and other learning problems have been constantly challenged with certain difficulties hindering the recall of the academic content (Cooney & Swanson, 1987). Research studies, (Cooney & Swanson, 1987), crucial contribution of 7 mnemonic strategies to memory enhancement that subsequently rendered   finding ways that remarkably increased the amount of content-area information students are able to recall. This following literature review section provides information on the utility and effectiveness of mnemonic strategies in empowering memory needed for school learning.

Some research studies demonstrate that the mnemonic devices were used in ancient Greece as a tool for recalling things that didn't easily follow patterns, and they are still extremely efficient tools for teaching the disabled learners as well as for the facilitation of their teachers' work (Pannucci & Walmsley 2007, p.543). Teaching students to use devices such as acronyms to help them recall what they have learned is highly beneficial for improving the reading comprehension of dyslexic students (Pannucci & Walmsley 2007). Bellezza & Buck (1987) mentioned that mnemonic cues have been labeled as cognitive structures (Bellezza, 1981). The cues contain verbal representations and visual images that are components of knowledge structures (Bellezza & Buck, 1987, p. 147). The mnemonics are schemata that help students activate their prior knowledge automatically when they perceive information in a special knowledge structure (Bellezza & Buck, 1987). Harris and

Hodges (1981) mentioned that the term mnemonics refers to strategies intended to improve memory or memorizing such as the keyword method. By using mnemonics, teachers can teach students to label specific words such as definitions and synonyms (Fenaigle, 1813; Levin,McCormick, Miller, Berry, and Pressley, 1982).Minskoff and Allsopp (2003) emphasized that mnemonics provide structured ways to aid recall and retrieval of information by creating associations that do not exist naturally in the content. They further explained that .use of mnemonics requires that students organize the information in personally meaningful ways. such as using humor, senses, sounds, images, smells, tastes, touch, movements and feelings to aid memory retrieval (p. 34).

2.13. Mnemonic Techniques

The mnemonic techniques can be classified as follows:

2.13.1 The keyword method

Mastropieri and Scruggs (1993) defined the keyword method as a crucial method required to help students recall states and capitals, and this method has a lot of uses and a variety of supportive applications. For instance, the keyword method is remarkably important for teaching new vocabulary words. For example, to help students to recall a word such as 'barrister' which is another word for a lawyer, the teacher should create a keyword for the unfamiliar word, 'barrister'. The keyword might be a word that sounds like the new word and it is easily portrayed. A good keyword for barrister will be as suggested by Mastropieri and Scruggs (1993) a 'bear'. Then the teacher should create a picture of the keyword and the definition doing something together. It is vital that these two things actually interact and are not plainly apparent in the same picture. As such, a picture of a 'bear' and a 'lawyer' in

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one picture won't be an effective mnemonic, because the two words won't be interacting. A more effective picture would be a 'bear' that is acting as a lawyer in a courtroom and pleading innocence for his client whether his client is a defendant or a plaintiff. The teacher should use the created pictures and should show them to students on overhead projectors or by using other ways as well. When the teacher uses this strategy, the teacher should be sure that students comprehend all the elements of the picture.

For example, the picture should the class that the word ' barrister' is another word for 'lawyer'. To recall what a barrister is, the students should think of the key word for 'barrister'; the 'bear'. As such , the 'bear' as the keyword for 'barrister' will enable students to recall the unfamiliar word . The keyword for' barrister' is bear, and' barrister' has the meaning of 'lawyer'. Afterwards, the teacher should display an overhead to look at the picture of a 'bear acting like a lawyer'. The bear will the keyword for 'barrister'. So the teacher should draw the attention of the students of the importance of associating the word in the picture; 'bear' to 'barrister ' .As such , whenever, students hear the word 'barrister', they should first think of the keyword . ;'Bear'. The students should recall what the bear has been doing in the picture while acting as a lawyer.

Students will recall and remember the strategy only if the teacher practices the strategy very often and then they will memorize the information very well. At lower grades of school, the teacher might find some students give the answer 'rain' when the teacher asks them about the meaning of the word 'ranidae'. In such cases, the teacher can simply remind the student that 'rain' is the keyword that will just help them remember the answer. The teacher should ask the students to think in the picture to see what is receiving the rain and the answer will be the'frogs'. As such,

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based on the example, the students will recall the meaning of the word 'ranidae'

which means common frogs (Mastropieri & Scruggs, 1991).

Mnemonics can also be used in enhancing the acquisition of foreign

language vocabulary. A list of some Italian vocabulary words and their pertinent

mnemonic strategies are shown in the below table (Table 1) (Mastropieri & Scruggs,

1991, p. 24).

2.13.2 The peg word method

Mastropieri and Scruggs (1991) explained the uses of the Pegwords when

numbered or ordered information should be retrieved and they defined Pegwords as

the rhyming words for numbers and include the following examples as defined by

Mastropieri & Scruggs(1991) :

One is bun	six is sticks
two is shoe	seven is heaven
three is tree	eight is gate
four is door	nine is vine
five is hive	ten is hen

Research has shown that illustrated strategies such as the Pegwords are

very effective for recalling the   color and the encoded information. Scruggs,

Mastropieri, Levin, and Gaffney (1985) added that the Pegwords can also be

combined with keywords. For instance, the teacher should create a picture of

'crocodiles (key-word for crocoite) wearing shoes (pegword for 2)' in order to teach

the students that' crocoite' is a mineral that is number 2 on the Mohs hardness scale'.

Thus, the teacher should help the students to remember that the mineral 'wolframite'

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is 'hardness number 4', black in color, and used in making 'filaments for light bulbs';

afterwards ,the teacher should create a picture of a 'black wolf' ' (keyword for

wolframite)', looking in a door (pegword for 4), and turning on a lightbulb. That is, a

picture of a black wolf is much more likely to be remembered than a picture of

'wolframite (Mastropieri &Scruggs,1993).

'.
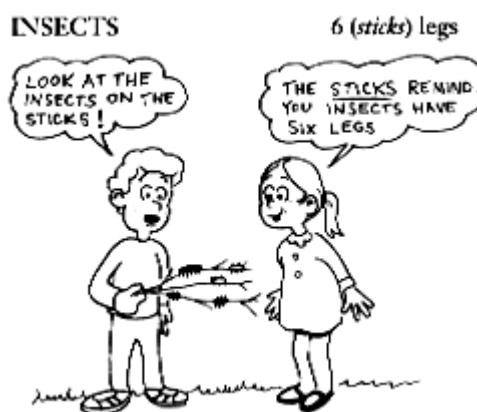
Figure 2. Mnemonic representation of insects having six legs. (Copyright

1993 by M. A. Mastropieri and T.E. Scruggs.)

Mastropieri and Scruggs(1993) stated that Pegwords can be used to recall

the number to be remembered and to associate that number with the other

information. For instance, the teacher should create a picture of insects on sticks as

shown in Figure 2 and another picture of a spider on a gate in order to help students

recall that' insects have six legs', however, 'spiders have eight legs'. For instance, the

teacher should create a picture of a 'bun (pegword for one) resting' in order to enable

students remember 'Newton's law of motion; objects at rest tend to remain at rest

unless acted on by another force'; moreover, the teacher should create a picture of a

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'rake leaning against a tree' (pegword for three, or third) so that students can recall that a garden 'rake' is an example of a third-class lever.

Pegwords can also be used beyond the number 10 ;'11 is lever, 12 is elf, etc.'. For example, the teacher should help the students remember that the "19 th amendment of the U.S. Constitution guaranteed women the right to vote, create a picture of a woman dressed as a knight (19 = knighting) riding to a voting booth"and to help students recall that "…James K. Polk was the 11th American president", the teacher should create a picture of a "polka-dotted (keyword for Polk) lever (pegword for 11) (Mastropieri, Scruggs, & Whedon, 1997).

2.13.3. Letter strategies

The third mnemonic strategy is called the "Letter Strategies". Mastropieri, Scruggs, & Whedon (1997) defined the "Letter strategies' , as strategies which involve using letter prompts to recall lists of things that are the most common to students. Most students recall using the acronym 'HOMES' to remember the names of the 'Great Lakes' and 'FACE' to recall the remarks represented in the spaces of the ' treble clef, from bottom to top'.; most acronyms are used based on the assumption that a name of something will be recalled when the first letter is recalled. However, this might not always be true. For instance, in case a student is unfamiliar with "Lake Ontario",the teacher should help that student to simply recall that the first letter 'O' is not enough to trigger recall. The names of all the lakes should be practiced until students become familiar with them.

Acronyms are most supportive when the first letters of a list can be employed to create one whole word; however, sometimes, modifications can be easily tailored .As an example, Mastropieri, Scruggs, & Whedon(1997) added that it is crucial to consider the acronym 'FARM-B,' which represents the five categories

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of 'vertebrate animals: fish, amphibian, reptile, mammal, and bird' , as shown in Figure 4. The 'B for bird' does not represent the word , but it can be added to FARM and practiced until it turns automatic.
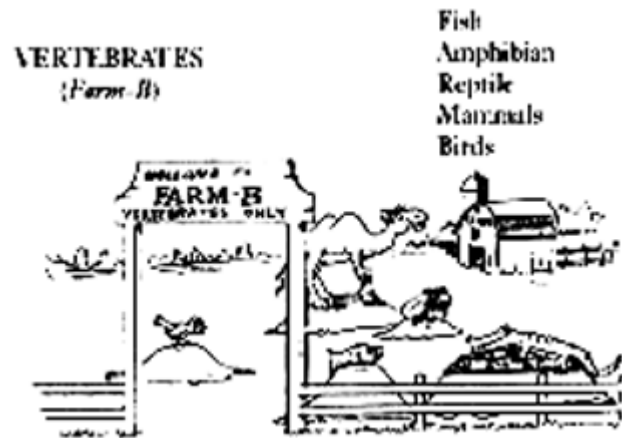
Figure3. Mnemonic representation of the vertebrates: fish, amphibians, reptiles, mammals, and birds. (M. A. Mastropieri and T. E. Scruggs 1993)

Mastropieri, Scruggs, & Whedon(1997) added that in some cases, the appropriate words cannot be easily formulated from the first letters of the words to be recalled .For example, when the teacher wants the students to recall the names of the" planets" in their order from the sun, the teacher should provide the students with the letters that should be M-V-E-M-J-S-U-N-P, from which a word cannot be made. As such ,an 'acrostic' can be created, in which the first letters are reformulated to represent the words in a sentence.For example, the sentence could be "My very educated mother just sent us nine pizzas" (Mastropieri & Scruggs, 1994, p. 271).In addition, the names of the planets should be adequately common so that students can retrieve a planet name, given only the first letter. Also, students should be familiar with the solar system to recognize that the first M stands for Mercury, and not Mars (Mastropieri & Scruggs, 1994, p. 271).

Another example might be the case of the teacher who wants the students to have the ability to recall the classification taxonomy of living things;that teacher should ask students recall the following sentence, "King Philip's class ordered a family of gentle spaniels." This sentence should help students to recall the words ;'kingdom, phylum, class, order, family, genus, and species, in their order from Mars (Mastropieri & Scruggs, 1994, p. 271).

2.14 Impact of Computers Exercises on Improving Reading Ability

Computers, portable keyboards, and specialized software provide efficient means for recording, editing, and sharing ideas for students with LD. One of the most valuable benefits is a reliable and immediate legible document. Valuable time is spent communicating ideas rather than correcting writing. Thus, dyslexic students won't suffer while writing due to the great help ensured by the computer. In addition editing on word processors allows multiple revisions without recopying, thus enabling students to concentrate more on the content. Hence, students in general and dyslexic ones in particular will have the chance of assimilating the content and the main features of the text without being overburdened by the impediments encountering them while writing and expressing their ideas. Above all, authors write, edit, revise and edit more efficiently when using computer-supported writing tools (Beukelman et al., 1994).

Computers improve the quality and quantity of writing. Spelling and grammar supports enable writers to decrease their emphasis on writing mechanics, thus increasing planning time and content generation. Eventually, computers make it possible for dyslexic students who struggle with handwriting to finalize neat printed work. As a result, some research studies aimed at exploring the influence of computer and computer exercises in improving the writing and in facilitation the

reading comprehension of dyslexic students enrolled in schools in contrast to the findings that were yielded by the study based on the examination of the impact of a reading treatment lacking computer exercises as main variable contributing to the betterment of reading comprehension of dyslexic students ((Beukelman et al., 1994 & Roth and Beck ,1987).

Roth and Beck (1987) were the first researchers who showed that computer programs could be tailored to enhance word recognition and decoding skills and would result in remarkable gains in reading comprehension. Roth and Beck (1987) were also the first to use digitized speech for both corrective feedback and for assistance when the child would feel confused and unable to know how to proceed.

The researcher of the present study reviewed the benefits pertinent to the TELE-Web software. The TELE-Web software was designed to have three advantages: digitized speech dictation and feedback; the provision of word models or prompts to help students access the identities and spellings of target words; the provision of context-dependent and in context Word identification (Englert, Zhao, Collings, and Romig, 2005, p. 359).

According to McEneaney (2000), there are several significant benefits of web technologies. First, they provide a basis for closer integration of content and process than has been possible in print media. Second, Web-based materials can guide the learning process through direct manipulation of the reading environment based either on predetermined schedules and plans or as a result of data collection. Third, Web content itself is subject to manipulation through the use of script-based linking and the means of delivery. Bierwisch (1983) stated that using the computer to assist reading is a very effective strategy to help students read better because reading on a computer is a real-time language activity involving all types of accessible

linguistic information. Leong (1995) stated that an on-line approach uses the microcomputer interfaced with the text-to-speech (DECtalk) .Computer provides immediate on-line reading and high-quality synthetic speech feedback of words and discourse. Many researchers advocate explicit instruction. However, it is more difficult for students with learning disabilities to obtain direct instruction and repeated practice in a general education than in a special education classroom. In line with the above findings, Lee and Vail (2005) stated that "computer programs can be valuable tools to teach and to provide practice of new vocabulary or concepts in a general education classroom. They could also save teachers' instructional and preparation time" (p. 6).

A likely good method for increasing performance and encouraging reading fluency is through computer-assisted instruction (Carver & Hoffman, 1981). Jones, Torgesen, and Sexton (1987) used the 'Hint and Hunt program' to explore the effects of computer-guided practice on reading fluency and concluded that the experimental groups considerably improved reading fluency and accuracy and generalized to reading analogous words in context.

Gamper & Knapp (2002) gave CALL another definition saying that it is a field of research that merges the media and computerized programs in order to come up with the most advanced teaching and learning method. As for Levy (1997), he defined CALL as a searching tool for methods that would ensure the integration between the computer and languages. As for the researcher of this study, she agrees with the definition provided by Cunningham (2000).

From the beginning of the 1960s, computers were being integrated with teaching languages. From that time till now, three phases could be identified concerning the evolution of the CALL program (Warschauer and Healey,1998). The first phase is

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known to be the behavioral CALL which was invented in the 1950s, but was not put to action before the 1960s and the 1970s. This computer-based learning method yielded language exercises which were named as the drill and practice paradigm that are another version of the CALL program. Drill and Practice Paradigm was based, as the name implied, on extensive language and grammar exercises and tests. This system allowed students to take their time and pace themselves when solving these tests and exercises, for time was not an issue for that software. Lee (2000) said that the tryout version of the program was called 'PLATO'; it was the first behaviorist CALL that worked on its special costumed software. The communicative CALL which pioneered at the end of 70s and the beginning of the 80s followed the behaviorist CALL.

During this time, the behaviorist method of teaching was being discarded on the conceptual and tutorial levels because this computer-based program did not shed light on the way the forms should be used, but just on the form as a structure which is ineffective. So in the second phase of CALL, the aim was to shed light on the importance of the complete teaching of grammar methods and encouraging the students to engage in creating their own ideas and essays rather than polishing already existing ideas. Moreover, this program also stressed that using the targeted language solely is a must (Lee, 2000).

Communicative CALL is based on cognitive theories that revolve around the idea that learning is to improve, innovate and detect. One of the numerous software that was invented at that time included   restoration programs which were very high in demand. Text rebuilding programs for text writing permit students who are working in groups or individually to reorganize texts and words to learn language patterns of connotation. Alternatively, simulations arouse argument and innovation among students who are working in groups. Still, communicative CALL has some disadvantages that

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include the lack of stressing on the interaction between the student and the computer rather it sheds light on relationships between the students (Edler, 2004).

Edler (2004) asserted that communicative CALL innovators also use the computer in order to motivate students. In the past, specifically in the 80s, technology and language were integrated using television, film, videos, computers, language labs and recordings. Also, many computer-based learning CALL programs were used at that time.

Despite the fact that there were some pioneering software uses, the bulk of the uses of CALL were restricted in appearance to drill and practice trainings (Graham et al., 2002). The third phased featured is the Integrative CALL which sheds light on the necessity of integrating technological approaches with teaching language techniques in order to reach the maximized potential of the integrative CALL program which is succeeding in transmitting the learning experience to the students through technological approaches(Argondizzo, 2004) .

Lee (2000) provides an answer to the question of why using CALL is necessary. He indicated that the CALL program is useful for the following reasons: Computers are associated with fun and games.Student motivation is therefore increased, especially whenever a variety of activities are offered, which make them feel more independent. Computer-Assisted Language Learning programs can help pupils strengthen their linguistic skills by positively affecting their learning attitude and promote their self-confidence.

There are many Computer-based screening tests for dyslexia .The advantages of computer-based assessment in education have been explored by Singleton (1991; 1994a, 1994b, 1997b, 2001). The reliability and the validity of the Computer-based tests provide more accurate measurement, especially when complex

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cognitive skills are being assessed. The computer-based tests are standardized and also administered in an entirely standardized manner for all individuals taking the test, which improves reliability of measurement. Timings and presentation speeds can be controlled precisely. The objective assessment in these tests dominates the subjective judgment of the test administrator whose role will be minimal in the administration and the correction of the computer-based tests .In addition, the test outcome and the test results are available immediately. Above all, when assessing older children and adults, assessment can be largely self-administered; as such, the work of the administration will be facilitated, and all these factors help to reduce administrative load and avoid delays. Because the items and instructions are delivered entirely by computer, the teachers won't be overwhelmed by the supervision of the screening that can be done by personnel other than teachers (Singleton, 1991; 1994a, 1994b, 1997b, 2001).

As for the extent of the effectiveness of the computer exercises in promoting the reading comprehension of students with dyslexia, the researcher won't report the extant literature pertinent to their impact on improving the spelling skills of dyslexic students. The comparison of the findings will be limited to the impact of computer exercises on the reading comprehension of students with dyslexia. The findings of the present study were in agreement with the literature reported by Crivelli (2008), and Crivelli, Thomson and Andersson (2004). In addition, the findings of the study are in line with those reported by Singleton and Simmons (2001) that reported the impact of the use of the program 'Wordshark' in 403 primary and secondary schools. 'Wordshark' is a commonly used program, and it is nowadays used in around 20% of UK schools. Such program provides training in word recognition and developing reading, spelling and phonic skills through

using a variety of amusing and interesting games that are motivating as well as challenging.

More importantly, the National Literacy Strategy materials, the intervention programme 'Alpha to Omega' Wordshark' program,and the 'Letters and Sounds' framework for teaching synthetic phonics include a diversity of wordlists that are appealing and beneficial for enhancing the reading comprehension of students with reading difficulties (Hornsby & Shear, 1974). The cohort of grades 7 and 8 in the private schools employed the wordshark exercises and comprehension tasks.

Thus, the program has been tailored to serve the themes and the concepts of the units under study .The tasks of the wordshark program were adequately adjustable to be used with the teaching plans ,type of speech feedback (whole-word or segmented) and according to the particular task. Wordshark is not designed to be implemented as a single intervention; rather, its utmost utility occurs when it is used to provide regular practice for the students in order to help them store the new information in memory and to reinforce phonic principles that are gained from teacher's instruction. Van Daal and Reitsma (2000), Singleton and Simmons (2001) , Rooms, 2000; Thomson & Watkins, (1990), Crivelli, Thomson & Andersson, 2004; and Hedley (2004) reported similar results to those noted by the present study . The current study employed Wordshark tasks to reinforce the explained the phonic components; as such, the wordshark tasks should follow the textbook phonic exercise in order to ensure that the child learned the explained phonic components.

Such CALL programs can be very cost-effective and could also help older failing readers. Children whose age ranged from 9 to 10 years with average or below average reading ability showed significant progress although the duration of the treatment was short and the allocated instruction time was only about 20–24 hours in total over eight months. Furthermore, Reitsma (1988) found that optional speech feedback whereby the computer gives the spoken form of any word, and 7-year-old beginning readers achieved similar reading progress to that gained by traditional classroom that adopted the 'guided reading monitored by corrections of the teacher when children read aloud. Miles (1994) and Moseley, (1990) conducted studies which substantiated the significance of speech feedback in computer-assisted literacy learning (e.g. Olofsson, 1992; Olson and Wise, 1992; Wise et al., 1989). Conversely, Wise et al. (1989) found that the extent of the effectiveness of the type of speech feedback isn't remarkable. The researchers conducted a long-term training study with poor readers whose mean age is 10 years and who received segmented feedback including words that are broken down into syllables, onsets and stress .Moreover , Olson and Wise, 1992; Spaai, Ellermann and Reitsma, 1991; Elbro, Rasmussen and Spelling, 1996 conducted studies that didn't report an advantage for syllable-segmented feedback.

Van Daal and Reitsma (2000) reported the findings of two studies using Leescircus, which is an interactive CAL program similar to Wordshark .Leescircus encompasses a variety of different games as well intended to draw children's attention to the phonological structure of words and to teach children the correspondences between letters and sounds, and to expand automaticity in word reading and spelling. The reading progress was noticeably achieved. The experimental group was found to significantly out-perform the control group on both word reading and decoding (non-word reading). In the second study, significant improvements in spelling and positive behaviors were

reported and a group of learning disabled children whose average age was 10.7 years

who had been challenged with spelling difficulties showed motivation and enthusiasm

due to the use of the Leescircus program. The findings of this study indicated that the

experimental group outperformed the control group and the effectiveness of the

Leescircus program were noticeable in comparison with those of the normal classroom

activities.

More importantly, the findings of the cited study revealed that during the project,

the children spent a total of 1.5–6 hours using the program; however, the level of reading

development that was gained was equivalent to that which was normally achieved in a

period of three months of formal reading instruction.

Tijms and Hoeks (2005) indicated that LEXY was used to improve the reading of

267 children with dyslexia whose age ranged from 10 to 14 years. The results of the cited

study also align with those reported by Tijms et al. (2003). The study revealed large,

generalized beneficial effects of the intervention, which substantiated the largest effects

for accuracy and a major one for fluency as well. Text reading errors were reduced by

50%, with mean standard scores of reading accuracy increasing from 84 at pre-test to 106

at post-test. Spelling errors were reduced by 80%, with mean standard scores of spelling

accuracy increasing from 54 at pre-test to 102 at post-test. Text reading fluency increased

more than 25% (SS increase from 61 to 85) and word reading rate by 30%.

Using voice dictation software, Miles, Martin and Owen (1998) reported the

positive effects on dyslexic pupils in secondary schools in Devon who were studied over

a 10-week period. The findings showed that these students outperformed the control

participants by an average gain of 13.4 months in reading age (ratio gain 5.4), and 6.1

months in spelling (ratio gain 2.4), and produced 45% more written output in

handwriting work.

As for the use of portable word processors, Sutherland and Smith (1997) carried out a survey on the use of portable word processors by dyslexic students in secondary schools. They demonstrated that 88% of the sampled teachers who were teaching these students noted significant improvements in presentation and readability of their work, and 78% observed gains in their spelling.

As for studies conducted in secondary schools , Lange, McPhillips, Mulhern & Wylie (2006) studied 93 secondary school pupils with reading difficulties ;all the sampled populations were below average in reading.

As for the use of   the computer program called Texthelp Read&Write GOLD, the intervention group received 45-minute training sessions in using the computer once each week for six weeks. The findings of the study reported that talking word processor of the Texthelp Read & Write GOLD which includes scan-and-read capability, spellchecker, dictionary, and other study tools and visual features, has positive impact on the reading ability of the cohort of the experimental participants. The results, on tests of text reading comprehension, word meanings and spelling accuracy, showed significant benefits of the Texthelp Read &Write GOLD intervention when compared with the other two groups, and consequently indicating that assistive technology can be beneficial for students with dyslexia.

Some studies reported a remarkable motivation of the students with dyslexia especially that the sampled children with dyslexia enjoyed greatly their time upon selecting games that provide practice on the phonic components. More specifically, the effectiveness of the wordshark activities has been monitored by the teacher to ensure that individualized needs of each student have been served. The child's progress was monitored by the teacher, which facilitated the smooth flow of the activities from the new phonic components to the wordshark tasks.

Singleton and Simmons (2001) reported that engaging students in the wordshark activities has increased students' motivation and children's learning was remarkably improved 68% of the sampled children showed increased motivation and 26% of children showed a slightly increased motivation. Van Daal and Reitsma (2000) also reported comparable motivational benefits in a study of a similar type of CAL program used with dyslexic children. Crivelli, Thomson & Andersson, 2004; and Hedley ,2004 reported the same motivational effects with dyslexic students .Rooms, 2000; Thomson & Watkins, 1990, & Hedley (2004) also reported that use of ILS significantly enhances self-esteem of secondary school pupils with literacy difficulties.

South Dakota Department of Education (2010) reported that students with dyslexia often havestrong and high oral language skills, and they can comprehend the main ideas of a passage irrespective of their challenges with decoding the words .normally students with dyslexia score lower on tests of reading comprehension than on listening comprehension because they are usually challenged with decoding and accurately or fluently reading words. In addition, reading comprehension activities demand the student to read a short passage to locate information needed to answer the questions .As such, students with dyslexia usually struggle with the comprehension of long reading assignments in their textbooks, yet these dyslexic students might earn an average score on reading comprehension tests.

Also, in the same vein, the findings of the earlier cited studies were in compliance with those of The Learning First Alliance, 1998; Rashotte, Toregesen, & Wagner, 1997; National Reading Panel, 1999; Torgesen, 1998.the cited Studies indicated that when students' reading ability is poor at the beginning of reading, they don't comprehend the basics of the passage. Students with dyslexia usually struggle with unpleasant consequences of grade retention, assignment to special education classrooms,

or participation in long-term remedial services.In addition, as students progress through the grade levels, their reading ability becomes sharper and their reading comprehension becomes very weak in comparison with peers of their age.

The game called 'Sharks' is one of the Wordshark games that are characterized by their motivational aspects. It also requires manual dexterity .For instance, the child uses the mouse pointer to 'catch' a shark and to avoid manual dexterity. When a shark is 'caught', the computer says a word from the word list given by the game and then the child receives an order to type in the word. What is special about this game is the instant support given by the various supports provided by the game. The child will be protected against the sharp teeth of the shark only when the child gets the word correct. The Dictionary Fish' is another game in Wordshark in which various dictionary skills are practiced. The objective behind the game is to select the correct part of the dictionary for a given word.

Singleton and Simmons (2001) also reported that 91% of children using Wordshark achieved gains in reading skills. 27% of the sampled children made substantial gains, 93% of the students with dyslexia made improvements in spelling and 36% of students with dyslexia made substantial improvement.

2.15 Impact of summarization on Enhancing the Reading Comprehension of Learners with Dyslexia

Studies indicated that involving summarization strategies, self-instructional strategies, and reciprocal teaching revealed positive effect in improving the reading comprehension of dyslexic students. Students in the experimental group statistically outperformed students in the control group. The instructional procedure, including summarization strategies, self-instructional strategies, and reciprocal teaching,

significantly increased the reading comprehension of disabled students (Jitendra, Hoppes, & Ping Xin, 2000).

Jitendra, Hoppes, & Ping Xin(2000) demonstrated that summarization strategies, self-instructional strategies, and reciprocal teaching showed gains in improving the reading comprehension .They added that that significant effect sizes were produced when an intervention treatment including summarization was implemented and the cohort of the experimental participants statistically outperformed those of their control participants counterparts .

2.16 The use of Dyslexia and Reading Difficulties Intervention Treatment in Public Schools

Research studies have asserted a difference between the public and private schools or units in the treatment ,intervention and identification methods and efficacy of the treatments of the dyslexics .Based on a study conducted by Burdett (2005) ,qualitative data gathered from the interviews of 50 boys, aged between 11 and 16, attending a special school for dyslexics asserted that the levels of self-esteem and self-efficacy were high.On the other hand , the qualitative data weren't replicated for dyslexic students attending a mainstream school .Additionally, the students in the special school didn't show any weak academic achievement .

Conversely, some research studies asserted the efficacy of treatment and learning of students with specific learning difficulties enrolled in mainstream schools in addition to gains in learning for specific learning difficulties students enrolled in special units for children (Humphrey & Mullins, 2002; Humphrey, 2002, Burden & Burdett, 2005). On the other hand, one study asserted the vital role of on an independent school specific for students with dyslexia, but argued the importance

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of the research being replicated in a mainstream setting (Frederickson & Jacobs, 2001). Taylor et al (2010) investigated the efficacy of the mainstream school in providing treatment for the learning disabled children .Other studies such as Alexander-Passe's (2006) study asserted the gender differences that have not been commonly addressed in previously conducted studies . Many studies involved more male participants, and this is why some research argued that dyslexia is more existent in males than in females (NHS, 2012).

National Center for Learning Disabilities (2010) asserted that the treatment for dyslexia consists of using educational tools to improve reading ability. The appropriate treatment that should be utilized by the Educational therapists or educators who have received training in learning disabilities should promote and implement intervention plans for children with learning disabilities and dyslexia. The treatment plan should aim at strengthening the student's weaknesses and reinforcing the strengths. The majority of the students with learning disabilities should receive most of their instruction in general education class whereby teachers should receive training on the instructional strategies necessary for the success of reading comprehension.

The Sixteenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Act indicated that 71.2% of all students receive considerable reading comprehension instruction during their school day in general education classrooms .Also, around 78.9% of students with learning disabilities spend the considerable part of their educational time in general education classrooms. The ability and the feasibility of students' success turn to be high in subject- area classrooms, such as English, science, and social studies classes in the secondary level when these students with disabilities achieve well ;as such , the

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reading comprehension ability in certain classrooms in a public school determines the success in other content-area courses(U.S. Department of Education, 1994).

The factors that render students' success in reading comprehension were examined by some research studies in order to determine the scale and rank of students' success in secondary content-area classrooms. Pumam (1992b) surveyed 7th- and 10 th-grade teachers in different places in the United States of America and accordingly reported that around half of the student's final report card score was counted in terms of test performance. As such, attendance, punctuality, participation, and assignment were not considered as important as the test performance. However, Pumam (1992b) explicitly indicated that teachers made it clear that test scores were the most noticeable factor in report card grades. Teachers administered an average of 11 tests over the 9-week duration , and they allocated a great percentage of the pass result to the course graded components . Therefore, students' academic achievement would be strictly determined proportionally with the performance on academic tests.

Older students with dyslexia would often be challenged by dyslexic difficulties in secondary school and they would continue to face difficulties in learning even if they received appropriate intervention and were able to improve their literacy skills significantly, yet the intervention treatment might not lessen their difficulties (Hunter-Carsch & Herrington, 2001; Riddick, Farmer & Sterling, 1997). Difficulties with tasks involving phonological processing and/or verbal memory would prevail in the teenage years (Goulandris & Snowling, 2001) and the phonological processing and/or verbal memory might dominate during adulthood. The typical teenage dyslexic would have poor phonic skills, below average word reading skills, average or slightly below average reading comprehension, and very

slow reading speed. Spelling would be liable to be very weak in teenage years and adolescence ones as well (Beaton, McDougall & Singleton, 1997).

2.17 Effect of Gender on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties

Research indicated that there is a greater risk for males to be dyslexic due to genetic structures. Research studies indicated the continual prevalence of dyslexia. Research studies have indicated that there are more boys than girls with reading difficulties (Lambe, 1999; Stevens , 2011; Yazici & Ertekin, 2010). Linnakyla et al. (2004) also indicated the rate of difficulties in reading comprehension is higher for males than females. More males than females are qualified for participation in this remedial reading program.

A study, conducted by Linnakyla et al. (2004), which aimed at identifying the frequency and gender ratio of dyslexia in a sampled population of adolescents who were 598 secondary school students showed that a greater prevalence of dyslexia existed in male learners. The Mean age of the study participants was 13.33, and their respective standard deviation was SD = 1.49. All the participants attended mainstream public schools (Linnakyla et al., 2004). The prevalence of dyslexia in the study was estimated at 5.52%.Statistical analysis revealed significant differences in the prevalence of dyslexia between gender (7.6% male, 3.8% female), which meant that boys were twice as likely to be identified as dyslexic than their female peers. Furthermore, statistically significant differences were reported among dyslexics who had a parent suffering from dyslexia (15.1%), compared to normal readers (1.8%), yet there was not any frequency of brain injuries among the two groups. Overall, the findings were in agreement with the results of previous studies indicating that the dyslexia existence is mainly due to a biological basis (Linnakyla et al. , 2004).Pennington (2009) demonstrated that there is male

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prevalence in reading disabilities, with a ratio of about 1.5:1 which is lower than the historical estimates of about 3–4:1.

Conversely, Shaywitz, Shaywitz, Fletcher, and Escobar(1990) reported that the findings of their study didn't show significant gender differences when samples were research-identified as opposed to school-identified; thus, they concluded that the greater prevalence of dyslexia in boys with reading disabilities was probably the result of a referral bias. Similarly, Siegel and Smythe (2005) reported as well that the findings of their study proved that there was no significant gender differences in reading disabilities.

However, there has been a noted inconsistency in reporting the findings of the impact of gender on the improvement in reading performance for students with dyslexia. Some research demonstrated that males and females exhibit different patterns of brain activation during phonological processing. Morphology, and functional activation during reading vary between males and female students with dyslexia .Further differences between the brains of males and females have been attributed to normal brain development .Gender differences in brain development, functional organization, and activation during reading tasks are significant and they necessitate the separation of males and females in dyslexia research in order to detect subtle, but functionally-relevant, differences (Lambe, 1999). A study conducted by Apostolara, Tsoumakas, Diomidous, and Kalokerinou (2010) also demonstrated that dyslexia was more common in boys than girls (59,7% vs. 35, 1%).

In a study conducted by Yang (2003), whereby an intervention consisting of number sense activities was used and the participants were the fifth grade students in Taiwan, Yang's findings confirmed statistically significant difference after instruction, between the pre-test and post-test scores. The experimental class increased its mean score

by (44%) and the control class only increased its mean score by (10%). As such, Yang (2003) could conclude that carefully planned intervention measures could produce good results. Yang (2003) also asserted that gender differences in learning Mathematics were remarkably reported; thus, males with dyslexia are better than their female counterparts (Yazici and Ertekin, 2010) .

A plethora of studies indicated that the percentage of the dyslexia is higher in the male population of children and adolescents than the female one and the results on tests showed that boys on average perform below girls on reading and above girls in math (Yang, 2003).

Dyslexia is two to three times more prevalent in males compared with females. However, some studies demonstrated that the gender differences between male and female brains are minimal. In addition, some studies indicated that the brain functioning and performance is almost the same for both sexes (Yazici and Ertekin, 2010).

Research demonstrated that there is a difference in the performance among male and female students. Several educators established an association and interaction between reading performance and gender, and they found out that poor performance in reading is mainly associated with male learners. However, other researchers have continued to study the differences of the male and female brain, and they have found the differences to be much more minimal than originally believed (Stevens, 2011).

2.18 Interaction between Comprehension Treatment and Age of the Dyslexic Learners.

Allington (2002) observed that students succeed in learning to read in elementary school. However, after fourth grade, they begin to struggle with reading comprehension since content area texts often contain complex and difficult vocabulary, structure, and concepts. Reading in secondary schools and content areas

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is vital to students' development of comprehension skills, yet many students lack the requisite skills to understand and apply meaning from texts. This reflects the transition from learning to read in elementary school to reading to learn in middle and high school (Park, 2005). As students move from middle to high school, demands on literacy skills further increase, and students must become even more adept at meeting the challenges of sophisticated content area reading and information processing. Park (2005) emphasized that as students move from class to class, there is a shift in knowledge, thinking skills, and contexts in order to comprehend coursework. With this, there is also a shift in the reading skills needed in each content area. Secondary students often fail to realize the connection between reading in the content areas and applications in their personal lives. A lack of intensive reading instruction in secondary schools contributes to the widening gap of reading abilities among students and their subsequent alienation from reading (Park, 2005). Students also disengage from reading in the content areas and from reading for pleasure.

The reading and learning habits may persist beyond high school graduation into college study. The National Center for Educational Statistics (2000) pointed out that some college students just out of high school cannot understand texts, make interpretations, or relate to text concepts and that some secondary students cannot combine information from their own background knowledge or information other texts with material that they are currently reading in order to construct meaning and solve problems. Some college students cannot generate new knowledge from text and cannot construct meaning from text. Therefore, they are at risk for learning failure in college. After elementary school reading, students do not receive enough opportunities for intensive instruction in reading comprehension in middle and

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secondary schools. In order to help students learn from textual information, teaching reading is thought to be every teacher's responsibility (Park, 2005). Because many content areas use texts, the responsibility for teaching reading strategies belongs to all teachers in all subjects (Florida Department of Education, 2004; Vacca, 2002). Duke and Pearson (2002) stated that teaching collections or packages of reading Comprehension strategies improve student comprehension of many kinds of texts. Research has demonstrated that when teachers infuse reading strategies into their content area lessons and develop structured reading assignments in the classroom, student performance and learning increase (McKenna & Robinson, 2002; Meltzer, 2001; Snow, 2002; Vacca 2002).

2.19 Summary of Chapter 2

Chapter 2 of the study presents a literature review related to the efficacy of each component of the combined strategy instruction used and tested in this study. The sections of this chapter incorporate a review related to the effect of text structure and features analysis as well as inferences and main identification and summarization on enhancing the reading comprehension and performance of students with learning disabilities. This chapter also presents the studies on mnemonic illustrations, learning disabilities of dyslexic students, graphic organizers, comprehension strategies, visual displays, text feature analysis, and computer exercises on the comprehension of dyslexic students. Furthermore, the literature review of the present study incorporates sections related to learning disabilities and the comprehension of English as a second foreign Language, dyslexia characteristics, identification and recognition, phonological awareness as dyslexia indicator and dyslexia early detection, and learning process of disabled students: integration or segregation that might be enlightening and crucial in detecting dyslexia indicators

,so the researcher intends to include such sections so that teachers and parents could seek the early intervention plans and methods that would spare the students with dyslexia the frustration rendered by late detection . Specifically, the literature review is organized into the following subsections: 1. 5. Significance of Seeking Instructional Strategies for Improving Learning Disabled Students' Reading Comprehension, 6. Impact of Graphic Organizers on the Reading Comprehension of Reading Disabled Learners ,7. Impact of Questioning on Reading Comprehension, 8.Impact of Visualization on Reading Difficulties and Dyslexia .Moreover, the inference and prediction strategies used in the present study play a crucial role in enhancing the reading comprehension, yet some researchers highlighted the significance of previewing and anticipation as vital strategies that replace prediction and inference .Thus, the ninth review section is titled "9. Impact of Inference, Prediction, Previewing, and Anticipation on Reading Ability and Reading Comprehension of Learning Disabled Students, 10. The Influence of Text Features in Enhancing the Reading Comprehension and the Test Comprehension Performance of Learning Disabled Students. Furthermore, the researcher intends to stress the significance of implementing the suggested strategies of the treatment by using modeling,practice and application.As such, the researcher included a section titled 11.Impact of Modeling, Practice, and Application on Strengthening Strategies,12. The Effect of Mnemonics on Enhancing Reading Comprehension of the Dyslexic Learners and Learners with Reading Difficulties , 13.Impact of Computers Exercises on Improving Reading Ability , 14. Impact of summarization on Enhancing the Reading Comprehension of Learners with Dyslexia. 15. The use of Dyslexia and Reading Difficulties Intervention Treatment in Public Schools, and 16. Effect of Gender on Enhancing Reading Comprehension of the Dyslexic Learners and

Learners with Reading Difficulties. It is noteworthy that many studies reported different findings even after using the same strategies and the same materials due to age factor and the current study investigate the impact of the same treatment but on students of different ages (12-14, 13-15, 14-16 and 15-17-year –old).Thus, the literature review includes a section titled   17. Interaction between Comprehension Treatment   and Age of the Dyslexic Learners.

The following chapter will shed the light on the methodology implemented in the current study and the rationale behind using such methodology. The purpose of this chapter is to present the research methodology used in this study. The methodology includes the following components: Subjects and School Setting, Instructional Procedures, Materials, Instruments, Pilot study, Reliability of the Scoring, Validity of the Instruments, and Data Analysis Procedure.

CHAPTER III - METHODOLOGY

The purpose of this section is to present the research methodology used in the study both to gather the qualitative data and the quantitative data.

The present study was designed to investigate the changes that the students with dyslexia at two Public Schools and two private schools could show within months of one academic year in reading comprehension regardless of the extent of their previous background knowledge. It is important to point out that the students who participated in the study were given learner-centered instruction in English in accordance with the newly adopted English Language curriculum in Lebanon. Such learner-centered instruction, covering language components such as vocabulary, syntax, morphology, as well as reading comprehension skills, has adopted the integrated approach. Moreover, the strategies and the activities conducted in the study were based on the new English Language curriculum issued by the Lebanese Ministry of Education and on the thorough literature review compiled and conducted by the researcher.

The present study is conducted in two private and two public schools in Lebanon whereby English is taught as a school subject starting with pre-school and up to grade 12. The significance of the study is that it employs a pre-test- post-test control group factorial mixed methods design to investigate the efficacy of combined strategy instruction consisting of 1. Graphic organizers, 2.Visual displays, 3.Mnemonic illustrations, 4. Computer exercises, 5. Prediction, 6. Inference, 7. Text structure awareness, 8. Main idea identification, 9. Summarization, and 10. Questioning on improving the reading comprehension of narrative and expository texts for students with dyslexia. A basic assumption behind the study is that no previous research has investigated the combination of the strategies in the proposed treatment on improving the

reading comprehension of narrative and expository texts for dyslexic learners in Lebanon. The study aims to investigate the efficacy of the above mentioned strategies, using the variables of gender (male versus female) and school type (public versus private) as moderator variables in order to examine possible interaction between the treatment conditions (control versus experimental) and these variables with regard to the comprehension of grade 7 and 8 dyslexic learners of narrative texts and the comprehension of grade 9 and 10 dyslexic learners of expository texts.

3.1 Quantitative Data Analysis

Appropriate pre-tests and post-tests specifically designed and validated for the purpose of the study were developed and administered to collect data on the comprehension variables under investigation. Descriptive statistics (mean scores, and standard deviations) as well as inferential statistics (three-way Analysis of Covariance, MANCOVA) tests were used to address the questions and test the hypotheses formulated for the study. The treatment conditions (experimental versus control) were used as independent variable, the pre-test scores as covariates, and the post-test scores as dependent variables. The gender and school type variables were also used as moderator variables in order to test for possible interaction effects on comprehension among these variables and the treatment conditions.

3.2 Qualitative Data Analysis

The participating teachers reported qualitatively their perceptions of the experience of implementing combined strategy instruction in their experimental groups' respective classes. The writing logs which were used to express the perceptions of the participating teachers were collected and content analyzed. Specifically, the procedures of t content analysis were used as the method of the qualitative data analysis of the

gathered from teachers' written comments about their perceptions of the using combined strategy instruction in their classes and the perceived efficacy of the various strategies. The categories of analysis were pre-determined a priori based on the list of the strategies. Data pertaining to each strategy were unitized and sub-categorized into idea units, following which data were organized into related clusters and themes. These clusters and themes were used to write up the study results regarding teachers' perceptions of the efficacy and usefulness of the various combined strategies.

The present study also aimed to provide a review of the directly-related literature on the efficacy of each component of combined strategy instruction in improving reading comprehension as well as empirically test the relative effectiveness of combined strategy instruction in promoting the reading comprehension of narrative and expository texts by middle school learners in Lebanon, both in the public and private sectors of school as well as across gender. While integration differs from full inclusion where students with special needs are unquestionably placed in a regular classroom with normally developing peers for the whole day and have special instruction delivered in the regular class (Bunch, Finnegan, Humphries, Doré, & Doré, 2005), integration can be seen as a constructive step in the acceptance of students with special needs into the regular classrooms of their locality schools. Thus, the current study explored the efficiency of integrating the normally developing students with their dyslexic peers.

The purpose of this chapter is to present the research methodology used in this study. The methodology includes the description of the following sections: 1. subjects and school setting, 2. Instructional procedures, 3. the school environment, 4. combined strategy instruction, 5. materials, 6. treatment, 7. instruments, and finally (8) the pilot study will be presented.

3. 3 Subjects and School Setting

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The teachers of the subjects of the study were university graduates holding a minimum of a B. A. in English language. Their teaching experiences ranged between 5 to 15 years. The teachers had been exposed to training sessions concerning the activities and the strategies of the special education implemented by the respective schools 3-5 years ago. Some of these activities and strategies were employed in this study to test the extent of their contribution in acquiring progress in reading comprehension. Teachers worked hard to make a close match between special education curriculum objectives, instructional methods and assessment techniques.

The subjects of the study consisted of the $7^{th}, 8^{th}, 9^{th}$ and 10th graders (12-14 ,13-15-, 14-16 and 15-17 – year old) enrolled in two public and two private schools in Beirut, the capital of the Republic of Lebanon.

As indicated earlier, the present study employed a pre-test – post-test control group experimental factorial mixed methods design. At total 8 intact classes (2 classes from each of grades 7, 8, 9, and 10) were randomly assigned to control and experimental conditions. All the participating students in the study were considered dyslexic according the screening study measure.

A convenient total sample of 298 grade students of English as a foreign language (84 subjects of 7th grade, 74 subjects of 8th grade, 67 of 9th grade, and 73 of 10th grade) participated in the study. The participants were randomly assigned to control and experimental conditions, and the sample included a total of 193males and -105 females. All the participants were native speakers of Arabic and came from similar socio-economic backgrounds. They were studying EFL at a rate of 6 hours per week in accordance with the curriculum requirements proclaimed by the National Ministry of Education for grades 7, 8 and 9 and 5 hours per week for grade 10. Finally, there were 25

students in the control group and 35 in the experimental group, and the age of the participants ranged from 12- 19 years.

As indicated earlier, the research context of the present study includes two public schools in Lebanon. These schools are characterized by enrolling students from low socio-economic backgrounds with limited opportunities to use English for communication in daily life and outside of school. However, the importance of studying English is emphasized in the context of the present study both as a language of instruction in which all other school subjects are taught with the exception of Arabic language and literature and as an independent school subject as well. This is because English is considered an important international language to be studied starting with kindergarten and up to grade 12 due to its recognized value in communication, education, and commerce. Yet, it should be noted that the majority of students in this study context, as well as in other similar public school contexts, can be considered largely as limited English proficient learners and without much access to computers and modern technology, despite the fact that computers are becoming more available in many other public schools not including the public schools of the present study.

The research context of the present study also includes two private schools, located in Beirut, the capital of Lebanon. This context is characterized by enrolling students from low to middle socio-economic background with some opportunities to use English for communication in daily life and outside of school. Furthermore, it should be noted that the majority of students in the two sampled private schools context, as well as in other similar private school contexts, could be considered largely as low to average English proficient learners and without some access to computers and modern technology, despite the fact that smart boards and computers were available in many private schools including the private schools site of the present study.

3.4 Instructional Procedures

In the present section, a description of the process of creation and implementation of the teaching syllabus is presented.

The two private and two public schools were the places with multiple demands and the mainstream of decisions that made this study feasible ,especially with all the pressure made on all learners and all teachers constantly. The researcher confirmed to the teachers that the style of teacher-student interaction in the sample schools could define the prevailing learning and response modes. It was the assessment of learning in the classroom that could identify success for many learners.

For instance, the two sampled private schools included 1557 students enrolled in classes starting from the pre-school or kindergarten to twelfth grades. The two schools had two computer labs that were usually used by all the school classes starting from fourth grade to eighth grades .The willingness of the teachers to work with persons using the computer subject teacher to learn themselves how to efficiently use the computer lab to teach students how to carry out the tasks and exercises was noticeable. Provided that the facilities and the equipment were somehow available for many classes and sections in the schools, the school principals showed great cooperation when they allowed the teachers of grades 7 and 8 to have 2 hours per week of computer exercises inside the lab. The support of learners using computer programs in the school environment was evident and continued till the end of the experiment.

Thus, the teachers of the experimental groups of grades 7 and 8 in the two sampled schools were able to use the school labs to present information to the learners using computer programs. The two private schools were spacious enough for students. The desks were enough to accommodate the students, and there was enough space in the classroom for the learners to use their own laptops. The electrical outlets were available

for learners who needed the computer programs and the devices that had to be plugged in. As for the computer programs , the researcher herself provided the teachers of grades 7 and 8 in the private schools with the CDs including the activities and the questions so that teachers would efficiently use the time inside the computer labs.

The two sampled private schools were active environments, especially that they had almost the greatest number of students in Beirut. The dyslexic and the non- dyslexic learners along with the teachers alike were always as careful with devices as they could. All the devices that were going to be used in schools were used for receiving instruction covering the required computer exercises.

On the other hand, the two sampled public schools enrolled a total of 1337 students in classes starting from seventh grade to twelfth grades. The two public schools had two reading rooms equipped with books and the teacher's laptop and two very small computer labs that were only allocated for teaching the computer subjects for eleventh and twelfth scientific sections. The desks were traditional ones having small tables with chairs, yet there were available tables in every classroom that were large enough to accommodate a computer in case the teacher had her laptop with her and there was an overhead projector available in each school .

The researcher, supported by some of the counselors of the Ministry of Education and Higher Education, convinced the teachers of the grades 7 and 8 experimental groups that teacher's assessment of learning in the classroom was an important part of the classroom milieu.

The researcher, in alignment with Minskoff and Allsopp (2003), asserted in the meetings and during the training workshop the significance of conference and coaching with each student to gain an understanding of their learning problems and coaching them with   methods for solving them. It was crucial that teachers could encourage students to

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take the responsibilities for their own learning and discussing the results of the individual efforts with the teacher in order to encourage autonomous and self-regulated learning.

In order to start the experiment, the first step was for the researcher to discuss the basics of the study with the principals of the four schools, and send them two packages to distribute; a) the first package containing a dyslexia survey and forms, an envelope to their English Language Learners (ELL) teachers and their schools language difficulty (LD) teachers, including a cover letter, and a description of the purpose and the significance of the study. It also explained the purpose of the study and the benefits it would provide for teachers, school, students, and parents. The cover letter for teachers explained why the researcher needed ELL and LD teachers to fill out the survey; b) the second package, week later, the researcher sent a consent form to the principal of each school and asked the principal and the teachers to be in charge of collecting the consent form from the students after being signed by parents for students whose age is under 15 and signed by both parents and students whose age is 15 years old or above. One week after that, the researcher asked the principals and the teachers to set a meeting that would be convenient for the teachers and coordinators of each school to meet with the researcher and to hand in a report about the dyslexic students whose cases were previously reported by their parents or who had been labeled as dyslexic upon the observation data given by the teachers who used the Dyslexia Identification Checklist and verified the preliminary affirmation of the existence of dyslexia indicators before they reported to the researcher and to the parents who in turn, after meeting the researcher and the school principals, sought the help of private specialized centers to give them a final report about the cases of their children . Afterwards, these students were given a meeting request to their parents who were summoned to school to disclose to them the findings of the observation data and the dyslexia detection forms and eventually

to refer them to some private special needs centers to have their child diagnosed by a specialist. Surprisingly enough, all the referred cases that were labeled as dyslexic by the teachers were affirmed as so in the reports given by the private clinical practices. It is worth noting that the survey was based on the results of the observations test including the phonic, writing and reading skills along with the dyslexia checklists filled out by parents and children. After either detecting dyslexia or after affirming what the parents said about the eligibility of their children to the support all the dyslexic children were promised. The students enrolled in grades 7, 8, 9, and 10 in the four schools were under investigation carried by the English teachers of these schools. Thus, based on the results and the examination of these findings, the researcher has sampled the participating students in the present study.

The researcher convened the teachers of 16 experimental classes out of the 32 classes sampled by the study; 2 classes of each grade were sampled from each school. During the first meeting, the researcher asked the teachers to encourage note sharing among the dyslexic students so that the dyslexic students, being slow in writing, would be able to have all the class notes. Also, the non-dyslexic students could use carbon paper to take notes and then share them with absentees and students with learning problems. This helped the dyslexic students who usually faced difficulties taking notes to concentrate on what was explained during the class period and not to worry about taking notes.

The researcher asked the teachers of the study experimental classes to use flexible work times in their classes. As such, the teachers were instructed to allocate more time to the dyslexic students who worked slowly and to give them additional time to complete written assignments.

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The teachers of the 16 experimental classes were instructed to provide additional practice work for the students whose cases of dyslexia were too severe. Many dyslexic students, especially in grades 7 and 8 required different amounts of practice to master skills or content. Many dyslexic students with severe reading comprehension problems needed additional practice to learn at a fluency level.

The researcher asked the teachers of the experimental groups to use assignment substitutions or adjustments when they would feel that the assignment could be difficult for the dyslexic students since they were teaching the dyslexic students in integrated classes including the dyslexic and the non dyslexic ones and not in segregation. For example, the researcher agreed with the teachers that the dyslexic students should have been prepared ahead of time for any oral task they would be asked to do, so they wouldn't be shocked by any request to carry out any reading task. Thus, the researcher asked the teachers of the experimental groups to allow students to submit written projects instead of delivering oral reports or vice versa. Also, the researcher and the teachers agreed that the would-to be administered tests and quizzes ought to be discussed ,modified and changed many times upon the recommendations of the teachers of the study groups in the light of the needs of the students . However, the researcher gave the teachers of the study groups the suggested pretests and posttests for their consideration. As expected, the submitted tests had been changed many times before they were administered because some teachers fell behind sometimes and sometimes, due to the prevailing status quo of Beirut, some schools closed their doors and classes were stopped , especially during the strikes, assassinations , internal armed conflicts that took place from time to time in Beirut. Another example of the necessary adjustments was the case of some dyslexic students who had severe writing problem which necessitated that the

teacher ought to allow her or him to outline information and give an oral presentation instead of writing a paper.

The researcher along with the teachers agreed upon adopting a policy ensuring the sharing of the findings with the teachers who would receive training on teaching strategies required for enhancing the reading comprehension of dyslexic and non dyslexic students. Hence, the teachers were considered decision makers in the study process and had to expect to participate as school personnel whose feedback would shape the conducted activities and the administered tests. The meeting minutes of the first discussion with the teachers gave the teachers authority on their students in their respective classes.

The researcher asked the teachers to develop a written list of information about the writing, reading, participation, behavior of each dyslexic student so that the teachers were asked to know the learner's strengths and weaknesses in areas such as academic achievement, communication, social/emotional, behavioral and reading and writing skills. They were also asked to collect and create documentation of the learners'development, especially the language and academic skills, as well as to keep the track of the learner's current skills profile in every area listed above and other areas such showing the ability to concentrate, complete a task, follow directions, and organize work.

The researcher also convened a meeting with the parents of the dyslexic learners to help enhance the reading comprehension and the test performance of their dyslexic children. One challenge the researcher and the teachers faced was the lack of cooperation of some parents who weren't responsive, so there was sort of lack of cooperation that dominated the relationship between teacher-parent and student child. Some dyslexic students didn't receive support at home since some parents were not able to maintain a supportive approach.

The materials utilized in the study were discussed and disseminated at the very beginning of the academic year so that the teachers could know what to teach, how to sequence the instruction, and what appropriate methods and strategies to be implemented in this research. The researcher had many sessions with the teachers who seemed sometimes to be too general or too imprecise in dealing, teaching and offering guidance to the dyslexic students. The parents received some feedback about their children's progress through the teacher and the researcher and they turned to be able to support their children in a way.The teachers became somehow experts on language and reading due to the resources they received .As such, the teachers could sustain a systematic approach appropriate for the students.

The researcher discussed with the teachers during the general and the follow up meetings the significance of the combined strategy instruction and specifically the effectiveness of each strategy in the treatment intervention. A few words about the significance of the treatment and the interventions in general were given at the beginning followed by one workshop that was intended to familiarize the teachers with the use and implementation of each of the strategies. The researcher explained the significance and the purpose along with the objectives behind using any of the strategies forming the treatment. The researcher explained to the teachers how the conducted study interventions could be needed to serve the specific needs of the learners. The teachers were asked to examine how learners have different set of strengths or areas of weaknesses. The researcher, using the conducted literature review, thoroughly discussed with the teachers how the effective intervention could reinforce a child's strengths in order to build on the specific areas in need of development. As such, the interventions ought to be perceived as facilitators that would help the learners use all their potentials to optimize the learning process.

The researcher explained the theoretical and the practical backgrounds of adopting each component of the combined strategy instruction. The process of finding successful interventions could be difficult at the beginning of diagnosing the problems, yet it turns to be gradually easier when the learner's learning approach, style, and abilities could become noticeable.

The center of the assessment was the learner as indicated by the researcher in all the meetings and the workshop with the teachers. The researcher had drawn the attention of the teachers that the research studies she read would be the backbone of the study, especially in the light of scarcity of similar studies and even worse the absence of any reference to special education in the reformed curriculum. This included assessment of the learner's strengths in the cognitive and affective domains and the impact that the immediate environment and the school had on these areas. The goal of the assessment at this point was to determine what strengths the learner had and how the use of intervention strategies enhanced such strengths to enhance the educational outcomes and the reading comprehension of the learners with dyslexia. Most importantly, putting the learner at the center of the assessment meant giving the learner the opportunity to provide his or her own feedback for the use of such strategies. Involving the learner at this point meant providing the learner with the activities through instruction and discussion. Asking learners what goals they might have for reading comprehension in an anxiety reduced setting and method was the preferred approach. This method required the use of a structured session schedule that was flexible and moderately open-ended. Learners' academic strengths and needs were an obviously important area to examine. Key in examining the academic area was remembering that the reading comprehension and reading test performance ought to be enhanced through interactions with the teacher or peers and not used to replace instruction as stated by Garner & Campbell (1987).

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The researcher highlighted, during the meetings with the teachers and during the training workshop, that accommodations in classroom structure and/or materials could be appropriate, necessary and feasible. In addition, the researcher asserted taking into consideration the previously conducted research studies in identifying the learners' weaknesses and strengths and to act accordingly; thus, the teachers ought to be aware of students' progress and be able to monitor the progress of the learners' skills and abilities. In addition, the teacher could help by ensuring the learner was not challenged by an area of weakness without receiving all the support he could receive. For example, if the teacher was referring to writing on a chalkboard or chart paper, s/he could read aloud what was being read or written, providing an additional means for obtaining the information.

Teachers were called for to follow a regular pace and level which could promote the average student in the class, providing weaker students with support and help outside of class time and challenging the stronger students with additional and different assignments. It was recommended that the students be assigned the readings, workbook exercises and long writing assignments to do at home, leaving class time for discussion, cooperative activities and shorter writing assignments. It was further recommended that teachers schedule tests ahead of time, inform the students of the format and type of tests they will have, and give pre-assessment activities in the form of editing and proofreading and sample writing practice which would prepare the students academically.

3.5 Combined Strategy Instruction

Concerning the instructional procedures that were implemented by the researcher and the teachers to ensure the proper use of each of the components of the combined strategy instruction, the literature review conducted by the researcher was the point of reference to the implementation of the following strategies**:** Graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference, text structure awareness, main idea identification, summarization, and questioning.

As a consequence, the researcher implemented many procedures during the 4-months duration of the study in order to investigate the changes and the extent of progress made by the 7th, 8th, 9th and 10th graders with learning disabilities at the two private schools and two public schools and what they could show within the 4 months of one academic year in improving the comprehension of narrative and expository.

It was assumed that the combined strategy instruction could be appropriate for teaching students with dyslexia who consistently failed to develop a coherent understanding of the material that was read. The strategies used in the combined strategy instruction included: 1.graphic organizers, 2.visual displays, 3. mnemonic illustrations, 4. computer exercises, 5. predicting, 6. inference, 7. text structure awareness, 8. main idea identification, 9.summarization, and 10. questioning in improving comprehension of narrative and expository texts.

In the following section a brief description and review of the literature of each strategy will be presented:

3.5.1. Graphic organizers

The graphic organizer was one of the strategies that used student's strengths in visual patterns. For example, one of the effective graphic organizers was c the Venn diagram which was used to compare and contrast two related aspects: mammals and

reptiles (Regina G. Richards, 1997), or the Venn diagram used by Richards (1997) who

presented the information about the similarities and differences of reptiles and mammals

in a concise, interesting and appealing manner.

Figure 4.A Venn diagram comparing mammals and reptiles taken from (Regina

G. Richards , 1997)
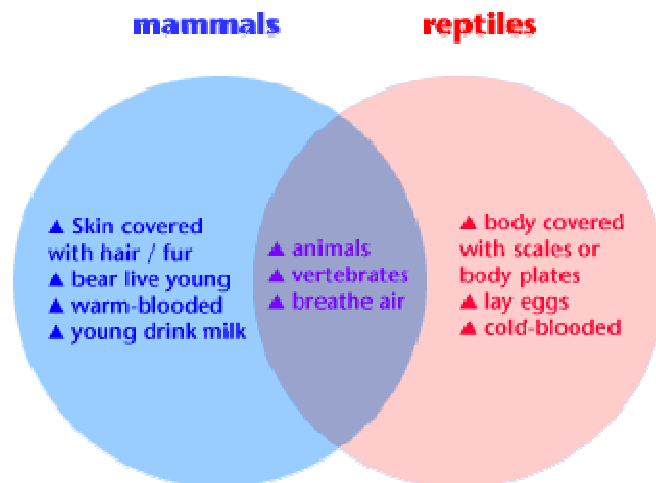
The researcher provided the teacher with the training on the use of graphic

organizers. An effective strategy in teaching how students could enhance their reading

comprehension of narrative texts has been teaching story grammar to use as an

organizational guide when reading. Story grammar refers to the principal components of

a story: main character, action, and outcome. This technique has been applied by using

story maps and by asking generic questions based on story grammar. It has also been

used to move beyond the plot level of stories to teach students with disabilities to

identify story themes, a more abstract comprehension level than is typically taught to

students with learning disabilities. It was important to remember in using this process

that if the first stories used were from the native culture, the student would be better able

to relate the stories to their prior knowledge, made predictions, and used other effective

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reading strategies. The researcher demonstrated to the teachers how setting the goal could make reading comprehension of a story easier while using the story graphic organizer since reading might be defined as a problem- solving process where readers construct meaning using appropriate strategies. The researcher showed the teachers how modelling could make the reading process efficient whereby stories were divided in natural occurring prediction points and put on overheads. Thus, the teachers were encouraged to use a short story so that they could model to their students the reading process by presenting reading as a process. The teacher modelled text-based inference as well with the first line of the text. Thus, the prediction was made and the source of information was used to make the story explained. More importantly, the researcher provided the teachers with the theoretical and practical background related to graphic organizer.

Throughout the training workshop, the researcher demonstrated the significance of the use of the graphic organizer as it was first rationalized by Ausubel (1963) who asserted that the use of the graphic could develop ,strengthen , and facilitate the occurrence of learning because graphic organizers could provide learners with a significant framework for associating their prior knowledge to the new information .The researcher referred to what Mayer (1984) pointed out and reaffirmed the usefulness of graphic organizers in demonstrating connections among concepts. Thus, the researcher, in agreement with Mayer (1984), recommended that the use of such organizers could allow readers to associate their prior knowledge base with the new text information.

The researcher asserted the significance of using all types of graphic organizers. In reference to Jiang & Grabe (2007), she asked the teachers of the experimental groups of the sampled schools to teach the different kinds of graphic

organizers as a necessary requisite for the improvement of reading comprehension of learners. Students could use the graphic organizer as a post reading activity aiming at asking students to complete a graphic organizer after they could finish reading the passage. At this stage, the students would be able to work on a blank graphic organizer independently, elicit the ideas from the text, and demonstrate the hierarchy of the ideas in a graphic organizer. The graphic organizer activities might vary from partially blank graphic organizers to totally blank schematic representations. The text length and text difficulty would be variables that would determine how much of the text might appear in the graphic organizer.

To determine how effective the use of graphic organizers could be for enhancing the reading comprehension of students with dyslexia , the researcher referred to a systematic synthesis of research conducted by Stein and Trabasso (1982) , Cavalier and Klein (1998) , Mandler &Johnson(1977), Hoffman & Kossack (1987) , Nichols & Rupley (2004), Minskoff & Allsopp (2003).Thus, the researcher asserted the importance of using the different types of graphic organizer in general and the use of the story grammar as a pattern that could help students from different ages and cultures comprehend better when they would read in a story. Story grammar would involve the articulation of the character's problem or conflict, a description of attempts to solve the problem, and an analysis of how characters might react to the events in the story. As such, the sampled dyslexic students of the experimental groups of all ages could use the knowledge of how stories would be structured to help them remember the important details of the story.

The researcher of this study, in agreement with Hoffman and Kossack (1987:76) who stated that "The teacher must know what each student knows, what is possible (level of development according to Piaget, Kohlberg, Hunt, and others), and

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what is important" decided to employ graphic organizers in order to examine their efficiency in improving the reading comprehension and the test performance of students in general and dyslexic ones in particular. Likwise, Nichols and Rupley (2004) asserted that graphic organizers and discussion of the experience would enable students to turn their experiences into words and verbal concepts. These researchers also stated that as students would expand their pragmatic and conceptual backgrounds, they would expand and refine their knowledge of words. The researcher of this study, in line with Haager and Klingner (2005) who mentioned that students with learning disabilities (LD students) require careful, systematic planning and instruction to help them acquire new vocabulary, asked the study experimental team of teachers to teach students how to use the graphic organizers to make connections or associations between new words and previously learned information .

It should also be noted that s studies by Minskoff and Allsopp (2003) , Calvert, Watson, Brinkley and Penny (1990) , Watson, Brinkley and Penny (1990), Nagy (1988) and Szabo and Poohkay (1996) reported evidence for the benefits of animated graphics to most subject matter areas at the high school level. Hence, the researcher decided to explore the benefits and the disadvantages of employing such types of graphic organizers such as vocabulary graphic organizers, concept maps, semantic maps, spider maps, and cognitive maps could reinforce word relationships and establish the main idea .Also, the researcher of this study ,in agreement with the Lenz, Deshler, Kissam (2003) ,instructed the teachers to use graphic organizers to map the critical content, and organize the topics or ideas that would be most essential to the class, to show the students where they would be heading and where they could

have been in the class. As a result, the researcher intended to use graphic organizers to examine their efficiency in helping students discern the main ideas.

Along the same lines of the of the findings of Griffin & Tulbert, 1995; Jiang & Grabe, 2007; Kim, Vaughn, Wanzek, & Wei, 2004; Tang, 1992,the researcher pointed out to the team of teachers that graphic organizers could be visual representations of information from a text that depict the relationships amongst concepts, text structure, and/or key concepts of the text.

In line with Ausubel, 1963; Griffin & Tulbert, 1995; Kim et al., 2004; Jiang & Grabe, 2007, the researcher asked the teachers to consider the effectiveness of the graphic organizers as often based on the assumption that all texts would have organizational patterns and that there would be a small number of patterns that would be frequently found in texts; such organizational patterns would the "cause-effect, problem-solution, comparison-contrast, classification, definition, process, argument-reasoning, for-against, time sequence, and description" (Jiang & Grabe, 2007, p. 43). Graphic organizers could include semantic maps, semantic feature analysis, cognitive maps, story maps, framed outlines, and Venn diagrams (Kim et al. 2004, 105).

In agreement with Harrison (2003, 140), the researcher pointed out to the teachers that graphic organizers could carry out any of the following functions:"……

(1) State the concepts to be learned; (2) provide relevant background information;

(3) explain task requirements; (4) introduce the goals or outcomes for the lesson.

Advance organizers can take many forms, including written questions at the beginning of a unit of text, or a graphic organizer".

3.5.2. Visual displays

Similar to (Bell 1991, Bell 1986, Meyer 1999, Long 1989, Pressley 1976, Zimmerman & Keene 1997, Miller 2004, and Smith 1987) the researcher asserted to the teachers who implemented the study experimental groups of grades 7, 8,9,and 10 that it could be useful for students to report to their teachers what they see in a clear and concise manner . The researcher asked the teachers to   model the process of making a visual image of a word, paragraph or a text and then the teachers should ask the students to repeatedly do the same task. The mental or visual images would represent the information in the reading passage. After the teacher reads aloud and describes what has been read, the students should continue making images of the remaining ideas, words or concepts of reading selection. Effective mental imagery techniques would be useful in enhancing the reading comprehension of a text. Thus, the researcher asserted that good readers would see visual images in their heads as they would be reading. So, when students imagined the text as a moving picture, they would find that reading the passage could be beneficial .The researcher pointed out to the team of the teachers of the experimental groups that using visual prompts or asking students to visualize and imagine elements of the information they would be reading and learning could affect the reading comprehension of narrative and expository passages.

The researcher, in line with cited research studies, emphasized that proficient readers could create mental pictures or mental imagery as they read as a way of enhancing and monitoring their developing textual understandings. However, when reading content area materials, some readers might struggle to apply their visualization skills to expository text structure and information. By utilizing visual displays, learners would be more likely to see the concepts of a text in a way that

would support meaning making. As such, visualizing text might be very effective to improve reading comprehension. Once again, the researcher pointed out the importance of pictures and graphic organizers and decided to employ them in the current study in order to analyze their impact and their ramifications observed upon providing them to dyslexic students.

3.5.3. Mnemonic illustrations

The researcher of this study, in agreement with Mastropieri, Scruggs, & Whedon (1997), Mastropieri & Scruggs (1994), asserted to the team of the teachers of the study experimental groups of grades 7, 8, 9, and 10 that mnemonic illustrations, such as mnemonic phrases, could give the students an appreciation of and ability to use strategies that would enable them to pre-plan and organize tasks. The dyslexic and non-dyslexic learners could use mnemonic illustrations to easily recall difficult words and to formulate difficult ones as well. For example, the researcher mentioned the example given by (Mastropieri & Scruggs, 1994: 271) in order to provide the team with instructional procedures to use the mnemonic illustrations .when the teacher would like the students to recall the names of the" planets" in their order from the sun, the teacher should provide the students with the letters that should be M-V-E-M-J-S-U-N-P, from which a word cannot be made. As such, an 'acrostic' could be created, in which the first letters would be reformulated to represent the words in a sentence. For example, the sentence could be "My very educated mother just sent us nine pizzas" (Mastropieri & Scruggs, 1994: 271).In addition, the names of the planets should be adequately common so that students can retrieve a planet name, given only the first letter. Also, students should be familiar with the solar system to recognize that the first M stands for Mercury, and not Mars (Mastropieri & Scruggs, 1994: 271).

Another example might be the case of the teacher who would like the students to have the ability to recall the classification taxonomy of living things; the teacher should ask students to recall the following sentence, "King Philip's class ordered a family of gentle spaniels." This sentence should help students to recall the words; 'kingdom, phylum, class, order, family, genus, and species, in their order from Mars (Mastropieri & Scruggs, 1994, p. 271).

3.5.4.Computer exercises

The researcher of this study, in agreement with Beukelman et al., (1994), Roth & Beck (1987), and Lee & Vail (2005) asserted to the team of the teachers of the study experimental groups of grades 7 and 8 in the private schools that computer exercises should be carried out in an interesting manner would help learners to enjoy and learn. Computer devices ought to meet the needs of the individual in the school environment in a manner that would be easily used and utilized by the learners and the teachers who would interact with the learners.

In addition, the researcher pointed out to the coordinators, school principals and to the teachers of the experimental groups of grades 7 and 8 in the private schools that the computer device that ought to be used in the school had not be intrusive. The learner would be able to use the device without causing a distraction in the learning environment. In addition, the device and the computer exercises ought not be so complex that only the teachers or the technicians could program the device or explain how to use it. The device would be easy enough to use so that the learner's parents or teachers could model its use. The researcher modeled as well to the teachers how to use the computer devices and the steps that should be carried out in order to do properly the reading computer exercises. The researcher asked the teachers to in turn model to their students what to do during the pre, through and post reading computer exercise.

The researcher agreed with the teachers on introducing the learners to the computer programs in the learner's various environments. The researcher asked the teachers to inform the parents of the dyslexic students enrolled in grades 7 and 8 that the same computer programs could be run at home to help their children with the reading comprehension and to improve their phonological skills. The researcher explained to the teachers the significance of having the computer exercises colorful, full of pictures and appealing to the learners during the computerized reading exercises.

The researcher emphasized the importance of computer exercises related to improving their spelling , writing and phonological skills. They also researcher asserted that for study dyslexic and non dyslexic students, computers, portable keyboards, and specialized software provide efficient means for recording, editing, and sharing ideas. One of the most valuable benefits is a reliable and immediate legible document. The dyslexic learners will benefit from the CALL spelling and mechanics checker especially that valuable time should be spent communicating ideas rather than correcting writing. Thus, dyslexic students won't suffer while writing due to the great help ensured by the computer. In addition, editing on word processors allows multiple revisions without recopying, thus enabling students to concentrate more on the content. Hence, students in general and dyslexic ones in particular will have the chance of assimilating the content and the main features of the text without being overburdened by the impediments encountering them while writing and expressing their ideas. Thus, computers would improve the quality and quantity of writing. Spelling and grammar supports would enable writers to decrease their emphasis on writing mechanics, thus increasing planning time and content generation. Eventually, computers make it possible for dyslexic students who struggle with handwriting to finalize neat printed work. As a result, the researcher of the current research aimed at investigating the influence of computer and

computer exercises and in facilitating the reading comprehension of dyslexic students enrolled in private schools in contrast to the findings that would be yielded by the study based on the examination of the impact of absence of computer efficiency as a main variable contributing to the betterment of reading comprehension of dyslexic students.

In accordance with the findings of Englert, Zhao, Collings, and Romig, 2005, McEneaney (2000), the researcher reviewed the benefits pertinent to the TELE-Web software. The TELE-Web software was designed to have three advantages: digitized speech dictation and feedback; the provision of word models or prompts to help students access the identities and spellings of target words; the provision of context-dependent and in context Word identification .The researcher raised the awareness of the teachers to the several significant benefits of web technologies. She pointed out that web-based materials could guide the learning process through direct manipulation of the reading environment based either on predetermined schedules and plans or as a result of data collection. In addition, using the computer to assist reading could be an effective strategy to help students read better because reading on a computer is a real-time language activity involving all types of accessible linguistic information. Computer could provide immediate on-line reading and high-quality synthetic speech feedback of words and discourse. In line with the above findings, Lee and Vail (2005) stated that "computer programs can be valuable tools to teach and to provide practice of new vocabulary or concepts in a general education classroom. They could also save teachers' instructional and preparation time" (p. 6).

In agreement with Gamper and Knapp (2002), the researcher asserted to the teachers that the CALL as a searching tool would ensure the integration between the computer and languages. Drill and Practice Paradigm, another version of the CALL program, was based, as the name implied, on extensive language and grammar exercises

and tests. This system would allow the students to take their time and pace themselves when solving these tests and exercises, for time was not an issue for that software.

Also, in agreement with Lee (2000), the researcher asked the teachers of grades 7 and 8 in the private schools to make sure that the use of the CALL exercises should be associated with fun and games. Student motivation might be therefore increased, especially whenever a variety of activities might be offered, which would make them feel more independent. Computer-Assisted Language Learning programs could help students strengthen their linguistic skills by positively affecting their learning attitude and promote their self-confidence. More importantly, in line with Hornsby & Shear, 1974, the researcher asked the teachers of grades 7 and 8 in the private schools to use computer exercises similar to those of the Wordshark' program, and the 'Letters and Sounds' framework for teaching synthetic phonics, which included a diversity of wordlists that could be appealing and beneficial for enhancing the reading comprehension of students with reading difficulties. Thus, the program has been tailored to serve the themes and the concepts of the units under study .The tasks of the wordshark program were adequately adjustable to be used with the teaching plans ,type of speech feedback (whole-word or segmented) and according to the particular task. Wordshark is not designed to be implemented as a single intervention; rather, its utmost utility would occur when it is used to provide regular practice for the students in order to help them store the new information in memory and to reinforce phonic principles that would be gained from teacher's instruction .

Like Van Daal and Reitsma (2000), who reported the findings of two studies using Leescircus, the researcher disseminated to the teachers samples of the program similar to Leescircus and to Wordshark. The study computer exercises encompassed a variety of different games intended to draw learners' attention to the phonological

structure of words and to teach students the correspondences between letters and sounds, and to expand automaticity in word reading and spelling. The reading progress could be noticeably achieved.

The researcher, in line with Singleton and Simmons (2001), Daal and Reitsma (2000) and Crivelli, Thomson & Andersson, 2004; and Hedley, 2004, believed use the interesting Wordshark reading activities might be useful in enhancing the reading of dyslexic students .As such, she modeled to the teachers how to use the interesting Wordshark reading activities and games including phonics, spelling rules, blending sounds into words, segmenting words, homophones and a huge number of words.

In reference to the findings of Singleton and Simmons (2001), Daal and Reitsma (2000) and Crivelli, Thomson & Andersson (2004); and Hedley (2004) , the researcher reported to the teachers that the students with dyslexia might be motivated to read and thus to improve their reading especially that the sampled children with dyslexia could enjoy greatly their time upon selecting games that could provide practice on the phonic components. More specifically, the effectiveness of the wordshark activities had been monitored by the teacher to ensure that individualized needs of each student would have been served. The child's progress was monitored by the teacher, which facilitated the smooth flow of the activities from the new phonic components to the wordshark tasks.

3.5.5. Predicting and inference

In line with Bartlett (1932), Nassaji (2004) Anderson and Pearson (1984); Wyver, Markham & Hlavacek (2000) the researcher pointed out to the team of the study teachers of experimental groups the significance of inference as one of the central cognitive processes in reading comprehension .Inference skills could help students activate different knowledge and could help students go beyond what is provided, and

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thus, implicitly fill in the gaps. Since there is no text that is completely explicit; students, especially students with dyslexia must be trained at making inferences in order to fully comprehend what they read. Inference training could help students activate prior knowledge and generate predictions. As such, teachers need to use modeling to directly teach students how to use inference to strengthen comprehension until students become successful independently.

3.5.6. Text Structure Awareness

In agreement with the findings of Lapp, Flood, and Ranck-Buhr (1995), Bryant, Ugel, Thompson, & Hamff (1999); Bryant et al. (2000) , Bos & Vaughn, (2002); Rivera & Smith (1997); Taylor, Harris, & Pearson (1988), the researcher conveyed to the study team of teachers the significance of teaching the students the text structure features .For example, the researcher demonstrated to the teachers how the expository text encompasses more information ,includes unfamiliar scientific vocabulary, requires students to carry out complex cognitive tasks in order to understand the material .Therefore, these students can benefit from learning strategies that facilitate the comprehension of this type of text.

Concerning expository selection criteria, the researcher reviewed the studies of Greene, 1998; Williams, Brown, Silverstein, & deCani (1994). These cited studies indicated that early reading intervention if implemented effectively should reduce considerably the number of poor readers at the middle-school level. The expository selected texts should address the below considerations to be effective: one consideration when designing a reading intervention for struggling learners and students with reading disabilities is what they need to learn to be more effective readers. A second consideration when designing a reading intervention at the middle-school level is how

instruction will be delivered. A third consideration when designing a reading intervention at the middle-school level is where students need to learn to be more effective readers. Therefore, if students with reading disabilities and struggling readers (low achievers) in general are going to acquire greater proficiency in reading and learning from text, instruction in reading skills such as word identification, fluency, and comprehension must be provided by their teachers.

In reference to Tompkins (1998), the researcher indicated to the teachers that teaching expository texts structures would entail three steps. First, the teacher should start with the introduction of an organizational pattern whereby the teacher introduces the signal words and phrases that help recognize each text structure and gives students a graphic organizer for each pattern. Second, the teacher should provide the students with instructions and guidelines to analyze the text structures in expository books and eventually to work on the text. During this stage, students learn the transitional words and phrases in the text that identify the pattern of the text. Moreover, teachers could increase and facilitate the reading comprehension of the text by using graphic organizers to illustrate the text patterns. Third, the teachers should ask the students to work as a whole class in order to write paragraphs using each text structure pattern. Then the students' second writing activity should be followed by small-group, pair, and individual writing activities. As such, the teachers should encourage the students to use a graphic organizer to plan the paragraphs. Finally, the students should be asked to write a rough draft using transitional words and phrases to ensure coherence, organization of the text structure; afterwards, students revise and edit their paragraph to produce the final product. The teachers should model and repeat the above steps for each of the five text structures to ensure comprehensive text structure coverage.

Before they prepare any instructional plan as tailored to serve training students on doing reading activities, the teachers should model all the procedures. Meanwhile, the students should focus on discerning the steps required for effective reading comprehension starting from recognizing the signal words and phrases to applying the graphic organizers to each text. The teachers should practice doing the reading activities for two or three sessions until students collect enough background on what they are going to do while using the following recommended procedure suggested by Tompkins (1998).

First, the teacher should introduce and present the text structures in order, starting with description and ending with compare/ contrast pattern. Second, the teacher should present one text structure in each lesson, and the teacher should work on the text without confusing the texts altogether; they should cover only one text structure for three or four sessions; afterwards, they should proceed to the next one. Third, the teachers should prepare short passages (about six to eight lines) for the text structure they intend to work on in each session. In case the texts are not long and in case of time availability, the teacher can work on at least four texts according to the time allocated for each session. Fourth, the teacher should stress the importance of the signal words and phrases in each text and explain the use of the signal words for each text structure. The teacher should provide the students with information about the authors and the expository texts that use specific signal words and phrases for each rhetorical structure. The last step as indicated by Tompkins (1998) is that the teacher should familiarize the students with signal words and phrases that should be employed by giving them clues in structure of each text to find these signal words and phrases. Then, the teacher should finally ask the students to write some short

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paragraphs and use some of the signal words and phrases suitable to each text structure.

The researcher conveyed to the teachers that reading expository texts is crucial for improving reading comprehension and for ranking the normal achievers; thus, reading strategies such as identifying main idea, major ideas, and supporting details, would help the students to enhance their ability to read, comprehend, and analyze texts and these strategies could be good criteria to rate students' academic reading achievement. Text structures are a way to measure and rate students' reading achievement of the expository texts and to teach reading. These strategies unfold the text structure awareness and lead to a constant and progressive improvement in reading skill.

The researcher also asserted the significance of the use of the authentic texts that would help students integrate academic study and real-world work experience. Such texts would make students gain more life experience and they become more likely to consider learning as an internal and experience based process as indicated by Saljo (1979).

The researcher also pointed out that without practical learning both in and out of the classroom, learning how to live and communicate in given language wouldn't take place. In the same vein of the findings of Anders and Lloyd (1989, 1996), the researcher asserted to teachers the importance of developing language skills through experience. In their schema theory, Anders and Lloyd (1989, 1996), stated that teachers need to be concerned with the adequacy of student's background schemata. They argued that if students have inadequate amounts of schemata or background knowledge on the subject to be taught, teachers should directly build up

the amount of schemata that students have on the subject or provide more vocabulary teaching.

3.5.7. Main idea identification

The researcher explained to the team of the study teachers the instructional procedures required for teaching the main idea identification. One way for the students to practice identifying main ideas was to create titles for articles in the newspaper. The teachers were instructed to clip out the story without its title and had the students read it, following which the teacher asks the students to pretend that they were the news reporter who had to write a very brief title that conveyed the main idea. This technique would be a good way for the students to learn current events while practicing an important study skill. The identification of the main ideas before a lesson or lengthy reading assignment would give students a hook to hang the details as well as enable them to anticipate what they would be reading.

To identify a main idea that was stated, the students could first answer the following questions. The teachers could ask the students for a list of the main ideas he or she would be covering in advance. The teachers could also ask about the one subject the author talked about throughout the paragraph or the text. The teachers could also ask what the author was saying about the topic. The answer to this question could identify the main idea. Furthermore, he teachers could ask about the details that support the main idea and answer to this question could be to identify the important details. Next, the students could find and underline the topic sentence that stated the main idea.

When looking for the topic, the students could be asked to look for the words that were most often repeated. Students could also be asked to write all the details referred to the topic sentence and double-check the main idea by asking if what they had underlined or written was too general or specific.

3.5.8. Summarization

The researcher pointed out to the team of the study teachers the instructional procedures required for teaching Summarization. In line with the guidelines provided by Jitendra, Hoppes, & Ping Xin (2000), the researcher indicated to the teachers that summarizing would provide the students with an opportunity to identify and integrate the most important information. Summarizing could be useful in enhancing students' reading comprehension by helping them construct an overall understanding of the text .Summarizing could help students become proficient readers. To summarize effectively, the teachers ought to teach the students how to recall and reorganize only the important pieces of information from the text. The researcher pointed out that the knowledge of text structures and features would help students summarize information. When summarizing a story, students would use characters, setting, problem, events, and resolution to help guide their summary. When summarizing informational text, students would be able to determine important points and arrange them in a logical order. For informational text, the students could be able to identify the main idea(s) of the text and supporting details. To assess the student's ability to summarize, the teachers ought to observe a retelling of what the student had read.

As for the procedure adopted in conducting the previewing activities specifically skimming and scanning, taken from Themes for Today (2013), the students were asked to brainstorm for answers to certain questions; then they were asked to write ideas on the board and to choose words from the passage and to write them on the board. After that, students were asked to scan the passage and circle them. The teacher was supposed to tell a story about the background of the reading passage and to ask students to take notes or draw a picture of the story as the teacher was speaking.

3.5.9. Questioning

The researcher pointed out to the team of the study teachers the instructional procedures required for teaching questioning. Questioning could be an important strategy for those students who had a history of comprehension difficulties. The researcher asked the teachers to give their students a purpose of reading so that students wouldn't feel frustrated by the mispronounced words, sentences, or even the whole passages. The teachers should teach the students how to ask themselves aloud and how to answer while reading .By teaching students to clarify, The questioning strategy might teach students to identify when they did not understand and to take necessary steps to restore meaning. The Questioning strategy might make problem solving during reading more explicit. When students could identify and clarify difficult words and confusing portions of text, they would become strategic readers. To assess student's use of questioning skills, the teacher might observe the students as they are reading. When observing the students "question, the teacher would see the students demonstrate specific reading behaviors.

The researcher asserted as well the significance of modeling to the students how to figure out difficult words and confusing parts of text. A teacher modeled figuring out a difficult word by identifying chunks within the word, blending the sounds of the word, thinking of another word that is similar to the confusing word, or using the context of the word. A teacher asked students to circle confusing words, phrases, or sentences while they read. A teacher modeled figuring out confusing ideas by modeling how to reread the text, reading on for more clues, using background knowledge of the topic, or talking to a friend about the reading.

In light with the findings of Beck, McKeown, Sandora, Kucan, & Worthy (1996), the researcher indicated to the teachers that questioning and paraphrasing text might be

useful in improving the reading comprehension of learners. Teachers could carry out questioning in text by generating questions about the contents of the text before, during, and after reading text. Teaching students to generate their own factual and inferential questions might enhance students' comprehension of the reading text. Comprehension would be mainly developed by the students who could understand the text better when they would formulate and answer their own questions. For instance, such students, using questioning and answering strategy could easily predict the events of the story as indicated by Beck, McKeown, Sandora, Kucan, and Worthy (1996).

More important, locating or eliciting the main idea can also be challenging for students with dyslexia. However , modeling is necessary and it should be carried out by the teachers ; as such, the teachers should model self-questioning during listening activities to teach their students how to locate and identify students' attention on the main idea of the text. For example, before reading, previewing should be done by teachers who can preview and activate students' prior knowledge. Also, during reading, students can be asked to control and check for meaning and raise questions of themselves about their reading. After a selection, students can summarize the content and associate the ideas or the concepts of the text to themselves or something that they already know.

3.5.10. Text Structure Awareness

The researcher pointed out to the team of the study teachers the instructional procedures required for text structure awareness. The comprehension of expository text might be difficult for all students, the dyslexic and the non-dyslexic ones. The nature of the expository texts usually deals with less familiar content and involves more complex and varied structures such as comparison and contrast, cause and effect or argumentative ones.

Reading skills emphasized intensive reading done in class and based on cooperative reading activities, and extensive reading, done at home. Each reading selection was preceded by a warm up exercise, which focused on the unit opener, general ideas relevant to the theme of the lesson and a pre-reading exercise which highlighted the points that the student predicted and suggested about the selection. An oral discussion section followed the selection emphasizing the student's reading skills of skimming, scanning for the writer's purpose, main and minor ideas, implied information, organizational language, literary strategies and elements of the selection. Material, concerning language and literature, were emphasized in boxes and generally appeared after the oral discussion. It was assumed that students at that level should acquire certain development in the use of the language to better express their ideas in speaking and writing (National Center for Educational Research and Development, 1998).

Vocabulary and grammar skills were integrated as tools or instruments in enhancing the development of the four major skills. Teachers were asked to draw upon the vocabulary and grammatical structures from the reading selection in a specific lesson and exercises that could be relevant to the topics of the lesson. The value of the content-based approach adopted by the new foreign-language curriculum, is for students to use the grammar and vocabulary that are part of authentic texts and which research has demonstrated importantly help students learn the language more effectively than previous "traditional" approaches in which separate sentence grammar exercises and lists of vocabulary were taught often unrelated to the reading selections.

Reading comprehension activities based on Grammar (including syntax and morphology) were part of the writing activities, but wherever necessary, points on grammar use were conducted under focus on language with exercises in the workbook

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vocabulary items that were considered essential for students' better understanding of the selection were closely related to the theme of the selection appeared in exercises in the workbook. Teachers could also generate their own theme related vocabulary exercises if found necessary in some of the lessons.

As for the procedure conducted in the webbing activity, the teacher was asked to write the topic of the reading passage on the board and to check students' knowledge about the topic and what they wanted to know about it. Then the teacher should write their answers on the board around the topic to create a web and try to group similar ideas together. After the students generated as many ideas as they could, they should be asked to organize the web into two major topics and subtopics making sure to group similar ideas together. Next, the students should put topics and subtopics into some kind of logical order (e.g. chronological, cause and effect, comparison and contrast, statement and reason). Finally, they should read the passage.

Regarding the procedure conducted in the text completion activity, students were asked to work in pairs or groups of 4 and 5 and to study the incomplete text in order to add sentence to it either in the passive or in the active. Students should be able to justify their choices and team up with other group to discuss their additions to the text. Also, the different groups would write their additions to the text on the board and stand ready to justify and defend their choices to the class.

As for the procedure conducted in the cloze activity, which called for production rather than recognition, the students were asked to have a conversation where they had to depend on contextual clues in order to provide the missing words.

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3.5.11. Accommodations Involving Materials

Most instructional materials gave teachers few activities or directions for teaching a large class of students who learned at different rates and in various ways. Students could either consider reading as a frustrating activity or as an interesting one; materials could enable students to show the best they could give when they would be accompanied with the appropriate strategies. As such, the researcher provided the teachers with instructional procedures that could help them optimize the use of the materials. Material accommodations included the following:

Several students could use the tape recorder to help them with understanding the covered points during a period. Many problems with materials are related to reading disabilities. The tape recorder often could be an aid in overcoming this problem. The student could replay the tape to clarify understanding of directions, concepts, stories, and specific lessons that could be recorded on tape. Also, to improve reading skills, the student could read the printed words silently as they were presented on tape.

The task of gaining students' attention and engaging them for a period of time required many teaching and managing skills. Teaching and interactions provided successful learning experiences for each student. The use of explicit teaching procedures could be among the important accommodations to enhance successful interactive instructional activities.

The researcher encouraged teachers to include explicit teaching steps within their lessons such as presenting an advanced organizer, demonstrating the skill, providing guided practice, giving corrective feedback, setting up independent practice, monitoring practice, and reviewing.

Teachers were asked to repeat directions to students who had difficulty following directions and who were often helped by asking them to repeat the directions in their own

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words. The students could repeat the directions to a peer when the teacher was unavailable. The teachers were asked to help students understand directions by simplifying directions, presenting only one portion at a time and by writing each portion on the chalkboard as well as stating it orally; and when using written directions.

Teachers were asked to be sure that students could read and understand the words as well as comprehend the meaning of sentences. Teachers were asked to maintain daily routines and to provide a copy of lecture notes. Many students with learning problems needed the structure of daily routines to know and do what was expected. The teacher could give a copy of lecture notes to students who had difficulty taking notes during presentations. Teachers were asked to use step-by-step instruction. New or difficult information could be presented in small sequential steps. This would help learners with limited prior knowledge who needed explicit or part-to-whole instruction. Teachers were also asked to simultaneously combine verbal and visual information. Verbal information could be provided with visual displays such as on an overhead or handout

Teachers were asked to write key points or words on the chalkboard. Prior to a presentation, the teacher could write new vocabulary words and key points on the chalkboard or overhead. Teachers were asked to use balanced presentations and activities. An effort was made to balance oral presentations with visual information and participatory activities. Also, there had to be a balance between large group, small group, and individual activities.

Teachers were also asked to carry out daily review of previous learning or lessons. Such daily review would help students connect new information with prior knowledge. They were asked to help the students use strategies and were asked to model how to use the strategy and prove they did practice it. The students ought to perform using strategies the teachers modeled. Since learners' needs and strategies vary and differ

from one learner to another, the learning strategies will vary in accordance with every individual's unique combination of strengths and weaknesses. Therefore, a strategy that was extremely beneficial for one student might not be useful for another.

As such, the researcher drew the attention of the teachers that students might vary significantly in their ability to give oral presentations, read and understand passages, write paragraphs, speak at a certain pace. Moreover, students varied in their ability to process information presented in visual or auditory formats. The researcher recommended the use of a timer that was a useful device for monitoring time on task. The timer could help the dyslexic students to complete an assignment at a certain time. The researcher asked the teachers to provide accommodations to the dyslexic students to help them learn in class. Such accommodations could help the dyslexic learners to do the tasks and the same work as their fellow students. For example, the dyslexic students could receive the assignment in larger print; they might be allocated more time to complete an assignment.

The adopted methods for teaching students with dyslexia should meet the needs of the general Education and special education teachers who might seek accommodations that might foster the learning and management of a class of heterogeneous learners. Thus, the teacher ought to identify accommodations that were reasonable to help students in all classroom settings.

Finally, the researcher held several meetings with the teachers upon their request to help them with the implementation of a certain strategy or to explain the purpose of the study and the steps to be followed and to distribute the necessary sheets.

3.6 Materials

Each experimental-group teacher taught the reading passages found in the book issued by the Ministry of Education for 7,8,9 and 10 graders enrolled in the two sampled public and private schools along with passages from another book titled *Themes for Today* according to the pre-reading, during reading, and post-reading instructional framework and corresponding techniques and activities that were conducted in the study. Each experimental-group teacher administered to her classes to the pretest given by the researcher in order to determine their weakness and their levels. The researcher distributed the handouts which included the activities necessary for the understanding and comprehension of the reading passages. Also, the researcher advised the teachers on how to correct the papers. The researcher examined the papers again and found that they were corrected properly and accurately. The achieved scores were statistically scored and computed and the findings were defined. By using several techniques and tools, the researcher collected assessment information about students' reading comprehension development and their progress in writing and reading knowledge and abilities. The data gathered during assessment became the foundation for students' evaluation. Comparing assessment information to curriculum allowed the researcher to make a judgment regarding the progress of students' learning.

The *Themes* book series follows content-based language learning which integrates all language skills, whereby each lesson included practice in listening, speaking, reading, and writing. Vocabulary items are always presented in context, and activities were built to facilitate their learning. The questions in the book called for open discussions, required creative thinking, and encouraged cooperative learning through pair and structured group work activities and assignments.

The researcher followed in conducting this study a certain procedure that has been based on activities proclaimed by the new curriculum, issued by the Lebanese Ministry of Education, throughout the school year2012-2013. *Themes for Today* series coauthored by the researcher and used in grades 7,8 9,and 9 as supplementary book from which supplementary activities needed for the instruction have been selected is tailored as well in accordance with the new Lebanese curriculum. *Themes for Today* series has the following goals: The Language is fundamental to thinking, learning, and communicating in all cultures. The skilled use of language is associated with many opportunities in life, including further education, work, and social interaction. As students come to understand and use language more fully, they are able to enjoy the benefits and pleasures of language in all its forms; from reading and writing to literature, theatre, public speaking, film, and other media. They also come to understand language as a human system of communication – dynamic and evolving, but also systematic and governed by rules. *Themes for Today* is a 3-year English course tailored to provide students with opportunities to experience the power of language by dealing with a range of texts and with the full range of contexts and purposes associated with the use of language and addressed to intermediate level students in Lebanon who study English as a first foreign language. Produced in conformity with the new English language curriculum, *Intermediate English* covers the basic skills of language learning: reading, speaking, listening and writing- in addition to an extraordinary core allocated to the development of critical thinking, cultural awareness, and study skills. The development of the *Themes for Today* has been guided by the following principles of learning:

• Learning requires the active participation of the student.

• People learn in a variety of ways and at different rates.

• Learning is both an individual and a group process.

• Learning is most effective when students reflect on the process of learning and set goals for improvement.

As students learn how to systematically understand and analyze the text and to reflect in writing and speaking what they learn, they begin to believe in themselves as active and dynamic   readers who are capable of transferring their reading and writing strategies to other situations. As a result, *Themes for Today* comprises 10 units intermingled from the grade eight curriculum list of themes and aiming at enhancing students' ability to read, view, comprehend and respond to a variety of grade appropriate texts. Each unit accommodates two reading selections that consistently cover the language skills. Each selection verges on one aspect of the unit theme, in which the students go through the text and engage in oral discussions- either in pairs or in groups- to put into practice and refine their oral communication and fluency skills. Within the context of the selections, authentic reading, vocabulary, structure, skills and mechanics are incorporated. The 10 units are tailored in accordance with students' needs as set by the NCERD; thus, these units supply the students with the tools before, during, and after reading and viewing to increase comprehension and fluency. Above all, the writing section of the book supplies students with the efficient writing activities including editing, revising and proofreading exercises to increase success at creating meaningful texts. Moreover, the listening section is affluent with resourceful and authentic material that would encourage students to use oral language to improve and extend thinking and to analyze and explore multiple viewpoints through speaking and listening and to set goals for improvement in oral language. More significantly, *Themes for Today*

encompasses authentic and situational speaking, listening and writing activities that would motivate students to use reading and viewing to make meaningful connections, to improve and extend thinking, to analyze the influence of context through reading and writing, and to explore multiple perspectives.

Each unit rounds off with a timed - assessment test that checks on the language points and skills handled so far. The authors of the book expect students to think critically, solve problems, communicate clearly, and learn and work both independently and with others.

As the authors believe that the aim of learning a language is to produce in the form of writing and speaking, they inserted productive skills that reflect real life- like situations at the end of every lesson. These skills are meant to reinforce the theme of the unit on the one hand and to enhance the student's style on the other hand. The lesson design shifts gradually from teacher control to student responsibility so that the teacher can be sure that students are successful during their independent practice.

The authors of *Themes for Today* hope that students will utilize the language to comprehend a wide range of literary and informational communications and to respond knowledgeably and critically to what they read, view, and hear. Students' ability to understand and draw conclusions from Communications – whether written, spoken, or visually displayed – and to defend their conclusions rationally is a major goal of education and the particular focus of the English Language.

3.7 Treatment

The treatment lasted for four months at the rate of 6 contact hours of integrated instruction per week for grades 7, 8 and 9, whereby instruction is given in accordance with the curriculum requirements proclaimed by the National Ministry of Education and

5 hours of integrated instruction per week for grade 10. This treatment was applied for both private and public schools.

The treatment given to 7 and 8 graders in only the   private schools included the combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning , whereas the treatment given to grades 7 and 8 in the public schools was the same combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, computer exercises, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning yet lacking the computer exercises due to the lack of equipment needed . In addition, the treatment given to grades 9 and 10 in both the private and public schools included the combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning but lacking computer exercises due to the unavailability of equipment in the public schools and due to the administrative decision taken in both types of schools concerning the schedule decided for the 9 graders who were receiving more instruction covering the requirements of the Brevet official examinations they had to pass at the end of the academic year to be promoted to grade 10 .The study aimed at investigating the efficacy of this treatment on improving the reading comprehension of narrative texts for 7 and 8 graders with dyslexia. However, the treatment given to grades 9 and 10 included the same combined strategy instruction consisting of graphic organizers, visual displays, mnemonic illustrations, predicting, inference, text structure awareness, main idea identification, summarization, and questioning, yet lacking the computer exercises. The study also aimed at investigating the efficacy of this treatment on improving the reading

comprehension of expository texts for 9 and 10 graders with dyslexia. The reason

behind determining the narrative texts for grades 7 and 8 and the expository texts for

grades 9 and 10 was due to the different themes and text genres used in the government

textbooks of grades 7,8 ,9 and 10 whereby the majority of the texts of grades 7 and 8 are

narrative and those of grades 9 and 10 are expository. In addition, the researcher of this

study, in agreement with other educationalists, Bunch, Finnegan, Humphries, Doré, &

Doré (2005), asserted that learning disabled students should move to be integrated with

the regular students.

As such , the current study explored the efficiency of integrating the normally

developing students with their dyslexic peers since the dyslexic students weren't

segregated from their normal peers .All the sampled classes of grades 7,8,9 and 10

included normal and dyslexic students .

As indicated earlier, the present study employed a pre-test – post-test control

group experimental factorial mixed methods design. At total 8 intact classes (2 classes

from each of grades 7, 8, 9, and 10) were randomly assigned to control and experimental

conditions. All the participating students in the study were considered dyslexic according

to the screening study measure described earlier.

The treatment conditions with two levels (experimental and control) constituted

the independent variable manipulated in the study. The experimental groups received

instruction according to the procedures of combined strategy instruction described earlier

and the control groups received regular instruction. Furthermore, the gender variable

(male versus female) and the school type (public versus private) served as moderator

variables. Finally, the scores of the participants on the comprehension of narrative texts

(grades 7 and 8) and the expository texts (grades 9 and 10) were used as measures of the

dependent variables.

The same teaching method, tests and test correction standards were adopted and administered in the 4 schools in order to properly collect valid and reliable data. To further contribute to data collection, teachers who implemented the study were requested to follow a regular pace and level of instruction which would cater to the needs of the average student in class, provide weaker students with support and help outside of class time and challenge the academically stronger students with additional and different assignments.

The control and the experimental groups of grades 7, 8, 9,and 10   in the public schools were taught according to the instructional procedures of the government textbooks titled *Themes*; whereas the experimental group used combined strategy instruction to read and comprehend the same expository and narrative texts by using the same book in addition to some texts along with their activities   from another series of books titled *Themes for Today* which are authored by the researcher herself and some other authors .

The control and the experimental groups of grades 9 and 10 in the private and public schools were taught according to the instructional procedures of the government textbooks titled *Themes*; whereas the experimental group used combined strategy instruction to read and comprehend the same expository and narrative texts by using the same book in addition to some texts along with their activities   from another series of books titled *Themes for Today* which are authored by the researcher herself and some other authors . The experimental group studied the same program and aimed to achieve the same learning outcomes and objectives using combined strategy instruction in reading and language learning instead of the instructional framework of *Themes for Today* used in the control group. That is instruction in the experimental group was manipulated to include the combined strategy instruction consisting of graphic

organizers, visual displays, mnemonic illustrations, predicting, inference ,text structure awareness, main idea identification, summarization, and questioning on improving the reading comprehension of narrative and expository texts for students with dyslexia.

3.8 Instruments

The researcher used the following instruments to conduct the study:

3.8.1. Expository and narrative passages, which were sensitive to cultural or gender requirement and free of bias.

3.8.2. Graphic organizers, visual displays, mnemonic illustrations, and computer-assisted instruction) and cognitive strategy instruction (i.e., text structure, main idea identification, summarization, questioning. Thus, by using several techniques and tools, the researcher collected assessment information about students' reading comprehension development and their progress in reading knowledge and abilities. The data gathered during assessment became the foundation for students' evaluation. Comparing assessment information to curriculum objectives allows the researcher to make a judgment regarding the progress of students' comprehension.

3.8.3. Surveying (skimming and scanning) and pre-reading activities.

3.8.4. Reading comprehension achievement pretests and posttests for 7th,8th,9th and 10th graders consisting of different types of questions: multiple choice, advance and graphic organizers, visual displays, mnemonic illustrations, computer-assisted, text structure, main idea identification, summarization, questioning, cloze test, vocabulary and comprehension questions (See Appendix A). The posttest occurred at the end of the Midterm of the year when students were supposed to be ready to demonstrate achievement of curriculum objectives. The main purposes were to determine knowledge, skills, abilities and attitudes that had developed over a given period of time to summarize

students' progress and to report this progress by comparing its results to that of the pretest .

3.8.5. Reading comprehension activities for 7th,8th,9th and 10th graders involving multiple choice, advance and graphic organizers, visual displays, mnemonic illustrations, computer-assisted ,text structure, main idea identification, summarization, questioning, vocabulary ,inferential and analytic questions and activities. Thus, *Themes for Today* included exercises utilized by the 7,8,9 and 10 graders of the experimental groups .Such exercises and activities would help in coping with academic tasks in school and in the several sectors of public life. Reading comprehension of students with dyslexia could be acquired noticeably when the basic skills were conducted effectively and built upon at levels of ascending difficulty and sophistication. *Themes for Today* for grades 7 and 8 suggested that the students should acquire basic command of the narrative texts ,paragraph and essay, literal and critical reading skills, structure and grammar of the sentence, active and passive vocabulary repertoire, cultural awareness and the capacity to reason on an issue. More specifically, the selection of the reading comprehension passgases of grades 9 and 10, one marking the end of the intermediate Cycle and one marking the onset of the secondary cycle should enable students to read expository and narrative selections critically and write well developed and organized essays of different rhetorical modes including both exposition and narration using the necessary language and appropriate literary and study skills.

This was done to make sure that the participating students would not find the material too difficult to handle; for when students read material that is too difficult, they cannot use their background knowledge to help them comprehend material they do not understand (Wilson, 1983). Besides, these passages were chosen because most

elementary and intermediate students have been interested in texts about female, social and family issues. Thus, the researcher has selected these texts because she has thought that their topics might motivate the students. Burns et al. (1988) said, "For readers' attitudes and interests affect motivation to read, and readers who are not motivated to read are not likely to give the reading task the degree of attention needed to result in high levels of comprehension" (p.213). Readers would rely on their prior knowledge and world experience when trying to comprehend a text. Readers would make use of their schemata when they could relate what they have known about a topic to the fact and ideas appearing in a text. Therefore, the researcher has chosen non-fiction texts to help students activate and use prior knowledge (Norris, S. & Philips, and L.1987). The test should allow the reader to approach the test with the proper form and content. Furthermore, many students suffered from text anxiety that distorted their performance. Therefore, teachers sometimes tried to get a comprehensive picture of students' abilities by tapping other clues informally without disturbing the inner balance of the students.

3.8.6. Dyslexia detection forms A, B, C & D were used to verify what the parents reported to the school principals about their dyslexic children and to detect the unreported dyslexia cases brought by the teachers and to refer them to one of the learning disabilities center for diagnosis and verification purposes (See Appendix B)

3.8.7. Consent forms to be read and signed by parents and students were used in the study to ensure transparency and ethicality of the present study (See Appendix C).

3.8.8. Answer key sheets including the scoring scale .The eight tests, administered in the study for 7th, 8th, 9th and 10th graders , were tests that included uniform procedures for administration and scoring in order to assure that the results from different people could be comparable. Thus, it could be assumed that students who

received the identical scores in the same tests demonstrated corresponding levels of performance.

As for the activities employed in the study; advanced and graphic organizers, visual displays, mnemonic illustrations, main idea identification, summarization, questioning, they had been used in both teaching and testing reading comprehension as well as language proficiency. Also, they have been considered as global integrative tests that required the tested to draw on their knowledge of context, syntax, vocabulary, idioms, semantics, and morphology to be able to find the exact answers. Thus, students were asked about what came to their mind when they gave a certain answer or about clues they used to arrive at certain answers. Therefore, it was advisable to have the tests followed by individual conferences between the teachers and the students to help show students' learning and knowledge. Thus, Cervantes (1989) found that the cloze procedure was a better indicator of students' abilities in English Second Placement (ESP) courses than tests of vocabulary, sentence ordering, sentence comprehension and true/false and multiple choice questions of comprehension. He stated, "The cloze test seemed to provide a reliable measure of the global reading comprehension skills of the examinees because it calls for the appropriate linguistic knowledge, the textual knowledge and knowledge of the world, only the good performers did well in [sic] the cloze test" (Cervantes, 1989: 13). More recently, John Oller et al. (1993) recommended that cloze texts should have a story line, in other words, "a discourse is more easily understood when it appears in a meaningful sequence, I. e. one that its common expectations grounded in textual form" (p.206). The series of studies conducted by Oller and his co-authors "shows that the amount of learning owed to working through a narrative text in a sequential form is substantial whereas the learning owed to working through the same text in a scrambled version is next to nothing" (Oller et. al., 1993, 223). Cloze tests were

composed of texts from which words had been deleted randomly. That is, students were supposed to fill in the blanks based on their comprehension of the context of the passage. This activity was one of the tools intended to provide a measure of reading comprehension progress.

The second activity, employed in this study, was text completion that aimed at using the appropriate voice in order to acquire knowledge of the forms of the active and passive voices. It aimed at giving the students the chance to decide which voice to use in their writing. Students could team up with other groups to discuss their additions to the text on the board and stand ready to justify and defend their choices to class.

Other activities concerning teaching reading comprehension conducted in this study were graphic organizers (webbing and charting) and surveying (skimming and scanning). Webbing was a technique that aimed at activating students' knowledge of linguistic and rhetorical structures. This technique would help students concentrate on their knowledge of the topic of a reading to improve reading comprehension. Webbing would generate key vocabulary, tab into students prior knowledge of a topic, bring up a few things some students didn't know, generate predictions about what might be covered in the reading and prepare students for the type of discourse they would encounter. Students should know that reading passages often had topics and sub-topics and how to group similar ideas together. As for charting, it aimed at helping students pick out important points in a reading passage and see relationships among pieces of information by having them recognize and deal with the same information in a different form. Students should know how to classify and group things under certain headings. As for main idea identification, surveying was used and included skimming and scanning for teaching students how to locate specific information quickly and skills indispensable for all learners when they need access to the discrete details in wide range of sources.

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Students should know what scanning is and how to scan. As for summarization, different transition signals were employed to teach students how to summarize. Moreover, questioning was employed to enhance and test the reading comprehension of students with dyslexia.

As for the form of three types of tests; Pretest and Posttest, it had varied due to the different activities and skills employed in the study. Regarding vocabulary graphic organizers, a common test would involve asking a student to provide a word that would best match a definition presented or to ask the student to provide a definition to a word. Similarly, a test of vocabulary knowledge could require that the students be familiar with several words in order to answer each item correctly. For example, the student could be asked to select a word that did not belong to the group of words. (e. g. thread, string, rope, knots). Similarly, a student might be asked to provide a synonym or an antonym for words. This test was supposed to be both receptive and expressive vocabulary.

Regarding reading comprehension, the most common instruction would require asking a student to read a passage of a text that was leveled appropriately for them and then asking some explicit and detailed questions about the content of the text . The subnets were showed how to practice self questioning and answering so that they read aloud and then they retell what they have understood and the whole process will be monitored by the questions of the teacher as well. The student could be asked to answer inferential questions about information, which was implied by the text, or the student's comprehension might be tested by his/her own words or to summarize the main idea or the moral of the study.

3.9 Pilot Study

The researcher carried out a pilot case study to examine the changes that 12 students from grades 4, 5, 6, 7, 8, and 9 from 1 public and 1 private School demonstrate if the students with dyslexia receive instruction in conformity with the new English Language curriculum. This instruction covered the reading comprehension as well as the following language components: vocabulary, syntax and morphology. Moreover, these participants in the pilot study were instructed according to the procedures of the following strategies: pre-reading, cloze, text completion, word analysis, advance and graphic organizers, mnemonic illustrations, and computer exercises , main idea identification, summarization, questioning, multiple choice, contextual clues, inferential and analytic activities. These activities were employed in the pilot study to examine their contribution to reading comprehension. The pilot study indicated significant statistical differences between the mean scores of the pre-test of the experimental group of the pilot study and that of the post test of the same students in helping students with dyslexia attain progress in reading comprehension.

3.9.1. Reliability of scoring

Chapelle (2001) maintained that, "The reliability of assessments in (second language acquisition (SLA) research needs to be considered in view of construct theory" (p.154). Reliability is investigated through statistical methods that assess the extent to which item performance data fit a psychometric model, the mathematical expression of the components of a construct and their relationships (Bachman, 1990). The researcher used SPSS scores to assess whether or not the survey consistently measured what it said it was measuring. SPSS Alpha was based on internal consistency: the correlation of items with all other items.

The reliability of the scoring has been tested by getting half the tests judged by another scorer after the investigator had finished scoring them. First, the criteria on the basis of which the answers were to be scored were discussed with the co-scorer and then the other tests were scored together to explain how the given and evolved criteria could be applied to interpret the answers. Tests were picked up at random and were given to the other scorer along with the given and evolved criteria. No scores or remarks were written on the tests so as not to influence the other scorer. The scores obtained thus were compared to the scores obtained by the investigator on the same tests. Pearson product moment correlation coefficients were obtained from the two sets of scores. Likewise, a third teacher was consulted in case of doubt, and consensus was reached through discussion to insure agreements of ratings.

The researcher used the Statistical Package for Social Sciences (SPSS)   to perform item analysis to ensure reliability of the study instruments through an acceptable alpha reliability coefficient of internal consistency. Likewise, inter-rater reliability among reported scores of independent judges was computed in order to ensure high inter-rater reliability correlations.

3.9.2. Validity of the instruments

Chapelle (2001) indicated that "Validity refers to the degree to which references from and uses of tests scores can be justified. Validation is the process of investigating test score inferences and uses ignored to yield data that contribute to their justification" (p.98). The test ought to measure what it was intended to measure. The tests, conducted by the researcher in this study, enabled the teachers to judge students' abilities to read , understand, analyze , interpret material and to express themselves in their own words. These tests could give the teachers an opportunity to comment on students' progress, the quality of their thinking, the depth of their understanding, and the difficulties they might

have had. Besides, such tests could pose several questions, so their content validity proved to be high. Additionally, the items of the tests measured the curriculum objectives accurately because these tests were tailored in accordance with the covered and given instruction . The tests, examined in this research, used uniform procedures for administration and scoring in order to assure that the results from different students could be comparable.

The study tests, would measure students' abilities to organize, assimilate, discern material, and express themselves in their own words. Additionally, the items of the tests could measure the curriculum objectives adopted by the National Center for Research and Development. Consequently, a specification table that matched the objectives to the test items as well as expert judgment could be used to ensure the content validity of the pre-tests and post-tests used in the study. As such, based on the thorough and comprehensive review conducted by the researcher and in light of the absence of any mention or reference to the special education program, strategies, objectives, the researcher decided to implement the combined strategy instruction she judged to be the most appropriate intervention needed to address the needs of 7,8,9,and 10 graders .the below quotation sums up the reasons behind her decision of implementing a combined strategy instruction as an intervention.

Torgesen, Foorman and Wagner (2007) summed up this process as follows:

"… we currently understand how to identify students at risk

for reading failure with a relatively high degree of accuracy as early

as preschool or kindergarten. Reliable tests of phonemic awareness,

letter/sound knowledge, or phonemic decoding will show these

students to be substantially behind their peers, unless they have

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already received powerful instructional interventions. … In first

grade, reliable tests of phonemic awareness, phonemic decoding, and

text reading accuracy and fluency will also identify [dyslexic]

students accurately. In later grades, dyslexic students who have not

received powerful interventions may still remain relatively impaired

in phonemic awareness, and will always perform poorly on tests of

phonemic decoding, text reading fluency, and spelling." (Torgesen,

Foorman and Wagner, 2007, p.4)

However, the researcher did not sample any elementary population

because the public elementary schools are few in Lebanon unlike the

intermediate and secondary ones.

3.9.3. Data collection instruments

The participants were assessed using the measures of reading which measure

reading accuracy, comprehension and reading rate; these tests combined literal,

comprehension, analysis, inferential and critical thinking questions designed and

formulated in accordance with the needs of the dyslexic and non dyslexic learners. All

tests included questions reflecting the strategies of the combined treatment used in the

study .selecting and matching words to pictures, reading and selecting the correct

missing word from choices in increasingly complex sentences and topics.

3.9.4. Data analysis procedure

The data yielded by this study were submitted to a t-test and the most recent

version of the Statistical Package for the Social Sciences (SPSS) version21 . The t-test

was administered to test for significant differences between the pre-test means and the

post- test means of the experimental groups. The level of significance was selected for

testing the hypotheses of this study as a criterion for judgment in rejecting or accepting the null hypotheses. SPSS is a data analysis program of software that is used for computing various statistical procedures with different kinds of data. SPSS is a means for exploring the differences and relationships in data (Babbie, Malley & Zaino 2000). The paired sample t-test is used when the data is yielded from only one group of participants. "The repeated measure t-test" is used in this study which employs a pretest-post test design. In such a form of design, the same subject gets a score on the pre-test and after some intervention, a score on the posttest. The researcher would deduce whether the difference between means for the two sets of scores is the same or different. Coakes and Steed (1999) say, "A frequency distribution is a display of the frequency of occurrence of each score value. The frequency distribution can be represented in tabular form or, with more visual clarity, in graphical form. For continuous variables, measured on ratio or interval scales, histograms or frequency polygons are appropriate" (p.45).

Modes, median and means are the three basic measures of central tendency. "The measures of variability include range, inter quartile range, standard deviation and variance" (Coakes and Steed, 1999, 45). However, "skewness" indicates the shape of the distribution and are used with interval and ratio level data. When the observed or examined distribution is exactly normal, the value for skewness is Zero. Positive values for skewness indicate a positive skew while negative values for skews indicate a negative skew. Other descriptive statistics, such as measures of central tendency and variability, can also be used to determine the normality of the distribution.

In addition to the descriptive statistics described above, data analysis also entailed a series of Analysis of Covariance Tests to address the study questions and test related hypotheses. The treatment conditions (experimental vs. control) was used as independent variable, the gender of the participants (male versus female) and the school type variable

(public versus private were used as moderator variables, the pretest scores of the participants as covariates, and post test scores as depending variables.

3.10 Conclusion

The preceding literature review outcomes and pilot study findings suggested the need to conduct the present study in order to invetigate the relative effectivness of combined strategy instruction on improving the Reading comprhension of narrative and exposiotry texts across differtent grade levels, gender, and school types (public versus private). This is in order to fill a knolwedge void, address inconsistencies in the findings of the extant research on the interplay between reading instructional startegies and the comprhension of dyslexic leaners of various text types across different levels of proficiency.

CHAPTER IV- RESULTS

This chapter reports the quantitative and qualitative results of the study and partial discussions. A descriptive statistics will be presented (frequency distribution, percentages, and means and standard deviation) for the participants and their corresponding scores across grades levels and the study dependent variable. In addition the chapter reports the results of the inferential statistics of the Analysis of the Covariance Tests run to address the study questions and related hypotheses.

4. 1 Quantitative analysis

The study participants were a total of eight cohorts of dyslexic male and female middle school Lebanese learners coming from public and private schools and were studying English as a first foreign language. Two cohorts came from each of grades 7, 8, 9, and 10 as follows:

4.1.1. Grade 7 results

The demographic characteristics of the grade 7 participants and their distribution by the study independent and moderator variables as shown in the Table below reveal that a total of 84 grade 7 students participated in the study. However, with the introduction of the list wise deletion of missing cases when doing the statistical analyses done in the study, the number may have been reduced as shown in the subsequent sections below.

Table 1.Grade 7 Statistics

		Treatment Condition experimental versus control	Student Gender	School Type Private and Public	Post test narrative
N	Valid	84	84	84	79
	Missing	1	1	1	6

Specifically, there were 39 students in the experimental group (45.9 %) and 45 (52.09%) in the control group and 1 participant (1. 2 %) with missing data.

Table 2.Treatment Condition Experimental Versus Control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experimental	39	45.9	46.4	46.4
	Control	45	52.9	53.6	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

Likewise, there were **55 male participants** (64.7 %), **29 female participants** (34. 1 %)

and 1 (1.2 %) with missing gender data.

Table 3.Grade 7 Student Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	55	64.7	65.5	65.5
	Female	29	34.1	34.5	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

Finally, there were a total of 45 participants (52.9 %) from public schools, 39 (45.9 %)

from private schools, and 1 participant (1.2 %) with missing school type data.

Table 4.Grade 7 School Type Private and Public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	45	52.9	53.6	53.6
	Private	39	45.9	46.4	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

The distribution of the posttest narrative of the grade 7 participants used in the statistical

analyses as a measure of the study dependent variable is shown below and shows a

range from 3.50 to 42.5.

Table 5.Grade 7 Posttest Narrative

Posttest narrative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.50	1	1.2	1.3	1.3
	5.00	1	1.2	1.3	2.5
	7.00	3	3.5	3.8	6.3
	8.00	1	1.2	1.3	7.6
	10.00	2	2.4	2.5	10.1
	11.00	1	1.2	1.3	11.4
	14.00	1	1.2	1.3	12.7
	15.00	1	1.2	1.3	13.9
	16.00	1	1.2	1.3	15.2
	17.00	2	2.4	2.5	17.7
	18.00	3	3.5	3.8	21.5
	19.00	1	1.2	1.3	22.8
	20.00	5	5.9	6.3	29.1
	21.00	2	2.4	2.5	31.6
	22.00	3	3.5	3.8	35.4
	23.00	3	3.5	3.8	39.2

24.00	8	9.4	10.1	49.4
25.00	4	4.7	5.1	54.4
26.00	4	4.7	5.1	59.5
27.00	2	2.4	2.5	62.0
28.00	3	3.5	3.8	65.8
29.00	1	1.2	1.3	67.1
30.00	3	3.5	3.8	70.9
32.00	6	7.1	7.6	78.5
34.00	4	4.7	5.1	83.5
35.00	1	1.2	1.3	84.8
36.00	6	7.1	7.6	92.4
40.00	3	3.5	3.8	96.2
41.00	1	1.2	1.3	97.5
42.00	1	1.2	1.3	98.7
42.50	1	1.2	1.3	100.0
Total	79	92.9	100.0	

Figure 8.Grade 7 Posttest Narrative
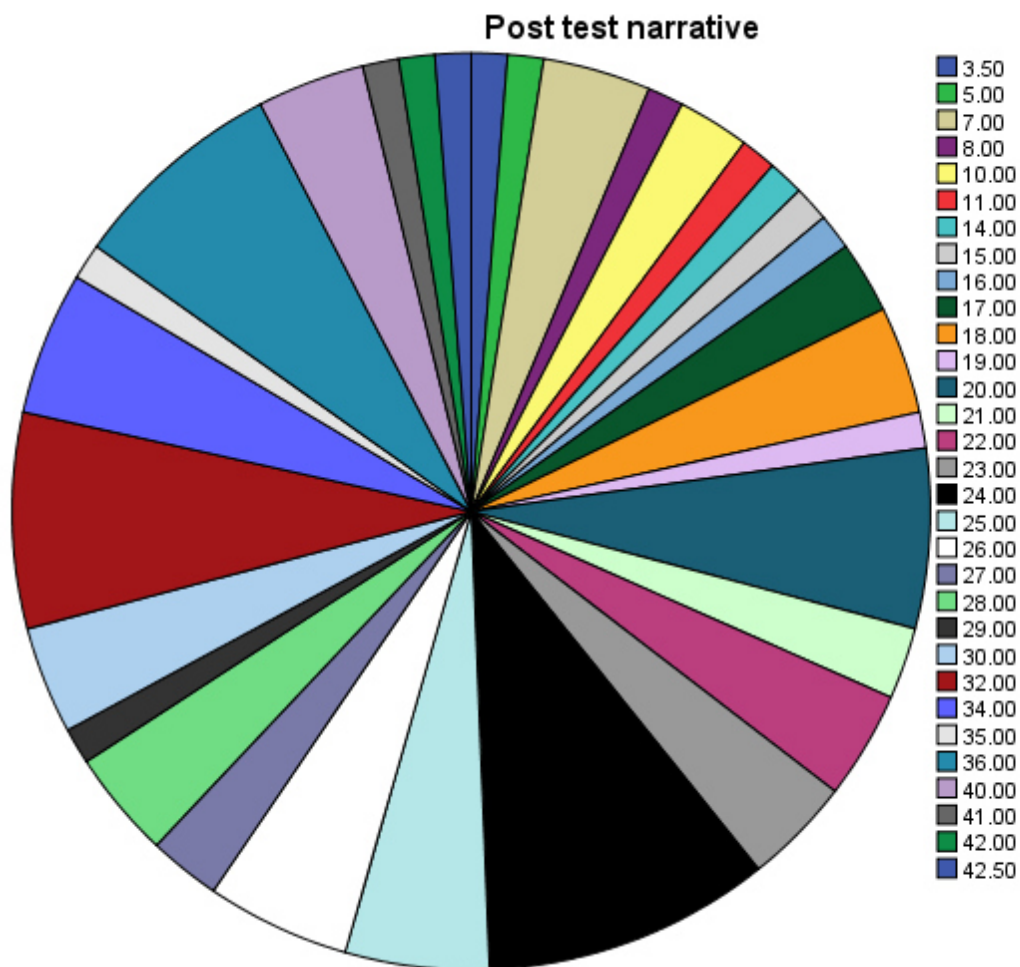
The results of the of the Multivariate Analysis of Covariance Variance (MANCOVA) test to address the grade 7 study questions and hypotheses are shown in Table 6 below and reveal the following:

Table 6: Descriptive Statistics and F Values for Effects of Treatment, Gender, School Type and interactions Comprehension of Narrative Texts of Grade 7

Variable	M	SD	M	SD	F	df	P	ŋ2
Treatment	Control n = 42		Experimental n = 33					
	21.09	7.92	31.37	6.25	27.62	1, 75	.00*	.29
Gender	Male n = 49		Female n = 26					
	23.48	8.13	29.63	8.86	. 57	1, 75	.45	.00
School Type	Public n = 40		Private n = 35		14.75	1, 75	.00*	.18
	21.10	6.88	30.78	8.01				
Treatment x Gender					.26	1, 75	.60	.00
Treatment x School Type					.02	1, 75	.86	.00
Gender x School Type					3.59	1, 75	.74	.00
Treatment x Gender x School type					2.22	1, 75	.14	.03

P < .05

4.1.2. Discussion of grade 7 results

The results show that the experimental group participants who received combined

strategy instruction outperformed their control group counterparts in reading

comprehension achievement F (1, 75) = 27. 62, P = .00, ŋ2 = .29. Similarly, there was a

statistically significant difference in favor of the private school participants who did better than the public school learners in comprehending narrative texts. $F (1, 75) = 14.75$, $P = .00$, $\eta2 = .18$

Conversely, there was no statistically significant effect for the gender variable on the reading comprehension $F (1, 75) = .57$, $P = .45$, $\eta2 = .00$. The mean score of the male and female participants were 23.48 (8.13) and 29.63 (8.86), respectively. Likewise, the analysis of the grade 7 results shows no statistically significant interaction differences by Treatment and Gender $F (1,75) = .26$, $P =.60$, $\eta2 .00$; Treatment by School Type $F (1,75) = .02$, $P= .86$, $\eta .00$; Gender and School Type $F (1,75) =3.59$, $P =.7$ $\eta .00$; and Treatment, Gender, and School Type $F (1,75) = 2.22$, $P = .14$, $\eta2 = .03$.

More specifically, participants in the experimental groups as well as grade 7 participants from the private schools respectively outperformed their counterparts from the control group and the public schools. This suggests that combined strategy instruction is a relatively more efficacious teaching approach than regular instruction in improving the reading comprehension of grade 7 dyslexic learners. Like the facilities, class climate, and the practices of private schools could be a factor that positively impacts the reading achievement of dyslexic learners.

Conversely, gender did not affect the performance of dyslexic learners. Likewise there were no statistically significant interaction between the variables of gender and school type and the participants' reading comprehension of narrative texts.

4.1.3. Grade 8 results

The demographic characteristics of the grade 8 participants and their distribution by the study independent and moderator variables are shown in the below Table and

reveal that a total of 74 grade 8 students participated in the study. However, with the introduction of the list wise deletion of missing cases when doing the statistical analyses done in the study, the number may have been reduced as shown in the subsequent tables.

Table 7.Grade 8 Statistics

		Treatment Condition experimental versus control	Student Gender	School Type Private and Public	Post test narrative
N	Valid	74	74	74	70

Specifically, there were 38 students in the experimental group (51.4 %) and 36 (48.6. %) in the experimental group.

Table 8.Grade 8 Treatment Condition experimental versus control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experimental	38	23.9	51.4	51.4
	Control	36	22.6	48.6	100.0
	Total	74	46.5	100.0	

Likewise, there were 52 male participants (70.3. %), 22 female participants (29.7 %).

Table 9. Student Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	52	32.7	70.3	70.3
	Female	22	13.8	29.7	100.0
	Total	74	46.5	100.0	

Finally, there were a total of 42 participants (56.8) from public schools, and 32 (20.1 %) from private schools.

Table 10. School Type Private and Public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	42	26.4	56.8	56.8
	Private	32	20.1	43.2	100.0
	Total	74	46.5	100.0	

The distribution of the posttest narrative of the grade 8 participants used in the statistical analyses as a measure of the study dependent variable are shown below and show a range from 3.00 to 48.00.

Table 11. Post test narrative

		Frequency	Percent	Valid Percent	Cumulative Percent
	3.00	1	.6	1.4	1.4
	8.00	1	.6	1.4	2.9
	12.50	1	.6	1.4	4.3
	13.00	1	.6	1.4	5.7
	14.00	2	1.3	2.9	8.6
	15.00	2	1.3	2.9	11.4
	15.50	1	.6	1.4	12.9
	16.00	1	.6	1.4	14.3
Valid	17.00	3	1.9	4.3	18.6
	17.50	1	.6	1.4	20.0
	18.00	7	4.4	10.0	30.0
	18.50	1	.6	1.4	31.4
	19.00	1	.6	1.4	32.9
	19.50	1	.6	1.4	34.3
	20.00	2	1.3	2.9	37.1
	20.50	1	.6	1.4	38.6
	22.00	2	1.3	2.9	41.4

23.00	1	.6	1.4	42.9
23.50	3	1.9	4.3	47.1
24.00	2	1.3	2.9	50.0
24.50	1	.6	1.4	51.4
26.00	2	1.3	2.9	54.3
28.50	2	1.3	2.9	57.1
29.00	1	.6	1.4	58.6
29.50	1	.6	1.4	60.0
31.00	1	.6	1.4	61.4
31.50	1	.6	1.4	62.9
32.00	1	.6	1.4	64.3
32.50	2	1.3	2.9	67.1
33.00	4	2.5	5.7	72.9
34.00	1	.6	1.4	74.3
34.50	1	.6	1.4	75.7
36.50	1	.6	1.4	77.1
38.00	1	.6	1.4	78.6
38.50	3	1.9	4.3	82.9
39.00	1	.6	1.4	84.3
40.00	2	1.3	2.9	87.1
40.50	2	1.3	2.9	90.0
41.00	2	1.3	2.9	92.9
42.00	2	1.3	2.9	95.7

44.50	1	.6	1.4	97.1
47.00	1	.6	1.4	98.6
48.00	1	.6	1.4	100.0
Total	70	44.0	100.0	
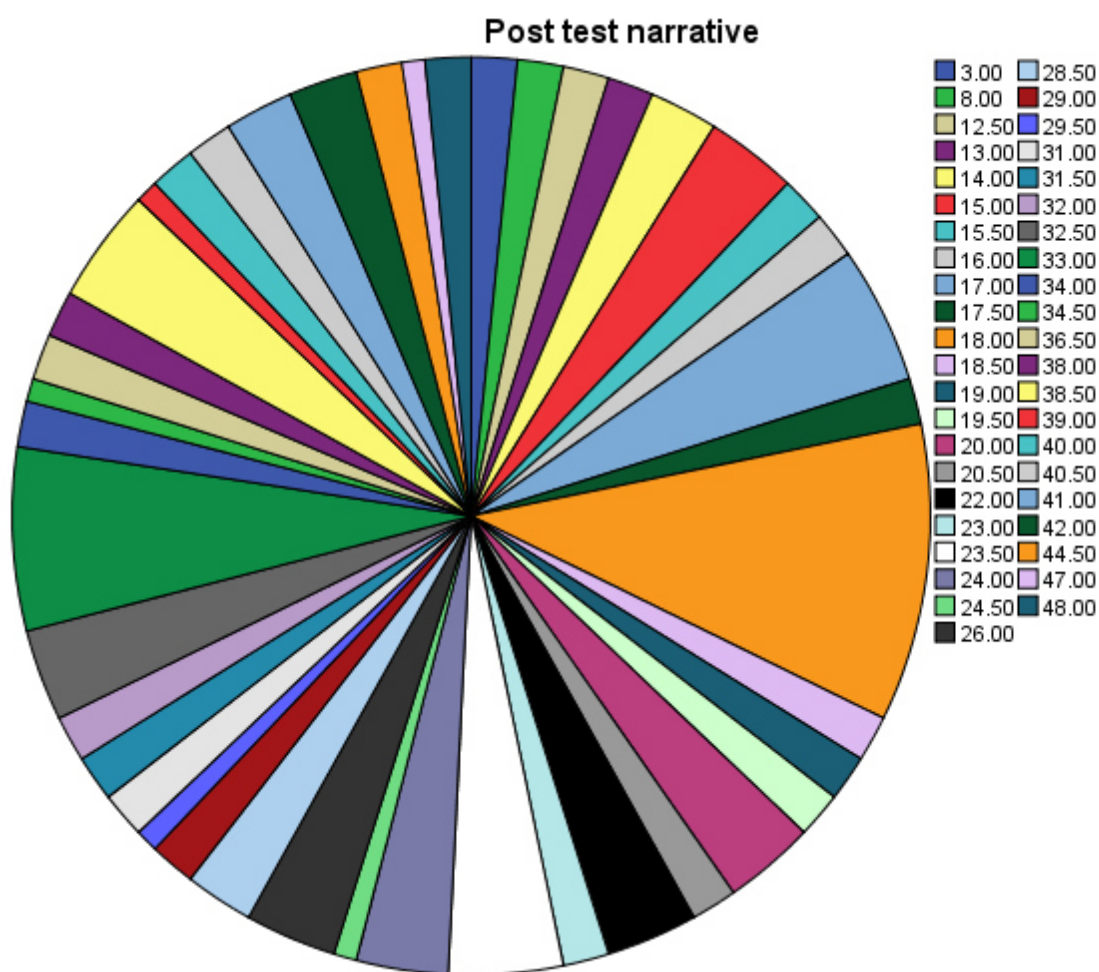
Post test narrative

The results of the of the Multivariate Analysis of Covariance Variance

(MANCOVA) test to address the grade 8 study questions and hypotheses are

shown in the Table II below and reveal the following:

Table 12: <u>Descriptive Statistics and F Values for Effects of Treatment, Gender,</u>

<u>School Type and interactions Comprehension of Narrative Texts of Grade 8</u>

VariableM	SD	M	SD	F	df	P	ŋ
Treatment	<u>Control n = 35</u>	<u>Experimental n =35</u>		10.98	1,70	.00*.	15
	19.80 7.73	33.65 7.80					
Gender	<u>Male n = 48</u>	<u>Female n = 22</u>		.11	1,70	.74	.00
	25.52 9.55	29.36 11.84					
School Type	<u>Public = 38</u>	<u>Private n = 32</u>	6.06	1,70	.01*	.09	
	25.11 8.90	28.64 11.80					
Treatment x Gender				2.06	1,70	.15	.03
Treatment x School Type				.07	1,70	.78	.00
Gender x School Type				1.61	1,70	.20	.02
Treatment x Gender x School type				04	1.70	.82	.00

* P < .05

4.1.4. Discussion grade 8 results

Analysis of the grade 8 results shows that the experimental group participants who received combined strategy instruction outperformed their control group counterparts in reading comprehension achievement $F (1, 70) = 10.98$, $P = .00$, $\eta2 = .15$. Similarly, there was a statistically significant difference in favor of the private school participants who did better than the public school learners in comprehending narrative texts. $F (1, 70) = 6.06$, $P = .01$, $\eta2 = .09$.

Conversely, there was no statistically significant effect for the gender variable on the reading comprehension $F (1, 70) = .01$, $P = .74$, $\eta2 = .00$. The mean scores of the male and female participants were 25.52 (9.55) and 29.36 (11.84), respectively. Likewise, the analysis of the grade8 results shows no statistically significant interaction differences by Treatment and Gender $F (1,70) = 2.06$, $P = .15$, $\eta.03$; Treatment by School Type $F (1,70) = .07$, $P = .78$, $\eta .00$; Gender and School Type $F (1,70) = 1.61$, $P = .20$ η .00; and Treatment, Gender, and School Type $F (1,70) .04$, $P = .82$, $\eta.03$.

These findings corroborate those obtained in grade 7, which suggests that the treatment condition of combined strategy instruction and the private school type positively impacts the reading comprehension of narrative texts by dyslexic grade 7 and 8 learners. Consequently, it was decided to analyze the results of grade 7 and 8 combined in order to determine any emerging patterns as a result of increasing the sample size.

4.1.5 Grades 7 and 8 results

The demographic characteristics of the grade 7 and 8 participants and their distribution by the study independent and moderator variables are shown in the below Table and reveal that a total of 158 grade 7 and 8 students participated in the study. However, with the introduction of the list wise deletion of missing cases when doing the

statistical analyses done in the study the number was reduced as shown the subsequent

analysis.

Table 13. Statistics

		Treatment Condition experimental versus control	Student Gender	School Type Private and Public	Post test narrative
N	Valid	158	158	158	149
	Missing	1	1	1	10

Specifically, there were 77 students in the experimental group (48.7 %) and 81 (51.3 %)

in the experimental group and 1 participant (.6 %) with missing data.

Table 14: Treatment Condition experimental versus control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experimental	77	48.4	48.7	48.7
	Control	81	50.9	51.3	100.0
	Total	158	99.4	100.0	
Missing	System	1	.6		
Total		159	100.0		

Likewise, there were 107 male participants (67.7 %), 51 female participants (32.3 %) and

1 (.6 %) with missing gender data.

Table 15: Student Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	107	67.3	67.7	67.7
	Female	51	32.1	32.3	100.0
	Total	158	99.4	100.0	
Missing	System	1	.6		
Total		159	100.0		

Finally, there were a total of 87 participants (55.1 %) from public schools, 71 (44.9 %)

from private schools, and 1 participant (.6 %) with missing school type data.

Table 16: School Type Private and Public

|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	87	54.7	55.1	55.1
	Private	71	44.7	44.9	100.0
	Total	158	99.4	100.0	
Missing	System	1	.6		
Total		159	100.0		

The distribution of the posttest narrative of the grade 8 participants used in the statistical analyses as a measure of the study dependent variable is shown below and shows a range from 3.00 to 48.00.

Table 17: Posttest narrative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	1	.6	.7	.7
	3.50	1	.6	.7	1.3
	5.00	1	.6	.7	2.0
	7.00	3	1.9	2.0	4.0
	8.00	2	1.3	1.3	5.4
	10.00	2	1.3	1.3	6.7
	11.00	1	.6	.7	7.4
	12.50	1	.6	.7	8.1
	13.00	1	.6	.7	8.7
	14.00	3	1.9	2.0	10.7
	15.00	3	1.9	2.0	12.8
	15.50	1	.6	.7	13.4
	16.00	2	1.3	1.3	14.8
	17.00	5	3.1	3.4	18.1
	17.50	1	.6	.7	18.8
	18.00	10	6.3	6.7	25.5
	18.50	1	.6	.7	26.2

19.00	2	1.3	1.3	27.5
19.50	1	.6	.7	28.2
20.00	7	4.4	4.7	32.9
20.50	1	.6	.7	33.6
21.00	2	1.3	1.3	34.9
22.00	5	3.1	3.4	38.3
23.00	4	2.5	2.7	40.9
23.50	3	1.9	2.0	43.0
24.00	10	6.3	6.7	49.7
24.50	1	.6	.7	50.3
25.00	4	2.5	2.7	53.0
26.00	6	3.8	4.0	57.0
27.00	2	1.3	1.3	58.4
28.00	3	1.9	2.0	60.4
28.50	2	1.3	1.3	61.7
29.00	2	1.3	1.3	63.1
29.50	1	.6	.7	63.8
30.00	3	1.9	2.0	65.8
31.00	1	.6	.7	66.4
31.50	1	.6	.7	67.1
32.00	7	4.4	4.7	71.8
32.50	2	1.3	1.3	73.2
33.00	4	2.5	2.7	75.8

34.00	5	3.1	3.4	79.2
34.50	1	.6	.7	79.9
35.00	1	.6	.7	80.5
36.00	6	3.8	4.0	84.6
36.50	1	.6	.7	85.2
38.00	1	.6	.7	85.9
38.50	3	1.9	2.0	87.9
39.00	1	.6	.7	88.6
40.00	5	3.1	3.4	91.9
40.50	2	1.3	1.3	93.3
41.00	3	1.9	2.0	95.3
42.00	3	1.9	2.0	97.3
42.50	1	.6	.7	98.0
44.50	1	.6	.7	98.7
47.00	1	.6	.7	99.3
48.00	1	.6	.7	100.0
Total	149	93.7	100.0	
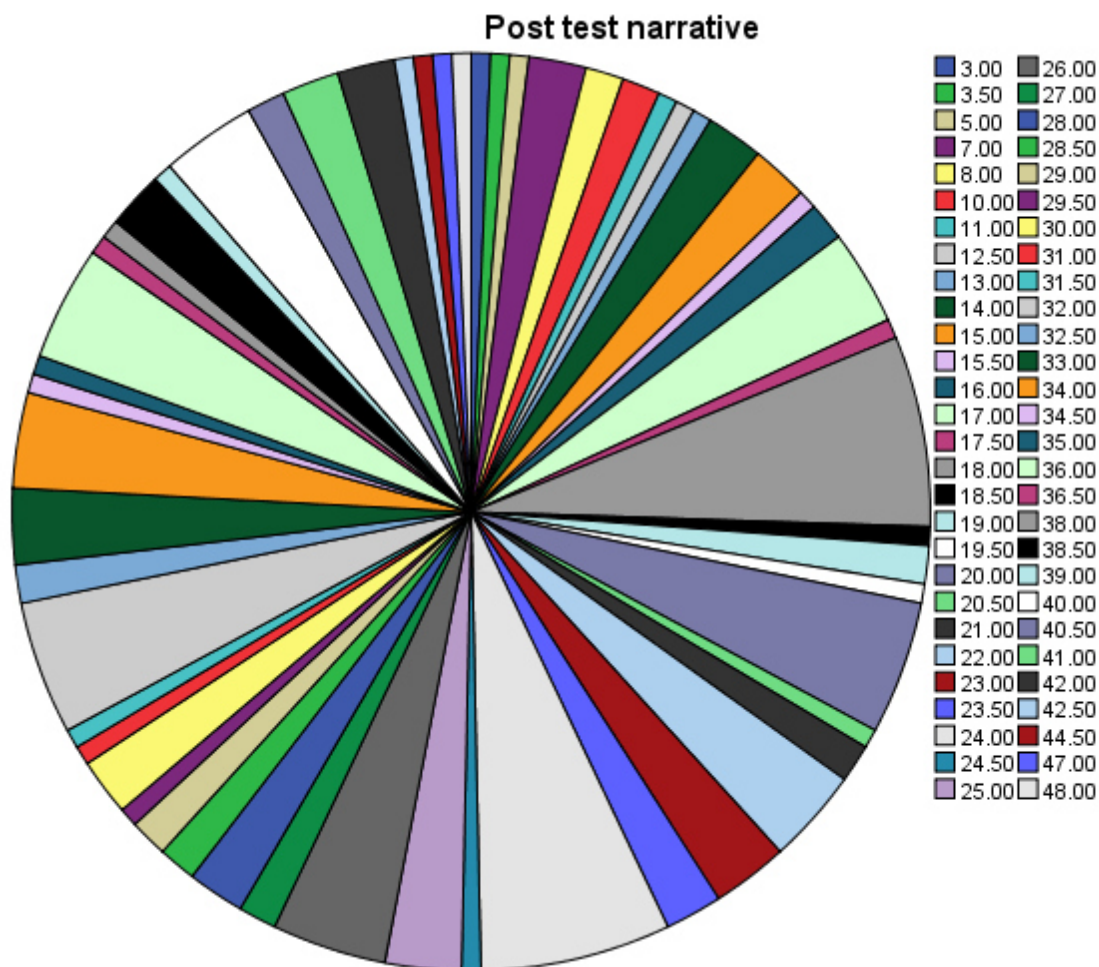
Post test narrative

The results of the of the Multivariate Analysis of Covariance Variance (MANCOVA)

test to address the grade 7 and 8 study questions are shown in Table III below and reveal

the following:

Table 18:<u>Descriptive Statistics and F Values for Effects of Treatment, Gender, School Type and interactions Comprehension of Narrative Texts of Grade 7 and 8</u>

Variable	M	SD	M	SD	F	df	P	ŋ
Treatment	<u>Control n = 77</u>		<u>Experimental n = 68</u>		47.48	1,145	.00*	.271
	20.50	7.81	31.48	8.50				
Gender	<u>Male n = 97</u>		<u>Female n = 48</u>		.17	1,145	.67	.00
	24.26	8.96	28.97	10.78				
School Type	<u>Public n = 78</u>		<u>Private n = 67</u>		10.25	1,145	.00*	.70
	22.58	8.45	29.76	9.98				
Treatment x Gender					2.63	1,145	.10**	.02
Treatment x School Type					.80	1,145	.37	.00
Gender x School Type					1.40	1,145	.23	.01
Treatment x Gender x School type					.77	1,145	.38	.00

* P < .05

** P < .10

The results show that the experimental group participants who received combined strategy instruction outperformed their control group counterparts in reading comprehension achievement F (1,145) =74.48, P = .00, ŋ2 = .27. Similarly, there was a statistically significant difference in favor of the private school participants who did better than the public school learners in comprehending narrative texts. F (1,145) = 10.25, P = .00, ŋ2 = .70.In addition, there was a statistically significant interaction between the treatment conditions and the gender of the participants in their reading comprehension performance at the alpha level of .10: F (1,145) =2.63, P = .10, ŋ2 = .02

Conversely, there was no statistically significant effect for the gender variable on the reading comprehension of the participants F (1, 145) = . 17, P = .67, ŋ2 = .00. The mean score of the male and female participants were 24.26 (8.96) and 28.97 (1.78), respectively. Likewise, the analysis of the combined grade 7 and 8 results shows no statistically significant interaction differences by Treatment and School type F (1,145) = .80, P =.37, ŋ2 .00; Treatment by School Type F (1,145) = .02, P= .80, ŋ .00; Gender and School Type F (1,145) =1.40, P =.23 ŋ .00; and Treatment, Gender, and School Type F (1,145) =.77, P = .38, ŋ2 .00.

The results further corroborated the finding that combined strategy instruction and the private school type positively impact the reading the achievement of dyslexic grade 7 and 8 learners in the context odf the present study. Furthermore, combined analysis of the grade 7 and 8 learners suggested a possible interaction that is statitistically significant at the P = 0.1 level between the treatment conditions and gender. This suggests the need for further research to examine the robustness and genrtalizability of this finding.

4.1.6. Grade 9 results

The demographic characteristics of the grade 9 participants and their distribution by the study independent and moderator variables are shown in the table below and reveal that a total of 67 grade 9 students participated in the study. However, with the introduction of the list wise deletion of missing cases when doing the statistical analyses done in the study , the number was reduced as shown in the subsequent analysis.

Table 19: Statistics

		Treatment Condition experimental versus control	Student Gender	School Type Private and Public	Post test scores expository
N	Valid	67	67	67	67

Specifically, there were 35 students in the experimental group (52.2 %) and 32 (47.8) in the control group.

Table 20: Treatment Condition experimental versus control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experimental	35	11.7	52.2	52.2
	Control	32	10.7	47.8	100.0

Total	67	22.3	100.0

Likewise, there were 43 male participants (64.2 %), and 24 female participants (35.8 %).

Table 21: Student Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	43	14.3	64.2	64.2
	Female	24	8.0	35.8	100.0
	Total	67	22.3	100.0	

Finally, there were a total of 27 participants (40.3 %) from public schools and 40 (59.7 %) from private schools.

Table 22: School Type Private and Public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	27	9.0	40.3	40.3
	Private	40	13.3	59.7	100.0

Total		67	22.3	100.0	

The distribution of the posttest expository of the grade 9 participants used in the

statistical analyses as a measure of the study dependent variable is shown below and

shows a range from 6.00 to 38.00

Table 23: Post test scores expository

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6.00	1	.3	1.5	1.5
	8.00	1	.3	1.5	3.0
	12.00	2	.7	3.0	6.0
	14.00	3	1.0	4.5	10.4
	15.00	2	.7	3.0	13.4
	16.00	5	1.7	7.5	20.9
	17.00	3	1.0	4.5	25.4
	19.00	1	.3	1.5	26.9
	20.00	3	1.0	4.5	31.3
	21.00	4	1.3	6.0	37.3
	22.00	3	1.0	4.5	41.8
	23.00	3	1.0	4.5	46.3

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	24.00	3	1.0	4.5	50.7
	26.00	3	1.0	4.5	55.2
	27.00	6	2.0	9.0	64.2
	28.00	7	2.3	10.4	74.6
	29.00	1	.3	1.5	76.1
	30.00	6	2.0	9.0	85.1
	31.00	2	.7	3.0	88.1
	32.00	4	1.3	6.0	94.0
	33.00	1	.3	1.5	95.5
	34.00	1	.3	1.5	97.0
	36.00	1	.3	1.5	98.5
	38.00	1	.3	1.5	100.0
	Total	67	22.3	100.0	
Missing	System	233	77.7		
Total		300	100.0		
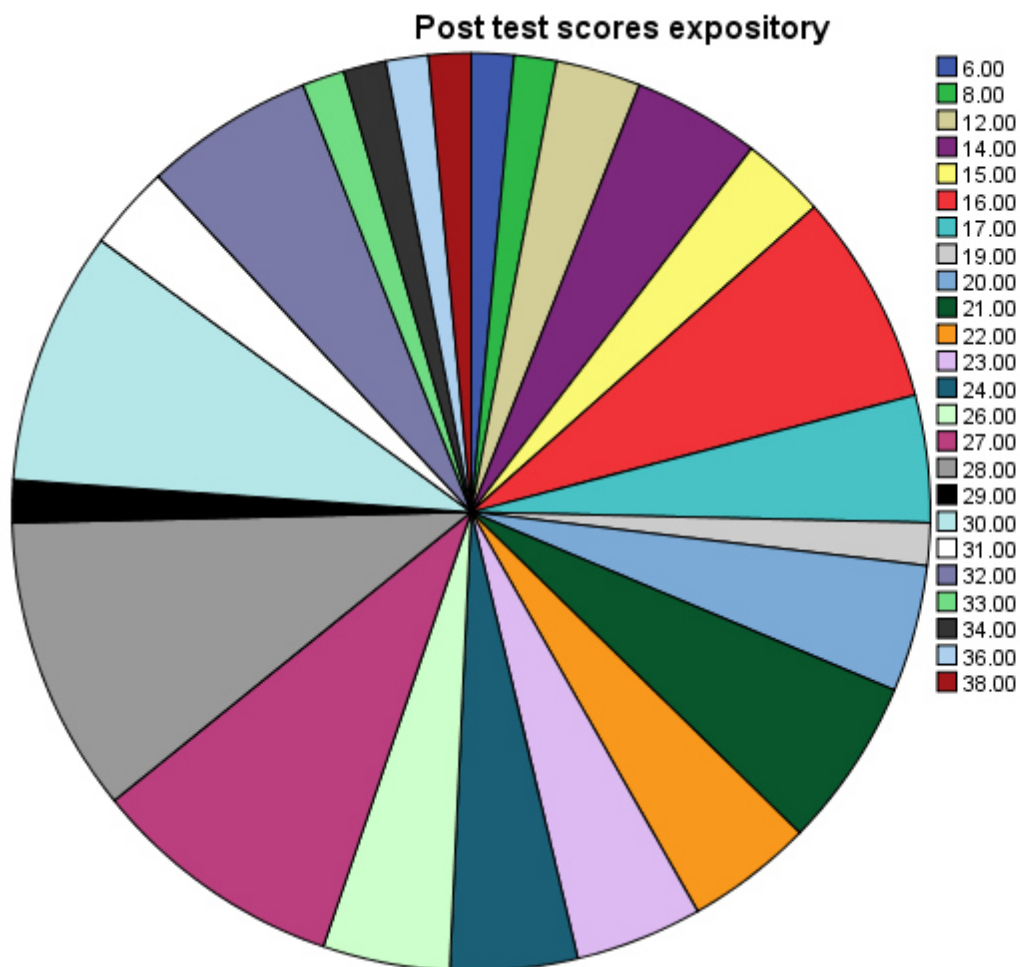
Post test scores expository

The results of the of the Multivariate Analysis of Covariance Variance

(MANCOVA) test to address the grade 9 study questions and hypotheses are

shown in Table 24 below and reveal the following:

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Table 24: <u>Descriptive Statistics and F Values for Effects of Treatment, Gender,</u>

<u>School Type and interactions Comprehension of Narrative Texts of Grade 9</u>

Variable	M	SD	M	SD	F	df	P	ŋ
Treatment	Control n = 25		Experimental n = 35		.19	1,60	.65	.00
	23.28	6.02	25.54	6, 56				
Gender	Male n = 40		Female n = 20		.31	1,60	.57	.00
	24.87	6.84	22.55	6.15				
School Type	Public n = 27		Private n = 33		28.36	1,60	.00*	.35
	28.74	4.22	21.21	5.87				
Treatment x Gender					.06	1,60	.79	.00
Treatment x School Type					.48	1,60	.49	.00
Gender x School Type					.30	1,60	.58	,00

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Treatment x Gender x School type	5.93	1,60	.01* .10

* P < .05

The results show that the public school participants who received combined strategy instruction outperformed their private school counterparts in reading comprehension achievement $F (1,60) = 28. 36$, $P = .00$, $\eta2 = .35$. Likewise, the results show a statistically significant difference at the $P = .01$ alpha level for the interaction between Treatment, Gender, and School Type $F (1,60) = 5.93$, $P = .01$, $\eta 2.01$.

Conversely, there was no statistically significant difference in the performance of the participants in the control and the experimental group. $F (1, 60) = .19$, $P = .65$, $\eta2 = .00$. Similarly, there was no statistically significant effect for the gender variable on the reading comprehension of the grade 9 participants $F (1, 60) = .31$, $P = .57$, $\eta2 = .00$. The mean scores of the male and female participants were 24.87 (6.84) and 22.55(6.15), respectively. Likewise, the analysis of the grade 9 results shows no statistically significant interaction differences by Treatment and Gender $F (1,60) = .06$, $P = .79$, $\eta2$ .00,   Treatment by School Type $F (1,60) = .48$, $P= .49$, η .00; Gender and School Type $F (1,60) = .30$, $P = .58$ η .00.

The preceding findings hint the importance of the class-specific contextual variables as possible determinants of the grade 9 dyslexic readers of expository text. Unlike in grades 7 and 8, the public school rather than the private school readers did better in reading expository texts. The findings of the analysis of the grade 9 results also indicate a statistically significant interaction between the treatment conditions, school type, gender, which call for the need for further research that focuses on specific cases of

individual learners of small groups of learners who are dyslexic in order to determine the individual and context-specific factors that may impact their reading achievement.

4.1.7. Grade 10 results.

The demographic characteristics of the grade 10 participants and their distribution by the study independent and moderator variables are shown in the below Table and reveal that a total of 73 grade 10 students participated in the study. However, with the introduction of the list wise deletion of missing cases when doing the statistical analyses done in the study, the number may have been reduced as shown in the subsequent sections below.

Table 25

	Treatment Condition experimental versus control	Student Gender	School Type Private and Public	Post test scores expository
N Valid	73	74	73	66

Specifically, there were 37 students in the experimental group (50.7 %) and 36 (49.3 %) in the experimental group.

Table 26: Treatment Condition experimental versus control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experimental	37	15.9	50.7	50.7
	Control	36	15.5	49.3	100.0
	Total	73	31.3	100.0	

Likewise, there were 43 male participants (58.1 %), 31 female participants (41.9 %).

Table 27: Student Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	43	18.5	58.1	58.1
	Female	31	13.3	41.9	100.0
	Total	74	31.8	100.0	

Finally, there were a total of 44 participants (60.3 %) from public schools and 29 (39.7

%) from private schools.

Table 28: School Type Private and Public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	44	18.9	60.3	60.3
	Private	29	12.4	39.7	100.0
	Total	73	31.3	100.0	

The distribution of the posttest expository of the grade 10 participants used in the

statistical analyses as a measure of the study dependent variable is shown below and

shows a range from 5.00 to 43.00.

Table 29: Post test scores expository

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5.00	1	.4	1.5	1.5
	9.00	1	.4	1.5	3.0
	11.00	1	.4	1.5	4.5
	12.00	1	.4	1.5	6.1
	13.00	1	.4	1.5	7.6
	16.00	1	.4	1.5	9.1
	18.00	3	1.3	4.5	13.6

19.00	1	.4	1.5	15.2
19.50	1	.4	1.5	16.7
20.00	1	.4	1.5	18.2
21.00	1	.4	1.5	19.7
22.00	3	1.3	4.5	24.2
23.00	4	1.7	6.1	30.3
24.00	3	1.3	4.5	34.8
25.00	7	3.0	10.6	45.5
26.00	3	1.3	4.5	50.0
27.00	2	.9	3.0	53.0
29.00	1	.4	1.5	54.5
29.50	1	.4	1.5	56.1
30.00	7	3.0	10.6	66.7
31.00	2	.9	3.0	69.7
32.00	1	.4	1.5	71.2
33.00	3	1.3	4.5	75.8
35.00	3	1.3	4.5	80.3
36.00	5	2.1	7.6	87.9
37.00	1	.4	1.5	89.4
39.00	2	.9	3.0	92.4
40.00	3	1.3	4.5	97.0
42.00	1	.4	1.5	98.5
43.00	1	.4	1.5	100.0

	Total	66	28.3	100.0	
		167	71.7		
		233	100.0		
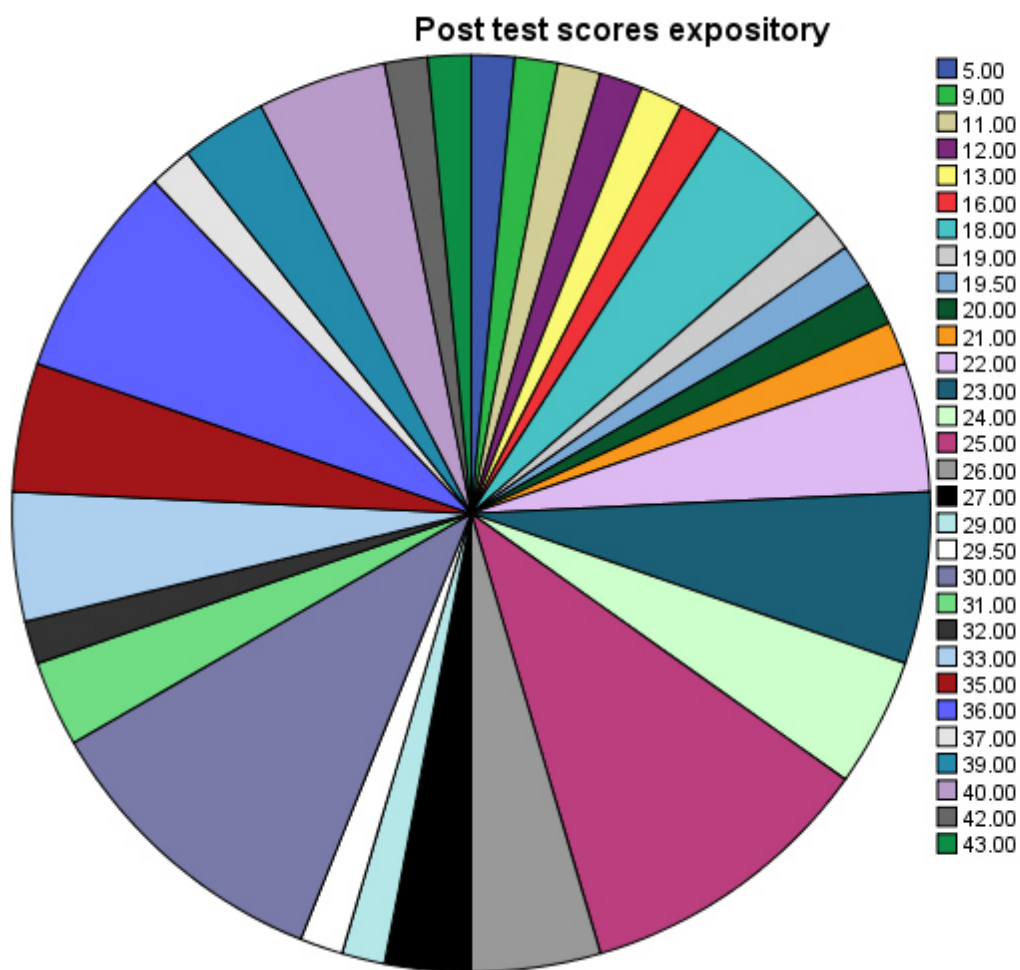
Post test scores expository

The results of the of the Multivariate Analysis of Covariance Variance

(MANCOVA) test to address the grade 10 study questions and hypotheses are

shown in Table V below and reveal the following:

Table 30: <u>Descriptive Statistics and F Values for Effects of Treatment, Gender, School</u>

<u>Type and interactions Comprehension of Narrative Texts of Grade 10</u>

Variable	M	SD	M	SD	F	df	P	ŋ
Treatment	<u>Control n = 35</u>		<u>Experimental n = 31</u>		.29	1, 66	.58	.00
	24.41	8.70	30.59	6.46				
Gender	<u>Male n = 39</u>		<u>Female n = 27</u>		.25	1, 66	.61	.00
	27.83	8.72	26.57	7.68				
School Type	<u>Public n = 43</u>		<u>Private n = 23</u>		.11	1, 66	.73	.00
	26.65	8.61	28.56	7.64				
Treatment x Gender					.01	1, 66	.91	.00
Treatment x School Type					.00	1, 66	.96	.00
Gender x School Type					.17	1, 66	.67	.00
Treatment x Gender x School type					.51	1, 66	.47	

* P < .05

4.1.8. Discussion grade 10.

The results show that there was no statistically significant difference in the performance of experimental group participants who received combined strategy instruction and the performance of their control group counterparts in reading comprehension achievement $F (1,66) = .29$, $P = .58$, $\eta2 = .00$. Similarly, there was no statistically significant difference by gender in comprehending expository texts. $F (1, 66) = .25$, $P = .61$, $\eta2 = .00$. Furthermore, there was no statistically significant effect for the school type variable on the reading comprehension of the participants. $F (1, 66) = .11$, $P = .73$, $\eta2 = .00$. The mean scores of the public and private school participants were 26.65 (8.61) and 28.56(7.64), respectively.

Likewise, the analysis of the grade 10 results shows no statistically significant interaction differences by Treatment and Gender $F (1,66) = .01$, $P = .091$, $\eta2 .00$; Treatment by School Type $F (1,66) = .00$, $P = .96$, $\eta .00$; Gender and School Type $F (1,66) = 17$, $P = .67$ $\eta .00$; and Treatment, Gender, and School Type $F (1,66) = .51$, $P = .47$, $\eta2.00$.

These findings suggest that neither the treatment conditions (control versus experimental) nor the school type (private versus public) have impacted the reading achievement of the grade 10 dyslexic learners. This underscores the importance of other school, teacher, or classroom related factors as possible important determinants of reading the grade 10 reading comprehension.

4.1.9 Results of Grades 9 and 10

The demographic characteristics of the grade 9 and 10 participants and their distribution by the study independent and moderator variables are shown in the below Table and reveal that a total of 140 grade 9 and 10 students participated in the study.

However, the number of the participants may have decreased with the introduction of the list wise deletion of missing cases when doing, the statistical analyses done in the study are shown in the subsequent sections below.

Table 31: Statistics

		Treatment Condition experimental versus control	Student Gender	School Type Private and Public	Post test scores expository
N	Valid	140	141	140	133

Specifically, there were 72 students in the experimental group (51.4 %) and 68 students (48.6.%) in the experimental group.

Table 32: Treatment Condition experimental versus control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experimental	72	24.0	51.4	51.4
	Control	68	22.7	48.6	100.0
	Total	140	46.7	100.0	

Likewise, there were 86 male participants (61.0 %), and 55 female participants (39.0 %).

Table 33: Student Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	86	28.7	61.0	61.0
	Female	55	18.3	39.0	100.0
	Total	141	47.0	100.0	
Missing	System	159	53.0		
Total		300	100.0		

Finally, there were a total of 71 participants (50.7 %) from public schools, and 69 (49.3 %) from private schools.

Table 34: School Type Private and Public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	71	23.7	50.7	50.7
	Private	69	23.0	49.3	100.0
	Total	140	46.7	100.0	

The distribution of the posttest narrative of the grade 9and 10 participants used in the

statistical analyses as a measure of the study dependent variable are shown below and

show a range from 5.00 to 43.00.

Table 35: Post test scores expository

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5.00	1	.3	.8	.8
	6.00	1	.3	.8	1.5
	8.00	1	.3	.8	2.3
	9.00	1	.3	.8	3.0
	11.00	1	.3	.8	3.8
	12.00	3	1.0	2.3	6.0
	13.00	1	.3	.8	6.8

14.00	3	1.0	2.3	9.0
15.00	2	.7	1.5	10.5
16.00	6	2.0	4.5	15.0
17.00	3	1.0	2.3	17.3
18.00	3	1.0	2.3	19.5
19.00	2	.7	1.5	21.1
19.50	1	.3	.8	21.8
20.00	4	1.3	3.0	24.8
21.00	5	1.7	3.8	28.6
22.00	6	2.0	4.5	33.1
23.00	7	2.3	5.3	38.3
24.00	6	2.0	4.5	42.9
25.00	7	2.3	5.3	48.1
26.00	6	2.0	4.5	52.6
27.00	8	2.7	6.0	58.6
28.00	7	2.3	5.3	63.9
29.00	2	.7	1.5	65.4
29.50	1	.3	.8	66.2
30.00	13	4.3	9.8	75.9
31.00	4	1.3	3.0	78.9
32.00	5	1.7	3.8	82.7
33.00	4	1.3	3.0	85.7
34.00	1	.3	.8	86.5

	35.00	3	1.0	2.3	88.7
	36.00	6	2.0	4.5	93.2
	37.00	1	.3	.8	94.0
	38.00	1	.3	.8	94.7
	39.00	2	.7	1.5	96.2
	40.00	3	1.0	2.3	98.5
	42.00	1	.3	.8	99.2
	43.00	1	.3	.8	100.0
	Total	133	44.3	100.0	
Missing	System	167	55.7		
Total		300	100.0		
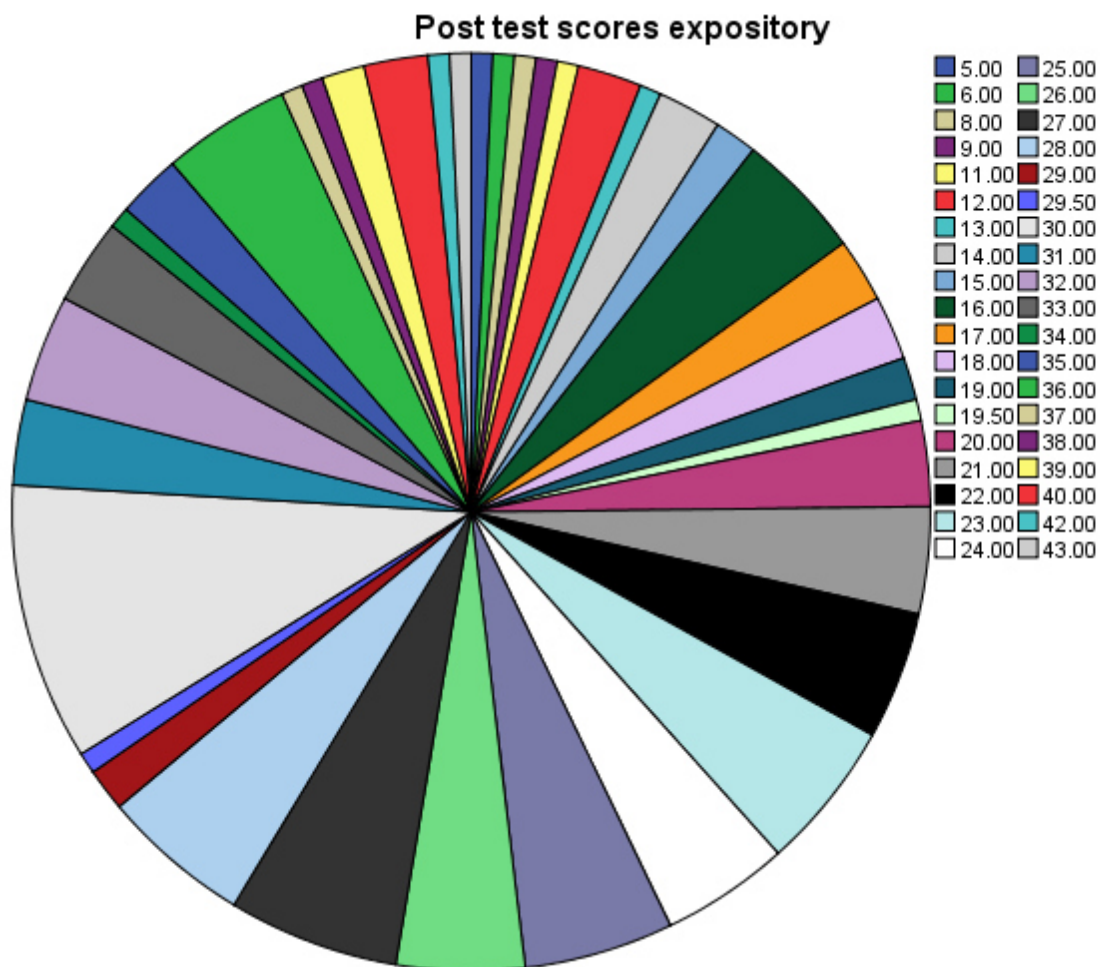
Post test scores expository

The results of the of the Multivariate Analysis of Covariance Variance

(MANCOVA) test to address the grade 9 and 10 study questions and hypotheses

are shown in Table VI below and reveal the following:

Table 36: <u>Descriptive Statistics and F Values for Effects of Treatment, Gender,</u>

<u>School Type and interactions Comprehension of Narrative Texts of Grade 9 and 10</u>

Variable	M	SD	M	SD	F	df	P	
		ŋ						
Treatment	Control n = 67		Experimental n = 66		.24	1,126	.62	.00
	23.09	7.96	27.19	6.94				
Gender	Male n =82		Female n = 51		.43	1,126	.51	.00
	25.83	8.24	24.93	7.17				
School Type	Public n = 70		Private n = 63		10.32	1, 26	.00*	.08
	27.45	7.27	23.30	7.90				
Treatment x Gender					.04	1,26	.83	.00
Treatment x School Type					.02	1,26,	.87	
.00								
Gender x School Type					.02	1,26	.88	
.00								
Treatment x Gender x School type					3.32	1,27	.07**	
.03								

* P < .05

** P < .10

The results show that the public school participants who received combined strategy instruction outperformed their private school counterparts in reading comprehension achievement F (1,126) =10.32, P = .00, ŋ2 = .08. Similarly, there was a statistically significant interaction between treatment conditions, gender, and school type .of the participants. F (1,126) =3.32, P = .07, ŋ2 = .03

Conversely, there was no statistically significant effect for the treatment conditions on reading comprehension .F (1,126) = .24, P = .61, ŋ2 = .00. The mean score of the control group and experimental group participants were 23.09 (7.96) and 27.19 (6.94), respectively. Likewise, analysis of the grade 9 and 10 combined results show no statistically significant difference by gender F (1,126) = .43, P = .51, ŋ2 = .00. The mean score of the male and female participants were 25.83 (8.24) and 24.93(7.17), respectively.

Furthermore, there was no statistically significant interaction differences by Treatment and Gender F (1,126) = .04, P =.83, ŋ2 .00; Treatment by School Type F (1,126) = .02, P= .87, ŋ .00; Gender and School Type F (1,126) =.02, P =.88 ŋ .00.

The results of grade 9 and 10 combined suggest that the private school type tends tends to positively impact the reading comprehension of dyslexic grade 9 and and 10 students as well as suggests the possible interplay and interaction between conditions, gender and school type.

4.2 Results of Qualitative Data Analysis

As indicated earlier, the teacher reflection logs were used as tools to collect

qualitative data regarding their perceptions of the problems and prospects of using

the various instructional techniques that constituted combined strategy instruction.

Content analysis of the reflection logs gathered from the 16 participating teachers

were categorized in terms of the strategies forming the combined strategy treatment

and revealed the following aspects of interest:

4.2.1. Graphic Organizers

Graphic organizers such as story map, cause effect, Venn diagram were

considered by the participating teachers as both useful and helpful. For example, one

teacher remarked that "Graphic organizers help students arrange their ideas neatly,

making it easier for them to prevent chaos. They also help students acknowledge their

ideas better." The also help students arrange their ideas neatly, making it easier for them

to prevent chaos. They also help students acknowledge their ideas better." Similarly,

another teacher added that "Graphic organizers are very useful as they help learners

understand the text fully in an organized manner and raising students' level of attention."

Furthermore, the effectiveness of graphic organizers was emphasized as one

teacher indicated that "Graphic organizers are very effective tools to be used before,

while and after reading to maintain comprehension monitoring where readers make

graphic representations of what they read. Graphic organizers "help students arrange

their ideas neatly, making it easier for them to prevent chaos. They also help students

acknowledge their ideas better".Another teacher stressed the importance of graphic

organizers: "They are important and effective tools for organizing ideas. It is useful for

effective learning and helps student internalize what they are learning.

These positive remarks were echoed by many other teachers. One teacher remarked that "the effectiveness of graphic organizers is that it helps read and recall novel social studies content and students receiving the graphic organizers and explicit introduction performed better on the measure of transfer than students who received traditional basal instruction did." Similarly, another teacher added that "-Graphic organizers help student organize and process content for deeper learning, summarize a chapter or lesson, improve a student's skills in several ways, help student construct meanings, increase your understanding about the topic, help students organize their thoughts or knowledge about a subject." Finally, a third teacher added that "This technique" (graphic organizer) can help students to understand the relationship between various pieces of information that they may have otherwise failed to identify. Such organizers are particularly useful in helping students grasp abstract concepts." This indicates using graphic organizers as an instructional strategy was perceived as a positive intervention to teach reading comprehension to dyslexic learners.

Yet, it should be also noted that some teachers considered graphic organizers as an instructional technique with "several advantages and disadvantages." The advantages are "comprehension, which is by helping students to understand various pieces of information, and motivation, which is by enhancing learning for the students. And the disadvantages are the impact on note taking, which is the lack of it may affect the students performance, and Impact on feedback, which is by encouraging the students work rather than correcting them." Another student added that "Graphic organizer: ineffective except for outline & main ideas." Other negative remarks focused on "decreasing note taking when students learn materials with the help of graphic representations" and on loosing "some actions in the story" because of the story map.

Finally, one teacher remarked that "graphic organizers lead sometimes to misunderstanding the links among ideas. Graphic organizers link ideas in a wrong way.

4.2.2 Story Map

The story map was also considered very a very effective technique. One teacher explained that "Story Maps are used for teaching students to work with story structure for better comprehension. This technique uses visual representations to help students organize important elements of a story .Story Maps can be used with the entire class, small groups, or for individual work. This strategy helps students examine the different components of an assigned text or story. Story Maps can be used with both fiction and nonfiction. The use of Story Maps as a comprehension strategy can be beneficial for all students, and are especially helpful for students needing the additional support of a graphic organizer." Another reported that it (story maps) ".. is an extremely effective one since it has a lot to do with arousing students' curiosity and grabbing their attention to know about the progress of the story events. Teachers usually mention the story elements in this strategy. This technique puts the students in the atmosphere and gives them a panoramic image about the whole story, which in turn, encourages them to read it without any difficulty."

4.2.3 Cause/Effect

Expressed mostly by a T-chart or a table where a teacher discusses the causes (reasons) in one column and the effects(results) in another column, this method was described as by one teacher as "crucial" since it highlights the reasons of a certain i

4.2.4 Venn Diagram

This technique stresses on organizing and clarifying the similarities and differences between two items. It is a pre-writing technique since it can be used before writing a Comparison/Contrast essay. One teacher described this techniques as

"extremely effective and actually has positive effects on the understanding of any concept." Yet another teacher indicated that "the new- trending "philosophized" graphic organizers that American books have created are actually more confusing to the students and all the students' focus would be on filling in the chart rather than finishing the task, analyzing the concept etc...." Another teacher concurred and indicated that " A graphic organizers ineffective except for outline & main ideas

4.2.5. Visual Displays

This technique was perceived as "difficult for those who are unable to visualize. It also can waste time. It is more suitable for children. Elementary students enjoy this type. It is an effective tool to enhance oral fluency and triggers children's imagination." One teacher explained that the Visual Display technique "involves the use of visual elements, such as drawings, illustrations and electronic images, to convey ideas and information to an audience." It gets "audience attention" and is easy to use and read and they don't need heavy equipment." Another teacher described them as "visually appealing" and encouraging for students" to visualize a picture of a word, paragraph , or a passage to understand the concepts or the ideas reflected in the reading selection. Finally, another teacher remarked that the "use of visual display in reading selections makes teaching easier and learning more interesting." Other remarks included: "Visual displays are very "helpful and motivating for struggling readers but are time consuming to prepare by teachers" as well as "Visual displays are useful for the purpose of retention."

One teacher considered the technique of visual displays as constituting "indispensible teaching strategies that should be often integrated in classroom instruction is using visual materials. This technique enriches and enlarges students' imagination on a wide range. The visual materials include digital storytelling, overhead projector.

Practically speaking, such materials leave traces in students' minds and create long-term memory about a certain subject." Furthermore, another teacher added that "no two can argue about the effectiveness of visual display whether a picture a chart a power point etc… yet the idea of visualizing can be a bit tricky. If achieved fully, visualizing can be very helpful especially in synthesizing information however the skill visualization is a skill quite difficult to master especially at young aged students. So train students on visualizing before you ask them to visualize and do not expect great results from the first few times you ask them to do it." Finally, visual displays were described as "useful for the purpose of retention", "efficient", "effective" helpful but they work in certain texts and in classes with small numbers "because "a picture speaks a thousand words" as one teacher explained as a "picture can be memorized very fast."

Conversely, some teachers highlighted the drawbacks of the use of the visual displays as follows:

"Visual displays can be main source of distraction.

Visual displays can also be distracting and impede the understanding of concepts they should be trying to clarify.

A visual aid with the wrong information can cause a distraction and detract from the message the image is supposed to convey.

-Visual displays are difficult for those who are unable to visualize. It also can waste time. It is more suitable for children. Elementary students enjoy this type. It is an effective tool to enhance oral fluency and triggers children's imagination.

- Visual displays cause the audience to focus solely on the screen and sometimes it doesn't give high expectations on the audience.

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-Visual displays can be ineffective because memorizing the picture has no details in and the student cannot get benefit from."

4.2.6. Mnemonic Illustrations

Many teachers explained the technique of mnemonic illustrations and highlighted its benefits as follows:

"Mnemonics are techniques for improving memory. They are effective because they form an effective link between the stimulus and response. It has a lot of advantages such as helping children with dyslexia, improving your memory, enhancing your imagination, and retrieving important information. There are disadvantages as well, such as they require time to create, learn and practice, overuse can result in confusion, and they must be recited and practiced in a precise manner. Mnemonic strategies are essential for enhancing students' memory, i.e. it enables students to remember and recall the name of the difficult words. However, this technique requires time and resources by the instructors to develop creative and effective outcomes." One teacher explained that "Mnemonics indicate using a picture to teach difficult words" and considered these techniques as "too time consuming for teachers to prepare the pictures with the words. It also may be misleading. However, it makes lessons more interesting and 'colorful'."
Another teacher added that "Instead of just delivering information directly to the learner, mnemonics help learners recall information in a better way" and "mnemonics used to teach difficult words are efficient to help struggling readers with poor memory to study vocab." Another teacher agreed and explained that "mnemonics are easily employed for memorizing. But "it is too time consuming for teachers to prepare the pictures with the words. It also may be misleading. In fact, many teachers described this technique as "effective", "fun", "the only way to teach vocabulary" , "significant", "useful with beginners" and as "a way to help students remember information/vocabulary more

effectively and easily". It "involves linking unfamiliar to be learned information with familiar already known information through the use of a visual picture or letter/word combinations."

4.2.7 Computer Exercises

Computer exercises are also considered useful techniques for teaching reading comprehension to dyslexic learners because they "enhance reading such as the computerized reading stories or movies." They "are very effective for this generation, in an era dominated by technological advances and the huge impact of computers on our lives, computer exercises are very interesting and up to date. This will definitely enhance reading skills" as one teacher pointed out.   Another teacher agreed and added that "computer assisted instruction is excellent tool for learning due to the attraction it has upon children and teens" because computer exercises "enhance reading and they are effective because it is a computerized program for training with receptive language impairments." Its advantages another teacher remarked "are that there will be an interaction between social and technical systems, they create, store and process data, and improve reading skills."

The preceding positive remarks were corroborated by other participating teachers who considered computer exercise to be "effective" and "efficient" given that "Using computer exercises and movies is a fast and helpful technique for teachers in the process of instruction. This method provides students an easy way to learn English. Many modern schools, nowadays, are employing e-learning techniques in classroom teaching and that goes back to its high level of effectiveness and efficiency. As for me, I often employ these materials in my classroom, and I find it much more successful than traditional means of learning since the new generation prefers e-learning more than books and written transcripts. However, we as teachers, often suffer from time and

resources". Another teacher agreed and added that " reading computerized stories and movies can be remembered very fast and student doesn't feel annoyed when watching them". They "enhance reading, and they are effective because they are computerized programs for training with receptive language impairments because the advantages are that there will be an interaction between social and technical systems, they create, store and process data, and improve reading skills." Another teacher agreed and added that "computer exercises are effective because they increase the grades of the students (based on a scientific study). The child feels more comfortable and understands more in reading through the computer of iPads like nowadays."

Conversely, some teachers highlighted some drawbacks of the use of computer exercises in classrooms as follows:

- Computer exercises are inapplicable to me.

-Computer exercises are not easy to use. I don't have great experience in computer exercises to enhance reading; however I believe they can be helpful if directly after words the student do a book report.

- Computer exercises could be time consuming and sometimes distracting to students if not well oriented and monitored.

- Computer exercises can't be often used. Computers may set something not understandable or not clear, and might not be able to correct or give the key answer.

-compute exercises are fine, but they consume time in class they can be given as homework.

- Computer exercises may be so long and have many ideas to remember.

- Young learners find it difficult to start using computer exercises ,and they need time to figure it out themselves.

-computers may set something not understandable or not clear, and might not be able to

correct or give the key answer.

-Computer exercises make the students forget the use of a regular pen and a paper

and how to start writing by their bare hands. Students can't forget that without them

we wouldn't have those technological machines.

4.2.8 Predicting

One teacher explained that "predicting in reading that is to ask the students to

predict main ideas or events before reading is useful in reading classes" and considered

"vital before reading." It "stimulates the students' minds, making them active readers. It

also helps them learn and practice foreshadowing." Another teacher agreed and

considered that "Preduction in reading helps students understand the reading material in

a better way. Also it ensures the involvement and participation of all students" as well as

effective since it develops students' critical thinking and motivation."

Another teacher agreed that "predicting in reading would help by making the

person think further without knowing what's happening before even reading or knowing

about it. Its advantages are that enhances your imagination, and improves your creativity.

Its disadvantages are that it needs time and practice and that students might provide

incorrect feedback to other students."

Other teachers described predictions as "useful in activating prior knowledge & guided

practice" and considered as "a great technique that arouses students' curiosity before

reading any text or story. It incredibly grabs their attention creating a sense of

competitive atmosphere among students. Students feel excited to guess what will happen

about the story progress previously. Most importantly, this method puts the readers in the

general atmosphere of the story or the text."

Similarly, one teacher described prediction as an "amazing exercise, I always apply prediction in my classes it is a lively exercise and can be very good in spreading competitive spirit among students" and considered it both "useful" and "effective." Because it "shows the pre-knowledge of the students about what is going to happen and the students can catch up the ideas very fast." Another teacher agreed and considered prediction to be an exercise that "would help by making the person think further without knowing what's happening before even reading or knowing about it. Its advantages are that it enhances students' imagination, and improves their creativity" although it needs time and practice and that students might provide incorrect feedback to other students."

It should also be noted that many teachers highlighted the specific benefits of using prediction in "identifying the main idea", "activating prior knowledge" and guided practice" because "predicting in reading is very good and helps students think logically and critically. It is so good for the brain to think on its own and try to find the answers on his own using technological machines."

4.2.9. Inference Questions

Teachers comments praised the techniques of using inference questions as "helpful for students cognitively" as they make "them become critical thinkers, but not all students can answer these questions." This is because inference questions "provide better understanding of texts" and "make them become critical thinkers, but not all students can answer these questions" Inference questions are "effective because it is not just to be able to "read between the lines", it is to know and understand the hidden meanings of the understanding of a text or to draw one's own personal conclusion about a text" as explained by one teacher.

Another teacher agreed and added that the "its advantages are a better overall comprehension, a more engagement with text, and makes sophisticated readers. Its

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disadvantage is that one may understand the text in a different way than what the text actually implies." Other teachers described the technique of using inference questions as effective in improving reading comprehension". A teacher explained that the "aim behind using them is to let students to read between the lines, i.e. try to guess what is hidden or implied. This technique is essential to test and assess students' level of thinking, their level of logic, and to check whether they deeply understood the lesson. -inference is effective.' The techniques was also described as "efficient", "useful to help and analyze and engage with the text."

Yet other teachers expressed the following negative remarks about this technique:
- Inference questions are often so narrow in relation to the question that they create or magnify bias that is not factored into the survey.
-Inference questions are questions part of the answers that are there .
- Inference questions in some places make students feel lost and annoyed by the way they are asked.
- Inference is effective but challenging and demanding as well.

4.2.10. Awareness of Text Features

The participating teachers tended to consider that "expository or narrative text features are important to teach students whether they are expository or narrative to enable them understand the text." This is because "text features are important for students so that students can identify the genre, thus the "purpose" of what is being read." One teacher remarked that "teaching structures of reading texts not only help(s) students in understanding them but also in producing texts with similar features" and the "genre of a reading selection is recommended to be introduced to prior reading and is effective to better comprehend the text.

Another teacher agreed that" text features are important for students so that students can identify the genre." This is because awareness of text structures is "useful" and "can cover more material in shorter time, makes students more accountable for listening and taking notes" and makes slow learners get lost, generally most students will lose interest listening to long lectures, lots of daydreaming. Students don't learn to interact in discussion type of activities." Another teacher agreed and added that "teaching expository and narrative text features is extremely important to guide students how to write and how to understand a written text. This strategy will acknowledge students to use the suitable verb tenses, to use logical ordering of ideas and to use appropriate transitional signals." Consequently,

"Students should be trained in how to answer these questions and what hints to look for because they are rather difficult especially in a homogeneous classroom."

Conversely, a teacher disagreed concerning the role of text structures in improving comprehension and remarked "I don't believe it is important to teach them (students) the structure to enable them to understand, but I do strongly believe in teaching them the structure so they can replicate it in their own writings." Similarly, another teacher added "awareness of text features is not needed at a lower level" but "teaching students structures of a text is useful in certain levels." It should also be noted that some other teachers found that teaching students the text features and structures of the expository texts to be frustrating and challenging as well as expressed in the following quotes from their reflection logs:

- The expository text structures can be challenging to 7 and 8 graders because of the unfamiliar concepts it presents. The teacher feels overwhelmed by seeking easier ways to help students analyze expository text structures and to uncover the

main ideas and supporting details of a text. Although expository texts have creative

voice, yet explaining the features of the narrative texts is much easier .

-The expository text can be challenging to readers because of the unfamiliar and

difficult themes it presents. Using graphic organizers is an easier way to

comprehension of poor readers than using the text structures and patterns.

4.2.11. Main Idea Identification

Many of the participating teachers in the present study considered the technique of

"main idea identification" to be both "useful and important" as well as "helpful in

identifying the authors purpose." For instance, one teacher remarked that "it is very

important for students to identify the main idea and its supporting details in texts which

will help the in understanding the organization of the text and will also help students

enhance their writing skills." Another student agree that main idea identification **"helps

you focus on your key points so you meet your established objectives." However, it may

discourage to read since they find it difficult.

Furthermore, other teachers remarked that main idea identification helps to

"identify the key points", "keep students focused" and enables students "to infer the

author's purpose." It is also helpful to explain "what the main idea is" and to see the "link

between the introduction of the text with the title and the background knowledge"

because "its advantages are forming coherent paragraphs to identify major and minor

ideas, and understanding the topic." Identifying main idea "is essential to teach (of) our

students to detect the main idea of a certain passage/essay. When students highlight the

main idea, they can easily understand the details as well as they will be in the atmosphere

of what the text is talking about." It is an effective and useful technique that "makes

students more able to understand about the concept of main idea" and to "directly

uncover what the passage will be talking about?

Conversely, some teachers indicated some drawbacks to the use of main idea identification as follows that are expressed below quotes from their reading logs: "Identifying main idea can be frustrating if the student missed or didn't know the right main idea, he/she would be lost in the entire paragraph.

Identifying main idea may discourage to read since they find it difficult.

Limits their understanding

Identifying the main idea in sometimes doesn't give students clear view what's the text talking about."

4.2.12. Summarization

Many of the participating teachers considered the summarization technique "a must" for learners to decide what is important and what is not, and to check what they have understood of what they learned. It is also "important for teachers as well as learners because it allows them to check students' ability of comprehension and selectivity of information." One teacher considered this technique as an "effective assessment tool to check students' understanding" and the "advantages are showing the 'big picture', gaining a better sense of where you are going with your writing, and comprehending the information." Another teacher added that "summarizing is very important because it includes main ideas, plots and conclusion which are the most important parts of the story." A third teacher added that the Summarizing strategy "is of great significance since it helps students learn to determine the essential ideas of a certain text. Moreover, it enables students to focus on the key words and sentences. Furthermore, it teaches students how to reduce a large selection into points.

-It is a skill that should be practiced more frequently than it already is. Summarization for me is a basic skill out of which teachers can teach other skills such as author's purpose etc."

Conversely, some teachers pointed out some drawbacks for the use of summarization as a strategy for enhancing the reading comprehension of students. They described this technique as "time consuming," "inappropriate for judgment strategies," difficult" and may ignore many details which may benefit students."

4.2.13. Questioning

The participating teachers described the questioning technique as "encouraging" for class discussion and improving oral fluency. Questioning strategies also "make students interactive readers." For instance, one teacher remarked that questioning and answering is "very useful and has several advantages such as checking on learning, encouraging participation, class discussion, and improving oral fluency." Another teacher agreed and indicated that "questioning enhances comprehension" and is "useful for the comprehension of a reading. Its advantages are that it enables students to know answers to the text which is by questioning them, to ask more than one question to link the answers together and understand the overall concept of the text."

Another teacher remarked that the technique "is indispensible in classroom instruction. This technique should be used in pre-reading activity, in through-reading activity and in post-reading activity. In pre-reading activity teacher asks a couple of questions as a warm-up to provide the students with a background information about the topic; in through-reading questions, the teacher checks and makes sure whether his/her students are understanding the lesson; and in post-reading, the teacher asks questions to assess what his/her have learnt all in all."

Many other teacher described the question/answer technique is "effective", "efficient" and that it is "better used before the reading is given, they could be used as warm up activity and help students communicate with instructors and each other ; hence, the class atmosphere would become suitable to expose the idea of the new reading

selection." It allows for clarification and consolidation of learning. The presenter can enhance the effectiveness of the question and answer by treating it as a formal part of the presentation that requires as much careful planning and control as the delivery of the core material."

Yet it should be noted that a couple of teachers described the question-answer strategy is "NOT effective and could be "time consuming."

To conclude, in light of the collected reflection logs of the team of study teachers, the researchers can't but say that each of the strategies above is very effective when it is well-prepared and purposefully used. During the previous academic year, the researcher prepared a follow-up list of the study reading strategies (pre, during and post) and distributed it during school visits to teachers. It almost included all these strategies that the study highly requires English language teachers to use. That is why the researcher thinks that they are all effective and the combination of these strategies into one treatment could result in reading performance gains.

Based on the preceding reporting of collected qualitative data consisting of the reflection logs of the team of the study teachers (16 teachers), the researcher could conclude that graphic organizers, predicting , inference, main idea identification, summarization, questioning have been the easiest to implement for teachers in public schools. However, computer exercises and text structure awareness strategies might not be practical and common strategies for some teachers due to the availability of equipment and time.

The quantitative data could urge the researcher to also infer that graphic organizers enable students get to think logically about the concept; however, some graphs might confuse students more than verbal explanations; majority of study

teachers found graphic organizers very effective with the majority of the students . On a scale of 1 to 5, after taking into consideration key word counting of the reflection logs, the researcher would rate their effectiveness as 3.

As for visualizing, visual displays could allow for a higher degree of retention of the meaning; that is, the effectiveness of visual displays could be 4 on a scale of 1 to 5.

As for mnemonic illustrations, they could allow students to visualize abstract ideas which is sometimes impossible with words; however, not all ideas/concepts can be presented visually, e.g. Fairly static but complex actions that gave simpler counterparts/synonyms like reflecting on something as opposed to just thinking about something or feeling anxiety as opposed to just being nervous; that is, on a scale of 1 to 5, the researcher would rate their effectiveness as 2.

As for computer exercises, the qualitative data could indicate that they can be used outside of class and independently; however , they can be isolating; that is , on a scale of 1 to 5, the researcher would rate their effectiveness as effectiveness as 3.

As for predicting , this strategy could develop analytical thinking and conceptual access before sensory exposure; however, except in reading what the real-life applications or implications of this strategy could be ;that is , on a scale of 1 to 5, the researcher would rate their effectiveness as effectiveness as 4.

Concerning inference, this strategy could develop critical and analytical thinking and could allow for conceptual access in wider context as well as awareness of multiple meanings/applications of concept/idea; however, it might be little bit difficult for some students to implement ; on a scale of 1 to 5, the researcher would rate their effectiveness as effectiveness as 5.

As for text structure awareness, the qualitative data indicated that knowing the text genre would understand structure, language use, style, etc. however; it might limit thinking and confine focus to structure rather than encourage analysis. On a scale of 1 to 5, the researcher would rate their effectiveness as 3.

Concerning main idea identification, the qualitative data indicated that this strategy should be used after reading the title or author's background, if available in order to create expectations about content; it is also a good starting point from which students then think about sub points and arguments; however, sometimes, it could be easier to start by analyzing the sub points, rather than the main idea, and reach the idea eventually and implicitly; On a scale of 1 to 5, the researcher would rate their effectiveness as 3.

As for summarization , the researcher could elicit from the qualitative data that it is a great strategy of focusing on what's most important and using own words to express this; however, this reading strategy could discard important details which are part of stylistics and language use in general and could reveal a lot about content as well. On a scale of 1 to 5, the researcher would rate their effectiveness as 4.

Concerning questioning, the researcher could elicit from the collected qualitative data that this reading strategy could encourage discussion; however, it might lead to too much focus on providing correct answers/ones that satisfy the teacher; on a scale of 1 to 5, the researcher would rate their effectiveness as

4. 3. Summary of Chapter 4

This chapter reported the results of the study. Specifically, it reported the descriptive statistics (frequency distribution, percentages, and means and standard deviation) for the participants and their corresponding scores across grades levels and the

study dependent variables. It also reported the qualitative data collected from the

reflection logs of the participating teachers regarding their perceptions of the efficacy

usefulness of the instructional strategies that constituted the treatment of combined study

instruction. The quantitative results underscored the role of the variable of combined

strategy instruction as well as the private school factor as possible significant

determinants of improving the comprehension of particularly narrative texts in grades 7

and 8 by dyslexic readers. In addition, the results suggested that certain learner,

classroom context, and school related factors may interact with instruction to impact

dyslexic readers' levels of reading comprehension of expository texts particularly in

grades 9 and 10. Finally, analysis of qualitative data revealed the participating teachers'

positive perceptions of the application of the instructional strategies under investigation.

CHAPTER V - DISCUSSION OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS

This study was set to investigate the effect of combined strategy instruction on improving the reading comprehension of narrative text by grade 7 and 8 dyslexic learners of English as a foreign language as well as the comprehension of expository texts by their grade 9 and 10 counterparts. In addition, the study looked into the interaction effects of the treatment with combined strategies and the gender of the participants (male versus female) and the school type of the study participants (control versus experimental, using a mixed method factorial design where the variable of the treatment conditions with two levels (control versus experimental) was used as an independent variable, the variables of gender and school were used as moderator variable, and reading comprehension as dependent variable.

5.1. Discussion of the Quantitative Data Results

The present study hypothesized that combined strategy instruction, school type, and gender may impact the reading comprehension of dyslexic learners of narrative and expository texts of the grade 7and 8 as well as grade 8 and 9 students. The results form quantitative data showed that in grades 7 and 8 combined strategy instruction and the private school factors were significant determinants of the comprehension of narrative texts but not expository texts in grades 9 and 10. This underscores the importance of a number of individual learner-related, classroom-related, and school context factors as determinants of the reading comprehension of dyslexic learners, a finding that was further corroborated by statistically-significant interaction between the independent variables under study. On the other hand, analysis of the qualitative results underscored the positive perceptions of the participation teachers of the usefulness and efficacy of the various instructional techniques under study.

The study reported the descriptive statistics (frequency distribution, percentages, and means and standard deviation) for the participants and their corresponding scores across grades levels and the study dependent variables as wells the results of the inferential statistics and qualitative data analysis of the reflection logs of teachers. The first section titled "Study Participants" described the study participants, following which further descriptive statistics (means and standard deviation) of comprehension scores by the independent and moderator variables were reported followed by the results of the Analysis of Covariance (ANCOVA) results conducted to address the questions raised in the study and their related hypotheses.

The results of Grade 7 showed that the experimental group participants who received combined strategy instruction outperformed their control group counterparts in reading comprehension achievement $F (1, 75) = 27. 62$, $P = .00$, $\eta2 = .29$. Similarly, there was a statistically significant difference in favor of the private school participants who did better than the public school learners in comprehending narrative texts. Conversely, there was no statistically significant effect for the gender variable on the reading comprehension.

The results of grades 7 and 8 showed that the experimental group participants who received combined strategy instruction outperformed their control group counterparts in reading comprehension achievement .Similarly, there was a statistically significant difference in favor of the private school participants who did better than the public school learners in comprehending narrative texts. In addition, there was a statistically significant interaction between the treatment conditions and the gender of the participants in their reading comprehension performance.

Conversely, there was no statistically significant effect for the gender variable on the reading comprehension of the participants ;respectively. Likewise, analysis of the

combined grade 7 and 8 results show no statistically significant interaction differences by Treatment and School type.

The results of grade 7 and grade 8 participants revealed a statistically significant difference in favor of the private school participants who outperformed their public school counterparts. These findings suggest that the learning environment of the private schools which participated in the study may be more organized and effective that than those of the public schools which may still be impacted by loss of teaching time, lack of teacher commitment, inadequate facilities, and ineffective management and school leadership due to centralized management and absence of local initiatives and input into improving the teaching/learning process. Equally important is important is the fact that students who enroll in public school in the context of the present study usually come from less advantaged socio-economic backgrounds, which have negatively impacted their academic achievement in general, and reading achievement in particular.

Third, the results of grade 9 participants revealed a statistically significant difference by school type in favor of the dyslexic public school participants who did better than their private school counterparts in comprehending expository texts. These findings contradict those of grade 7 and 8 as the results in grade 9, unlike those of 7 and 8, were in favor of the public school participants who outperformed their counterparts private schools. This underscores the importance of contextual variables as determinants of academic achievement in general and reading comprehension in particular. These variables and determinants may be student and teacher-related and/or school environment of administrative-leadership determined.

The findings of the study grades 7 and 8 are in agreement with those of Burdett (2005) who asserted a difference between the public and private schools or units in the treatment, intervention and identification methods and efficacy of the treatments of the

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dyslexics. Burdett (2005) even showed that the qualitative data gathered from the interviews of 50 boys, aged between 11 and 16, attending a special school for dyslexics asserted that the levels of self-esteem and self-efficacy were high. On the other hand, the qualitative data weren't replicated for dyslexic students attending a mainstream school. Conversely, the findings of grades 7 and 8 some research studies asserted the efficacy of treatment and learning of students with specific learning difficulties enrolled in mainstream schools in addition to gains in learning for specific learning difficulties students enrolled in special units for children (Humphrey & Mullins, 2002; Humphrey, 2002, Burden & Burdett, 2005).

The finding of grades 7 and 8 don't correlate with those of other studies such as Alexander-Passe's (2006) study that asserted the significant gender differences that have not been commonly addressed in previously conducted studies .

In addition , the findings of the present study correlate with those cited in a study conducted by Tijms & Hoeks(2005) of LEXY with 267 children with dyslexia whose age ranged from 10 to 14 years . The results of the cited study also align with those reported by Tijms et al. (2003). The study revealed large, generalized beneficial effects of the intervention, which substantiated the largest effects for accuracy and a major one for fluency as well. Text reading errors were reduced by 50%, with mean standard scores of reading accuracy increasing from 84 at pre-test to 106 at post-test. Spelling errors were reduced by 80%, with mean standard scores of spelling accuracy increasing from 54 at pre-test to 102 at post-test. Text reading fluency increased more than 25% (SS increase from 61 to 85) and word reading rate by 30%.

The findings of the study also correlate with those of Kim, Vaughn, Wanzek, and Wei (2004) that provided evidence for an extensive knowledge base of research-validated interventions for enhancing reading comprehension in students

with learning disabilities. Kim, Vaughn, Wanzek, and Wei (2004) found that expository text is notably different in its structure, vocabulary, and difficulty level from narrative prose. Expository texts present unique challenges to students with LD because it requires the application of more complex cognitive tasks to extract meaning during reading.

The findings of the present study agree with those of Jitendra, Hoppes, & Ping Xin(2000) who demonstrated that involving summarization strategies, self-instructional strategies, and reciprocal teaching revealed positive effect in improving the reading comprehension of dyslexic students . Students in the experimental group statistically outperformed students in the control group. The instructional procedure, including summarization strategies, self-instructional strategies, and reciprocal teaching, significantly increased the reading comprehension of disabled students. Jitendra, Hoppes, & Ping Xin(2000) demonstrated that summarization strategies, self-instructional strategies, and reciprocal teaching showed gains in improving the reading comprehension .They added that that significant effect sizes were produced when an intervention treatment including summarization was implemented and the cohort of the experimental participants statistically outperformed those of their control participants counterparts .

The findings of the study are also in agreement with those of Lorch & Lorch(1996) and Gillet, Temple, & Crawford(2004) and RAND Reading Study Group(2002) that demonstrated that it is crucial that students first learn to read narrative texts structures, which are story-like structures that ease their learning to read. Consequently, students enter school having a sense of narrative structures as they appear in texts. This is why readers are required to mainly read narrative texts in the lower levels and to read expository text structures in upper lower, intermediate

and higher levels of school. Across the years of school, their awareness of text structures must increase as they gradually move from reading a story –like text to reading for information.

The findings of the study are in line with those of Justice and Pullen (2003), Logemann (2000) and Shinn & McConnell(1994) who asserted that the use of intervention strategies has demonstrated gains in improving the reading comprehension of a cohort of students . They indicated that the use of instructional strategies in the classroom can significantly improve the learning more than remediation programs.

In addition, the findings of the study are in agreement with those of Mastropieri and Scruggs (1997) who demonstrated that the intervention strategies ,cognitive and direct instruction, when combined showed remarkable gains in reading comprehension and with those of Swanson's (1999) findings of a research study conducted on the effectiveness of the combined treatment and consisting of a cohort of 72 participants showed that gains in reading comprehension have been the direct result of the instructional components.

The results of Grade 9 showed that the public school participants who received combined strategy instruction outperformed their private school counterparts in reading comprehension achievement .Likewise, the results show a statistically significant difference at the P = ,01 alpha level for the interaction between Treatment, Gender, and School Type .Conversely, there was no statistically significant difference in the performance of the participants in the control and the experimental group. Similarly, there was no statistically significant effect for the gender variable on the reading comprehension of the grade 9 participants. Likewise, analysis of the grade 9 results show

no statistically significant interaction differences by Treatment and Gender .The findings
of grade 10 of the present study showed that there was no statistically significant
difference in the performance of experimental group participants who received
combined strategy instruction and the performance of their control group counterparts in
reading comprehension achievement .Similarly, there was no statistically significant
difference by gender in comprehending expository texts. Likewise, analysis of the grade
10 results show no statistically significant interaction differences by Treatment and
Gender .Furthermore, The results Grades 9 and 10 showed that the public school
participants who received combined strategy instruction outperformed their private
school counterparts in reading comprehension achievement .Similarly, there was a
statistically significant interaction between treatment conditions, gender, and school type
.of the participants. Conversely, there was no statistically significant effect for the
treatment conditions on reading comprehension . Likewise, analysis of the grade 9 and
10 combined results show no statistically significant difference by gender. The mean
score of the male and female participants were 25.83 (8.24) and 24.93(7.17),
respectively. Furthermore, there was no statistically significant interaction differences by
Treatment and Gender .

The findings of grades 9 and 10 of the present study correlate with those of
Park (2005) that indicated that reading in secondary schools and content areas is vital
to students' development of comprehension skills, yet many students lack the
requisite skills to understand and apply meaning from texts. This reflects the
transition from learning to read in elementary school to reading to learn in middle
and high school. As students move from middle to high school, demands on literacy
skills further increase, and students must become even more adept at meeting the
challenges of sophisticated content area reading and information processing. Park

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(2005) emphasized that as students move from class to class, there is a shift in knowledge, thinking skills, and contexts in order to comprehend coursework. With this, there is also a shift in the reading skills needed in each content area. Secondary students often fail to realize the connection between reading in the content areas and applications in their personal lives. A lack of intensive reading instruction in secondary schools contributes to the widening gap of reading abilities among students and their subsequent alienation from reading (Park, 2005). Students also disengage from reading in the content areas and from reading for pleasure.

The findings of the study Grade 10 are also in correlation with those of Hunter-Carsch & Herrington(2001) , Goulandris & Snowling(2001) and Riddick, Farmer & Sterling(1997) who asserted that older students with dyslexia would often be challenged by dyslexic difficulties in secondary school ,and they would continue to face difficulties in learning even if they received appropriate intervention and were able to improve their literacy skills significantly ,yet the intervention treatment might not lessen their difficulties. Difficulties with tasks involving phonological processing and/or verbal memory would prevail in the teenage years.

The study findings suggest the following aspects of interest. First, the treatment of combined strategy instruction was effective in improving the reading comprehension of narrative texts by dyslexic students in grade 7 as well as in grade 8. Analysis of the combined results of grade 7 and 8 together also confirmed the efficacy of the intervention of combined strategy interaction in improving comprehension of narrative text by dyslexic students.

These findings underscore the relevance and efficacy if dealing with the negative effects of dyslexia on academic achievement, particularly reading comprehension of narrative text through interventions that include proven and effective instructional

strategies. The findings are in agreement with those of Blarcum (2011) who stated that reading comprehension interventions are among the most effective interventions among children with LD. Students with LD need to learn an array of strategies to enhance their understanding of the narrative and expository material they read. With regard to expository text, more emphasis should be placed on a fluid approach to self-monitoring skills. Too few studies have looked at ways to improve comprehension of expository text. New areas of research are emphasizing that comprehension of expository text should focus on helping students use an array of strategies flexibly rather than having them adhere rigidly to text structure approach, as they might while reading a narrative text or story.

It appears that more successful interventions teach kids multiple strategies with the goal of having them internalize the strategies. Limited evidence suggests that internalization occurs with more intense interventions-usually longer and more frequent instructional times.

5.2. Discussion of the Qualitative Data Results

The findings of the qualitative data resultant from the analysis of the key word counting of the reflection logs given by the teachers of the study indicated that each of the reading strategies used in the present study is very effective when it is well-prepared and purposefully used. That is, the utilized reading comprehension treatment could be remarkably effective , especially that it is a combination of 10 effective strategies into one treatment and each of these reading strategies could result in high reading comprehension achievement .As such, the research synthesis of the cited studies demonstrates that the implementation of specific interventions including combined treatment could result in good reading comprehension.

The findings of the qualitative data correlate with those of Bartlett (1932) and Wyver, Markham, and Hlavacek (2000), and (Heerman, 2007) who demonstrated that inference skills could help students activate different knowledge and these skills could help students go beyond what is provided, and thus, implicitly fill in the gaps. Since there is no text that is completely explicit, students, especially students with learning disabilities (LD), must be skilled/trained at .making inferences in order to fully comprehend what they read.

The findings of the study were in line with those of Hansen (1981) and Alfassi, (2004) that demonstrated that inference training helps students activate prior knowledge and generate predictions. Teachers need to use direct instruction to directly teach students how to use inference to strengthen comprehension .Alfassi (2004) stated that this direct instruction includes explanation, modeling, and scaffolding, and that it should be used until students become successful independently.

The findings of the qualitative data of the present study are in line with those of Goulandris & Snowling (2001) and Mastropieri and Scruggs (1997) who asserted that comprehension for students with learning disabilities might be empowered by the use of questioning posed and monitored by the teacher. The analysis of the cited studies reported that the strongest outcomes for facilitating reading comprehension for students with learning disabilities whereby teacher-led questioning and self-questioning strategies will be followed by text-enhancement strategies and strategies involving basic skills and reinforcement. Therefore, specific interventions in reading comprehension should improve the reading comprehension of learners and should accordingly make a difference in performance.

The findings of the present study correlate with those of Tang (1992) and Jiang & Grabe (2007) that indicated that the use of graphic organizers enhances the reading

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comprehension of poor; they asserted the effectiveness of the graphic organizers. Furthermore, the findings of the present study correlate with those of Cavalier and Klein (1998) who reported on the performance of fifth and sixth grade students who previewed a list of instructional objectives performed significantly better than those who read an advance organizer paragraph or who completed no orienting activity. In addition, the findings of the present study are in agreement with those of Kang (1996) who found that fifth, sixth and seventh grade students who read an advance organizer passage outlining the main points of a Wilderness Survival simulation performed significantly better on the posttest than students who read an introductory paragraph with no specific or useful information for completing the simulation. Some research conducted studies (Bos, Anders, Filip, & Jaffe (1989); Kim, Vaughn, Wanzek, & Wei (2004) showed positive results when the interventions incorporated a graphic organizer. Previously conducted research studies have proven that graphic organizers produce positive effect for students with learning disabilities. In some of the reflection logs forming a part of the present study qualitative data correlate with the findings of those of Barry(2002), Ivey(2002), Rhoder(2002), and Snow (2002) who asserted that many teachers do not employ reading strategies in their classrooms.

Teachers fail to use reading strategies either because teachers feel inadequate to handle reading problems in their classrooms, feel that reading instruction infringes on subject matter learning time, or deny the importance of reading techniques.

The findings of the present study were also in agreement with those of Bell (1991), Bell (1986), Meyer (1999), Long (1989), Pressley (1976) and Smith (1987) that asserted the significance of the visual image training in helping students achieve gains in comprehension skills. The cited studies demonstrated that there is an

interrelationship between good reading comprehension and good image making, and the learners who are good at comprehension are usually good at making images makers and students with poor comprehension seem to be poor at making visual images.

Regarding the questioning strategy, the findings of the present study were similar to those of D. Arcangelo(2002), Forget & Bottoms (2000) and Jacobs (2002). However, the qualitative data of the present study don't correlate with those of Griffin & Tulbert (1995) who reported that the research studies on graphic organizers spanning 20 years resulted in inconclusive and contradictory findings. The review of research conducted by Jiang & Grabe (2007) included 13 studies, and only one study investigated the effectiveness of the graphic organizer with the students with LD and one study included ESL students. According to Jiang & Grabe, graphic organizers "that do not represent the discourse structures of the text may be less effective than the ones that represent the discourse structure" (p. 37). Conversely, some other studies, for example, a study conducted by Rose (1986) demonstrated that a medium size effect = 0.50 was reported when the graphic organizer was utilized, which indicates that graphic organizers might be more distracting than useful for students with learning disabilities. In addition , Logemann (2000) argued that the use of procedures doesn't enable the teachers to improve the learning of the students; on the contrary , it hinders the teachers' efforts to invest properly the time in developing students' learning.

The findings also corroborate the proposition Sheryl &Handle (2010) who noted that children with dyslexia can be taught strategies to work with their learning disability. Yet, it should be noted that the researcher of the present study,   based on a thorough literature review, concludes that there is no single best approach or treatment for overcoming the challenges that hinder the reading comprehension of dyslexic learners.

The crucial intervention should meet the educational and behavioral needs of children with dyslexia. In addition, the collaborative efforts of parents, teachers, and specialists altogether can contribute to a major successful treatment. However, it should be noted that there is no quick solution that can easily decrease the challenges of the dyslexic children.

The findings of the present study underscores the role and importance of context-specific factors and determinants of reading achievement, a conclusion that echoes the propositions of Blackley(2014) who indicated that public school teachers, principals, and staff are well-intentioned, but the system is broken. Most schools do not have the resources to diagnose and treat dyslexics. Waiting for the school to test and treat your dyslexic child is a "race to the bottom" and an enormous disservice to your language-challenged child. If a teacher notices that your child is having difficulty, the teacher might just say that kids develop at different rates and yours will "catch up." The school might tell you that your child will be tested in the 3rd grade, so you should just wait until then.

There was statistically significant interaction between the treatment condition, gender, and school type in grade 9 and the comprehension of expository texts. Likewise, analysis of the combined grade 9 and 10 results revealed a statistically significant difference text by school type in favor of the public school participants who did better than the private school participants in comprehending expository texts. These findings suggest that unlike other grade levels in the study, the grade 9 participants and class context may be different in some educationally significant ways from the rest of the participating classes in the study. Again, this underscores the importance of school contextual factors in educational achievement. It should also be noted that grade is the last class in the third cycle of basic education in the Lebanese educational system at the

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conclusion of which students sit of the their first national examination. It could be possible, that the grade 9 participants in present study are not typical of public school students in other grade levels given that considerable numbers of students change schools or are required to repeat grade 8 before they prepare to enroll in grade 9 and take the official examination at the national levels upon completion of the basic education nine-year cycle required for entry into secondary education.

The analysis of the study results revealed a statistically significant interaction between treatment, gender, and school type and comprehension of expository texts. These findings suggest that the successful and effective   implementation of the combined strategy intervention may impacted by the gender and/or school type of dyslexic students in certain ways that may have educational significance.

On the other hand, it should also be noted that analysis of the results revealed the following:

First, there was no statistically significant difference by gender in all the grade levels under study (7, 8, 9, and 10) and the pooled grades of 7 and 8 together as well as 9 and 10. Likewise, there was no statistically significant interaction between the treatment conditions (control versus experimental) and the gender of the participants across all of the grade levels (7, 8, 9 and 10) as well as the pooled grades 9 and 10. Yet, it should be noted that there was a statistically significant interaction between treatment and gender in the pooled grade 7 and 8 results at the $P = .10$ alpha level. This suggests that the gender variable did not discriminate among the study participants a factor influencing reading comprehension

Second , there was no statistically significant interaction between the treatment conditions (control versus experimental) and the school type of the participants across all of the grade levels (7, 8, 9 and 10) as well as the pooled grades 7 and 8 and grades 9 and

10, which indicates that the treatment conditions were equally effective both in the private as well as public schools.

Thirds, there was no statistically significant interaction between the gender of the participants and their school type across all of the grade levels (7, 8, 9 and 10) as well as the pooled grades 7 and 8 as well as grades 9 and 10. This suggests that all participating schools and grade levels enroll both male and female students in the public as well as private schools.

Fourth, there is no statistically significant interaction between the treatment conditions, school, type and gender and reading comprehension across all the grade levels under study except in grade 9 and in the pooled analysis of results for grades 9 and 10 at the P = .07 alpha level. This interaction between the independent and moderator variables, on the one the hand, and the comprehension of narrative and expository texts suggest that certain classroom contextual variables, particularly in grade 9, may have impacted the efficacy of the treatment of combined strategy instruction in improving reading comprehension. Further research is recommended in order to explore and determine these and the extent to which they impact reading comprehension

5.3. Pedagogical Implications of the Study

The present study has implications for the teaching/learning processes of dyslexic middle school learners, particularly when it comes to reading comprehension of narrative and expository texts. Chief among these implications is that intervention strategies are useful in improving comprehension. It seems that many children with dyslexia do well in small group instructional groups with of matched peers who work together on reading exercises in small cooperative groups. On the contrary, others learners may need one-on-one assistance on order to enable them to improve their reading skills and comprehension. Reading instruction must also be intensive enough and continue long

enough to have a positive effect that will endure as suggested by *International Dyslexia Association. IDA position statement: dyslexia treatment programs.* It is also recommended that a dyslexic learner has an outside academic therapist; the therapist should work closely with the child's classroom teachers to implement the strategies in the context of a well-designed and integrated instructional program .

5.4. Implications of the Study for Further Research

The study findings suggest the need for further research along with three areas of focus: 1) Further studies to test the generalizability of findings into other similar contexts, 2) studies investigating the relative effectiveness of individual strategy interventions in improving the reading comprehension of dyslexic learners 3) studies to examine the question of what leaner and teacher-related as well as school context-specific factors interact with strategy interventions to impact the reading comprehension of dyslexic students while dealing with various text types.

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APPENDICES

Study Pretests and Posttests

Grade 7 Pretest

Read the following passage then answer the questions that follow:

"A Third of Kids Do Not Get a Bedtime Story"

It seems the old tradition of children getting a bedtime story before sleeping is **on the wane** in Britain. A new study **reveals** that around a third of parents do not read bedtime stories to their children. The study, from British online **retailer** Littlewoods.com, also found that up to 50 per cent of children would prefer to watch TV or play computer games than be read a story. Researchers discovered that a worthless five per cent of British under-sevens do not even own a book. Parents **came up with** a countless of reasons why they did not read to their little ones. Thirteen per cent of parents blamed a lack of time, nine per cent said they are just "too stressed", while others said their children were simply not interested.

Littlewoods has **teamed up** with British pop star Natasha Hamilton to try and reverse this **trend**. They have **launched** a bedtime story writing competition for children under seven. Ms Hamilton, 31, told reporters: "I'm really excited to see all the different story ideas and can't wait to see what the kids come up with. Choosing a winner is not going to be easy." She spoke about her own joy as a mother in reading bedtime stories, saying: "As a mom of three, I know just how enjoyable reading bedtime stories to my kids are." A spokesman from Littlewoods.com said: "We **appreciate** how important it is for

parents and kids to spend quality time together, and bedtime stories are a great way to do just this."

From the context, match the following words with their most appropriate meaning. (0.5pts each)

1. on the wane _____	**a.** shows
2. retail _____	**b.** to be grateful for something that someone has done
3. reveals _____	**c.** a general tendency
4. to come up with _____	**d.** becoming smaller, weaker, less important
5. to launch _____	**e.** to think of an idea, plan, reply
6. to team up _____	**f.** a person or business that sells goods to costumers in a store
7. trend _____	**g.** to join with someone so you can work together on something
8. to appreciate _____	**h.** to start an important activity or a serious attempt to achieve something

Questions:

1. How many children does the pop star have? (2pts.)

2. Are bed-time stories important? Why are children today not interested in them? (2pts.)

3. What are children interested in today? Are you interested in the same thing? (2pts.)

4. Is the passage that you read considered to be a piece of fiction? What is fiction? Explain briefly and state the type of the passage above. (3pts.)

<u>Grammar:</u>

1. Reread the following paragraph from the passage and **<u>underline</u>** the **<u>simple present tense</u>** and **circle** the **present progressive tense**. (9pts.)

   *It seems the old tradition of children getting a bedtime story before sleeping is **on the wane** in Britain. A new study **reveals** that around a third of parents do not read bedtime stories to their children. The study, from British online **retailer** Littlewoods.com, also found that up to 50 per cent of children would prefer to watch TV or play computer games than be read a story. Researchers discovered that a worthless five per cent of British under-sevens do not even own a book. Parents **came up with** a countless of reasons why they did not read to their little ones. Thirteen per cent of parents blamed a lack of time, nine per cent said they are just "too stressed", while others said their children were simply not interested.*

2. On the lines provided below write **three** sentences using the **present progressive tense.** (6 pts.)

3. Write **three facts** using the **simple present** tense. (3pts.)

<u>Writing Prompt: (15pts)</u>

Do you think bedtime stories is a waste of time? Why and why not? Write a well-organized essay of an introduction, body, and conclusion explaining your opinion.

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Instructions:

1. Use the simple present tense

2. Use vocabulary you have learned.

3. Use simple and compound sentences.

4. Punctuate properly.

5. Make sure your paper is neat and clean.

Good luck!

Posttest Grade Seven   *English Test*   *Duration: 2 hrs*

A.   **Read the passage below, then answer the following questions**. (10 pts)

Thunder Helper

A long time ago, a boy and his three uncles set out from their village to go hunting. As always, the boy looked for ways to be useful to his people, so he set about catching fish in a nearby stream and gathering firewood while his uncles tracked deer. When his uncles returned, he would prepare a corn soup and add the deer meat to make a mouth-watering stew.

One morning, the boy was walking toward the stream, dreaming of the tasty fish he would catch and listening to the singing birds. All at once, he heard a loud roaring sound. Quickly, and as sly as a fox, he crouched, set an arrow against his bow, and readied himself for whatever might happen.

The boy crept slowly toward the eerie rumbling, until he reached the stream. There, towering above the rushing water, he saw two unearthly creatures locked in a terrifying **struggle**. One was dark and formless, yet seemed to be the source of the booming roar. The other, a long, wiry monster, was tightly coiled around the first.

The boy watched with wonder. "The giant serpent must be the dreaded Tie-Snake!" he thought, remembering stories his elders told about the trickster that fooled people and drew them down into the murky and desolate underworld. "But who is the shapeless one? Could it be Thunder himself?" the boy wondered. In a valiant move, he raised his loaded bow and shouted to Tie- Snake "Let go of him!"

Tie-Snake hissed back, "Boy, if you kill the evil Thunder, I will protect you always and share all the mysteries of the underworld with you!"

Thunder bellowed his response. "Listen to me, boy. Tie-Snake speaks only lies. Strike him with your arrow, and I shall grant you the power to be a strong, brave, and wise warrior for you people."

Without listening to more of Tie-Snake's **deception**, the boy took aim and let his arrow fly at the serpent. Tie-Snake fell into the stream and disappeared beneath the waters. A moment later, Thunder spoke again. "Be warned. You must tell no one the source of your new power, or it will leave you."

"I promise," said the boy solemnly, and Thunder evaporated into thin air.

The boy's uncles returned to camp that evening. Despite their questions about his time alone in the forest, the boy kept his promise, and his uncles remained oblivious of the power that Thunder had given him. But the boy was eager to **employ** his new abilities for worthy causes, and he worked hard to hone his hunting skills once he returned home. In just a few short months, to the surprise of the elders, the boy had become one of the best hunters of the village. His steadfast efforts in pursuit of food were soon recognized by all the people.

It was not long after when the Creek elders learned one of their most fearsome enemies was threatening to attack them. The boy took this opportunity to request a meeting with the village leaders. "Respected elders," the boy said boldly. "Though I am

only a boy, I have the courage and cunning to fight the enemy. Will you let me perform this deed to save our people?"

The boy's audacity impressed the elders. They conferred among themselves and soon nodded their heads in agreement. The chief declared, "You have proven your strength and bravery with your hunting. Now, as you go alone to fight the enemy, you must demonstrate your wisdom. "With **determination**, the boy said, "I will not disappoint my people."

That very evening, the boy set off through the forest to face the enemy. The villagers gathered to await his return, and as the hours passed with no word the Creek fell into a somber mood. Then suddenly, a deafening roar of thunder made the villagers cover their ears. Their eyes shot upward as flashes of lightning streaked the sky. Moments later, smoke filtered out through the trees, and the people sensed that the boy had been victorious. They rejoiced that the enemy would no longer threaten their village.

When the boy made his way out of the forest, there was much **celebration** in honor of his exploits. The elders called him Menewa, meaning "great warrior". And from that day on, whenever the Creek heard Thunder, they knew that Menewa, his helper, was at work to keep their people safe.

A.   Reading comprehension

1.   What is the genre of the text? State three features that helped you figure it out. (2pts)

2.   Describe the setting in the first two paragraphs. How does it change in the third one? 2 complete sentences (2pts)

3.   What prediction did you make after reading about the boy's meeting with the elders? Identify the sentence that made you confirm your prediction. . 2 complete sentences (2pts)

4.   What problem did the boy face? And how did he solve it? 2 complete sentences (2pts)

5.   Myths usually highlight a moral. What lesson did you learn from "Thunder Helper"? 2 complete sentences (2pts)

B.   Vocabulary:

Make meaningful sentences using each of the underlined words in the text. (5pts)

C.   Grammar:

1. **Write the verb in parentheses in the present progressive form. (5 pts)**

1. Tom's hands are covered in flour because he _____ (bake) bread.

2. The swimmer's hair is wet because he _____ (swim).

3. Nicole and Carole have muddy shoes because they _____ _____ (garden).

4. The girl is crying because she _____ (chop) onions.

5. Sara and Lara are sweating because they _____ (run).

2. Complete the dialogues below, using the correct form of the verbs in brackets. (5pts)

Dialaogue one

Bradd: What's wrong? You don't look okay.

Linda: I am. _____ (have been trying / have been tried) to memorize the poem all day, but my little brother never stops crying. Also, people

_____ (has called / have been calling) all day about the car.

Bradd: That's perfect! I _____ (hoped / have been hoping) to sell it

for 5 months now. Maybe today's the day!

Dialogue two

Lary: I'm sorry that I'm late. I hope you _____ (hadn't waited /

haven't been waiting) for do long.

Hary: Actually I have! Where _____ (are you / have you been)?

Lary: I'm really sorry. I had an emergency and I didn't notice what time it was.

3. Imagine that you are a hotel receptionist. Offer help to the hotel guest who is

facing some urgent problems. Make sure you are posing polite and formal

questions. (5 pts)

1. Guest: I am hungry.

   You:_____

2. Guest: I have a headache.

   You: _____

3. Guest: The room is too hot. I can't open the window.

   You:_____

4. Guest: I have lost my door key.

   You:_____

5. Guest: I need a taxi right now.

You:_____

4. Complete with the probable questions or answers. (5 pts)

1. Q: _____

   A: Yes, you can.

2. Q: _____

   A: Sure, it is too cold in here.

3. Q: Could I have another cookie?

    A: _____

4. Q: Would you mind if I handed my assignment late?

    A: _____

5. Q: Can I speak to you about the test?

    A: _____

D.   Proofread, punctuate and capitalize: (3 pts)

Find out the grammatical and spelling mistakes in the following paragraph, then rewrite it correctly.

modern science have evidence to suggests that Goya may have had a severe case of lead poisoning. high levels of lead in the bloodstream can causes muscel and joint pains, headaches, dizzines, personality changes and finally, death.

E.   Writing: (12 pts)

Myths often include supernatural forces such as unearthly creatures, talking animals, or humans with extraordinary abilities.

Write an essay about a myth you know, which has a special meaning to you.

Make sure essay has a good introduction and a good paragraph with good supporting details. Use a suitable tense of the verbs, punctuate and capitalize correctly. Your handwriting MUST be legible.

Grade 8 Pretest   Duration: 2hrs

A. **Comprehension**: (10pts)

    Read the following text and answer the questions that follow.

The Racist Warehouse

It was a beautiful August morning. The sun was brightly shining on my sunglasses while my mother drove the U-haul truck to a warehouse in Santa Ana, California. As my mother drove down the streets of Santa Ana, I looked out the window and began to realize that the mixture of people was no longer a mixture; there was only white.

When we arrived at the warehouse, I had to peel my arm off the side of the hot door like a burnt sausage off a skillet. There were not many cars in the parking lot, and I could see the heat waves. As we walked up the boiling pavement, it felt like we were walking through a scorching desert. When we walked into the warehouse, there was a variety of electronic appliances to choose from, and about three-fourths of them were white (of course).

About every 15 minutes, a salesperson followed us around and asked if we needed help, as if we were retarded or ex-cons. My mother really dislikes it when salespersons constantly ask if we need help; she feels if she needs their help, she'll ask for it. Finally, after about two and a half boring hours of looking for any scratches or marks on the dryers and refrigerators that might fit best in our new apartment, my mother picked a dryer and refrigerator that were just right. She then let the salesperson know, and he replied with a smile, "All right, you can pick up your items in the back in about five minutes." My mother said, "Thank you," in a nice, friendly voice and walked across the scorched pavement to drive the truck to the back.

When we got to the back, there were about three open spaces for picking up appliances. My mother chose the first parking spot she saw, which was by a white family's car. Then she showed the employees the receipt for the appliances she had just bought. They said, "All right, we'll be with you in just a minute." While I waited for my

mother, I looked over and smiled at the white lady in the next car, but instead of smiling back like a nice young woman, she frowned at me like I had something hanging from my nose. At first I thought, "Well, maybe she is having a bad day." Then a few minutes later the people working at the warehouse started to look at my mother and me in a mean way. Then I figured that maybe something was on my face, but when I looked in the mirror, I saw nothing. At the time, I had only spent nine years and some months on this planet. I didn't know racism was still around; I thought that situation had died along with Dr. King.

Five minutes passed, then ten, then fifteen. We sat there watching people get their appliances and leave. We seemed invisible to them. As I sat in the car, burning up and listening to one of the most boring radio stations my mother could possibly like, I was thinking, "We'd better leave or else I'll go ballistic!" After 30 minutes had passed, my mother got frustrated and politely asked to have our items loaded. Five more minutes passed, and she asked again with an attitude. They replied, "We'll be with you in a minute, ma'am." I could tell she was beginning to get upset because she started to get that "don't bother me" look. Five minutes later they finally packed our appliances on the truck.

When we left the warehouse, I described to my mother what the other people were doing. She explained, "They were racist. They didn't like us because we have different skin color."

That was my first encounter with racism. It was just a small slice of reality—that everyone isn't going to be as nice as you, your friends, and your family might be; and that just because you look nice and politely smile at others, it doesn't mean that others will treat you the same. This situation made me feel very out of place and confused. I

didn't expect those people to react as they did. We are all civilized, intelligent, caring, peaceful people . . . or at least that is what I had believed.

Answer the following questions:

1) Describe the setting and weather of the story? (two complete sentences) (2pts)

2) How did the author feel at the warehouse? (one complete sentence) (1.5pt)

3) What is the conflict of the story?(one complete sentence)(1.5pts)

4) What is the theme of this story?(one complete sentence) (1.5pts)

5) What is the author's point of view about the theme of the story? (one complete sentence) (1.5 pt.)

6) How would you explain the sale person's actions?(Two complete sentences)(2 pts)

7) **Vocabulary**: Match the vocabulary word in column A with its synonym in column B then its antonym in column C. (5pts)

Column A	Column B	Column C
Vicious	Discourage	Gentle
Peevish	Pamper	Deny
Hinder	Irritable	Facilitate
Dissuade	Block	Encourage
Indulge	Brutal	Tolerant

B. Grammar:

1. Fill in the blanks with the present or past tense. (5 pts)

Lars: Excuse me, which movie are you waiting for?

Tony: We (wait)_____ for the new Stars Wars movie. In fact, we

(wait)_____here for more than five hours.

Lars: Five hours? When did you arrive?

Tony: We (get)_____here at 6:00 o'clock this morning. More than forty

people (stand, already)_____here waiting for tickets when we arrived.

Lars: I can't believe that! Are you serious?

Tony: Yeah, people (take)_____Star Wars movies seriously. In

fact, this particular showing has been sold out for over a week. We (wait,

just)_____in line to get a good seat in the theater.

Lars: When did you buy your tickets?

Tony: I (buy)_____them last week by phone. I

(know)_____tickets would be hard to get because I

(see)_____a news interview with a group of people standing in line to get

tickets. They (wait)_____in line for almost a month to buy tickets for

the first howing.

Lars: I don't believe that!

2. <u>Fill in the correct verb tense. (active or passive) (5 pts)</u>

    1. In the year 122 AD, the Roman Emperor Hadrian (visit)_____his

        provinces in Britain.

    2. On his visit, the Roman soldiers (tell)_____ him that Pictish

        tribes from Britain's north (attack)_____them.

    3. So Hadrian (give)_____the order to build a protective wall

        across one of the narrowest parts of the country.

4. After 6 years of hard work, the Wall (finish)_____in 128.

5. It (be)_____117 kilometres long and about 4 meters high.

6. The Wall (guard)_____by 15,000 Roman soldiers.

7. Every 8 kilometres there (be)_____a large fort in which up to 1,000 soldiers (find)_____shelter.

8. In 1987, it (become)_____a UNESCO World Heritage Site.

3) **Combine the modal meanings given below**: (5 pts)

   a) Use one-word and phrasal modal combination:

     1. I _____ speak with the visa officer. (necessity, permission)

     2. Noncitizens _____ to get drivers licenses. (advisability, permission)

     3. Students _____ speak English in class. (advisability, necessity)

   b) Use two phrasal modals:

     4. A prospective immigrant _____ describe the system of government of the new country. (necessity, ability)

     5. In order for a society to be healthy, people _____ speak freely. (necessity, ability)

C. **Writing:**(25pts)

     Prompt: Write a well-organized composition of an introduction, body, and conclusion comparing and contrasting the cultural views on racism today and 100 years ago.Your comparison and contrast essay will be evaluated according to the following criteria:

Structure of the essay: (10pts)

1. General statement

2. Specify your issue.

3. Thesis Statement.

4. Body: point by point or block by block paragraphs.

5. Conclusion: Wrap up with specific details.

Usage and Mechanics (10pts)

1. Use the present tense forms with the simple past as you contrast.

2. Use simple and compound sentences

3. Punctuate and capitalize properly

4. Word choice (vocabulary)

Content of the essay (5pts)

1. Interesting details

2. Enough details

3. Impressive comparisons and contrast between the racists today and in the past.

Grade 8 Post test   **Duration:2hrs**

THE OLD FISHERMAN AND HIS AMBITIOUS WIFE

Read the story and answer the questions that follow.

Once upon a time there <u>was</u>, nor here, nor there, but at the back of beyond, an old fisherman who had an **ambitious** wife.

The old fisherman once <u>went</u> out to sea to catch fish. He soon <u>caught</u> a beautiful, big **carp.** And, oh, marvel of **marvels**, the carp suddenly <u>began</u> to speak:

"Poor fisherman, please, let me loose! I shall reward you so you won't regret it. All your wishes shall come true."

So at these words, the old fisherman allowed the carp to return to the sea. Then he went home, and his wife asked him: "Well, what did you catch? Did you bring something with you?"

"I caught a very beautiful carp."

"Then why didn't you bring the fish home?"

"The poor fellow **implored** me so to let him go, and then he would fulfil all our wishes."

"Then return to him and tell him that I would like to have a very fine house."

They had a tiny cottage on the seashore. The fisherman walked back to the seaside. He stopped at the water's edge and shouted," Hallo, carp, do you hear me? My wife asks you to build us a fine little house on the seashore!"

"Go home, my good man! Your wish has already come true!"

And sure enough, when he got home, a wonderful house was standing there. His wife was bustling about in the kitchen. For a while, she was very happy. Yet one day his wife again said to him, "Now listen, return to that carp and tell him that I am sick of that house, let him give us a castle and make us count and countess."

So the man again went to the seashore and shouted, "Hallo, carp, do you hear me? That hussy, my wife, won't leave me in peace!" After a while fish rose to the surface and asked: "What is it your wife wants now?"

"She wants a castle and asks you to make us count and countess."

"Go home! Her wish has already come true!"

On returning home he saw a marvellous castle and his wife strolling leisurely through the rooms as a countess. "Are you satisfied at last?" asked the fisherman. His wife was happy indeed. Next morning, they were hardly awake, when the woman said: "Listen! Go back to that carp and tell him I would like to be a queen and live in a palace." What could the poor fisherman do? He walked sadly to the water's edge and shouted,"Hallo, carp, do you hear me? That hussy, my wife, won't leave me in peace." After a while the fish emerged and asked: "What does your wife want now?"

"She wants to be a queen and live in a palace."

"Go home! Her wish has already come true."

On returning home, the poor man could but wonder and wonder. The marvellous palace, the many shining soldiers nearly blinded him with their **splendour**. As the poor fisherman passed the soldiers, they all presented arms. At last, after climbing many flights of stairs and passing through many rooms, he asked his wife: "Well, woman, are you at long last happy?"

"Yes," answered the woman happily. The next day had already begun to break when the woman said: "Listen! Return to the carp and tell him I would like to be an empress and to have such a palace and such towers as are not to be found elsewhere in this world." She insisted so long that the poor fisherman had to return to the water's edge. Woefully he said, "Hallo carp, do you hear me? That hussy, my wife, won't leave me in peace." The

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seawater grew **turbid**, its waves ran high, and it took a long time till the angry carp appeared:

"What does your wife want now?"

"Now she would like to be an empress and have such a palace and such towers as are not to be found elsewhere in this world."

"*To be sure, she has done nothing to deserve them,*" said the carp, "yet go home, her wish has already come true."

The poor man went home. He could hardly believe his eyes, such splendid palaces, towers and courtiers he <u>saw</u> everywhere. He asked his wife: "Now then are you happy at last, for I shall never more return to the carp!" And the woman seemed to be very happy. Yet on getting up next morning, she again told her husband: "Listen! Go back to that carp and tell him that I would like to be the ruler of the world! I want everybody to pay**homage** to me and fall on his knees before me. My empire shall stretch from one end of the world to the other!"

In vain <u>did</u> the poor fisherman argue and protest, he had no choice but to return. Woefully he said,"Hallo carp, do you hear me? That hussy, my wife, won't leave me in peace."

He had to wait there for a very long time. The sea raged, restlessand flowedas never before. At one place, it grew **turbid** and, after a long, long while, the fish came to the surface.

"What does your wife want?"

"She wants to be the ruler of the world and to have everybody fall on his knees before her."

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"Ah me," said the fish, "if she believes she can live without work and rule over others, it is better you should again go back to your fishing. Go home, you will find her in the fisherman's hunt!"

And so it happened. The poor fisherman found there his little hut and his wife in it. From that time on she became a clever and **diligent** housewife. They worked hard and got on well with each other. And perhaps, if they have not died, they are still living.

Questions:

1. Who are the characters in the story? (3pt)

2. What are the major character traits of the wife? (2pts)

3. Why do you think the carp said that the wife doesn't deserve what she got? Explain briefly. (2pts)

4. If you were given the choice, which character would you like to be; the wife, the fisherman or the carp and why? (2pts)

5. Why did the wife change? (2pts)

6. What can you learn from this story? (2pts)

From the context, match the following words with their most appropriate meaning. (0.5pts each)

1. Implored _____	2) hard-working
2. marvels _____	3) type of fish
3. splendour _____	4) respect
4. ambitious _____	5) begged
5. turbid _____	6) muddy
6. carp _____	7) having orshowing a strong

		desire and determination to succeed.
7. diligent	_____	8) magnificence
8. homage	_____	9) wonders

Grammar:

a) Which tense is used in the story?(2pts) _____

b) Find the *past perfect* verbs used in the story above and write them below. (2pts)

c) **Read the paragraph below and circle** the past tense verbs **and <u>underline</u> the <u>present tense verbs</u>**. (8pts)

On returning home he saw a marvellous castle and his wife strolling leisurely through the rooms as a countess. "Are you satisfied at last?" asked the fisherman. His wife was happy indeed. Next morning, they were hardly awake, when the woman said: "Listen! Go back to that carp and tell him I would like to be a queen and live in a palace." What could the poor fisherman do? He walked sadly to the water's edge and shouted, "Hallo, carp, do you hear me?

d) **Write the underlined verbs in the text in the present tense on the lines below. (6pts)**

Writing Prompt: (15pts)

What are the characteristics of a good wife? Write a well-organized essay of an introduction body, and, conclusion explaining your opinion.

Instructions:

1. Use the simple present tense

2. Use vocabulary you have learned.

3. Use simple and compound sentences.

4. Punctuate properly.

5. Make sure your paper is neat and clean.

Grade 9 Pretest   **Television Ration Box**

Part One: Reading Comprehension

Read the following selection in which the writer sheds light on the television ration box, and then answer the questions that follow:

1- Parents are soon to be offered the ultimate weapon to win the war over how much TV their children watch.

2- Instead of constantly fighting to ration viewing habits they will have the job done for them by a coded electronic device.

3- It will switch off the set once an allowed period runs out, leaving the child to turn to other activities such as reading or even playing in the fresh air.

4- The gadget, "TV allowance", was invented by Miami Photographer Randal Levenson, a former engineer, who despaired of ever reducing his three children's screen time.

5- "There was a lot of anger in the house about the TV and Nintendo usage", said Mr. Levenson, 47.

6- His response was to build the calculator-sized box which plugs into TV. The

Levenson now use a code to set the four hours that Moss, 13, Cormac, 11, and Geddes, 6, can watch each week. Each has his own code, and when his time is up, the screen goes blank. He can find out how much time is left by touching a button. The gadget which will sell in Britain for 49£ this summer, also controls video games and the video. It can block out specific periods such as homework time and cannot be disconnected by frustrated youngsters.

7- "They've got their lives back", said Mr. Levenson's wife, Rusty. "Not that they were total couch potatoes, but they certainly spent too much time in front of the TV. The problem before was that we were giving up. We could only say "No" so many times. But the unemotional gadget can go on saying "No" for as long as necessary".

8- "I thought, "Oh, this is really going to be terrible," said Moss, recalling the first time it was attached to the family set. "Then you get to live with it and get used to it. I think my vocabulary is ten times bigger now because I'm reading more".

9- But being children and therefore devious, they have found ways of getting round the system, if not beating it.

10- The set is switched off for advertisements and they barter with each other for TV time. They also decide which programs more than one child wants to watch. Any time left over at the end of the week can be carried over into the next.

11- "It teaches kids time management and other business skills", said Mr. Levenson, who decided to market the gadget after neighbors asked him to make units for them. So far 3.5000 have been sold without advertising and he believes that it is only the start.

12- "If make money, that will be fine. But it was worth it to cut back on the amount

of TV my kids were watching. It takes about two weeks but then the children accept the situation. They come to find that there are other things in life besides sitting and watching TV."

Part One:

A- Questions: (5 pts)

1- Summarize the text in 1-2 sentences.

2- Why did Mr. Levenson invent the gadget? What does it do?

3- Using a web, list four advantages for the gadget invented by Levenson.

4- How did the children feel towards this invention at first? Did they find ways of getting around the system? Justify.

5- Who would be interested in reading such a text? Justify.

B- Vocabulary: (2 pts)

Find words that have the same meaning as the following:

1- Portion (parag. 2)

2- Annoyed (parag. 6)

3- Tricky (parag.9)

4- Exchange (parag.10)

C- Grammar

Each of the following sentences contains <u>a grammatical error</u>. Identify the error and correct it.

1- While Tom's reading in bed last night, his phone ring. When he was answering it, the caller hanged up.

2- A: What you are talking about?

B: I talking about the political situation in my country.

Subject: English   **Duration: 2hrs**

3- Why you no have been in class the last couple of days?

4- Before I come here, I never was buying anything from a vending machine.

5- The boys are playing soccer right now. They are playing for almost two hours. They must be getting tired.

6- Yesterday I was working at my computer when Shelley was coming to the door of my office. I wasn't knowing she was there. I was concentrate hard on my work. When she suddenly speak, I am jump. She startle me.

Part Two: Writing (8 pts)

There are many problems that parents face as they are raising their children and they try their best to resolve them in the best way possible to accomplish their ultimate goal which is a successful generation.

In a well-organized essay write about a problem your parents faced with you and how they managed to solve it.

Grade 9 Posttest

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Reading Comprehension: **(Score: 12/20)**

In this text the writer attempts to find out why most people prefer to do their shopping at hypermarkets. Read it carefully then answer the questions that follow.

Shopping Trends

1 Nowadays, more and more small local shops are closing down because a great majority of people prefer to drive to huge shopping centers. According to some survey, about 60% of families regularly do their weekly shopping in very large chain-stores famous worldwide. Such a tendency raises the logical question: Why is shopping at the hypermarkets so popular?

2 Many people consider shopping a pleasant way of spending their leisure time in fashionable places. Families usually go to shopping centers on weekends and spend long hours walking round, examining items, looking for bargains, comparing prices, drinking refreshments, or having their meals at the store cafeteria.

3 Hypermarkets are well-stocked with all sorts of products. They offer a wide choice of well-exhibited goods, arranged in specific departments where customers can easily find almost everything they are looking for. They can buy food, clothes, shoes, cosmetics, sports equipment, toys, books, household appliances, and many other products – all under one roof with no waste of time at all.

4 Furthermore, goods in hypermarkets are generally fresher and at better deals than those in small local shops. Due to the fact that large quantities are sold, they are immediately replaced with new products. A lot of **them** are sold off at

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lower rates. Bargain hunters can save a lot of money on things which are on special offers. If customers buy something they are not satisfied with, they have the right to return it and get their money back. They can also choose the method of payment: either in cash, by checks, or by credit cards. In most hypermarkets, it is possible to buy an article by regular installments. This means that people can make monthly payment for **it** over a period of time.

5   Hypermarkets are open until late in the evening all days of the week.   Some of them remain open day and night. This is very convenient for people who work late as they can simply do all their shopping in one place after working hours without moving from one shop to another.

6   With all the above advantages, it is not surprising why hypermarkets attract more and more shoppers. Yet, hypermarket, by their nature of business, will never provide shoppers with one thing: intimate relations with customers. Those shoppers, who are in favor of such service, should stick to their local small shops.

Reading Comprehension Questions:

A. What does each of the underlined pronouns in Paragraph 4 prefer to? (socre:01)

   1. **them**   **2. it**

B. In which paragraph can you find the answer to each of the following questions? Copy this chart into your booklet, and then write down the correct **paragraph number.** (score: 01.5)

Question	Paragrap

	h Number
Why is shopping at a hypermarket a source of fun?	
Why are prices at hypermarkets consider cheap?	
Why is there a great variety of goods at a hypermarket?	

C. Refer to the text to answer the following questions in complete sentences.

1. Why do people who work late prefer to do their shopping at hypermarkets? (Score: 01)

2. In which way are small local shops better than hypermarket? (Score: 01)

3. How can shoppers with short ready payment buy what they need? (Score: 01)

4. Which of the following choices best reflect the writer's purpose? (Score: 01)

   - To encourage people to do their shopping at fashionable places

   - To show people how to save money while shopping

   - To explain why shopping at hypermarkets is popular

D. Complete these sentences in accordance with the information provided in the text. (Score: 01 .5)

1. At hypermarkets, shoppers can easily find what they want to buy because goods are…….

2. As a result of the new trend of shopping at hypermarkets, small local shops will soon end in…

3. You can get your money back at a hypermarket in case you are….

E. Rewrite the following sentences on your booklet, filling each blank space with a suitable word from the reading text as specified in the parentheses. (Score: 02)

1. A recent _____ conducted on 500 city residents shows that most of them are in favor of night shopping. (Paragraph 1)

2. Most people in civilized countries nowadays enjoy shorter working hours and more _____ time. (Paragraph 2)

3. You can get some really good _____if you do your shopping on the Internet. (Paragraph 4)

4. My secretary will contact you to arrange a more _____ time for both of us to meet. (Paragraph 5)

F. Each of the following sentences contains **one** grammatical error. Identify this error and correct it. (Score: 01)

1. Many people believe that there are a little difference between paying in cash and using credit cards.

2. Shoppers may be selected any method of payment to pay for the items they purchase.

3. Do you agree that there are much more better bargains in a hypermarket that in a small shop?

4. If hypermarkets didn't offer all sorts of promotions, shoppers won't be interested in them.

G. Rewrite the following 2 sentences, starting each as indicated, without changing the meaning. (score: 01)

1. Don't go to work, dear," his wife said.

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His wife …

2. At midnight exactly, a terrible explosion shook the ground.

   The ground …

3. Supporters of the trail want hikers to enjoy nature, and they want them to

   protect it.

   Not only …

4. Last summer, people threw plastic bottles and bags in the sea; they caused

   harm to the environment.

   Hadn't people …

Part Two: Writing

(Score: 8/20)

Write a composition of 150-200 words about an incident in which you bought a valuable

item, and later on you found out it didn't work properly. Tell what happened and explain

how you solved the problem. Provide your composition with a **suitable title and an**

outline.

(Score: 02 for **outline and title,** 03 for **ideas,** and 03 for **language.)**

Grade 10 Pretest   **A Life Crueler than Death**

1 A critically ill woman, in agonizing pain and dying a little more every minute of the

day, goes on TV in one last desperate act to plead for the right to end her own life.

2 No one who sees, hears or reads about June Burns' 90- second spot isn't wrenched with sadness that someone so warm, so intelligent and so ordinary somehow, is caught in the very depths of misery and despair.

3 The overwhelming majority of us are angry at the stupidity of a system that forces her to survive when all she longs for is simply to die with dignity in the presence of her loved ones. A few are angry, however, that she's had the **audacity** to appear on TV in the first place.

4 There is the Church's Father Brian Lucas, for instance, who thinks that June could **muddle** along, instead, with a little more support and encouragement. And then there is the Archbishop of Sydney, Cardinal Edward Clancy, who slammed the ad as offering a terribly negative message to everyone, especially the young.

5 Well, I'm sure June is just **mortified** with embarrassment about that for the plain fact is there is nothing positive, nothing **virtuous** and absolutely nothing noble about pain and suffering and dying a horribly slow and pointlessly harrowing death.

6 Many of us have loved a relative who has been eaten away with cancer and watched helplessly as they have wept with misery and bitterness that they could not die with the dignity with which they have lived.

7 Some of us have known a friend become a **pallid**, stick-thin ghost in the shadow of AIDS as they hunted for allies to help them end the torment. And a few with have **endured** the tragedy of someone revived and placed on life support when everything else around them is truly dead.

8 It's very well for the Church to slam the showing of the ad as the day the debate over euthanasia turned ugly.

9 And a desperate death without a medical expertise can be even uglier. Spare a moment's thought for the horribly messy deaths of the 672 elderly Australians who committed suicide in five years to 1994, by gun, hanging, jumping from high places, drinking agricultural chemicals, cutting themselves with knives or throwing themselves in front of moving vehicles. Did they find peaceful endings to long and loved lives? Hardly.

10 The Church, however, knows better. As individuals we shouldn't be allowed the freedom to decide how we're going to die. We obviously can't be trusted. We might live without the Church, but we are sure as hell not going to be able to die without it.

11 The whole situation is ridiculous. Survey regularly show that up to 80 of Australians believe we should have right to euthanasia naturally with safeguards to make sure it doesn't become compulsory for those we could happily do without.

12 For these days, with the kind of medical advances we have to prolong life, we urgently need to **embrace** a new morality around death. And one for the benefit of us all, rather than merely the narrow interests of the leaders of one church.

13 Just look into June's eyes and tell her she's damned. Somehow, I don't think she'll take much notice.

Reading Comprehension:

Read the questions carefully.

Answer the following questions in complete sentences. (20pts)

    A. Comprehension Question (8 points)

1. There is big touch of irony in the above title. State the irony, and then explain it (2 points)

2. June Burn's situation arouses two contrasting types of feelings and emotions in the reader's mind. Explain (2 points)

3. State the writer's attitude towards the Catholic Church's clergyman as portrayed in paragraphs 3, 4, 5 and 6. Justify your answer. (2 points)

4. Is the writer with or against (mercy killing)? How does he justify his position? (2 points)

B. Pattern of Organization Questions (12 points)

1. What is the theme of the above text? Justify your answer. (2 points)

2. What is the mood of the above text? Justify your answer. (2 points)

3. What is/are the purpose(s) of the writer in focusing on a live example (June Burn's) in the above text? (2 points)

4. Identify and explain the tone of the writer towards June Burns. (2 points)

5. The following statements are false. Rewrite them correctly. (4 points)

   a. All patients with severe cases die in pride and dignity.

   b. A pallid, stick thin ghost in the shadows of AIDS is a smile used to show the patients' ability to struggle for survival.

Vocabulary (10 points)

1. Select from the paragraphs 1,2,3 and 4 words with the following definitions. (4 points)

   a. Pulled or turned forcibly.

    b. Causing great pain and anguish.

    c. Courage and resolution

    d. Bitterly attacked and criticized.

2. Find the synonyms of the following words from the box below.

      Note: some words are not used. (6 points)

   a. Torture

   b. Moral

   c. Harrowing

   d. Scramble

   e. Unhealthy

   f. Fearless

Grammar (20pts)

  A. Complete the sentences with the appropriate form of the verb in parentheses.

    (6pts)

    1. (people, be) ------------------------ able to fly if they (have) ---------------------
---feathers instead of hair?

    2. I didn't know the Newtons were going to bring two other people to dinner last night. If anyone else (bring) ------------------------an extra guest we (have, not) ----------------- enough seats at the table.

    3. If I 9be) -----------------------you, I accept 9------------------- their invitation for dinner tonight.

  B. Change the sentences below from the quoted speech to the reported speech.

    (4pts)

    1. He said, "I have worked hard."

    2. He said, "I can work hard."

3. Bill said, "I forgot to pay my electric bill."

4. Linda said, "I'm meeting David for dinner."

C. Change the sentences below from the active to the passive voice. (5pts)

1. The teacher helps us.

2. Bob has mailed the package.

3. Mr. Fox washed the window.

4. The secretary is going to fax the letters.

5. A college student bought my old car.

D. Choose the best answer to complete the sentences. (5pts)

1. The subjects you will be studying in this course (astounds, astound) me.

2. Every man, woman, and child (is, are) protected by the law.

3. Almost every professor and student at the university (approves, approve) of the choice of Dr. Brown as the new president.

4. Tomatoes (is, are) easy to grow. Growing tomatoes (is, are) especially easy in hot climates.

Writing (30 points)

Write a well-organized essay of 250-300 words discussing the differences between euthanasia and suicide. Do you believe a person has the right to live or die? Support your answer with evidence from your readings, observations, and experiences.

Your essay will be evaluated based on the following points:

1. Organization and structure (outline, introduction, body, conclusion) (8pts)

2. Content (ideas, logical details and ideas) 7(pts)

3. Sentence structure, word choice, mechanics, grammar and usage. (10pts)

4. Style, unity and coherence 5(pts)

Posttest Grade 10   **Duration: 120 minutes   Score: / 20**

Part One: Reading Comprehension. (Score: 11 pt.)

This selection presents the idea of a girl who wants to get married rather than to

continue her education. Read the selection carefully, and then answer the accompanied

questions.

From Wanting a husband to Wanting a Career

1. Dr. Geeta Rao Gupta, who grew up in India, remembers having no ambition as a teenager. She was not a good student in middle school or high school and had no inspirations to succeed or do anything much with her life. Her apathy was so strong that in the eighth she asked her mother for a simple request.

2. "I said to my mother she should just find me a husband and get me married because I didn't think I was capable of much," Gupta says.

3. Her mother responded, "What kind of husband do you want?"

4. Someone like her dad, Gupta answered.

5. "And my mother said, "Ah, somebody like your dad would want an educated wife or at least somebody with a high school education."

6. That conversation was a turning point in Gupta's life.

7. "All of a sudden, the trajectory in my life changed because I had finished high school," she said.

8. As a result, Gupta says she never thought again about dropping out. She went onto study for a bachelor's degree, a master's degree, and then a Ph.D. and has "never stopped since." Today, as president of the International Center for Research on

Women (ICRW), a leading global authority on women's role in development, Gupta realizes how fortunate she was to get an education.

9. "Now, for my work, I get to visit schools that are available for the poor: the quality is so bad, and the conditions are so poor. Those kids can never succeed because their quality of schooling is poor." According to Gupta, there is clear evidence to show how important education is for girls. "This is a big area- where we know what to do. We know what it takes. We even know how much money and what strategies will work at the country level. But the money and the resources are not there to meet the goals, and that is tragic."

10. But education is just one of the needs that will allow girls and women to have the same rights, opportunities, responsibilities, and choices in life that boys and men consider their bright birthright.

11. Gupta considers that guaranteeing women their productive rights and health is important, too. "To think that in this day and age there is still half a million women dying of preventable causes related to childbirth and pregnancy is unacceptable in the 21st century. Health systems in the developing world haven't been strengthened over time. Women also need access to family planning services, and teenagers need access to full information on reproductive health," Gupta explains.

12. Gupta also identifies ending violence against women as a priority. "In talking to women who are victims of violence, it is absolutely abhorrent to me to imagine that such a practice still exists and that the acceptability level of violence against women persists-both among women and men. It is almost taken to be an indicator of a man's love for his wife that he beats her occasionally, and it has to stop."

13. Gupta also believes women need to be given more opportunity to participate in decision making at all levels in any country. "Until that happens," she says, "we are never going to see the changes that should be brought about."

Questions:

A. Answer each question in one to four sentences of your own. (Score: 2 pt.)

1. Identify two factors behind the bad educational conditions in India. (Score: 1 pt.)

2. Why was Gupta's conversation with her mother a turning point in Gupta's life? Justify your answer. (Score: 1 pt.)

B. **Identify the pattern of each sentence. (Score: 2 pt.)**

1. I said to my mother she should just find me a husband and get me married because I didn't I was capable of much. (Score: 0.5 pt.)

2. Now, for my work, I get to visit schools that are available for the poor; the quality is so bad, and the conditions are so poor. (Score: 0.5 pt.)

3. But the money and the resources are not there to meet the goals, and that is tragic. (Score: 0.5 pt.)

4. Gupta also believes women need to be given more opportunity to participate in decision making at all levels in any country. (Score: 0.5 pt.)

C. Read paragraphs 10 and 11 to complete the table with appropriate information, using words or phrases. (Score: 2 pt.)

Women's need	Purpose

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| | |
| | |

D. The following statements are false because they misinterpret the meaning conveyed in the selection. Rewrite them correctly. (Score: 1 pt.)

1. Gupta's mother wanted to continue her education because her husband liked educated women. (Score: 0.5 pt.)

2. Violence against women is of less importance than other problems that should be tackled in India. (Score: 0.5 pt.)

E. **Scan paragraphs 1 and 12 to find synonyms to the following words**. **(Score: 2 pt.)**

Word	synonym	Word	Synonym
Ambition		undesirable	
Demand		continue	

F. Rewrite the following sentences as indicated. **(Score: 2 pt.)**

1. "I said to my mother she should just find me a husband and get me married because I didn't think I was capable of much." (Score: 1 pt.)

   Gupta says

   that…………………………………………………………………………..

2. Women need to be given more opportunity to participate in decision making at all levels in any country. (Score: 1 pt.)

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Society

………………………………………………………………………………………

………

Part Two: Writing (**Score: 9 pt.**)

Some women prefer to be housewives to take care of their families while others choose to be working mothers taking care of both family and work.

Reflect on the life of a housewife and that of a working mother. Then compare and contrast them in a well-organized essay with a suitable title and organization. See that, in your introduction, you put your reader in the general atmosphere of your topic and clearly provide a thesis statement, and that each of your body paragraphs starts with a topic sentence which you back up with relevant supporting details. Draft, revise, and proofread your essay. Your writing will be assessed for **both ideas** and **form**. [Score: **05** for ideas, **03** for language and style, and **01** for tidiness and legible handwriting]

Dyslexia Detection Forms A,B,C,&D

FORM A

A-Dyslexia Test (FILLED OUT BY THE STUDENT)

Questionnaire

At school

1. Did you experience **feelings of failure** at school? YES / NO

2. Do you **lack self-confidence** about your ability to write or spell words? YES / NO

3. Do you study hard but find that you get **disappointing results**, for example in

examinations? YES / NO

4. Do you often **skip words** when reading and have to go back to read the sentence

again? YES / NO

5. Do you have difficulty **reading aloud**? YES / NO

 6. Do you find difficulty **working with numbers**? YES / NO

 7. Do you find yourself **unsure of how to spell** words? YES / NO

 8. Do you remember ever being reluctant or **unwilling to go to school**, or experiencing a

nervous stomach ache on a school day? YES / NO   If so, please say at what ages

approximately, and the reason (if you found it out).

9. Did you find any part of **school work hard**? YES / NO.   If so, please describe

10.When you were at school did you have any difficulty copying what the teacher had

written on the board? YES / NO

  11. Were you **slow to finish your work** in school? YES / NO

12. Do you remember **feeling frustrated** with your difficulties at school? YES / NO

13. Were there any **changes of school** beyond the normal during your education? YES /

NO. If so, at what ages, and how many moves?

14. Did you suffer any long **absences from school**? YES / NO. If so, what was the

reason?

15. When you were at school, what were your **favorite subjects**?

16. When you were at school, which **subjects did you dislike**?

17. Do you enjoy **sports**? YES / NO

18. Do you enjoy **art and drawing**? YES / NO

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At School

1. Do you get confused about **following instructions**, for example with a new procedure

at work or a new routine at college? YES / NO

2. Are there any particular **tasks that you find difficult** in your work/studies? YES / NO

 If so, please describe them:

3. Do you **experience frustration** at your inability to cope with certain tasks at work or

college? YES / NO

Left and right

1. Do you ever **confuse left and right**? YES / NO

2. Are you **left-handed**? YES / NO / NOT CLEARLY LEFT- OR RIGHT-HANDED

3. Is anyone else in the (blood-related) family **left-handed**? YES / NO . If so, who?

4. Which foot do you naturally choose to **kick a ball** with? LEFT / RIGHT / EITHER

 5. Take a piece of paper, roll it into a tube, and look through it - like using a telescope.

Which eye did you naturally put it to? LEFT / RIGHT

6. Do you **hesitate before writing the 'b' or the 'd'** or other letters or numbers because

you have to think which way round they go? YES / NO If so, please give details:

Medical

1. Is there anything unusual in your **medical history**? YES / NO. If so, what?

2. What was your **weight at birth** - if you know? ....

3. Do you have any **eyesight problems**? YES / NO. If so, please describe:

4. Do you ever find that you do not **hear** what people say ? YES / NO. If so, please

describe.

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5. Did you suffer from **repeated ear infections**, or go to hospital to have tubes/grommets inserted in the ear, at any time in your childhood - as far as you know?   YES / NO. If so, please give details (and at what age).

FORM B

Grade 7,8 ,9 and 10 Dyslexia checklist test.

Look at the questions in the checklist below. The questions are all related to different areas of dyslexia. Read the questions carefully and be as honest as you can when answering them. Please tick Yes or No to each question. Don't miss any questions out. If in doubt tick the answer that you feel is true most often.

	yes	no
Do you find difficulty telling left from right?		
Is map reading or finding your way to a strange place confusing?		
Do you dislike reading aloud?		
Do you take longer than you should to read a page of a book?		

Do you find it difficult to remember the sense of what you have read?		
Do you dislike reading long books?		
Is your spelling poor?		
Is your writing difficult to read?		
Do you get confused if you have to speak in public?		
Do you find it difficult to take messages on the telephone and pass them on correctly?		
When you say a long word, do you sometimes find it difficult to get all the sounds i the right order?		
Do you find it difficult to do sums in your head without using your fingers or paper?		
When using the telephone, do you tend to get the numbers mixed up when you dial?		
Do you find it difficult to say the months of the year forwards in a fluent manner?		
Do you find it difficult to say the months of the year backwards?		
Do you mix up dates and times and miss appointments?		
When writing cheques do you frequently find yourself making mistakes?		
Do you find forms difficult and confusing?		
Do you mix up bus numbers like 95 and 59?		
Did you find it hard to learn your multiplication tables at school?		

The 12 best items in order of importance are:

1. Q17

2. Q13

3. Q7

4. Q16

5. Q18

6.   Q10

7.   Q19

8.   Q14

9.   Q20

10.   Q4

11.   Q1

12.   Q11

If the majority of these items are ticked, this is a strong indication of dyslexia.

FORM C -OBSERVATION CHECKLIST FILLED OUT BY TEACHERS

Student: _____   **Grade:** _____

Teacher: _____   **Date:** _____

Weak Average Strong

RECEPTIVE LANGUAGE

Reading Decoding ☐☐☐

Reading Comprehension ☐☐☐

Listening Comprehension ☐☐☐

EXPRESSIVE LANGUAGE

Oral: ☐☐☐

Written:

Sentence Structure ☐☐☐

Organization of Ideas ☐☐☐

Spelling ☐☐☐

Grammar and Mechanics ☐☐☐

NOTETAKING SKILLS

Handwriting or Printing ☐☐☐

Copying Ability ☐☐☐

Keyboarding Skills ☐☐☐

Dictation Skills ☐☐☐

MATH

Computational Skills ☐☐☐

Math Concepts and Applications ☐☐☐

SOCIAL SKILLS & ☐☐☐

PEER RELATIONSHIPS

GENERAL CLASSROOM SKILLS

Organization of Work ☐☐☐

Time Management ☐☐☐

Homework Completion ☐☐☐

Focus of Attention ☐☐☐

Test Taking ☐☐☐

FORM D

C-Screening test for dyslexia in children

• Are there any family members who experienced difficulty learning to read or spell when they were at school?

• Is your child experiencing reluctance to go to school or feelings of failure at school?

• Does your child have difficulties with spelling?

• Does your child miss out words when reading?

• Does your child have difficulty reading aloud?

• Does your child sometimes skip lines when reading?

• Does your child experience difficulty copying from the board?

• Does your child get confused about following instructions, for example when playing a game?

• Is your child unable to count backwards from 100 down to 0?

• Is anyone in your family left-handed?

If you answer 'Yes' to four or more of these questions, then your son or daughter may be dyslexic, and probably needs a full individual assessment by a dyslexia test in order to test the dyslexia symptoms.

C. Consent Forms

PARENTS' INFORMED CONSENT FORM

Informed Consent Form – Parent/ Guardian

Prospective Research Subject: Read this consent form carefully. Ask as many questions as you like before you decide whether you want your child to take part in this research study. You are free to ask questions at any time; before, during or after your child's participation in this research.

Project Title: Instructional Strategies for Enhancing Learning Disabled Students' Reading Comprehension and Comprehension Test Performance

Principal Investigator: ghada awada

Telephone: 70605396

E-mail:ghadawada@gmail.com

Organization: URV University-Spain

Location of Study: Beirut,Lebanon

Purpose of the Study

Your child is invited to participate in a research study designed to collect information about **Instructional Strategies for Enhancing Learning Disabled Students' Reading Comprehension and Comprehension Test Performance**. I am Ghada Awada , and I am conducting this study as part of my doctoral program at URV-University.

Procedures

Your child will be asked to anonymously fill out a written questionnaire.

Possible Risks

Your child's participation involves no physical risk. The main risk would be a loss of confidentiality of responses to the interview questions. However, your child's name will not be employed.

Possible Benefits

Your child may not benefit directly from participating in this study. The results of this study may help schools, universities, and colleges better prepare to fulfill the requirements of **Instructional Strategies for Enhancing Learning Disabled Students' Reading Comprehension and Comprehension Test Performance**

Payments and/or Costs

Your child will not be paid to participate in this study, and participating will be at no cost to you and to your child.

Confidentiality

Your child's identity in this study will not be disclosed. Results of the study, including all collected data, may be published but will not encompass your child's name or include any identifiable references to you or to your child. The study records will be kept private in so far as permitted by law.

Termination of Study

You are free to decide whether to allow your child to take part in this study. You may also choose to withdraw your child from the study at any time with no adverse effects. Your child will not be penalized or lose any benefits to which he or she is otherwise entitled if you decide   not to allow your child to participate or to withdraw your child from the study. Your child's grades will not be affected by not participating or by being a part of the study. You will be provided with any significant new findings developed during the course of this study that may relate to or influence your willingness

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to allow your child to continue participation. In case you decide to discontinue your child's participation in the study, please notify Ghada Awada at 03-70605396 or ghadawada@gmail.com of your decision so that your child's participation can be terminated in an orderly manner. If your child withdraws from the study, all study data collected from, by, or about your child will be destroyed and will not be used in the data analysis or findings of the study.

Your child's participation in the study may be terminated by the researcher without your or your child's consent if your child fails to appear for a scheduled survey or fails to respond to two requests to set up a time for the questionnaire.

Upon the completion of the study, a summary of the study results will be provided to you per request.

Resources for Answering Questions

Any questions you have about this study will be answered by Ghada Awada at 70605396 or ghadawada@gmail.com

Consent

I have read and understood this consent form, and I voluntarily consent to my child's participation in this research study. I understand that my consent does not give away any legal rights in the case of negligence or other legal liability of anyone who is involved in this study. I also understand that nothing in this consent form is intended to replace any applicable federal, state, or local laws.

Signatures

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Participant Name (printed): _____

Participant Signature: _____

Date: _____

Principal Researcher's Name (printed): _____

Principal Researcher's Signature: _____

Date: _____

Person obtaining consent, if other than principal investigator (printed):

_____

Signature: _____

Date: _____

☐ Please send me a summary of the results of this research study.

STUDENT CONSENT FORM

Minor   **Consent**   **Form**

Ask as many questions as you want before you decide to take part in this research project. You can ask questions at any time before, during, or after you participate in this study.

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Date

DearStudent,

You are invited to participate in my research project entitled "**Instructional Strategies for Enhancing Learning Disabled Students' Reading Comprehension and Comprehension Test Performance**". I am carrying out this study as part of my doctoral program.

If you would like to take part in this study, you will simply be asked to anonymously fill out a questionnaire. You won't spend on this project more than twenty minutes. You will not be paid to work with me on this project, and your grades in school will not be affected by being or not in this research project. No risk is associated with this study.

If at any time you do not want to answer any more questions or quit being a part of this project, you are free to withdraw. You can also choose not to answer questions that you do not like to answer. If you decide to stop, everything you wrote me will be shredded and it will not used in the report about this study. Only a summary of what everyone said will be comprised in my report, other writings, or professional presentations about my research study.

If you have any questions or do not understand anything, you can always ask me. You, your parent or guardian may call me, ghada awada at70605396.

Sincerely,

Ghada Awada

I have read and understood this consent form, and I understand that I will

receive a copy of this form. I voluntarily choose to participate in this research study.

I understand what this research project is about and what I will be asked to do. My questions have been answered, and I consent to participate in this project. I acknowledge   a receipt of a copy of this form.

Name of Participant (printed): _____

Signature of Participant _____

Date _____

Principal Researcher's Name (printed): _____

Principal Researcher's Signature: _____

Date: _____

Person obtaining consent, if other than principal investigator (printed):

_____

Signature: _____

Date: _____

Please sign both copies. Keep one copy, and return the other one to the researcher.