UNIVERSITY OF CRETE
FACULTY OF EDUCATION
DEPARTMENT OF PRIMARY EDUCATION

Writing Difficulties and Feelings of Anxiety during the Acquisition of English as a Foreign Language

A dissertation submitted to the Faculty of Education of the University of Crete in fulfillment of the:
Doctorate Degree

Ioanna, K. Tsiriotakis

Supervisor: Professor Ioannis, I. Spantidakis

Rethymnon, Crete, 2013

Abstract

The aim of this study was to investigate the effectiveness of explicit, structured strategy-based procedural facilitation in writing, fostering cognitive apprenticeship and self-regulation strategies, (Bereiter, and Scardamalia, 1987, Spantidakis, 2010) along with its effects on the anxiety levels of fifth and sixth grade English language learners studying at a mainstream primary school in Chania, Crete, Greece. Specifically, the current study examined whether structured instruction in writing and self-regulation strategies, guided by strategy-based procedural facilitation in writing, would result in the improvement of students' writing quality, metacognitive knowledge, metacognitive skills, and metacognitive behavior as well as whether there would be a reduction in the students' anxiety levels. The participants consisted of one hundred and seventy seven (177) grade five (5), and six (6) primary school students. One hundred (100) students were part of the control group and seventy-seven (77) were part of the research group. The subjects were identified as below average, average, and above average writers and were randomly assigned into two treatment groups; the experimental group was provided with strategy-based procedural facilitation for two writing genres: story writing, and expository essay, and the control group that did not receive any writing instruction whatsoever, apart from the guidelines outlined by the Greek Ministry of Education. Participants' first language (L1) writing samples were also collected on both story writing and expository essays from the control and the experimental group, so as to investigate possible transfer of strategies from L2 to L1. The data collection included (a) pre and post-test foreign language writing samples on both story writing and expository essay; (b) semi-structured individual interviews; (c) participant observation; (d) anxiety questionnaires; (e) writing samples on first language (L1). Statistical important differences in scores between pre-test and post-test indicated that students' writing products improved in terms of overall writing quality; students' metacognitive knowledge, metacognitive skills and in turn metacognitive behavior was enhanced, while feelings of anxiety lessened.

Keywords: Writing Instruction, Explicit Strategy Training, Strategy-Based Procedural Facilitation, Anxiety.

Acknowledgements

I would like to thank my supervisor Dr. Spantidakis, I., for his constant support throughout the process of my dissertation. I am grateful to my assistant supervisor Dr. Vassilaki, E., for her modesty, valuable advice, and ongoing support that guided me through this procedure. I would also like to thank my assistant supervisor Dr. Mihailidou, E. for her valuable comments concerning my dissertation. Last but not least, I would like to thank lecturer Mouzaki, A. for her inspiration and motivation.

I also feel indebted to Dr. Harris, K., who welcomed me at the University of Nashville, Tennessee, as one of her own students, offering precious guidance throughout the whole process of my dissertation. Last but not least, Dr. Papanikolaou, for inspiring me through her wisdom and teaching me that "flexibility" navigates us through the worst of storms. I would also like to thank an exceptional educator, Kouroutos, M. for his support. My gratitude is also given to all the educators of the schools that embraced me for the fulfillment of this research investigation, and educators Liva Eleutheria and Giza Giota, for their important contribution in this study.

Finally, I am indebted to my friends Stamataki Maria, Fragkala Eftychia, and Avgoustinos Sykopoulos, for enduring my constant emotional highs and lows. I am grateful to my friend Ralli Maria, for her advice on an academic, and personal level. I am also indebted to my cousin, but most of all friend, Tsiriotakis Helen, for her wisdom and brilliance during our long conversations on skype throughout the progress of this study.

To my brother Panagiotis, and my sister Diana,

To my mother, Kathy, for always being a mother,

To my father, Kostantinos, the man who gave me wings to fly, the inspiration to create, and the gift of love to live.

This dissertation is dedicated to him.

Table of Contents

List of Tables

List of Graphs

CHAPTER 1: Introduction

Being a bilingual speaker of the English and Greek language, though principally schooled in Canada, I have never come across language situations such as memorizing grammar rules or vocabulary, hardship with English spelling inconsistencies due to the low orthographic transparency of the English language, reading or pronunciation difficulties, foreign language anxiety or pressure. As for writing, even though it was, and still remains, a strenuous task, I must have used, subconscious learning strategies to manage the demands of large text production for the purpose of my undergraduate and graduate studies.

However, it was only upon my return to Greece when working as a primary school teacher that I came across a completely different situation. I soon came to realize that in antithesis to my personal grade school experiences, young grade-school foreign language learners in Greece are called upon to juggle the mechanics of grammar rules, vocabulary learning, spelling, pronunciation, reading, speaking, listening and writing skills; as these students were not part of an authentic English-speaking environment, such methods did not facilitate their language learning experience as a whole. What's more, the English language is located at the deep end of European orthographies as regards to orthographic depth, characterized by various complexities, variations, and inconsistencies (Seymor, 2007). That is, as writing development and orthographic transparency are interconnected, learning to write in a deep orthographic system has made writing development an even more intricate task for young foreign language learners.

Whilst there were more proficient language learners who successfully managed to deal with the demands and intricacies of foreign language learning, by subconsciously self-initiating language strategies, there were also less proficient ones who failed to do so, especially, in regards to writing production. Observing that foreign language writing production was viewed as a repugnance by young Greek foreign language learners, and that students vividly expressed negative reactions such as dissatisfaction, aggravation, frustration, and even phobia, when called upon to produce a piece of writing, left me in a problematical state, as to whether the writing guidelines outlined in the Greek Ministry of Education may, possibly, be outdated.

Introduction

Learning a foreign language entails applying a combination of skills such as reading, writing, listening, and speaking to the learning process. Reading and writing skills are of fundamental importance for the acquisition of a foreign language, as well as a building block in an academic or school setting (Williams, 2005). Writing, specifically, is a multifaceted process, particularly for those acquiring a foreign language. Proficient writers are able to adhere to the rules and principles of punctuation and grammar, organize their thoughts, manage ideas in a coherent manner and choose appropriate words (Harris, Graham, and Mason, 2003) whereas less proficient writers, or even writers with learning difficulties are unable to do so. Learning how to write in a foreign language is an even more challenging task as writing imposes several cognitive demands not only on students, but also teachers (Harris, and Graham, 1999) and should be handled with appropriate strategy instruction.

Traditionally, English Foreign Language (EFL) mainstream classroom writing instruction has tended to focus on a well polished (finished) product rather than the writing process through attention to students' cognitive and metacognitive skills. The Greek education system, in a similar manner to other educational settings in which English is being taught as a foreign language, has focused on teacher dominated "chalk and talk" or "rote-learning". The teaching methods, subsequently, have so far predominately focused on a textbook-based, grammar-translation approach where lessons and tests mostly focus on grammar structures, vocabulary, and reading without focus on writing production. Even though an attempt to shift the old fashioned educational system by the Ministry of Education has been put forward, the teaching of writing production, to this day, remains under-valued in Greek EFL settings. Educators have been called upon to adjust their roles from "knowledge-transmitters" to "knowledge-facilitators" and students are urged to think and learn autonomously. Nonkukhetkhong, et. al., (2006:3) posit that the learner-centered classroom highlights two fundamental characteristics. Firstly, that responsibility is placed in the hands of the students to manage their own learning, and secondly that teachers take roles of facilitators of knowledge, assisting learners to learn how to learn. Communicative tasks are an essential ingredient of the learner-centered environment, through which learners develop their language and learning skills to become autonomous learners.

Nonetheless, irrespective of the new policy implementation, the situation in school contexts remains static, as in any given setting structured-instruction on policy implementation precedes successful policy application. Hence, regardless of the purpose of the current study, that is, attention being placed on primary school students' need of explicit writing instruction from the early grades and on, foreign language educators also require explicit and unambiguous assistance on how to successfully support young foreign language writers through strategy instruction on writing, but essentially on all four skill areas. In essence, a "method" or a detailed "plan" that is goal-oriented is essential for the successful navigation of teaching and learning in foreign language settings.

The specific study, may initially, prove useful to educators in the Ministry of Education, so as to alert them, to the fact that the development of the four basic skills is vastly emphasized in English language teaching, and that writing is titled under these four basic skills: (i) reading, (ii) writing, (iii) speaking, (iv) listening. Writing is an essential skill in second language development not only in regards to the development of accuracy but also for the emergence of new structures (Weissberg, 2000). Secondly, the study also aims to recommend to educators a "flexible" and "adaptable" way to guide young foreign language learners through the thorny path of writing production.

1.1. Greek Educational Setting

In 1992, the English language was introduced as a compulsory subject in the Greek primary school curriculum. In 1997, the minister of National Education and Culture, declared that since Greek was one of the least spoken languages in the world, precedence should be given to teaching English as a foreign language as it is the mother tongue of both European and non-European countries. In 1997, the Greek Ministry of National Education and Culture presented a document that vaguely outlined the national priorities and guidelines for teaching English as a foreign language for educators in the broadest of terms.

In 2010, new textbooks were introduced in the Greek foreign language curriculum. However, the Pedagogical Institute in Greece has officially shifted towards a Cross-

Thematic/Cross-Curricular Approach and the guidelines corresponding to the European Framework (CEF), very little focus has been placed on writing production skills in most Greek primary school classrooms. Language strategies are briefly noted in the "methodological tip" section of the guidelines outlined in the teachers' textbooks for grade five and grade six educators, but these guidelines fail to stress the importance of learning strategies during the acquisition of the foreign language, and there is no provision of guidelines as to their implementation.

A percentage of young foreign language learners are able to "consciously" or "sub-consciously" utilize learning strategies when processing information or performing tasks, however, less skilled learners, require explicit strategy instruction, especially in regards to foreign language writing instruction. Thus, when the Pedagogical Institute calls teachers attention to providing vague "tips" in terms of students' learning "process" (how they learn) rather than "content" (what they learn), the formulation of the foreign language curriculum takes the form of "striving towards" and not "achieving". Specifically, these "tips" do not produce measurable outcomes. Ultimately, it is for this reason, that foreign language learning strategies should not be vaguely mentioned as methodological tips, for this fails to provide specific examples on learning strategies. Instead, specific strategies should be the primary focus of the foreign language curriculum.

The lack of application of detailed learning strategies or a specified "plan" or "goal", an indispensable aspect of any language learning strategy, has detrimental effects on the writing products of Greek mainstream primary school students. Repeatedly, foreign language English writing focuses on mere textbook learning with no emphasis on teaching writing production strategies. Even though the pressure to acquire a proficient level of English accumulates, foreign language writing skills are still maltreated.

Ever since English as a foreign language was formally implemented in the public education system starting in primary school (grade three experimentally, to date, grade one in certain schools), by the Greek Ministry of Education, English language education has become a heated topic of discussion not just in the field of English education but in society as a whole. For this reason, parents seek outside-of-school English education assistance through private English tutors or private English schools so as to ensure that

their children acquire a proper English education. Private English schools are flourishing more than ever, simply because parents are uncertain as to the merits of public education with regards to English language instruction.

With this state of affairs, it is more important now more than ever before to equip young Greek foreign language learners with the adequate skills to take control and self-regulate their own learning through explicit, structured instruction in writing and self-regulation strategies, guided by strategy-based procedural facilitation in writing.

1.1.1. The Greek Educational System

Greek education has been teacher-centered with teachers vitally influencing students. Teachers' roles are to comply with the curriculum through the use of the recommended books and to provide students with answers to their queries. The Pedagogical Institute is responsible for Primary education in Greece, and it involves all elements of instruction. A syllabus is assembled and its application is compulsory. The Pedagogical Institute in turn, reports to the Ministry of Education, which directs the Greek educational system (Papanikolaou, 2003).

Two EFL educational systems co-exist in Greece, working concurrently. Firstly, there is the compulsory education in a state school or private school, secondly, optional education in *frontisteria*, or private English schools. Students attend private schools so as to supplement the school curriculum or to get a head start (Papanikolaou, 2003:16).

The Greek educational system is highly centralized despite some limited efforts at decentralization (Avdela, 2000; Zambeta, 2000). Attempts have been made to modernize and post-modernize the educational system (1964, 1976, 1981-1985- and 1997 as cited in Giamouridis, and Bagley, 2006:6) so as to stay abreast of the changing larger political, economic and social context.

1.1.2. EFL (English as a Foreign Language) in Greece

As earlier noted, English is a compulsory subject in Greek state schools starting at primary school in Grade Three (3) and taught three times a week. The duration of each lesson is forty-five (45) minutes. Nonetheless, in addition to schooling received in the state schools or private schools, students also attend *frontisteria,* Private English schools, or they are home-tutored in English. Private English schools are thriving in Greece as they foster the needs of students who want to attain the Cambridge Certificate of English, or the University of Michigan Certificate in English. Students are grouped according to their linguistic level of proficiency: elementary, pre-intermediate, intermediate, and advanced (Papanikolaou, 2003:16). Even though the age in which students start attending Private English language schools varies according to parents' judgment, the majority of cases start at grade three (3) or earlier.

In 2009, the Pedagogical Institute revised the EFL primary school curriculum. The new course books' design and content are based on the principles of literacy, plurilingualism and pluriculturalism, as set by the Cross-curricular Unified Framework, from the Council of Europe (Neuner, et. al. 2003). The latest course books as proposed by the Pedagogical Institute should be used "as a tool to support the teaching and learning processes in the Greek State Primary School" (Teachers Book, 2009:5). The course book is based on thematic units. Teacher's guidelines state "teachers who will introduce the course book into the classroom procedure should consider the pupil's specific needs as well as the needs of the local community" (Teachers Book, 2009:5). A Cross-Thematic/Cross-Curricular Approach is highlighted, which enables pupils to acquire a unified body of knowledge and skills, following a holistic approach to knowledge. Such an approach should enable pupils to form their own opinions of the world, their own "Cosmo" theory, as well as a multidimensional perception of the world.

Sympathizing with the realistic complexities involved in the EFL (English as a Foreign Language) primary school curriculum in regards to the management of pupils who have reached different levels of language proficiency, have special learning needs, or are minority students, the new revised English language curriculum promotes the use of specially designed tasks of varying degree difficulty, i.e. tasks that can be adapted depending on specific learner needs.

Universal differentiation exists in different educational systems. The unique character of the Greek educational system provides a good example of educational settings that prove effective, in terms of Private English schools, where students mainly obtain English language certificates, but also educational systems with deficiencies, as in the state schools, where students seem to be lacking adequate support. Hence, the two parallel English educational settings in Greece, state schools and Private English schools, demonstrate in essence, that focus should be placed on the way in which reform policies are applied, as this plays a fundamental role in learners' educational achievement. That is, the explicit way in which any individual educator applies an educational reform policy may in fact vary, as will the outcome; thus, any educational reform policy will bear little or no fruit unless adhered to through proper application.

In an effort to supplement the revised school curriculum, this thesis aims to propose a more unified and holistic approach through the use of universally applied tools (i.e. basic scaffolding instruction) that are required for specific lesson objectives and to promote literacy. Fundamentally, this study proposes the implementation of a flexible and adaptable writing instructional model to cater to the needs of both EFL (English as a Foreign Language) primary school students and educators through a unified and holistic teaching approach.

1.1.3. English Language Acquisition Across Disciplines

Without doubt political changes greatly affect educational systems and for the purpose of this research, English language teaching and learning. Following political developments during the 1980's and specifically with the creation of the European Union, country members as well as candidate country members of the European Union began to take a closer look at the teaching of English as a foreign language. Economic success, personal success, tourism and entertainment, as well the prospect of studying or working abroad and adjustments to everyday life led to the indispensable pre-requisite of English language acquisition (Petzold, and Berns, 2000; Nagy, 2009) becoming officially considered the lingua franca (Graddoll, 2006, Nikolov, and Djigunovic, 2006). With the English language now being a vital instrument of school success and, most importantly

future success, studies began to focus on the ways in which the English language is taught and acquired in schools (Petzold, and Berns, 2000).

Across Europe, the societal contexts of second/foreign language learning from a national and local perspective regarding primary school students is of a distinct nature (Enever, 2009) and across all borders as well. That is, in a number of contexts early access to modern languages differs. Young children progress and benefit from an early exposure to modern languages in different educational contexts, whereas affective, cognitive, social, linguistic and classroom related factors all interact in the processes (Nikolov, 2009:8). A brief exploration of investigations conducted from various contexts and classroom settings provides a lucid depiction of current issues, related to young foreign language learning, and teaching methodologies, from a broader perspective. Nonetheless, this exploration is relevant to the purpose of this study as fundamentally, it depicts that the intricacies involved in foreign language teaching and learning, across societal, educational and classroom contexts, may in fact share close resemblances.

A study conducted in Hungary by Nagy (2009) investigated ten (10) to eleven (11) year old children's beliefs concerning their motivation to learn English as a foreign language. A specific data collection method was implemented in order to interview the children in pairs of groups of six. The results of the study indicated that students viewed English acquisition as an essential requirement that fosters school and future success but also provides wider prospects and opportunities including potential goals of travelling or working abroad. The necessity of English language fluency was not only acknowledged by young Hungarian pupils, but also reflected their understanding of reality. That is, they essentially viewed English language acquisition as the avenue that provides access to opportunities.

Nonetheless, the results of the study also depicted that children greatly rely on the teacher and learning materials as well as their teachers and parents' expectations. Particularly, young Hungarian students indicated that following the requests of their educator, they often used texts, engaged in the reading and translation of the given texts, learnt unknown diction and memorized texts by heart. Performance, in turn, was determined through vocabulary tests, and sentence translation, as well as oral recitals of texts, poems and songs. Students repeatedly rated their teachers in the negative category, depicting their

dissatisfaction with the teaching methodology, and indicating that it was nothing more than the mere prominent grammar-translation method, which celebrates passage memorization from texts, grammar and vocabulary tests, a prominent practice in most EFL contexts. The results of the study essentially, depicted students' awareness of the ill-practiced state of English acquisition involving both teaching and learning. While taking into consideration the limitations of the study, the -scale and grade level-investigated, the author posits that student responses, nonetheless provided a clear reflection of the English language teaching and learning in primary schools in Hungary (Nagy, 2009).

Nikolov (2001 cited in Dornyi, 2005) analyzed unsuccessful Hungarian language learners, and found that even though they distributed positive attitudes as regards to knowing a foreign language, the chief reasons for their lack of success in the L2 was attributed to their view of classroom related factors. Specifically, Nikolov (2001) cited in Dornyi, 2005:75) argues that the most problematic areas were related to classroom methodology in general, and assessment, focus on form and rote-learning in particular. In 2009, Nikolov, conducted a similar study in which she investigated how various factors such as cognitive, socio-economic, affective and classroom factors contribute to young Hungarian language learners' proficiency in both English and German. Among the researchers' findings, classroom related factors were once again found to be responsible for students' very slow development over the years, and learners' loss of motivation over time. Specifically, the analysis of classroom activities indicated that the methods teachers applied were varied, however, deriving from the grammar-translation method spiced with drills (Nikolov, 2009:106). Classroom activities in the Hungarian classroom contexts were thus, found to not promote young learners' development, and to negatively impact their attitudes and motivation.

Language pedagogy and second language acquisition research broadly accepts that language related attitudes and motivated behavior play an integral role in second and foreign language (L2) learning. In 1999, Nikolov investigated Hungarian, elementary school children's motivational factors. The study determined that elementary school children are primarily motivated by elements related to the classroom situation such as positive attitudes towards the learning context, and the teacher as well as motivating activities tasks and materials. Csizer, and Kormos (2009) conducted a nation wide

representative survey with 1777 Hungarian primary-school children, between the ages of thirteen (13) and fourteen (14), studying English and German, so as to investigate the differences in the motivational and intercultural contact measures as well as their relationship with motivated behavior. Among the results of the study, the researchers found that, essentially, the school environment was the reason students still do not invest sufficient energy into language learning (Csizer, and Kormos, 2009:73). Specifically, even though young Hungarian primary school students appeared to be cognizant of the contributory benefits of foreign language learning, displayed positive attitudes to native speakers and receiving strong support from their environment, a deficient drive, or lack of motivation to invest in language learning characterized their efforts. According to Csizer, and Kormos (2009) the rationale, concerning primary school children's attitudes relates to the lack of high quality foreign language instruction.

Nagy (2009) investigated Hungarian primary school students' perceptions about learning English as a second language and, in a similar manner to Nikolov (2009) found that the grammar translation method (memorizing passages from texts and vocabulary tests) applied by educators, and the overreliance on preparing students for state secondary school, entry exams, had overshadowed the free and communicative facet of learning a foreign language. By the same token, the findings indicated that the frequency at which young learners rated their educator in the negative category poses concern as to the possible problematic methodology applied (Nagy, 2009:241). Finally, students' personal perceptions about learning English as a foreign language centered on future goals rather than intrinsic motives such as the pleasure of learning and knowing English, while the subjects perceived difficulties related to the language: vocabulary, pronunciation, grammar and inattention. In a similar study conducted by Huszti, et al., (2009) regarding the differences in the processes and outcomes of third grade Hungarian students acquiring English as a foreign language and Ukrainian as a second language in Hungarian schools, it was found that amongst the factors involved in language learning failure was the insufficiency of the curriculum and textbook as the current focus failed to sufficiently foster language learners' needs.

Although a different cultural context and setting, the Thai educational system nonetheless, reveals close resemblances to the previously discussed studies. As mentioned by Maskhao (2002) the Thai educational system, traditionally, has focused on

teacher dominated chalk and talk or rote-learning in which students are passive, obedient and respectful to teachers. Even though a learner-centered approach to teaching has been implemented, most Thai ESL teachers still exposed students to the textbook-based, grammar translation approach where lessons and tests mainly focus on grammar structures, vocabulary and reading so as to prepare students for University entrance examinations.

A brief exploration of investigations from various contexts and classroom settings provides a clear depiction of current issues relating to young foreign language learning. Although from a broader perspective, they are, nonetheless, relevant to the purpose of this study as they depict that the intricacies involved in foreign language teaching and learning, across societal, educational and classroom contexts, may in fact be of similar nature. Deficiencies in teaching methods and learning material, as well as unfavorable student perceptions as regards to English instructors, were the findings of numerous investigations, reflecting key emerging issues as regards to current practices from various contexts and classroom settings. Basically, it appears that the traditional methodology applied to L2 learning, overshadows young learners contemporary perceptions about the way English should be acquired. Essentially educators are called upon to reflect on the teaching methodologies to which language learners are exposed. As the famous quote by Robert Half, states "When one teaches, two learn" by listening to language learners' voices, new methodological practices could arise that would complement students' motivation and highlight their enthusiasm, rather than diminish it.

The curriculum and instructional practice has been a perplexingly overlooked and underrepresented aspect of research on L2 writing (Leki, Cumming, and Silva, cited in Hinkle 2011a, p. 535). Greece is a key example in which insufficient teaching lessons, various proficiency levels, large classes, poorly resourced schools, various socio-economic and cultural backgrounds as well as lack of continuous educational training are a facet of everyday reality. What's more, the new learner-centered teaching approach has necessitated both educators and students to acquire new teaching and learning strategies, but essentially, has yet to equip schools with adequate facilities, resources, or learning environments making the new policy outlines "idealistic" rather than "achievable".

This study hopes to lead to additional cross-cultural research towards a more holistic approach to EFL pedagogy for grade school learners. Even though universal differences exist in different educational systems and discrepancy owing to various societal contexts of second/foreign language learning, the enhancement of EFL students' communicative writing skills is a universal objective.

1.2. Background of the Study

In recent years, academia has shown an increasing interest in investigating the writing production difficulties of students. However, an examination of relevant bibliography shows that the challenges faced by grade school students with writing difficulties during the acquisition of a foreign language in combination with feelings of anxiety has been largely unexplored as an area of study.

Raimes 1985 has argued that anyone who has attempted to write something in a second language has realized that the process is astonishingly different from writing in the native language. Writing in a native language (L1) is a demanding task that requires the application and continuous interaction of numerous language abilities, in addition to general metacognitive abilities. Second language writing, in turn, requires the integration and application of multiple sub-skills, which operate at different processing levels (Coker, 2007). Writing in a second language (L2), is an even more complex task as several of these integral skills may essentially be less developed than in one's first language (L1) (Schoonen, et. al., 2003:166). Owing to the developing nature of linguistic and metacognitive knowledge, and fluency or accessibility to this linguistic knowledge, second language writing is a highly strenuous task (Ruan, 2005; Schoonen, et. al., 2003). These demands create an "extra burden that overwhelms the limited capacity of short-term memory" (Flower, and Hayes, 1981:373) and rationalize the differences found between expert and inexpert writers' writing processes and written products. Emotional strain that may be activated during anxiety-driven situations, may act as an additional impediment for the cognitive processes that occur during the learning process, leading students to isolation owing to difficulties as regards to decision-making and withdrawal from resolving these difficulties (Vasilaki, and Vamvoukas, 1997).

L2 writing research and pedagogy, has fundamentally followed the footsteps of L1 writing research and pedagogy. Nonetheless, empirical researchers contend that even though similarities between first language (L1) and foreign language (L2) writing exist (Grabe, and Kaplan, 1996; Raimes, 1985; Zamel, 1983) there are distinctive differences as well (Silva, 1997; Raimes, 1985; Zamel, 1983). The aforementioned posit that writing imposes constraints on both first language (L1) and second language (L2), and that cognitive capacity is utilized in both cases, but nonetheless, second language (L2) composition is more constrained, difficult, and less effective (Silva, 1993). L2 writers engage in less planning, face difficulty with goal setting, organization and generating ideas, their texts are less fluent, less accurate and less effective (Raimes, 1985). The difference between first language (L1) and second language (L2) writing products reveals that second language (L2) learners, especially children and inexperienced writers, encounter difficulty dealing with the complex demands of the second language (L2) writing process.

Over the years, the process approach to writing influenced by Flower and Hayes' (1981), and Bereiter and Scardamalias' (1987) theories have been a widely accepted pedagogical approach as regards to teaching L1 writing. This approach focuses on the processes involved in writing rather than the product of writing. The distinctive character of the process approach to writing is based on the recursive process of brainstorming ideas, drafting, organizing, editing and rewriting (Flower, 1994; Flower, and Hayes, 1984; Hayes, 1996; Hayes, and Flower, 1983). Bereiter, and Scardamalia (1987) in addition to other researchers of the field such as Graham, and Harris (1993) and Zimmerman and Bandura (1994) have fostered procedural facilitation to minimize the cognitive demands of writers while developing writing expertise. Specifically, Bereiter and Scardamalia (1987:254) have argued that procedural facilitation or in other terms supportive procedures that foster the provision of cues or routines for switching into, and out of new regulatory mechanisms while keeping the executive procedure intact, minimize the resource demands of recently added self-regulatory mechanisms. Essentially, this routine procedure alleviates the executive burden of writing so as to assist writers develop writing expertise; the knowledge and skills that characterize competent writers. That is, writers are potentially enabled to evolve from inexpert writers or "knowledge-tellers" to expert writers "knowledge transformers". However, even though the positive effects of procedural facilitation has established a firm ground in the context of L1 writing, scarce

research has been provided in the field of L2 writing (Cumming, and So, 1996; Cumming, 1986).

The intricate nature of foreign language writing has been widely accepted by research pedagogy, however, it has also been established over thirty years of research, that "frequent use of a large repertoire of strategies is positively related to learning results" (Cohen, and Macaro, 2010:7). Following Rubin's influential article "What the "Good Language Learner" Can Teach Us", in 1975, and Stern's (1983) list of the top-ten strategies of the good language learner (GLL), language-learning strategies have been abundantly researched. Learners' strategic behavior plays a central role in foreign language acquisition. Language learner strategy research focuses on the learner's decision-making process and the behaviors involved in the learning decision intended to maximize results. Basically, besides individual differences such as aptitude and motivation, what learners choose to do makes a difference in the learning process (Cohen, and Macaro, 2010; Dornyei, 2005:166). Dornyei (2005:167) clearly posits that "students' own active and creative participation in the learning process through the application of individualized learning techniques" is the reason certain students excel while other fail. Cohen (1998:4) has very lucidly defined language-learning strategies as "learning processes which are consciously selected by the learner". Subsequently, researchers of the field attempted to include "techniques", "tricks, or "tactics" to support language learners. Naiman, et. al., (1996) was one of the first researchers of the field to provide "techniques" that can be utilized to complement strategies or more precisely recommendations to language learners concerning particular skill areas such as grammar, vocabulary, listening, writing, speaking and reading.

Learning strategies soon came to be vigilantly researched through taxonomies (Dornyei, 2005). In regards to cognitive differences, or the cognitive framework, the exploration of the way in which strategy use varied with cognitive style was undertaken. That is, that the "good/not good language learner" could be studied in terms of cognitive styles (Reiss, 1981). The most prominent taxonomies of language learning strategies include Oxford's (1990) embracing: (i) cognitive, (ii) memory, (iii) metacognitive, (iv) compensation, (v) affective and (vi) social strategies and that of O'Malley, and Chamot (1990) including: (i) cognitive, (ii) metacognitive, (iii) and social/behavior. Both strategy classifications are highly compatible and as Dornyei (2005) mentions, both taxonomies encompass: (i)

cognitive strategies that deal with the actual processing of language in the brain, (ii) metacognitive strategies that involve higher order strategies such as planning, monitoring, and evaluating cognitive processes, (iii) social strategies that deal with the way in which individuals deal with social aspects of language learning situations and (iv) affective strategies that refer to the way in which individuals deal with affective aspects of language learning situations such as emotional conditions.

Cultural variation as mentioned by Oxford (1996b) posits a significant effect on language learning strategies. Language learning is situated within a given cultural context; numerous cultural beliefs, perceptions and values affect the strategies students develop. Students thus, represent a clear reflection of the system from which they have acquired strategies. Other additional variables include gender (Oxford, 1996b) as it often influences strategy use, proficiency level relating to more sophisticated strategy use, (Alvermann, and Phelps, 1983; O'Malley, et. al., 1985) and motivation as a variable highly associated with strategy use (Jones, et. al., 1987), while the strategy type classified as "easier" and "harder" was also found to be connected (Chesterfield, and Chesterfield, 1985).

Language learning strategies have also been viewed as highly related with the concept of Self-regulation, which has inevitably led educational psychologists to shift their research attention or in other terms to adopt a different research viewpoint. The change of focus towards self-regulatory learning can be justified through the list of components that comprise the concept itself that essentially provided helpful variables so as to more meticulously examine process-oriented learning. Dorneyi (2005:190,192) mentions, that Self-regulation has been "synonymously used with notions such as self-management, self-control, action-control, volition, self-change, self-directed behavior, coping-behavior and even metacognition and problem-solving". The extended set self-regulation components have led to various operationalizations, which even though they differ, are of a similar nature. Zimmerman, and Risemberg (1997:105) clearly mention that self-regulation processes refer to the learners' own "strategic efforts to manage their own achievement through specific beliefs and processes".

Second language research has also examined five variables that influence foreign language learning: anxiety, creativity, willingness to communicate, self-esteem, and learner beliefs. Foreign language anxiety, investigated for the purpose of the study, has been determined as a variable highly affecting language acquisition (MacIntyre, 1999; Oxford, 1999; Young, 1999). Arnold, and Brown (1999:9) have stated "anxiety is quite possibly the affective factor that most pervasively obstructs the learning process". For this reason anxiety has been receiving great attention in L2 research for decades (Oxford, 1999a; MacIntyre, 1999; Young, 1999; MacIntyre, and Gardner, 1991a; 1991b; MacIntyre, Noels, and Clement, 1997). Horwitz, (1996, 2001), one of the leading figures in foreign anxiety research, has determined that foreign language anxiety impedes foreign language performance, is fundamentally distinct from more general types of anxiety (state-trait), and subsequently constructed a 33-item, 5-point Linkert-scale instrument that she termed the Foreign Language Classroom Anxiety Scale (FLCAS) so as to determine foreign language anxiety levels.

Self-efficacy (self-esteem or self-confidence), the way in which individuals perceive themselves, their personal beliefs as regards to their capabilities, has been found to highly affect performance and has subsequently been a pervasive concern of educational psychology. Dornyi (2005:212) mentions that even though the precise means through which self-esteem augments learning has remained a controversial issue, it is generally acknowledged that consciously designed intervention can promote self-esteem and that fundamentally, self esteem is synchronized through self-regulation.

The previous brief discussion as regards to the evolution of foreign language research shows that the specific field is characterized by a rather unique and exclusive nature, and, for the purpose of this study, foreign language writing will be investigated in the hopes of complementing existing research already conducted. Fostering procedural facilitation, to provide a methodical framework and train novice ESL writers to utilize writing strategies that are utilized by skilled writers, or good language learners will be investigated. Specifically, planning, transcribing and revising, strategies are infrequently used by less skilled writers, and have not been adequately investigated in terms of grade school foreign language writing contexts.

1.3. Statement of the Problem

Writing is a complex skill to acquire. Emig (1997) argues that writing is even more demanding than reading as it involves the creation of a new text rather than dealing with an already created one. In contrast to other skills such as listening and speaking, it can only be learned through formal and organized instruction. However, procedural facilitation utilized through focus on skills necessary to meet the demands of foreign language writing, such as planning; revising and editing have not been adequately implemented in English foreign language (EFL) classrooms. The center of attention has remained fixed, placing focus on the memorization of grammatical skills, and vocabulary, rather than on the learning process, and, more specifically, on how to plan, edit and revise. Writing strategies have been shown to have a positive effect on students' L1 writing; however, there has been limited research of the use of procedural facilitation used as a writing strategy training framework so as to minimize young foreign language learners cognitive load while developing writing instructional models on young foreign language learners as studies have predominately focused on ESL University students. The interest of this study was to investigate whether the use of procedural facilitation in writing while developing writing expertise, through explicit, structured instruction in writing and self-regulation strategies, would improve young foreign language learners' writing quality metacognitive knowledge, skills and behavior and whether their anxiety levels would lessen.

1.3.1. Self-Regulated Strategy Development (SRSD)

The Self-Regulated Strategy Development (SRSD) is one of the most researched writing programs to date, demonstrating writing improvements for students of various ages and abilities (Schnee, 2010:12).

The Self-Regulated Strategy Development (SRSD) model of instruction, (Graham and Harris, 2005; Harris and Graham, 1996) assists learners to develop fundamental writing production strategies. These strategies entail planning, organizing and revising as well as self-regulation procedures, which involve monitoring, and goal setting. Nonetheless, apart from explicit strategy instruction on the processes of writing, the Self-Regulated

Strategy Development (SRSD) also fosters the formation of positive attitudes about students' writing and their writing abilities (Harris, 1982). The positive effects of the Self-Regulated Strategy Development (SRSD) have been determined through a plethora of studies but the effectiveness of the instruction has not been adequately, empirically investigated, on English foreign language writing settings.

The Self Regulated Strategy Instruction (SRSD) writing model enables both EFL educators and EFL primary school learners to adjust to the writing environment by implementing literacy-scaffolding tools. Self Regulated Strategy Instruction (SRSD), fundamentally, enables educators to navigate the lesson through the scaffolding process and apply specific tools that target specific metacognitive faculties. EFL primary school learners, in turn, are enabled to apply metacognitive strategies and, in essence, initiate the process of "thinking about their thinking". The SRSD is a flexible and modifiable model that meets the styles and needs of both teachers and students (Harris and Graham, 1999:252).

The Self-regulated strategy instruction (SRSD) offers structured strategy instruction in a group, with the teacher explaining and modeling specific strategies and providing useful mnemonics, such as acronyms for remembering strategies. Lower proficiency level students receive individual strategy coaching in which trained individuals model strategy use and offer assistance for internalizing the strategies. Students are requested to collaborate on a given learning task, principally a writing task. Collaborative work is required until students are prepared to engage in their own, individual work. That is, writing and applying in a cooperative manner, what has been learnt (specific composing processes, e.g. planning, drafting etc.,) precedes independent writing (goal-setting, self-monitoring, self-instruction, and self-reinforcement) (Lane, et. al., 2008). The "self-regulation strategy development model" (Graham and Harris, 1996) fundamentally reflects elements of Vygotsky's dialogic model owing to its strong emphasis on learners' self-regulation through social interaction within the L1. Oxford, and Schramm (2010:53) mention that if L1 learners share a common background, and if strategy instruction occurs in the L1, essentially, the "self-regulation strategy development is applicable to L2 learning.

The Self-regulated strategy instruction (SRSD) is a deeply strategic approach to studying that emphasizes and rewards personal understanding of the learning process. Through fostering explicit strategy instruction, educators are enabled to build the lesson plan as the lesson progresses so as to cater to the needs of students. Self- regulation has been determined to improve students' writing skills (Harris and Graham, 1999; Harris, Graham and Mason, 2003). Nonetheless, research has predominately focused on students with learning disabilities. However, the necessity of cross-cultural research amongst ethnically diverse populations, such as European language groups has been advocated (Schunk, 2005). Diverse population research would essentially provide a perspective as to the way in which motivational and self-regulation principles generalize across student populations. Self-regulation should thus be considered an essential objective to endorse student development. Most importantly, though writing production does not precede oral-speech its power to convey meaning is an equally powerful form of communication, the enhancement of students' writing skills fundamentally endorses students' general communication, thus skills on the whole. The characteristic nature of the Self-regulated strategy instructional writing model, embraces a creative, communicative language approach to teaching enabling foreign language learners to explore, discover, and discuss in a highly communicative language environment.

Metacognition is believed to play an important role in the learning process (Graham, 1997). The role of metacognition is of equal importance during the acquisition of a second or foreign language. Strong metacognitive skills provide foreign or second language learners the ability to engage in more reflective learning and enhanced performance (Anderson, 2002). Metacognition is commonly referred to as learners' knowledge, awareness and control of their learning process (Brown, 1978). Flavell (1979) posits that metacognition is a deliberate and planned, intentional, goal-directed and future-oriented mental processing that can be used to accomplish cognitive tasks.

Metacognitive skills, in turn, have been determined to be a prerequisite of effective learning (Wang et al., 1990) and the teaching of metacognitive skills has been highly emphasized in the literature (Lin, Schwartz, and Hatano, 2005; Martinez, 2006). Oxford (1990) posits that metacognitive skills, are not only vital elements for successful language learning, but are also believed to have a positive effect on developing all language skills. Metacognitive abilities have also been considered to be of fundamental importance as

they are considered a general predictor or determiner of language learning effectiveness (Flavell, 1976, Brown, 1978). Chamot and O'Malley (1994) have posited that a central way to determine language-learning performance is through students' explicit metacognitive knowledge, as regards to task characteristics, and proper strategy use for effective task achievement.

By explicitly teaching metacognitive strategies, students can learn to develop metacognitive skills so as to reflect upon their own learning process (Anderson, 2002). Specific scaffolding strategies, that draw upon: thinking prompts, sharing sample entries; modeling thinking aloud; and facilitating interaction, enhance the development of metacognitive skills amongst students. In the current study, metacognitive strategies refer to the processes used by learners to monitor or regulate their learning. According to Schmitt (2002) metacognitive strategies essentially, transcend cognitive devices and assist learners to organize their own learning. Metacognition, and metacognitive strategies studies, (Flavell, 1987; Anderson, 2002; Brown, 1987), consist of six components: self-awareness, task-analysis, planning, and strategy-use, self-monitoring and self-evaluating. Metacognitive strategy instruction, generally, refers to metacognitive training models, that explicitly teach students how to cognitively and metacognitively, regulate their learning process. The Self-Regulated writing strategy instructional model, implemented in the current study, is essentially a metacognitive writing model adopting the model of metacognitive strategies. The Self-Regulated writing strategy instructional model was utilized to familiarize language learners with metacognitive strategies, and to explicitly teach them how to apply those strategies in English writing. Essentially, in view of the important role metacognitive skills play in the learning process, the current study focused on explicit metacognitive strategy instruction for young EFL learners through the implementation of the Self-Regulated writing strategy instructional model, to improve their writing performance.

1.4. Purpose of the Study

Limited empirical studies to date have focused attention on the provision of procedural facilitation used as a writing strategy-training framework in English foreign language writing grade school settings. The present study aims to fill this gap in the literature. This

study is intended to provide insight in regards to the writing instructional needs of Greek primary school students, and hopefully beyond, who are acquiring English as a foreign language. It is anticipated that explicit, structured instruction in writing and self-regulation strategies, guided by strategy-based procedural facilitation in writing would enhance students' writing quality, improve their metacognitive knowledge, skills and behavior; reduce feelings of anxiety but most importantly, foster cognitive apprenticeship and more efficient and successful writing experiences. At a more practical level, the findings of this study aspire to assist ESL educators reach informed decisions as to the choice of writing strategies to efficiently support young ESL students' writing process and foster cognitive apprenticeship.

Oxford and Schramm (2010) have posited that the Self-regulation strategy development model can be applied to common L1 background and strategy instruction in the L1. According to the scientific and institutional curriculum framework guidelines outlined by the Greek Ministry of Education, grade five and six primary school students' writing production criteria as regards to story writing and expository writing, includes instruction on the pre-writing, writing, editing and revising stages, as well as self-efficacy and self-regulation strategy enhancement. The two educational contexts thus, share a similar ground that defends the selection of the Self-regulation strategy development as an application to the specific foreign language context.

1.5. Research Questions

For the purpose of this study the following research questions were designed to direct the course of this study:

1. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the metacognitive knowledge metacognitive skills and metacognitive behavior of both short story English writing and argumentative English writing?

2. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the writing quality of short story English writing?

3. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the writing quality of argumentative English writing?

4. Will statistical important differences be found amongst EFL students (below average, average, above average) in the native language story writing quality of the experimental group, following the provision of procedural facilitation through guided, explicit, and structured strategy-based instruction in writing and self-regulation strategies, on EFL short story English writing?

5. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, between writing anxiety levels and writing performance?

6. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group, on anxiety levels and writing performance, following the provision of procedural facilitation through guided, explicit, and structured strategy-based instruction in writing and self-regulation strategies, on both short story English writing and argumentative English writing?

7. Will important correlations be found between the writing quality of story writing and expository essay, metacognitive knowledge, metacognitive skills or strategies, metacognitive behavior and anxiety levels?

1.6. Significance of the Study

Over the last decades, the setting for first language (L1) writing production has undergone noteworthy changes. Since Emig's (1971) case study revealed the complex, non-linear nature of the composing process, composition research has directed its focus to the process of writing and, as Zamel has clearly posited (1983), on how writers generate ideas, record them and refine them in order to form a text. Nevertheless, whereas process oriented studies has had a great impact on writing instruction, English Second Language composition teachers, researchers, as well as textbook writers, still approach the foreign language writing process from an insular point of view (Zamel, 1983).

Globalization and the necessity to communicate via computers have made second language writing a prevailing focus of second language research attention (Silva and Brice, 2004). Nonetheless, few studies have investigated the second language writing processes of young school children, even though they take up a large percentage of the L2 population (Manchon, et. al., 2010), and most studies have concentrated on adult students (Roca De Larios, 2002). By the same token, the vast majority of participants in the studies conducted as regards to students' second language writing processes, involve university undergraduates or postgraduates who in many occasions were the researchers' own current or former students that may have prejudiced task completion (Zamel, 1983). The examination of these studies has placed emphasis on discourse skills, the components of metacognitive knowledge, the composing of various text types, and the use of L1 in the production and rescanning of L2 written texts (Roca de Larios, 2002).

Research findings indicate the value and necessity of strategies for language learning (O'Malley and Chamot 1996; Oxford, 1990; Oxford and Leaver, 1996) and a plethora of studies determine the effectiveness of the Self-Regulated Strategy Development writing instructional model (SRSD) (Tracy, Reid, Graham, 2009). However, a lack of literature indicating its instructional effectiveness on second language (L2) writing still exists. Moreover, investigations conducted on L1 writing have been the basis for second language (L2) writing, and first language (L1) writing models have in turn had a dramatic influence on second language (L2) writing instruction (Silva, 1993). By the same token, second language (L2) and first language (L1) writers' strategies have shown to share similarities (Zamel, 1982). Under this line of thought, strategy-based procedural

facilitation may offer an optimal context for the provision of cognitive apprenticeship in foreign language grade school settings.

Furthermore, the present study is based on cognitive and sociocognitive models of writing production that highlights students' active and dynamic role as regards to the construction of knowledge through the employment of cognitive and metacognitive skills and emphasizes the importance of appropriate procedural facilitative environments so as to promote and encourage these processes. Specifically, the importance of the study is the (a) development of metacognitive skills for young EFL students (b) stress the writing production process as a meaning making activity (c) provide an environment that gradually offers learning control to young EFL learners (e) suggest a coherent way to offer explicit strategy-based instruction through a procedural facilitative environment in which the educator aims to create a scaffolding environment leading to learner autonomy, through the development of metacognitive skills and (f) lessen EFL learners' writing anxiety levels.

1.7. Definitions of Key Terms

1.7.1. Foreign Language-Second Language

During the last few decades, the term second language (L2) has prevailed in the field of linguistics in order to characterize a new definition, which previously was included in the term foreign language. This section deals with the presentation of the terms that will be used for the purpose of this study. More specifically, the first section provides a description of the term English as a Foreign Language (EFL/FL) whereas the second section examines the term English as a Second Language (ESL/SL). The distinction between these terms is important as the setting in which learning takes place impacts the way students acquire language (Williams, 2005).

1.7.2. Foreign Language (EFL)

EFL: Is an acronym used for English as a Foreign Language and refers to the use or study of English by speakers with different native languages (Britannica, Encyclopedia, 2012; http://pediaview.com/openpedia/English_as_a_Second_Language). EFL indicates the use of English in a non-English speaking region.

A foreign language is a language acquired in an environment in which daily communication, interaction and input of the target language is limited (Oxford, 2003). Some of the basic characteristics of a foreign language are that its acquisition is accomplished mainly with the help of private tutoring, a few hours per week, without immediate contact with native speakers of the language (Triarchi, 2000, Krashen, 2009). Williams (2005) has coherently described a foreign language learner, as a student of a language that is not spoken in that country, as for example, a student learning English in Japan. The learning incentives of the foreign language predominately have an abstract character. According to Skourtou (1997, as cited in Triarchi, 2000) the acquisition of a foreign language is attained for educational purposes or for the accomplishment of future goals.

1.7.3. Second Language (ESL)

ESL: Is an acronym used for English as a Second Language and refers to the use or study of English by speakers with different native languages (Britannica, Encyclopedia, 2012; http://pediaview.com/openpedia/English_as_a_Second_Language). ESL indicated the use of English in an English Speaking region.

According to Oxford (2003:10) a second language entails studying in a setting where that language is used as a means of everyday communication and "abundant input exists in that language". The term second language refers to the process of learning another language after the native language has been learned. Essentially, the vital aspect of learning a second language is that SLA refers to the learning of a non-native language following the learning of a native language (Gass and Selinker, 2008). According to (Williams, 2005:1), a second language learner refers to those learning a language in a

country where that language is spoken. A Brazilian learner, on a student visa, learning English in the United States would be considered a second language learner.

It is the tradition of the field to use the term "L2" to refer to either a second or a foreign language and the terms L2 learner, and L2 writer, to describe the learners and writers of a new language, regardless of the setting in which they are acquiring and using language (Oxford 2003:1). The terms foreign language and second language are used interchangeably to refer to the learning of an unfamiliar language.

- SRSD- Self Regulated Strategy Development
- ESL-English as a Second Language
- EFL-English as a Foreign Language
- L1- A Person's First Language or Mother Tongue
- L2- A Person's Second Language or the Target Language Someone has Learned or Wishes to Learn
- LLs-Language Learning Strategies
- LD-Learning Difficulties

1.8. The Structure of the Study

The current dissertation is divided into five chapters. The first chapter, Chapter 1, examines current educational approaches in Greece and English language acquisition across disciplines, presents the background of the study, presents the statement of the problem, explains the purpose of the study, the significance of the study and states the research questions. The second chapter, Chapter 2, reviews relevant literature related to the purpose of the study. Specifically, Chapter 2 reviews and examines current research findings arising from the literature as regards to the sociocognitive approach to writing, cognitive and metacognitive processes, the role of self-regulation and cognitive strategies, and cognitive load theories as regards to the native language. Furthermore, theories associated with foreign language learning and language-learning strategies are presented, the role of metacognition and self-regulation is highlighted, and methods-approaches and second/foreign language writing models in regards to learning a second/foreign language are reviewed. Additionally, chapter 2 discusses anxiety theories

and examines the intricate role of foreign language writing anxiety. The third chapter, Chapter 3, presents the research design, the study context, the treatment, the instruments and data collection. The fourth chapter, Chapter 4, presents the results of the experimental design that answer the six research questions of this study. Chapter 5 discusses the research findings, pedagogical implications and further research.

CHAPTER 2: Review of the Literature

2.1. Writing

The present section initially deals with a general presentation into the field of writing. Following, the importance of writing is discussed and a depiction of students encountering poor writing skills, leading to a discussion concerning writing processes and writing process difficulties. Specifically, the two cognitive writing process models that are discussed are those by Flower and Hayes (1981) and Bereiter and Scardamalia (1987) that theoretically guide the current research. Finally, cognitive strategies instruction is discussed with an emphasis on procedural facilitation through the use of the Self-Regulated Strategy Development writing instructional model, followed by research related to it.

2.2. The Evolution in the Field of Writing

Following a historical scope in the history of writing, it has been determined that empirical research on writing in North America ultimately began in 1970 with the publication of Emig's (1971) *The Composing Process of Twelfth Graders* (Nystrand, et. al., 2006:11) which ultimately shifted research interest towards a theoretical, rather than a pedagogical approach. Emig (1971) initially investigated writing as a cognitive composing process. Interest was thus swayed in investigating the way in which ordinary students write, rather than to prescribe how they should write or what their texts would look like. It was at this point when weak writers were termed as Basic Writers and whose errors were to be examined in order to study the history and logic of their writing strategies (Nystrand, et. al., 2006:12). Writing researchers thus focused on studying the writer's minds, as individual entities and as the vital organizing principle of writing while also to elucidate the way in which the cognitive structure of writing processes converted thought and agency into text.

The rise of empirical research on writing begun in the 1970s and 1980s owing to an influential academic context and a socio-cultural receptive context in which writing was approached as a meaning-making process. The cognitive revolution followed and Chomsky's (1968 in Nystrand et. al., 2006) influential perspectives on language, which he viewed as a rule-governed cognitive process stressing that the study of language adhered to an investigation of the structure of the mind and that, ultimately, linguistics relates to cognitive psychology.

Flower and Hayes (1980, 1984) were two of the leading figures at that time. Flower and Hayes (1980, 1984) developed a model of writing processes, distinguishing the constituents and organization of long-term memory, planning, reviewing, and translating thought into text. Flower's and Hayes' research appears to be influenced by Emig's research (1971) with a common factor being the focus on the cognitive writing/composing processes and the use of think-aloud protocols. However, the essential distinction between Flower and Hayes and Emig's (1971) writing theory was that the aforementioned approached writing as a composing process whereas Flower and Hayes' built a formal model defining both the components and organization of writing processes.

The series of developments that follow led to writing being viewed as a social act. Shaughnessy inserted a clear social-dimension into writing research claiming that "writing is a social act" (Shaughnessy, 1977, in Nystrand, et. al., 2006:18). Linguists and researchers began to challenge and voice their opinions concerning the notions of cognitive perceptions and cognitive models which led to studies on writing basically examining the role of context, relationships of writing to reading and the relationship of writers to their discourse communities. During the 1990's, research on writing was further investigated, leading to a steady abandoning of the cognitive models of writing that portrayed writers as isolated individuals besieged with their thoughts, and audience as a supplementary element in terms of the writing process. It was during the 1980s when writing research fundamentally became social that writers and their readers developed into an important research predicament (Nystrand, et. al., 2006).

2.3. Writing Importance

"The pen is mightier than the sword" (Edward Bulwer-Lytton, 1839). Though this quote was written for the purpose of a play, to this day writing holds the same dramatic importance. Over the years, writing has been used to preserve cultural heritage, as a tool for persuasion, to convey knowledge and ideas (Diamond, 1999), gather and transmit information, and a powerful medium for persuasion (Graham and Perin, 2007). Society has deemed writing as necessary through the maintenance of laws and the advancement of science (Applebee, 1984).

Writing is a tool through which students are able to assemble and share information, to explore, organize and improve their ideas (Bangert-Drown, Hurley, and Wilkinson, 2004; Graham, 2005; as cited in Lane, Harris, Graham, Weisenbach, Brindle and Morphy (2008). The importance of writing and being a skillful writer has been stressed by researchers over the years who have noted that writing, like reading, is the basis on which content learning is acquired (Lane, Harris, Graham, Weisenbach, Brindle and Murphy 2008; Adams, Treiman and Pressley, 2000). Writing is an important part of the school curriculum from the early grades on, which steadily mountains the demands of good-quality writing production for future grades (Agate, 2005; Graham, Harris, MacArthur, and Fink-Chorzempa, 2003). Writing competence is essential not only for school success but for the workplace and individuals' personal lives as well (Graham and Perin, 2007). Essentially, writing has become the entryway not only for the school setting, but also for employment and future professional success.

Writing is a way in which students express themselves. The ability to express feelings and experiences is beneficial not only psychologically but also physiologically (Smyth, 1998). Investigations have shown that writing is an important way in which students express their knowledge and is a prevailing form of communication, self-expression, and self-reflection (Graham, 2006). The importance of writing has been stressed through investigations dealing with the relationship between written emotional expression and health which, have depicted that when writing is used as a form of expressing feelings and emotions, it is beneficial psychologically and physiologically by reducing depression, blood pressure, whilst boosting the immune system (Smyth, 1998). Similar studies have also stressed the beneficial effects of expressive writing for the promotion of good health.

A study by Murray and Segal (1994) argues that written expression was seen to have a therapeutic effect on the emotional processing of interpersonal traumatic experiences amongst students.

2.4. The Writing Process

"Writing is both a journey and a process in which you are exploring and then reconstructing your knowledge into a new representation that someone else can understand" (Flower, 1993:26).

Writing is a uniquely highly complex process to learn and requires the orchestration of various cognitive resources (Emig, 1977; De La Paz, Graham, 2002; Kellogg 2008; Coker, 2007). Writing demands both mechanical tasks and creative production (Kellogg, 2008). In opposition to listening and speaking, which are a natural part of human development, the teaching of writing requires formal and methodic instruction (Stallard, 1976; Emig, 1977; Kellogg, 2008) and is considered a cultural achievement that, by some, may never be acquired at all. Reading and writing are in part arbitrated by the phonological speech system; however, for writing, the acquisition of an independent orthographic system is also necessary (Kellogg, 2008).

Writing entails the orchestration of higher order mental processes as goal setting, planning, memory search, problem solving, evaluation and diagnosis (Bereiter and Scardamalia, 1987). The composing process itself, involves being faced with a chain of decisions and choices (Flower and Hayes, 1981). Writing is the act of concurrently managing an excessive number of demands or constraints, which is, fundamentally, what makes writing such a dynamic process (Flower and Hayes, 1980:33). A writer in the act is essentially a thinker on full-time cognitive overload as they are engaged in simultaneously exercising numerous skills to meet numerous demands.

Models of writing discuss the significance of cognitive processes stating that planning and self-regulation are essential rudiments of skilled writing (Hayes and Nash, 1996; Kellogg, 1993; McCutchen, 2006). Flower and Hayes, (1981), have questioned what guides the decisions and choices writers make as they write, and posit that the three-stage

model of writing, pre-writing, writing and revising, should be replaced with a writing production approach that stresses the recursive nature of writing by placing cognitive procedures in hierarchical format. Specifically, although the three writing processes may appear linear, they fundamentally blend together throughout the sequence of writing in a recursive fashion (Flower and Hayes, 1981; Hayes and Flower, 1986; Kellogg, 1987). It is this recursive fashion that complicates the writing process for struggling writers as they are called upon to juggle several unfamiliar tasks simultaneously.

2.5. Cognitive Processes In Writing

Cognitive abilities are utilized during the writing process making writing an intricate skill to master. Working memory is considered one of the most important cognitive skills used in writing as it has been found to deeply relate to writing ability (McCutchen, 1996; Swanson and Berninger 1995, Vanderberg and Swanson, 2007). The importance of cognitive processes such as planning and self-regulation as central elements of skilled writing has been highly stressed (Hays and Nash, 1996; Kellogg, 1993; McCutchen, 2006). The present section provides a discussion of the Cognitive Processes in writing. In particular, the cognitive process model of Flower and Hayes (1981), Hayes' (1996) revision of the original Flower and Hayes model, the Bereiter and Scardamalia, (1987), and Kellogg's (1996) writing models are presented.

2.5.1. The Flower and Hayes Writing Cognitive Processes Model (1981)

Flower and Hayes (1981) who derived their "think aloud" protocol from Newell and Simon (1972, as cited in Nystrand, et. al., 2006) conducted a study intended to depict the cognitive and motivational processes of writing. The study involved adults to "think aloud" during the process of composing. Specifically, the authors examined the writers' verbalized thoughts, written products and notes to investigate the vital components of the writing process (Flower and Hayes, 1981). The findings of the study were therefore used in order to assemble an inclusive model of the writing process including three essential elements: (1) the task environment, (2) the writer's long-term memory, and (3) writing processes. According to Flower and Hayes (1981) the task environment encompasses the rhetorical problem or task at hand, and in due course the text itself. Secondly, the

writer's long term-memory includes knowledge about the topic, intended audience and general writing goals or plans. The final element of the Flower and Hayes (1981) model includes the fundamental basic processes of planning, translating and reviewing.

According to Flower and Hayes (1981) the cognitive process theory or writing is based on the following four key principles:

a. The writing process entails distinctive thinking processes which writers are called upon to orchestrate during the writing process.

b. The cognitive processes of writing are hierarchical in order and encompass sub-processes.

c. The act of writing is goal-directed, directed by the writer's goals.

d. Writers generate high level and supporting sub-goals while also modify main goals or create new ones throughout the writing process.

The writing process entails distinctive thinking processes which writers are called upon to orchestrate during the writing process.

Flower and Hayes (1981) argue that writers initially engage in, or respond to, defining the rhetorical problem at hand such as a school assignment. The rhetorical problem is essentially an irrefutable aspect of the writing process encompassing the audience, the writer's goals as well as various motivational cues. However, writers respond and define rhetorical problems in different manners. Stressing the complexity entailed in any given rhetorical situation, Flower and Hayes (1981) state that writers in many cases "redefine" rather than "define" the rhetorical problem in a manner that solves the problems that they define for themselves (Flower and Hayes, 1981:369). Consequently, imprecise or underdeveloped rhetorical problems do not foster writing success. Nevertheless, the writing process progress, directed by the generated text, the writer's knowledge stored in long term-memory or alternative resources such as books, as well as the writer's plans. Finally, the act of developing and refining one's own goals should not be restricted to the pre-writing stage but a continuous composing process (Flower and Hayes, 1981).

Flower and Hayes (1981) depict the process of transforming ideas into written text as translating. The translating process itself obliges the writer to manage syntactic, lexical, motor tasks, grammar and spelling, as well as revising and monitoring of the written product, which may hinder the composing process for young children or novice writers by overpowering the restricted capacity of short-term memory.

The cognitive processes of writing are hierarchical in order and encompass sub-processes.

Flower and Hayes (1981) argue that writers engage in the writing process in a non-linear manner, technically termed recursion in linguists. For example a writer may approach a writing topic by initially planning and translating. However, during composing a writer might engage in reviewing the text or modifying the plan and transcribing new goals prior to translating ideas. Nevertheless, it is common for writers to establish individual processes to assist them to accomplish a given writing task (Flower and Hayes, 1981).

The act of writing is goal-directed.

Flower and Hayes (1981) posited that in a similar manner to the cognitive process, goal setting is also hierarchical in order and connected to the discovery process. For example, writers may initiate the writing process by setting abstract goals that will frequently include sub-goals. Moreover, even though goals are the base or the "logic" of the composing process, these goals continue developing throughout the writing process especially for more experienced writers who continuously return to their higher-level goals which are more detailed and multifaceted than those of novice writers. Inexperienced writers, simply adhere to low-level goals such as spelling, syntax errors or even just completing a sentence (Flower and Hayes, 1981).

Writers generate high level and supporting sub-goals while also modify main goals or create new ones throughout the writing process.

Writers navigate the composing process initially through higher-order goals such as "start with an introduction" and even sub-goals "capture the reader's attention". However,

throughout the writing process writers expand, revise, reinforce, modify or even replace the original goals that guided their initial planning depending on what they have learned through writing. Flower and Hayes, (1981) posited three characteristic patterns or creative processes of goals for a task at hand: explore and consolidate; state and develop; and write and regenerate. Typically, writers engage in the writing process by exploring, which involves high-level goals as identifying a given task. Writers then utilize these high-level goals to explore their knowledge or create associations. Nonetheless, the subsequent step is considered the vital one as it involves the writer's return to the top-level goal and evaluation of the generated information. The authors state that both poor and good writers seem skillful at the exploration element of this process. However, good writers are inclined to revisit top-level goals and review and consolidate the knowledge gained from exploring.

For example, if the writing task involves composing a letter for a job application, the high-level goals could involve a description of previous accomplishments. Throughout the planning process, the writer may produce sub-goals in order to support the top-level goal. However, following this exploration process the writer may observe the generated text and desire to consolidate, generate a new, more complex goal.

The second pattern depicted by Flower and Hayes (1981) state and develop is a straight forward process that involves the production of top-level goals, which in turn includes sub-goals that direct the composing process. While goals become more explicit they enable the writer to replace the initial blurry aims into authentic text.

Flower and Hayes' (1981) final pattern, write and regenerate, is parallel to the "explore and consolidate" pattern. However, instead of planning the writer is now engaged in the production of actual text. The writing symbolizes a general plan entailing the writer's initial ideas. However, the writer having composed the original prose may deem it inadequate and thus alter the original set goals or the initial plan. This clearly shows how the writer engages in a reciprocal process in which he continuously plans and writes. Thus, through the writing process the writer revises pre-set goals in a creative manner, offering the opportunity to compose and regenerate ideas proving that only through the actual writing process of composing new prose, does the writer engage in the learning process fruitfully.

Fundamentally, the Flower and Hayes (1981) cognitive process theory of writing illustrates that the writing process involves three essential features applied by all writers: planning, translating and revising and that writers engage in all of these processes throughout the composition process. However, it is apparent that these three processes involve intricate tasks that essentially differ from one process to the next, intermingling throughout the writing process in a recursive fashion even though they initially appear linear. The complexities and distinctiveness of these processes, as well as the recursive fashion in which they progress, may pose difficulties for struggling writers who are called upon to deal with several tasks simultaneously.

2.5.2. Bereiter and Scardamalia (1987)

Bereiter and Scardamalia (1987) provided two writing models that portray the way in which individuals engage in the composing process. The authors posit that the composing conduct of writers can be distinguished in two categories: novice or young writers, approaching language in a knowledge telling fashion, and skilled writers or university students, approaching writing as a knowledge transforming task. The two models of composing posited by Bereiter and Scardamalia (1987) indicate the mental processes by which texts are composed and refer to the higher mental processes that form cognitive research.

Bereiter and Scardamalia (1987) posit that writers instigate writing with a mental representation of a writing task at hand based on cues as regards to the writing topic, genre or discourse type. The authors stress that appropriate and available mental representations of text is a vital component of writing proficiency. However, immature writer's mental representation of the text, nearly exclusively consists of reference to lower lever surface text, whereas mature writers as posited by Flower and Hayes (1984) make explicit reference to structural elements, goals, main ideas and according language. Following writer's mental representation of the text, information is retrieved from long-term memory as regards to content knowledge from topic identifiers that serve as cues. However, information retrieved is not always relevant to the given topic nor is it always available in memory as it depends on the writing knowledge and content knowledge of

the individual writer. Specifically, whereas, writing knowledge embodies writers' understanding of the writing process and genres, content knowledge deals with writers' understanding of the writing topic. Moreover, whereas expert writers' long-term memory store draws upon audience, the genre, as well as the topic, inexpert writers adhere to the topic alone.

In the knowledge telling model, or "psychology of the natural", as has been depicted by the authors, essentially, inexpert writers approach language based on the restricted skills acquired through everyday social experience. Specifically, in the knowledge telling model inexpert writers initiate writing and promptly produce a paper by utilizing accessible knowledge and existing discourse-production skills as regards to their knowledge on a given topic or genre, typically reporting of personal experience. Knowledge telling, fundamentally, maintains the structure of oral language production entailing no planning or goal setting whatsoever. In essence, the knowledge-telling model advocates that novice writer's mental representations are parallel to what emerges on their paper, deficient in purpose, planning or consideration of the reader.

Contrary, to in the knowledge telling model, the knowledge transforming model or in the "psychology of the problematic" as has been portrayed by the authors, skilled writers make use of a process which transcends linguistic abilities intending to autonomously achieve what is generally achieved through social interaction. In particular, as the authors state, it is the re-processing of knowledge (Bereiter and Scardamalia, 1987:6-7). Nevertheless, expert writers also adhere to knowledge telling by *embedding* it in the knowledge-transforming model as a sub-process. Knowledge transforming is a cognitively complex activity in which expert writers engage in the composing process energetically, amending both their text as well as their thoughts during the composing process. Consequently, in the knowledge-transforming model it is writing itself that could foster the development of the writers' knowledge. Writing is managed as a recursive process in which the reflection process alters what had been provided by the writers' knowledge. Essentially, in the knowledge transforming model writers engage in originating and solving problems by adhering to a collaborative interaction between continuous knowledge and text development.

Fundamentally, whereas the knowledge-transforming model involves a vast and inter-connected set of mental representations, the knowledge telling model entails a limited range of representations involved in composition. Bereiter and Scardamalia (1987) posit that writing means transcending ones average ability to transcribe thought and knowledge. Writing entails one's ability to give form to a piece of writing, to accomplish outcomes from given aims and, ultimately, reorganize ones knowledge in the process.

2.5.3. Hayes Revised Writing Cognitive Processes Model (1996)

Taking into account the advancements in Europe and America as regards to the social and cognitive processes involved in writing, in 1996, Hayes updated the Flower and Hayes (1981) cognitive process theory of writing and examined the following three aspects related to writing production.

a. Working memory
b. The efficacy of free writing
c. Activity theory and the writing context

To begin with, the first component, working memory, which is indispensable in writing as regards to the use of cognitive processes, was included. In the revised framework, an example to illustrate the role of working memory, involves the condition in which an individual undergoes one of the difficulties limited memory creates for writers such as thinking of a brilliant sentence but not being able to recall its ending prior to printing it on paper. Working memory entails a plethora of roles in terms of writing and it was psychologists who initially presented the notion of working memory to describe the limitations that individuals experience when executing tasks entailing the use of working memory; specifically, the limit that exists as to the amount of information, as well as the length of time, working memory can withhold it. Thus, limited working memory resources are utilized for the execution of various writing processes making these processes interfere with one another. A study conducted by Chenoweth and Hayes (2001) in a second language setting (L2), posited that the editing skills of native English speakers, learning French or German, were more successful following the completion of a given task at hand rather than editing during the composing process of the given task.

The disparity in editing was accounted for due to memory-based interference amongst the processes of composing and editing.

In the revised framework, Hayes (1986) adheres to Baddeley and his colleagues' model of working memory, which highlights that working memory has separate storage capacity for verbal and visual materials. Specifically, Baddeley's model consists of three basic elements: a phonological loop used to store verbal information, a visual-spatial sketchpad used to store visual information, and a central executive that, in essence, manages the two previously mentioned parts. Initially, the phonological loop involves two parts with the first termed *phonological short-term store* embodying verbal information and the second, termed *articulatory rehearsal process*, dealing with the cognitive process of refreshing the material in the short-term store to augment the length of the time material can be preserved in short-term store. (Hayes, 2006:29). Thus, working memory is temporarily used to store knowledge while also to process information during the composing process.

Additionally, two ways exist in which the articulatory rehearsal process can be hindered. The first deals with exposing an individual to irrelevant speech and the second by articulatory suppression. Salame and Baddeley (1982) as quoted by Hayes (2006 p. 29) carried out a study in which participants were shown a list of nine digits, which they were asked to take down immediately. In the irrelevant speech condition a loud speaker was utilized to repeat one-syllable words or nonsense syllables. Participants were asked to ignore the auditory input and to focus on the visually presented digits. In the articulatory suppression condition participants were asked to continuously repeat the syllable *the* throughout the digit presentation. The results of the study determined a noteworthy reduction for remembering digits by irrelevant speech, or nonsense words as well as articulatory suppression. Secondly, articulatory suppression caused more memory for digits reduction than irrelevant speech. Finally, articulatory suppression and memory reduction, mutually, caused an equal amount of memory reduction as by articulatory suppression alone.

Another leading figure that has raised attention in terms of the role of working memory in writing, Kellogg, who in 1996, along with Hayes (2006), both posited that working memory, becomes an essential element in the modeling of writing. In (1999), Kellogg's model was revised but in a similar manner to Hayes model included working memory

while both authors adhered to Baddeley's model. However, the two models differ in that initially, Hayes (1996) model advocates that all writing processes utilize working memory while Kellogg explains that not all writing processes draw upon working memory. Specifically, Kellogg (1999) posits that translation and reading require verbal not spatial working memory, editing and planning entail spatial not verbal working memory, while programming and executing motor movement (e.g., those used in typing or handwriting) use neither. In regards to executing motor movement, Kellogg posits the probability that training in typing could facilitate the learning of other writing skills given that training in a skill generally reduces the working memory resources of that skill. For example depending upon the writer's medium (e.g. word-processor), working memory resources may decrease and potentially influence the course of a specific writing task. Clearly, Hayes' (1996), revised framework reflects on the intricate role of working memory and its effect on the composing process stressing the connection between cognitive processes, and long term memory.

b. The efficacy of free writing

The second cognitive process component in Hayes (1996) revised framework includes planning from a new perspective which in the original Flower and Hayes (1981) process model which consisted of problem solving, inference and decision making. In accordance with the revised Hayes (1996) model, skilled writers employ the composing processes by continuous planning that is fundamentally goal-directed, as well as revision.

c. Activity theory and the writing context

Fundamentally, activity theory was designed to elucidate the actions that individuals carry out by connecting the actions to the environment in which they take place. Specifically, the activity system entails the action and the environment in which it takes place. Hayes (1996) posits that individuals are ultimately involved in many activity systems at once and that activity theory can be used to understand the context of writing events. For example, if individuals are at a state in which they are experiencing conflict, it is important to look for differences in the elements of the activity system. Specifically, conflict in an activity system may involve difference in norms, writing goals or even

writing tools. Activity theory could provide valuable feedback, as it is the foundation of research programs (Hayes, 1996).

2.5.4. Kellogg's (1996) Working Memory Model

Extending the Hayes and Flowers' Model (1987), Kellogg (1996) posited that the three components of Baddeley's working model (central executive, visuospatial sketchpad and the phonological loop) are used during the formulation component of writing. The planning element in writing production which entails choosing a tone, idea creation and idea organization, essentially, fatigues the central executive and the visuospatial sketchpad (Writ, 2007:722, Kellogg, 1996). The visuospatial sketchpad is activated during the writers' engagement in mental visualization of the form on paper, organization of idea arrangement and supporting information. Additionally, the phonological loop and the central executive are strained by the high requirements entailed in the translating sub-process. Demands on the central executive are placed due to writers' endeavors as to which text generated by the inner speech will be stored in the loop. Specifically, text generation calls upon writers to create internal discourse as regards to the specific diction and the order of that diction. This discourse, in turn, creates phonological representations of the words that are syntactically framed and placed in the loop. Hence, the process of text generation is a strenuous engagement for writers heavily taxing both the phonological loop and the central executive. Planning creates an additional strain placed on the central executive consumption during preparation of the motor systems for writing, typing or dictating. However, these three outputs are of minimal consumption to the central executive capacity (Kellogg, 1966).

Kellogg (1996) has posited that the motoring component of writing places demands solely on the central executive and the phonological loop; however, heavy demands on the central executive and the phonological loop are placed by the reading subprocess of motoring (Gathercole and Baddeley, 1993, Just and Carpenter, 1992, Writ, 2007). During the reading sub-process, writers are faced with the transparent errors brought forward due to the familiarity of the text. Editing in turn, entails a variety of intricate tasks that not only have to be detected but also changed (i.e. grammar, word choice, fluency, text, paragraph organizational issues). In essence, as each individual task taken

alone does not necessitate a large capacity of the central executive, the tasks involved in editing as a whole, place heavy demands on the central executive system. For this reason, the role of working memory as regards to writing production has accumulated great interest.

2.6. Working Memory And Writing Development

The human mind works as a processing device much like a computer (Torrance and Galbraith, 2005). The mind thus, performs a variety of functions during the process of writing. Researchers have placed great emphasis and strongly support the limitations as regards to the writers mind and the effects of working memory (Chanquoy and Alamargot, 2002; McCutchen, 1994, 1996).

Working memory has been found to highly relate to writing ability (Vanderberg and Swanson, 2007; Hayes, 1996; McCutchen, 1996; 2000, Kellogg, 1996; 2008, Baddeley and Logie, 1999). The ability to produce an extended text at an advanced level entails the use of the language system as well as cognitive systems for memory and thinking. Writers can ultimately put to use everything they have learned and stored away in long-term memory. However, this can only be achieved if knowledge is accessible either by rapidly retrieving it from long term memory or by actively maintaining it in short term working memory (Kellogg, 2008).

The composition of extended texts is widely recognized as a form of problem solving. The problem of content *what to say* and the problem of rhetoric *how to say it* consume the writers' attention and other resources of working memory (Kellogg, 2008). Writers must make decisions about their texts especially as regards to argumentative texts that call upon their reasoning skills as well. Kellogg (2008) has argued that learning how to compose an effective extended text is similar to learning how to play a musical instrument which demands mastery of both mechanical skills or motor output, and creative production. Learning to become an accomplished writer is parallel to becoming an expert in other complex cognitive domains and the central goal is to gain control over cognitive processes so that one can respond to the needs of the task.

Writers experience three key stages prior to obtaining mastery of the writing process: knowledge telling, knowledge-transforming and knowledge-crafting (Kellogg, 2008). The first stage is used as a child matures and learns the craft of composition, carried on until late adolescence. The stage of knowledge telling is dominated by the author's representation and involves creating or retrieving what the author wants to say and then generating a text to say it. However, young students, in particular, center their attention on their thoughts rather than how the text reads. In the second stage, knowledge transforming, carried on until early adulthood, the text representation is both sufficiently detailed and stable to maintain in working memory, permitting an interaction between the author and text representations. Knowledge transforming thus entails changing what the author wants to say in order to generate the text. It involves a close interaction amongst the author's representation of ideas and the text representation itself. In the act of knowledge transforming the act of writing becomes a way of actively constituting knowledge representations in long term memory (Galbraith, 1999) rather than simply retrieving them as in knowledge telling (Bereiter and Scaradmalia, 1987).

The third stage, in turn, knowledge crafting, characterizes the progression to professional expertise to writing and is adhered to by experienced writers who are capable of representing and manipulating three representations in working memory. They do so by means of complex interactions between planning, generation, and reviewing that must be coordinated through executive attentional control in working memory. These attributes imply a high degree of self- regulation of cognition, emotion, and behavior that sees the writer through the lonely and challenging job of serious composition (Kellogg, 1994; 2008). The author is thus able to engage in deep conceptual revisions as well as surface revisions to a text to try to make sure that readers see matters the way the author does. Somers (1980:384) has documented that professional writers routinely and spontaneously revise their texts not only extensively but also globally, making deep structural changes. They express concern for the "form or shape of their argument" as well as a concern for their readership.

Nonetheless, the primary constraint in terms of progression through the previously stated three stages is the limited capacity of the central executive of working memory. Fundamentally, working memory places heavy demands on the central executive. Empirical findings have determined that the lack of accessibility of executive attention

constrains the development of writing skill (Vandenberg and Swanson, 2007). While the phonological loop and visual-spatial sketchpad have a role in writing, empirical research has depicted that these storage components are engaged in fewer aspects of planning, sentence generating, and reviewing compared to the central executive (Baddeley, 2001; 2003, Chenoweth and Hays, 2001; Galbraith, Ford, Walker and Ford, 2005; Kellogg, Olive and Pialot, 2006). Kellogg (1996, 2008) has posited that planning, generation and reviewing must be coordinated through executive attentional control in working memory. Thus, writers must possess a high degree of self-regulation of cognition, emotion, and behavior to successfully execute the writing process. Essentially, explicit training is required so that writers are able to free the availability of executive attention for the monitor component of the writing model. Specifically, writers must first reduce the attentional and storage demands of planning ideas, generating text, and reviewing ideas and text in order for self-regulation to take place.

2.6.1. Processing Demands of Writing

It has been determined that younger children's working memory in comparison with older children's portrayed that planning, generating and reviewing processes are more constrained by the limits of working memory. The self-regulation process of planning, translating and reviewing necessitates handwriting and spelling mastery (Graham and Harris, 2000). Lack of automaticity as regards to basic mechanical skills of handwriting and spelling further reduce the limited resources of working memory in children, restraining their ability to produce language in a fluent manner. Grade school children who have inadequately mastered handwriting fluency would inevitably develop insufficient writing skills as the process of freeing working memory resources for higher order processes would be hindered (Graham, Berninger, Abbott, and Whitaker, 1997).

Myhill and Jones (2007) reported that student's aged 14-16 could verbalize concerns when prompted to comment on their writing processes after a writing session. Half of their sample of 34 students commented on revisions made to improve coherence and add text in addition to avoiding repetition and making it sound better in general. Executive attention must not only be given to language generation but also for planning ideas, reviewing ideas and coordinating all three processes. Attention must be given to

maintaining multiple representation of the text in working memory. Achieving the necessary cognitive control can only occur by reducing the demands of the central executive. Demand reduction occurs by learning domain specific knowledge that can be rapidly retrieved from long-term memory rather than held in short term memory and by automating to some degree the basic writing processes.

It is assumed that both the writing processes of planning, language generation and reviewing plus the mental representation that must be generated and held in working memory undergo continuous changes through maturation and learning within specific writing tasks. The most advanced state of knowledge crafting, as earlier on stressed, deals with writers that are able to hold in mind the author's ideas, the words of the text itself, and the imagined reader's interpretation of the text. Hence, interventions that prompt the writer to 'read as the reader' explicitly focus working memory resources on the reader representation. Such interventions have proven significant in improving the revising activities of 5th and 9th graders (Holliway and McCutchen, 2004) as even young students understand that they must take into account the reader's thoughts as they compose a message in oral and written communication during the first stage of knowledge-telling.

Sentence production poses difficulty for young learners as retrieving a specific word to express a particular concept may be delayed. Sentence production is characterized as a sequence of processing stages, running in parallel, starting from word retrieval through developing syntactic structure and retrieving phonology or orthography, to motor planning or execution (Torrance and Galbraith, 2005:71). However, when one of the component processes is disrupted, the smooth course of information from process to process will in turn, be disrupted.

When the task at hand involves the production of an extended text the writer is called upon to ensure that the newly formed sentences are tied with the previous one, which, essentially, precedes the message of the text as a whole. Fundamentally, this coherence is established when the writer is capable of gaining access not only to the content to be articulated but also to the content and surface structure of the preceding sentence and to a higher level representation of the projected rhetorical structure for the text. Nevertheless, fluency is a further element that to be preserved, the previously mentioned information

requires quick and smooth retrieval, which will probably strain short-term storage capabilities (Torrance and Galbraith, 2005:71).

There are three ways in which transient storage might be implicated in terms of writing competence. The first one deals with the various levels of short-term memory. Good short-term memory will lead to highly developed work. The second deals with writers' ability to develop "domain- specific memory- management strategies" that enable them to more wisely utilize their available capacity. The final way in which transient storage may be implicated as regards writing competence, deals with spelling retrieval difficulties. Whereas experienced or adult writers are able to adhere to spelling rules without resource to the phonological mechanisms, inexperienced or young writers who may also suffer from a spelling specific cognitive deficit may overwrite obtainable phonologically stored information leading to a damage or even loss of the intended written sentence. Hence, during the attempt to recall spelling, disadvantageous effects are caused as regards to phonologically stored information as well as the sentence itself (Torrance and Galbraith, 2005:72).

2.6.2. Dual Task Interference

Dual task interference, in the context of writing production, may also interfere with cognitive capacity and obstruct the writing process. Dual task experimental methods have to do with engaging in a secondary task along with text production. Secondary tasks may involve: monitoring characters or shapes displayed alongside text as it appears on the computer screen (Lea and Levy, 1999), rapidly repeating a single syllable (Chenoweth and Hayes, 2003); or shapes (Kellogg, 1999). A study conducted by Chenoweth and Hayes (2003) determined that when asking individuals to repeat a single syllable while writing, the number of grammatical and spelling errors increases. Under this assumption, syllable repetition and the mechanisms of the writing system that deal with sentence generation and word structure share similarities with the mechanisms of the writing system. Furthermore, problematic performance in terms of the secondary task can also be explained in a similar way. Olive and Kellogg (2002) found that there were differences in reaction time since there were differences in the cognitive effort. It is essential to understand how performance of one task may interfere with performance of another.

Cognitive capacity is shared among some or all-mental processes. If writing demands do not surpass the available cognitive capacity the tasks will be well performed. However, if demands exceed the available cognitive capacity the writing task will be unsuccessfully accomplished. Lea and Levy (1999) have found disadvantageous effects in terms of fluency (words transcribed per minute) with phonological monitoring compared with visuospatial monitoring. Kellogg (1996, 1999) has determined that planning-which entails the way in which writers decide content and structure of their text- involves less phonological and more visuospatial processing than realizing this content as full sentences.

2.7. Poor Writing Skills and Writing Difficulties

Poor writing skills impede not only on the learning progress but also on individual growth and general welfare. Poor writing skills are a boundary to education, future success, employment, self-expression and the ability to become a fully included member of society. Individuals who fail to acquire the skill to adequately communicate through writing are deemed as outsiders from society. Thus, the power of writing is not an issue under debate. Writing is a tool through which individuals all over the world have been able to communicate freely and openly. Writing provides the opportunity to learn, and express oneself artistically, politically and spiritually (Graham and Harris, 2000).

Handwriting difficulties are a further setback for young writers. Hand writing requires the following skills: visual, audio and audiovisual cognition, optic kinetic-coordination, a sense of direction, the recall required in producing the correct letter as well as the required skill in forming the letter, phonological and morphological realization, proper hand grip, appropriate body placement and appropriate position of the notebook and self assessment (Graves, 1994, Richards, 1998, Graham, 1997, Reisman, 1991).

Students with LD (learning difficulties) face significant difficulties with basic writing skills, such as spelling, sentence formation, capitalization, and hand-writing (Graham, Harris MacArthur, and Swartz, 1991). Other possible difficulties students face in terms of writing are related to legible writing and schematic formation, the degree of inclination, the size and dimension of letter formation, the required space between letters, the relative

size of lower case and upper size letters, execution of writing in a straight line, the homogeny of letter size, and the consecutiveness of the letters, the quality, the stability and the width of the letters as well as the overall presentation of the written document (Barbe, Wasylyk, Hackeney, and Braun, 1984, Mercer and Mercer 1998).

One of the greatest difficulties that students with Special Educational Difficulties face is spelling (Mercer and Mercer 1998; Spadidakis, 2004). Many students end-up abandoning their effort to write knowing that they have not mastered their skills in spelling. These facts create psychological limitations (stress, low self-esteem) and prevent them from a smooth educational progress but also a positive schooling experience.

Additionally, according to (Flower and Hayes, 1981:381) "in the act of writing, people regenerate or recreate their own goals in the light of what they learn". Writing is a multi-faceted process that requires higher level cognitive processing and highly complex metacognitive skills (Englert and Mariage, 2003; Harris, Graham, Mason, and Saddler, 2002, Saddler, et. al., 2004). Researchers have agreed upon the fact that school-age writers in contrast to expert writers do not engage in higher order activities such as elaborating and reformulating goals and plans for achieving goals, critically examining past decisions, anticipating difficulties or reconciling competing ideas (Flower and Hayes, 1980; 1981; Burtis, Bereiter, Scardamalia, and Tetroe, 1983).

The acquisition of writing is swayed by: modifications of students' strategic behavior, knowledge about writing, and desire to write (Alexander, Graham, and Harris, 1998; Graham, 2006). However, struggling writers demonstrate less knowledge as regards to the processes of writing compared to normally achieving writers (Scardamalia, and Bereiter, 1987; Lin, Monroe, and Troia, 2007). Struggling writers infrequently and ineffectively engage in planning (Graham and Harris, 2000; 2007), revising or other self-regulation strategies (Graham and Harris, 1997; Zimmerman and Risemberg, 1997) as they overestimate text production skills and underestimate the importance of the writing process (Graham and Harris, 1999).

In addition, struggling writers engage in revising surface-level features of the text (Graham and Harris, 1994; MacArthur and Graham, 1987; MacArthur, Graham and Schwartz, 1991). Contrary to expert writers, struggling writers produce writing that is

shorter, incomplete, poorly organized and weak in overall quality (Graham and Harris 1991; Englert and Raphael, 1988). Struggling writers also produce papers that contain information unrelated to the given topic as well as more mechanical and grammatical errors (Graham and Harris 1991; Graham, 1990) while they often overestimate their writing abilities (Graham and Harris, 2005a).

A student that is unable to produce a communicative piece of writing or simply adheres to mere textbook models is anathema to learning. Students with writing difficulties require more direct, explicit and structured writing strategy instruction centering on cognitive and metacognitive skills (DeLaPaz and Graham, 2002; Graham and Harris, 2007). Burtis, Bereiter, Scardamalia, and Tetroe (1983) have argued that school age writers do not engage in higher-order activities such as elaborating and reformulating goals and plans for achieving goals, critically examining past decisions, anticipating difficulties, reconciling competing ideas, whereas expert writers do (Flower and Hayes, 1980, 1981). Bereiter and Scardamalia have determined that a large part of a child's difficulty as well as lack of fluency is based in their lack of an "executive routine" which would essentially endorse switching between processes or support the persistent generation of ideas (Flower and Hayes, 1981). Even though children and novice writers have the ability to generate ideas, they are unable to utilize them as an ongoing process.

Writing is a complex process, one in which writers are called upon to regulate themselves (Flower and Hayes, 1981; Hayes and Flower, 1987). Writing involves three basic processes: planning what to say and how to say it, translating plans into written text, and reviewing to improve existing text (Hayes and Flower, 1980). The initial stage, planning, entails three components: setting goals, generating ideas, and organizing ideas into a written plan. The second stage, deals with sentence generation. The final stage, reviewing embraces reading and editing text (Graham and Harris, 2003). However, whereas skilled writers are able to orchestrate and monitor these processes to complete a given task, students with learning disabilities LD (learning disabilities) fail to do so. Unskilled writers adhere to simply telling what they know or remember about a topic and their focus is not centered on the writing process but on generating the written content (Scardamalia and Bereiter, 1986).

Students with LD (learning difficulties) do not possess the necessary strategies in order to cope with the cognitive processes that writing entails. This involves generation of content, organization, goal setting, evaluation, and revising (Englert, Raphael, Anderson, Gregg, and Anthony, 1989). Additionally, a large mental lexicon, grammatical competence, a variety of discourse structures and domain-specific knowledge of the topic are also amongst the extensive range of knowledge that must be available in long-term memory for successful writing (Nystrand, 1982, Kellogg, 2008). One example, which proves the lack of necessary skills that LD students face, is when they are requested to write an expository paper in which they adhere to writing down any information that comes to mind disregarding content and organization (MacArthur, et. al., 1991).

Linguists have paired the four order processes of: listening, speaking, reading and writing into two groups. The first group involves listening and speaking or first order processes that do not require formal or methodical instruction. The second group involves second order processes, reading and writing, which require formal and efficient instruction (Emig, 1977). Writing thus requires specialized instruction in order to assist students in the production of an original text. Research has depicted that teaching learning disabled students about the structures in narrative text improves their writing ability (Harris and Graham, 1985). Instruction on expository text structures has the same influential effects on (LD) learning disabled students taking into account their difficulties in term of organizing ideas on written tasks (Englert and Thomas, 1987; Wong and Wilson, 1984).

The previously mentioned attributes of LD and struggling writers are due to little knowledge as regards to the writing process (Graham and Harris, 2005). It has been argued that writing development is closely associated to changes that appear in learners' strategic behavior, knowledge and motivation. Graham, (2006), has proposed that the path from novice to competent to expert writer progresses through changes in writers' strategic behavior, basic writing skills, knowledge and motivation. Based on theoretical underpinnings, knowledge is an important ingredient in writing development (Saddler and Graham, 2007) since the most prominent writing models account knowledge as playing a central role in the writing process (e.g., Bereiter and Scardamalia, 1987; Hayes and Flower, 1980; Kellogg, 1996). Knowledge is reported to play a key role for the composing process, knowledge about the topic, intended audience, genre, task, and linguistic elements. Hence, prior to changes occurring in the writing product changes in

the writing process will have to take place (Garcia-Sanchez, and Fidalgo-Rodendo, 2006).

2.8. Cognitive Load Theory

Cognitive load theory is thought be able to provide invaluable insight in regards to instructional design in a plethora of situations (Mousavi et al, 1995, Chadler and Sweller 1991, Van Merrienboer and Sweller, 2005). Cognitive load theory is preoccupied with the implementation of instructional methods that would more efficiently make use of the limited cognitive processing capacity in order to register knowledge and skills (Pass et. al., 2003). Cognitive load theory connects the structure of information as well as cognitive architecture that permits students to process information (Pass, Renkl and Sweller, 2003). This way instructional designs have been constructed that assist students in various learning environments.

Furthermore, whereas some forms of cognitive load can be viewed as constructive, other forms of cognitive load can lead to consuming mental resources. Thus, the ultimate goal is to decrease the consumption of wasteful cognitive load and increase the useful forms of cognitive load. The three main forms of cognitive load that should be considered are divided into three types: Intrinsic, Extraneous (Irrelevant), and Germane (Relevant) (Clark, Nguyen and Sweller, 2006).

The first type of cognitive load, intrinsic load, is basically used to refer to the mental work inflicted on the learner due to the difficulty of a given task that is directly related to the specific instructional goals (Clark, Nguyen and Sweller, 2006). Furthermore, certain tasks are more complex than others. For example a task that requires the coordination of various mental and physical components is considered a complex task. Thus, in cognitive load terms, it would be stated that a specific assignment requires a high intrinsic load because it entails a high level of "element interactivity". More specifically, element interactivity entails the assumption that multiple knowledge factors need to be coordinated in memory in order for a task to be successfully accomplished (Clark, Nguyen and Sweller, 2006). As earlier on stressed, certain tasks are considered to be of "low element interactivity", such as when studying vocabulary in a foreign language.

This is due to the fact that each word could be memorized autonomously. Thus, this task is considered to be of relatively "low element interactivity" since it can be completed through a sequential rather than a coordinated way (Clark, Nguyen and Sweller, 2006). In opposition, in a more complex task such as the construction of a sentence, the level of "element interactivity" increases substantially. This is due to the fact that the construction of sentences calls upon the use of multiple skills such as the correct choice of diction, grammar and syntax rules. Essentially, the synchronized coordination of all the previously noted factors so as to obtain the production of a correct sentence is termed "high element interactivity" (Clark, Nguyen and Sweller, 2006) and fundamentally depicts the mental work inflicted on the learner.

The second form of cognitive load deals with what is termed extraneous load that principally inflicts on mental work that is irrelevant to the ultimate learning goal and as a result takes up limited mental resources. As a result, the limited mental resources that are not used productively, consume mental capacity that could be used for germane load. For the previously mentioned reasons extra effort should be placed on the reduction of extraneous cognitive load that is irrelevant to the construction of cognitive schemata. Furthermore, extraneous load is also associated with the way in which an instructor or educator manages a course so that extraneous, irrelevant, metal work does not impose towards the learning goal (Clark, Nguyen and Sweller, 2006).

The third form of cognitive load, termed germane (relevant) load refers to mental work imposed by a given task that engages in assisting the successful completion of that task. Fundamentally, germane cognitive load refers to the "extra" mental load inflicted upon from the diverse requirements of a task for its successful completion. Thus, germane load is the relevant load forced upon by instructional methods that ultimately lead students to enhancing learning skills (Clark, Nguyen and Sweller 2006).

2.8.1. Cognitive Load Theory and Memory Systems

Cognitive load theory, as previously indicated, has, as a guiding principle, the implementation of more efficient learning by utilizing the limits and strengths of students' learning process. Furthermore, cognitive load theory takes account of two

memory systems: working memory and long-term memory (Clark, Nguyen and Sweller, 2006).

By the term working memory we refer to the processing center of our brain. Working memory has limited capacity but nevertheless is the point of both the thinking and the learning process (Clark, Nguyen and Sweller, 2006). However, working memory works differently for novice and expert learners (Sweller, 1988). Novice learners, who are inexperienced in a certain field, will not be able to increase their working memory capacity. In opposition, expert learners due to their expanded experience in a certain field are able to form "schemas" and expand their working memory capacity. Through the years, research has focused on investigating working memory and has reached the consensus of examining it from two standpoints. The first one deals with visual information whereas the second one investigates auditory (phonetic) information.

As opposed to the limited capacity of working memory, long-term memory is characterized by a large capability, but is principally a storage warehouse. Long-term memory involves problem solving or in other words, conscious processing (Clark, Nguyen and Sweller, 2006). In essence, working memory and long-term memory work in coordination. During the learning processes, where working memory is activated, information and skills are accumulated in long-term memory. Furthermore, through the expansion of knowledge, the knowledge repository in long-term memory expands as well. This way the knowledge repository, allows working memory to function resourcefully. Additionally, when knowledge is stored in long-term memory, working memory can more efficiently deal with a plethora of information enabling cognitive load to substantially decrease during learning.

Moreover, schema acquisition and automation is thought to be the core mechanism of learning (Sweller, 1994). Long term memory enables expert learners, ones exhibiting a developed schema, deal with more complex tasks and process larger amounts of information as well as direct their own learning process. However, when a lack of schema acquisition is evident, an overload of information and skills devastates novice learners leaving them fragile and unable to handle the demands of a learning environment. Hence, in opposition, to expert learners, novice learners with a less developed schema demand efficient instruction through well-designed learning environments, training programs or

instructional techniques (i.e. segmenting, sequencing) so as to reimburse the lack of schema (Clark, Nguyen and Sweller, 2006).

Ultimately, cognitive load theory attends to learners' efficiency. It is due to this factor that efficiency has been associated with learner performance and learning environments that focus on enhancing learning outcomes with less mental effort. Automaticity, in cognitive load terms, is a further psychological mechanism that could allow learners to combat working memory limitations. Specifically, tasks that have been repeated multiple times are well constituted in long-term memory. This way a certain task can be performed subconsciously, without straining working memory. Thus, when mental resources are not strained, limited working memory capacity is used.

Additionally, research evidence has shown that self-regulation is strongly related to overall cognitive load and that high cognitive load can result in failure of effective self-regulation of performance for some learners (Baumeister, Heatherton and Tice, 1994; Vohs and Heatherton, 2000). What's more, there is also evidence to indicate that under high cognitive load conditions, learners' use less appropriate strategies for self-regulation than they would under low cognitive load conditions (Baumeister, Heatherton and Tice, 1994; Vohs and Heatherton, 2000:80). The Self-Regulated Strategy Development writing instructional model, implemented for the purpose of this study, has a strong foundation on cognitive load theory as it fosters explicit, scaffolded, strategy-based instruction, aiming to ensure cognitive apprenticeship, while facilitating students to acquire knowledge in a methodical process that ultimately does not cognitively overload them.

2.9. Sociocultural Theory to Writing

From a sociocultural perspective, writing is observed as a form of social action rather than just a method of communication as writing is essentially a mode through which individuals, institutions and cultures are formed and indexed. The sociocultural approach to writing views it as a chain of short and long term production, representation, perception and distribution (Prior, 2006:57). More specifically, socioculutral theory, as regards to school contexts, investigates the specific classroom practices that evolve around discussion, reading, writing, observation, the procedures that essentially frame

literate-practices as well as the extent of collaboration provided (Prior, 2006). According to sociocultural theory, writing involves dialogic processes of creation in which educators play a domineering role in students' writing products and are viewed as co-authors as they engage in the undertaking of decision making in terms of choice of style and topic, the structure of the writing processes and provision of specified diction or phrases. According to sociocultural theory, knowledge is not perceived as existing inside the heads of human beings or the external world. In antithesis, "*meaning*" is distinguished as being negotiated at the crossroads of individuals, culture and activity (Englert, et. al., 2006:208). Language thus, employs a distinctive role in terms of psychological development as it develops into a connective-link for a cultural understanding and cognitive tools to guide behavior.

Sociocultural theory rests upon three tenets: (i) sociocognitive apprenticeships in writing, (ii) procedural facilitators and tools, (iii) participation in communities of practice (Englert, et. al., 2006). The first pedagogical principle, sociocognitive apprenticeships in writing, fundamentally highlights the significance of providing cognitive apprenticeships so as to assist novices in both the partaking and performance of a specific discipline that involves the acquisition of the discourse, tools, and actions. The second pedagogical principle of sociococultural theory relates to procedural facilitators and tools. Specifically, procedural facilitators and tools support cognitive performance by aiding writers organize mental reasoning as writers are enabled to offload aspects of thought onto the tool so as to make elements of the task at hand more visible, manageable, and achievable (Roth, 1998). The third tenet of sociocultural theory is related to participation in communities of practice. The aforementioned deals with the creation of communities of practice that fundamentally underline both knowledge construction and knowledge dissemination. That is, participatory approaches, that promote higher order thinking and critical literacy, through an in depth level of student engagement (individually and in small groups) as students, themselves, become active participators of their own learning processes and essentially deem texts as "tools" for thought and reflection rather than sources of information to be memorized (Alvermann, 2002). Central to this approach is to foster cognitive apprenticeship through scaffolded instruction and metacognitive conversation aiming to ensure that students are held responsible of their own learning. As empirical evidence has steadily observed the fruitful effects of sociocognitive

apprenticeship in writing, the focus of this study is based on the same pedagogical philosophy as well as the three pre-mentioned principles that define it.

2.9.1. Cognitive Apprenticeship

Empirical research has closely investigated the fruitful outcomes of cognitive apprenticeship (Graham and Perrin, 2007; Zimmerman and Kitsantas, 2002; Rijlaarsdam, et. al. 2005), the initial principle of sociocultural theory. Sociocognitive apprenticeship in writing deals with the provision of cognitive apprenticeship so as to support novice writers in the participation and performance of a discipline, as well as the acquisition of the discourse, tools and actions (Englert, et. al., 2006). Specifically, the cognitive apprenticeship approach fosters training programs in which a mentor offers assistance to the learner, so that they are enabled to successfully achieve a given task (Roggoff, 2008). The principles of cognitive apprenticeship rely on the development of interventions that both train and instruct writers while simultaneously provide writing instructors the method to successfully train writers so as to utilize their knowledge effectively during the composition process. The fundamental goal is to train writers to retrieve and use what they know during composition as dictated by the knowledge use principle (Kellogg, 1994) as, for example, focusing learners' attention on a sub-goal such as preparing an outline. Cognitive apprenticeship offers learners the possibility to perform at a higher level through the mentor's guidance. The principles of cognitive apprenticeship are characterized by learning through observing rather than learning by doing (Kellogg, 2008:19) and highlight the principles of social learning through mentor observation (Roggoff, 2008). Learning though observing, in turn, holds a distinct advantage as the learners' attention can focus on the mentor's behavior rather than being involved in cognitive processes and motor execution (Rijlaarsdam, et. al., 2005). If knowledge fails to be accessible and creatively applied it will inevitably remain static during the composition process and undermine writing quality.

Collins et. al., (1991) have provided a clear distinction between traditional apprenticeship and cognitive apprenticeship. The aforementioned argue that essentially what differentiates traditional apprenticeship from cognitive apprenticeship is that in schooling the practice of problem solving, reading comprehension, and writing is not at all

"obvious" or even "observable" by a student. That is, whereas in traditional apprenticeship the processes of a certain activity are visible, in cognitive apprenticeship the processes of thinking are in many instances invisible to both the students and the educator. Hence, in regards to cognitive apprenticeship it is necessary that both instructors and students deliberately make thinking of a given task visible. Cognitive apprenticeship, hence, is fundamentally an instructional model aiming to make thinking visible especially as regards to passive learners as they forced to utilize their knowledge. Collins et. al., (1991) argue that traditional apprenticeship entails four vital aspects that include: modeling, scaffolding, fading and coaching. However, in order to interpret the model of traditional apprenticeship to cognitive apprenticeship it is vital for educators to: (i) determine the processes of the given task and make them visible to students, (ii) use abstract tasks in authentic contexts and finally (iii) verify that students are able to transfer acquired knowledge.

Cognitive apprenticeship, essentially, lies on the features of Vygotsky's (1978) concept of the zone of proximal development, in which the learner's focus is placed on tasks that extend their capacities so as to obtain a further level of development. The key point is that the heavy demands placed on working memory by planning sentence generation and reviewing processes can be limited through explicit strategy instruction. Bereiter and Scardamalia's (1984) writing approach relies on the foundations of cognitive apprenticeship. That is, based on reciprocal teaching, fostering explicit procedural facilitation, in the form of prompts, aiming to assist novice writers transform into expert writers through engagement in high-level strategies or in other terms transform from "knowledge telling" to "knowledge transforming". Other writing approaches based on the same foundations, such as by Graham, Harris and Larsen (2001) have investigated ways in which students with learning difficulties could be provided with successful prevention and intervention programs. Their study presents six principles that focus on preventing writing difficulties as well as building writing skills. These principles deal with providing effective writing instruction; tailoring instruction to meet the individual needs; early intervention; expecting that each child will learn to write; identifying and addressing roadblocks to writing and employing technologies. The aforementioned principles not only prevent writing difficulties but also assuage the writing difficulties experienced by children with learning difficulties.

2.9.2. Procedural Facilitation

Bereiter and Scardamalia (1987) assumed that children might have appropriate self-regulatory mechanisms available but fail to use them. The aforementioned authors thus, argued that procedural facilitation, a way to decrease the executive burden of writing, be utilized that develops writing expertise in knowledge-tellers so that they could fundamentally gradually become knowledge-transformers. Specifically, Bereiter and Scardamalia (1987:254) proposed the implementation of (i) special supportive procedures that would provide cues or routines for switching into and out of new regulatory mechanisms while keeping the executive procedure as a whole intact and (ii) minimize the resource demands of the newly added self-regulatory mechanisms. According to Bereiter and Scardamalia, procedural facilitation engages modeling cognitive, metacognitive and self-regulatory processes and consists of four steps: (i) identify a self-regulation function that appears to work in expert performance, (ii) describe the self-regulatory function in terms of mental operation as explicitly as possible, (iii) create cues or routines that minimize demands of mental resources; and (iv) provide external supports or teachable routines for reducing the information-processing burden of mental operations.

Bereiter and Scardamalia (1987) conducted a study in which they trained elementary students of three grade levels to use procedural facilitation when they composed and revised short opinion essays. The hypothesis of the study was that through the utilization of a simplified executive routine, for sentence-by-sentence evaluation and revision, students would essentially reduce their executive control problems while their concealed evaluative language production abilities would surface. Cued statements written on slips of paper were provided to support compare operations such as: “people won’t see why this is important”; “people may not believe this” (Bereiter and Scardamalia, 1987:270). Accordingly, phrases written on slips of paper were provided to facilitate tactical choice such as: “I think I’ll leave it this way”, “I’d better give an example” (Bereiter and Scardamalia, 1987:271). The findings of the study depicted that children were able to perform the self-regulatory function with a highly reduced amount of additional burden on their processing capacities. Specifically, the subjects were able to apply their procedural knowledge to monitor their writing and focus their attention on the demands of the written product.

Cumming and So (1996) have conducted a similar study with adult ESL learners, examining four one-to-one tutoring of second language writing sessions, by providing either error correction or procedural facilitation in the form of five thinking prompts to assist ESL students in revising their written texts. The procedural facilitation prompts were as follows: Word: Is this the right word or expression? Rules: Do I know a grammar or spelling rule for this? Fit: Does this part fit with the other parts? Goals: Will people understand this? What do I want to tell my reader? L1/L2: How do I say it in my language? Does it make sense in English? (Cumming and So, 1996:203). The findings of the study depicted that the procedural facilitation prompts utilized improved students' global revisions. The use of procedural facilitation in this study clearly depicted that it not only assisted novice ESL learners to decrease writing demands during the composing process but also that it can be utilized as a systematic framework to guide ESL novice writers through the demands of writing.

2.9.3. Self-regulation and Writing

During the last two decades augmented writing research has been accumulated as to the development of cognitive and self-regulatory strategy instruction (Wong, Graham and Butler, 2003). Empirical studies have emphasised the importance of teaching self-regulation strategies to improve students' writing (Harris, Graham, and Mason, 2003; Perry and Drummond, 2002; Harris and Graham, 1999) as studies have shown that self-regulatory processes play a vital role in writing proficiency development (Garcia-Sanchez and Fidalo-Redondo 2006:182, 183).

Self-regulation deals with self-generated thoughts, feelings and actions that are used to achieve personal goals (Zimmerman, 2000). Self-regulation strategies entail goal-setting, vigilantly choosing suitable strategies to accomplish a task, generating self-instructions to complete a task successfully, time-management, choosing effective environmental settings, monitoring progress, performance evaluation, requesting assistance from appropriate sources when required and offering rewards or inflicting consequences according to performance (Zimmerman, 1998). Students who consider themselves efficient writers typically employ self-regulatory strategies (Linnenbrink and Pintrich, 2003; Pintrich and Schrauben, 1992; Pintrich and De Groot, 1990; Pintrich, 1999;

Pintrich and Garcia, 1991; Wolters and Pintrich, 1998). Independent writing can be achieved through the use of self-regulation strategies in order to accomplish a given task but most importantly to enhance students' faith in their capabilities as writers (Harris and Graham, 1996).

Proficient writers use self-regulatory strategies to manage the writing task. However, struggling writers fail to do so. Less proficient writers often overestimate their writing abilities (Graham and Harris, 2005) and fail to adhere to planning, revising or other self-regulation strategies (Graham and Harris, 1997; Zimmerman and Risemberg, 1997).

Donovan and Bransford (2005:10) have posited that a metacognitive or self-monitoring approach aids students develop the ability to take control of their own learning, determinedly define learning goals, and monitor their progress in achieving them. Self-regulation also deals with self-generated thoughts, feelings and actions that are used to achieve personal goals (Zimmerman, 2000). Self-regulation strategies entail goal-setting, vigilantly choosing suitable strategies to accomplish a task, generating self-instructions to complete a task successfully, time-management, choosing effective environmental settings, monitoring progress, performance evaluation, requesting assistance from appropriate sources when required and offering rewards or inflicting consequences according to performance (Zimmerman, 1998). Students who consider themselves efficient writers typically employ self-regulatory strategies (Linnenbrink and Pintrich, 2003; Pintrich and Schrauben, 1992; Pintrich and De Groot, 1990; Pintrich, 1999; Pintrich and Garcia, 1991; Wolters and Pintrich, 1998).

According to Zimmerman and Kitsantas (1999) teaching self-regulation in general, and particularly the cognitive strategies for planning and revising text, improves written product quality. That is, the strategies of a self-regulated writer can be described in the frameworks of recursive writing models as for example the Hayes and Flower's (1980) model, which hypothesized three writing phases: planning, transcribing and revising. Based on this premise, Zimmerman and Kitsantas (1999) have hypothesized that the following four progressive levels depict the development of writing self-regulation: (a) the learner observing the model, (b) emulation, (c) self-control, (d) actual self-regulation. The fourth level entails high levels of motivation and self-efficacy as well as interest in wiring. One such research program that has depicted improvement in writers'

performance is the SRSD writing instructional model that was essentially designed to target struggling writers under the supposition that a self-regulated writer is one who is interested in writing (Graham, Harris and Troia, 2000; Harris, Graham, Mason and Sadler, 2002). Thus, apart from cognitive and metacognitive aspects self-regulation also includes motivational aspects, in particular, students who are driven to write (Zimmerman and Risemberg, 1997).

Independent writing can be achieved through the use of self-regulation strategies so as to accomplish a given task but most importantly to enhance students' faith in their capabilities as writers (Harris and Graham, 1996). Thus, it is vital that learners are supported in taking control of and self-regulating their own learning processes (Cummins et. al., 2007). The aforementioned premises justify the rapid growth in self-regulation strategy instruction studies during the last twenty years (Garcia-Sanchez and Fidalo-Redondo 2006).

2.9.4. Self-Efficacy and Writing

Affective or motivational factors are predictive of writing performance (Jesus-Nicasio, Garcia-Sanchez and Fidalgo-Redondo, 2006). Self-efficacy is acknowledged to be the primary component of academic motivation, based on the principal that the beliefs that students create, develop or the way in which they perceive themselves as writers navigates their academic success or failure (Pajares, 2003; Linnenbrink and Pintrich, 2003). In particular, self-efficacy involves students' self-perceptions regarding their writing competence. Self-efficacy beliefs highly influence the choices students make, the effort they apply, the persistence or determination with which they approach new tasks, as well as the anxiety they experience. Educators are hence called upon to take into account students' lack of confidence due to factors such as: previous negative messages received, current or constant academic struggles or even unjust comparisons with peers prior to attempting to remediate their writing skills (Pajares et. al., 2007).

Research has shown that writing self-efficacy is not only predictive of writing performance but also associated with additional motivational variables such as perceived value of writing, persistence on the writing task, and personal interest (Jesus-Nicasio,

Garcia-Sanchez and Fidalgo-Redondo, 2006). Bandura, (1986:391) has clearly defined self-efficacy beliefs as: "people's judgements of their capabilities to organize and execute courses of action viewed as essential so as to attain designated types of performances". Based on this premise, learners' beliefs regarding their ability to accomplish a given goal are central to the attainment of self-regulation (Bandura, 1986; 1997). Students' self-efficacy for self-regulation, that is, the confidence they posses to use self-regulated learning strategies also predicts writing competence (Schunk and Zimmerman, 1994; Zimmerman and Risemberg, 1997). In particular, self- efficacy, or efficient performance conviction, is likely to precede the use of self-regulatory strategies as well as the utilization of increased metacognition, planning monitoring, controlling and regulation during task performance (Wolters and Pintrich, 1998; Wolters; Yu and Pintrich, 1996; Jesus-Nicasio, Garcia-Sanchez and Fidalgo-Redondo, 2006).

Zimmerman and Risemberg (1997) posit that self-efficacy beliefs are interrelated to students' use of self-regulatory procedures as students who employ cognitive and self-regulatory strategies in writing increase their perceptions of self-efficacy to write effectively. Fundamentally, self-regulation fosters learners' beliefs about their abilities as autonomous writers while self-efficacy is suggested to have positive causal effects on performance (Bandura and Schrunk, 1981). Thus, self-regulation is closely associated to self-efficacy as it fosters learners' beliefs about their abilities as autonomous writers, while self-efficacy is suggested to have positive causal effects on performance (Bandura and Schrunk, 1981).

An influential study conducted by Graham, Schwartz and MacArthur (1993) investigated the writing knowledge, composing process, attitude towards writing as well as the self-efficacy of students with and without learning disabilities. The subjects were administered an interview designed to assess their knowledge of the composing process, their attitude toward writing as well as their self-efficacy as writers. The results depicted that opposed to normally achieving students, students with learning disabilities lacked an understanding of the writing process. The study further depicted that regular students viewed writing more positively. Interestingly enough, the study depicted that the two groups of students valued themselves equally in terms of successfully carrying out the processes of effective writing as well as their abilities as writers. Fundamentally, the findings portrayed that students with writing difficulties overestimated their capabilities

as writers even though they were not cognizant of the intricate nature the writing process entails. One justification for this behavior could be that for these students' tasks appeared deceptively simple. Nonetheless judgments of ones capabilities can affect the rate of skill acquisition and performance mastery, in turn, can augment self-efficacy in a reciprocally enhancing process (Bandura and Schunk, 1981:596).

2.10. Cognitive Strategies Instruction

Mayer (2001:83) has pointed out that psychology and education are "good for one another". Hence, a significant advancement in educational psychology is the teaching of cognitive strategies (Pressley et al., 1990). During the last two decades research on cognitive strategies instruction has been widely researched (Wong, Harris, Graham, Butler, 2003). Prior to investigating cognitive strategies instruction it is essential to underpin the definition of cognitive strategies:

"Cognitive strategies are cognitive processes that the learner intentionally performs to influence learning and cognition. Examples include basic processes such as using a rehearsal strategy to memorize a list and metacognitive strategies such as recognizing whether one comprehends a passage" (Mayer, 2001:86).

The aim of cognitive strategies instruction is the "design and validation of strategies" that would ultimately serve to enhance the learning and performance of students with learning difficulties (Wong, Harris, Graham and Butler, 2003). However, it should be emphasized that cognitive strategies instruction targets all students; whether gifted, average, handicapped, experiencing difficulties in schoolwork, receiving special educational services or even those who will find them useful to achieve advanced school performance (Pressley, 1990:203). A theoretical background presentation follows of two-multi component writing instruction models that have validated their effectiveness through empirical evidence (a) the Cognitive Strategy Instruction Writing (CSIW) program by Englert, Raphael, and Anderson, (1992) and Englert et. al., (1991) and (b) the Self-Regulated Strategy Development (SRSD), by Harris and Graham (Graham and Harris, 2005; Harris and Graham, 1996).

2.10.1. Cognitive Strategy Instruction Writing (CSIW)

An influential multi-component strategy instruction, writing model is the Cognitive Strategy Instruction Writing (CSIW) program by Englert, Raphael, and Anderson (1992) and Englert et. al., (1991). The CSIW program entails the development of a series of "think-sheets" used to assist learners to engage in the succeeding writing processes (i) planning, (ii) organizing information, (iii) writing, (iv) editing and (v) revising. More specifically, "think-sheets" functioned as writing directions that students used throughout the writing process to assist them in completing a writing task. Additionally, the CSIW program of writing instruction encourages students to adopt writing strategies and the framework of the "think-sheet" as well as teacher modeling and self-instructions. The CSIW has been examined in two studies involving LD elementary students. The results of the studies demonstrated that students with LD as well as non-LD students improved their knowledge of writing as well as their quality of writing.

The first study conducted in (1991), by Englert and her colleagues examined the effects of an intervention that aimed to develop students' expository writing abilities through teacher-student dialogue regarding expository writing strategies, text-structure processes and self-regulated learning. The CSIW program was used to investigate experimental and control students' capacity to compose two types of texts, transfer their knowledge to a near transfer-measure of writing and transfer their knowledge to a far transfer-measure, reading comprehension. The findings of the study determined that dialogic instruction promoted students' expository writing abilities and improved their abilities on both transfer activities.

In the following study Englert (1992) LD and non-LD students were part of a socially mediated writing intervention that placed emphasis on the process of writing, writing strategies and the role of teacher-student and student-student dialogue. The results of the study supported the hypothesis that involvement in a socially mediated approach of instruction such as the CSIW had strong effects on both LD and non-LD students' metacognitive knowledge about writing. Students who participated in the writing intervention exhibited superior capacity to talk about planning, drafting and revising as well as to converse about their purposes and aimed audiences. In addition, the results of

the study determined that students' metacognitive knowledge directly interrelated to students' enhanced performance in both reading and writing.

2.10.2. Self-Regulated Strategy Development (SRSD)

The SRSD model was based on four theoretical and empirical sources in the 1980s. Initially, it was based on Meichenbaum's (1977, as cited in Wong, Harris, Graham and Butler 2003, Santangelo, Harris and Graham, 2008) cognitive-behavioral intervention model, highlighting Socratic dialogue, and stages of intervention from which Harris and Graham formed their primary stages of instruction while vitally emphasizing the role of dialogue/discussion. The second influence arose from Soviet theorists and researchers whose principles are based on the social origins of self-control and the development of the mind, such as Vygotsky, Luria and Sokolov. The work of the aforementioned significantly affected the SRSD models' self-regulatory and modeling elements. Additionally, the SRSD model has been guided and continues to be guided, by the work of Deshler, Schumaker and their colleagues as regards to the substantiation of strategy acquisition steps among adolescents with learning disabilities (Deshler, Alley, Warner and Schumaker, 1981, as cited in Wong, Harris, Graham and Butler 2003, Santangelo, Harris and Graham, 2008). Finally, the work of Brown, Campione and their colleagues' work on self-control, metacognition and strategies instruction is considered to be fundamental for the development of the SRSD model (Brown,Campione, and Day, 1981, as cited in Wong, Harris, Graham and Butler 2003, Santangelo, Harris and Graham, 2008).

Initially, the early phases of the SRSD development had as its base, research conducted as regards to the expertise in writing and self-regulation (Alexander et. al., 1998) while soon after explicit self-regulation instruction and development of vital features of self-regulation were included throughout all stages of the model (Wong, Harris, Graham & Butler 2003:386). The Self-Regulated Strategy Development (SRSD) model of instruction (Graham and Harris, 2005; Harris and Graham, 1996) aims to instruct students on how to improve their writing skills through explicit teaching of writing strategies and self-regulatory skills (Harris, 1982, Graham and Harris, 2005; Harris and Graham, 1996)

and most importantly to foster students' positive attitudes about writing and their writing abilities (Harris, 1982).

The SRSD writing instructional framework consists of six flexible or adoptable stages that provide broad-spectrum guidelines which can be re-ordered, combined or modified to foster learners' and educators' needs (Graham and Harris, 2005; www.vanderbilt.edu/CASL/).

Self-regulation consists of six elements: goal setting, self-assessment, self-instruction, self-reinforcement, imagery, and managing the writing environment (Wong, Harris, Graham and Butler 2003, Santangelo, Harris and Graham, 2008).

The SRSD stages of Instruction are as follows:

1. Develop background knowledge: The first stage of instruction deals with assisting learners in the development of the knowledge and skills required to comprehend as well as execute target strategies and self-regulation skills.

2. Discuss it: The second stage of instruction entails examination and discussion of the strategy by both students and teachers as well as key points such as the principles for using the strategies and their benefits as well as how and when to use them. Students are called upon to make a commitment to learn the strategy and be active collaborators of the process. Finally, students' negative beliefs or self-statements are battled and progress monitoring is instigated so that students acquire skills to monitor the effects of strategy use.

3. Model it: In the third stage of instruction educators model strategy use and utilize appropriate self-instructions, which include: various problem definitions, planning, strategy use, self-evaluation, and error correction, coping, and self-reinforcement statements. Collaboration on strategy alterations for increased effectiveness of efficiency also takes place in the third stage of instruction. This is achieved through recording self-statements that students will use to assist them in adjusting to strategy use, the task itself or even impeding student behavior.

4. Memorize it: Strategy steps additional mnemonics and students' personal self-statements are memorized in the fourth step of the strategy.

5. Support it: Students engage in the practice of using the strategies, personal self-statements as well as other self-regulation processes such as: monitoring, and goal setting accompanied by peer and teacher support until independent performance is achieved. Assistance includes: direct teacher assistance, collaborative practice, remodeling some or all of the strategies, corrective feedback and praise. Teacher and peer assistance as well as instructional facilitators are slowly withdrawn and independent performance is promoted through the use of students' personal self-statements.

6. Independent performance: Once strategy use and self-regulation techniques are successfully employed, gradual removal of goal setting and progress monitoring follows so that in turn, the final stage of the strategy can take place which deals with student independent target strategy use.

The six stages of SRSD instruction rely on the importance of the composing process enhancing students' engagement in planning, monitoring and revising. As illustrated above, the SRSD writing instruction model specifies a guideline for successfully completing a writing task while also fosters students' needs through verbal and visual teacher modeling (Graham and Harris 2005). It has been argued that teaching learning disabled students about the structures in narrative text improves their writing ability (Harris and Graham, 1985) while instruction on expository text structures has the same influential effects taking into account their difficulties in terms of organizing ideas on written tasks (Englert and Thomas, 1987; Wong and Wilson, 1984).

The SRSD model is based on the supposition that struggling learners require explicit writing instruction in order to acquire the necessary writing skills or strategies. However, the SRSD does not adhere to passive-explicit "teacher-centered" learning. Contrary, it promotes conscious learning and stimulates students to be actively engaged in their own learning process being able to comprehend each phase of the writing process as well as the underpinning purposes, goals and outcomes (Harris and Graham, 1992), while responsibility for employing strategies is gradually increased.

Furthermore, two vital principles distinguish the SRSD model. To begin with, the SRSD strongly adheres to research conducted indicating that LD learners are confronted with challenges relating to low motivation, self-doubts and low self-efficacy (Harris, 1986, Harris and Graham, 1992). The SRSD has implemented strategy instruction to foster students' self-efficacy, positive attitudes and beliefs about themselves as writers, as well as assessment of the previously mentioned during and after strategy instruction. During SRSD instruction, students' efforts are acknowledged for the use of writing strategies, knowledge of writing genres, self-efficacy and high levels of engagement (Wong, Harris, Graham and Butler 2003:386, Harris and Graham 1992, Santangelo, Harris and Graham, 2008).

Additionally, the SRSD model promotes criterion based rather than time based instruction so that students are given the opportunity to achieve a superior final product (Harris and Graham, 1992), which is especially helpful for low-achieving writers or students with LD. Empirical evidence also determines that the SRSD model is a broad-spectrum effective writing strategy, catering to the needs of students in general. Albeit the SRSD model has determined its efficiency for LD students, poor writers, average writers and good writers skills have also been enhanced by SRSD instruction, which is a vital attribute of the model (Graham and Harris, 2005). Moreover, De La Paz (2001) has also conducted a single-participant study in which mainstream attention-deficit/hyperactivity disorder (ADHD) and speech/language difficulties students were supported by the SRSD model, determining that it was a very effective treatment.

It is important to stress that essentially the valuable effects of the SRSD model lay upon the fact that it is a multi-component model fostering combinations of strategies. Furthermore, the SRSD amalgamates knowledge attained from various theories as well as models of teaching and learning while it values and recognizes the necessity for "stimulation and critical evaluation engendered by theoretical separation and competing models" not only within but also across disciplines so that theories as well as models of learning can fruitfully advance (Harris and Alexander, 1998:124).

The multi component character of the SRSD fundamentally, provides the opportunity to merge instruction models, which is a characteristic of successful instruction (Pressley, 1998). However, primarily, strategy instruction should not be viewed as a "panacea but,

rather, a powerful component of teachers' instructional repertoires" (Wong, Harris, Graham, Butler, 2003:388). The self-regulated strategy development model can assist educators to integrate self-regulatory training to successfully assist students' writing development. Furthermore, researchers have stressed that emphasis should be placed on the way in which educators can be supported to acquire the necessary skills to assist learners through strategy instruction (Pressley and Harris, 2001; Duffy, 2002). In addition, during the develop background knowledge, stage students are introduced with the idea of helping each other apply the strategies they are learning to other situations and in other classes.

Since 1985, when Harris and Graham published their first strategies instruction study to determine whether a "self-control strategy training" procedure improved the compositions of disabled students (Harris and Graham, 1985) the SRSD model has and still is accumulating interest, by a great number of researchers who have examined it in writing instructional studies as well as other academic areas. The SRSD writing instruction model was implemented for the purpose of this study and its stages will be further on analytically discussed along with a literature investigation on empirical evidence affirming its positive effects on students' writing performance and attitudes.

Various factors were taken into consideration prior to implementing a writing strategies instruction model to enhance Greek EFL's overall writing performance and attitudes while reducing levels of anxiety. Initially, consideration was given to the implementation of a multi-component while also versatile model of instruction for its determined effectiveness and secondly implementing a writing strategy that had a dynamic empirical basis for its effectives. In addition, improvements in writing through the SRSD writing instruction model have been determined to maintain over time and generalize across settings, genres, people, and media (e.g., paper and pencil to word processor) (Santangelo, Harris and Graham, 2008, Graham and Harris, 2005). The SRSD holds the previously mentioned key factors. In addition, the SRSD encompassed the writing key-elements that were essentially, the foundation of this investigation as regards to the enhancement of Greek EFL students' writing performance and attitudes. The SRSD model promotes the following key-elements of instruction on:

(i) higher order cognitive and metacognitive processes taught through explicit strategies instruction (ii) enhancement of students' positive writing attitudes and elimination of negative personal behavior (iii) explicit self-regulatory procedures such as goal-setting, self-monitoring, self-evaluation, and self-reinforcement (iv) a flexible and adaptable writing strategy meeting teachers' needs in a mainstream classroom setting, with new strategies introduced and upgrading of previously taught strategies (Graham and Harris, 2003) (v) assists the writing needs of students with and without learning difficulties (vi) a criterion-based instruction providing students the time they require to produce superior writing outcomes vii) interactive learning between teacher and students from the dialectical-constructivist viewpoint (Pressley, Harris and Marks, 1992) viii) individualized instruction tailored to students' needs and capabilities (Graham and Harris, 2003).

Additionally, the multi component character of the SRSD fundamentally provides the opportunity to merge instruction models, which is a characteristic of successful instruction (Pressley, 1998). However, primarily, strategy instruction should not be viewed as a "panacea but, rather, a powerful component of teachers' instructional repertoires" (Wong, Harris, Graham, Butler, 2003:388). The self-regulated strategy development model can assist educators to integrate self-regulatory training to successfully assist students' writing development. Furthermore, researchers have stressed that emphasis should be placed on the way in which educators can be supported to acquire the necessary skills to assist learners' through strategy instruction (Pressley and Harris, 2001; Duffy, 2002). Through the Self-Regulated Strategy Development educators are able to foster positive environments that stimulate students' active learning while reinforce academic achievement that in turn, would foster positive behavior and endorse learning.

2.10.3 Self-Regulated Strategy Development Empirical Evidence

A plethora of empirical evidence conducted on the Self-Regulated Strategy Development determines that it is more effective than any other writing intervention studied. The self-regulated strategy development (SRSD) model is a process developed over the past twenty years (Mason, Harris and Graham, 2002:497) and has been largely applied in

writing research to improve the effectiveness of writing expression skills and self-regulation strategies to assist struggling writers (Lane, Graham, Harris and Weisenbach, 2006; Santangelo, Harris and Graham, 2008; Lane, Harris, Graham, Weisenbach, Brindle, Morphy, 2008; Harris, Graham, Mason and Sadler, 2002). The Self-Regulated Strategy Development is one of the most distinguished writing models investigated in isolation.

The Self-Regulated Strategy Development (SRSD) is a flexible instructional model that assists students to explicitly learn the planning, drafting and revising strategies that are used by highly skilled writers (Santangelo, Harris and Graham, 2008). More than twenty-five, (25) published studies have validated that SRSD triggers substantial improvements in students' writing knowledge, writing quality, writing approach, self-regulation skills and motivation while it has also proven to help students write longer stories (Graham, Harris and Mason, 2004; Lane, Harris, Graham, Weisenbach, Brindle, and Morphy, 2010; Saddler, 2006). The results of much empirical evidence conducted on the Self-regulated strategy development, determines that it is more effective than any other writing intervention studied. The SRSD is designed to improve students' strategic behaviour, knowledge, and motivation (Harris and Graham, 1996; Graham and Harris, 2003; 2005).

Firstly, students learn to perform specific composing processes (e.g. planning, drafting etc). Secondly, students develop the knowledge and self-regulatory procedures, goal-setting, self-monitoring, self-instruction, and self-reinforcement, which are essential in order to apply the writing strategies and adjust their behaviour during writing and improve specific aspects of motivation, such as self-efficacy and effort (Lane, Harris, Graham, Weisenbach, Brindle and Morphy 2008). Most importantly, the SRSD is a flexible and modifiable model that meets the styles and needs of both teachers and students (Harris and Graham, 1999:252).

Studies have shown that the Self-Regulated Strategy development improves the writing performance of students with learning disabilities (Graham and Harris 1989, Graham and Harris, 2005), children with attention deficit hyperactivity disorder, (Reid and Lienemann, 2006), students experiencing multiple disabilities and learning difficulties (Lienemann, Graham, Leader-Janssen, and Reid, 2006, Saddler, Moran, Graham, and Harris, 2004) struggling writers without an identified disability (Harris, Graham and Mason, 2006), poor writers or low achievers (De La Paz, 2001; Harris et al., 2002;

Saddler, Moran, Graham and Harris, 2004), regularly achieving writers (De La Paz and Graham, 2002**;** De La Paz 1999; Danoff, Harris and Graham, 1993), proficient writers or gifted students (De La Paz, 1999), teachers to assist struggling writers (Helsel and Greenberg, 2007), and second-grade (Harris, Graham, and Mason, 2006; Saddler, 2006; Lienemann et. al., 2006) to tenth-grade students (Chalk, Hagan-Burke, and Burke, 2005).

An investigation by Graham, Harris, Mason (2005) assessed the effectiveness of the self-regulated strategy development (SRDS), writing instructional model, as regards to two genre-specific strategies, the general planning strategy in which these two strategies were bounded and the associated knowledge and self-regulatory procedures needed to use these strategies. In addition, a peer-support instructional component was included and investigated along with students' strategic behaviour, knowledge, self-efficacy, the promotion of maintenance and generalization. Seventy-three (73) third grade students, the majority of which were from a minority background and came from low income families partook in this investigation and were randomly assigned into three conditions: SRSD instruction only (N=24), SRSD plus peer support (N=24), and comparison (N=25). Twenty of the students were identified as having a disability of which twenty (20) were classified as having a learning disability, four (4) speech and language difficulties, two (2) as having attention deficit hyperactivity disorder (ADHD), and two (2) emotionally disturbed. Strategy instructed students were taught to develop a plan prior to writing, adjust it and enhance it while applying it. The students were taught a general strategy for planning and writing a paper "POW" and two genre specific strategies "WWW, What=2, How=2, and TREE". The findings determined that SRSD instructed students in the two groups outperformed the students in the comparison condition as regards to time spent on composing, length, quality, and writing knowledge for persuasive essays. No statistical difference was found amongst the three groups in writing knowledge for story genre.

The following year, Harris, Graham and Mason (2006) conducted another study in which they investigated the effects of the SRSD on improving the writing, knowledge and motivation of second grade struggling writers. Similar to the (2005) study, the instructional attention centred on planning and writing stories and persuasive essays with the addition of a peer support component intended to facilitate maintenance and generalization effects. The implementation of SRSD was determined to have positive effects on struggling second grade students' writing performance on the two instructed

writing genres (story and persuasive writing) and two uninstructed genres (personal narrative and persuasive writing) as well as enhanced writing knowledge, in contrast to the students in the Writers' Workshop who received no writing instruction. In addition, the peer-support included in the SRSD instruction boosted certain characteristics of students' performance as to the instructed and uninstructed genres. Hence, the study validated strategies for writing persuasive essays across elementary grade levels for struggling writers with and without disabilities through the implementation of the SRSD model.

Due to an inefficiency of research investigating the role of knowledge in terms of writing development, Saddler and Graham (2007) examined the relationship between writing knowledge and writing performance among more and less-skilled fourth-grade students. More specifically, the study examined if writing knowledge was connected to the length and quality of students' stories. The study did not compare students with and without learning disabilities but divided them between skilled and less skilled writers in order to compare good and poor writers in a typical classroom setting. The results confirmed that less-skilled writers are less knowledgeable on writing than skilled-writers and that the writing performance between more and less-skilled writers differed. Skilled-writers were more aware about how writing promoted school success, and occupational success. Furthermore, skilled-writers were more knowledgeable about the vital role of substantive processes in the composing process, the use of substantive procedures when writing for a younger child as well as the importance of seeking assistance when experiencing difficulties. In essence, the investigation stressed that skilled students' knowledge about writing was directly linked to their writing performance.

Mason and Shriner's (2008) investigation through a multiple-probe across- subjects design as regards to the persuasive writing performance of six 2nd through 5th grade, students with emotional/behavioural disorders showed that following self-regulation strategy development instruction for writing an opinion essay, students were able to independently apply the five parts of the persuasive essay instructed. In particular, the study determined that students were able to apply SRSD instruction for the POW (Pick my idea, Organize my notes, Write and say more) and TREE (Topic sentence, Reasons-three or more, Ending, Examine) strategy. Finally, the fact that generalization and

maintenance was presented to vary across students, can be attributed to behaviour, rather than unskillfulness to transfer or remember the strategy.

Lane, Graham, Harris, et al., (2010) conducted a secondary study that included a three-tiered, positive behaviour support model for thirteen (13) second grade students, attending four inclusive, rural elementary school in Tennessee, with limited writing skills, and behaviour problems, similar to a previous single case study conducted with a PBS model by Lane, Harris, et al., (2008). The aforementioned, study determined vitally important positive outcomes along with other previous investigations of the SRSD model. In turn, Lane, Graham, Harris, et al., (2010), assumed that students with internalizing or externalizing behaviours and poor writing skills would be positively affected by the secondary SRSD intervention. The results of the study determined that the two multiple-probe designs, one for students displaying externalizing behaviours and a second for students displaying internalizing behaviours had positive effects on students' performance as regards to story elements, quality and length. Both teachers and students were in favour of the intervention stressing that the intervention exceeded their initial expectations. Furthermore, students displayed lasting improvements in story quality.

Another study by Tracy, Reid and Graham (2009) was conducted investigating the effects of a general strategy and genre-specific strategy for planning and writing stories, the procedures for regulating the use of these strategies, the writing process, students' writing behaviours and finally their knowledge about the basic purpose and characteristics of good stories. One hundred and twenty seven (127) 3rd grade students participated in this investigation of which sixty-four (64) students were part of the experimental-strategy instructed group and sixty-three (63) part of the comparison group that received traditional-skills writing instruction (based on spelling, grammar, etc.). The results of the experimental group determined that students wrote stories that were longer, schematically stronger, and qualitatively improved. In addition, two more vital outcomes emerged from the study. Strategy-instructed students showed maintenance over a short period of time while an additional untaught genre, narrative of a personal experience, transferred from the effect of the initially taught story writing strategy. In addition, the experimental groups personal narratives were also determined to be longer, schematically stronger and qualitatively improved compared to the control-uninstructed group.

2.10.4. Self Regulated Strategy Development (SRSD) and Students with Learning Difficulties

Many students struggle to orchestrate the copious cognitive and self-regulatory demands entailed in the writing process, particularly students who have a learning disability. Empirical evidence has confirmed the effectiveness of the SRSD in regards to successfully supporting students with writing difficulties.

Lane et al., (2008) conducted a study that examined the effectiveness of teaching second grade students at risk for EBD (emotional behavioural difficulties) and identified as having writing difficulties, how to write stories using the SRSD model. The investigation involved examining the outcomes of a secondary academic intervention in terms of a positive behaviour support model on the writing of second grade students at risk of emotional and behavioural disorder and writing problems. The SRSD model was also used for students to acquire the skills for planning and drafting a story**.** The target strategy taught through the SRSD model was "WWW, What=2, How=2". The outcome of the study revealed positive outcomes for students in terms of lasting improvements in story completeness, length and quality in writing. Additionally, it should be noted that students and teachers rated the intervention favourably while some stressed that it proved to be more effective than they expected. Previous studies conducted have also verified the effectiveness of the Self-Regulated strategy development with poor writers enrolled in the second grade (Harris et al., 2006; Lienemann, Graham, Leader-Janssen, and Reid, 2006; Saddler, Moran, Graham, and Harris, 2004).

An investigation by Graham, Harris, Mason (2004) assessed the effectiveness of the Self-regulated strategy development (SRDS) writing instructional model, in addition with a peer-support component in order to examine students' strategic behaviour, knowledge and motivation as well as the promotion of maintenance and generalization. The struggling, third grade minority students that were provided with SRSD instruction on learning writing strategies and knowledge for planning and composing stories as well as persuasive essays, wrote longer, more complete and qualitatively better papers in comparison to their peers who hadn't received writing instruction. The study also showed that these results carried on over time and that a third "uninstructed" genre, informative writing, derived. Furthermore, the results also confirmed that SRSD

instruction increased students' perception regarding their writing knowledge. Also, peer-support enhanced SRSD instruction since it augmented students' knowledge for planning and generalization for informative and narrative writing. However, self-efficacy for writing was not affected by either SRSD condition.

A study by Saddler and Graham (2007) investigated the relationship between writing knowledge and writing performance among more and less skilled writers. The study confirmed that less skilled writers are less knowledgeable on writing than skilled writers. Thus, the writing performance of more and less skilled writers is different. Skilled writers were more aware about how writing promoted school success, as well as occupational success. Furthermore, skilled writers were also more knowledgeable regarding the role of the substantive processes in composing, the use of substantive procedures when writing for a younger child as well as the importance of seeking assistance when experiencing difficulties. In essence, this article stresses that skilled students' knowledge about writing is linked with their story writing.

This study was conducted because there hadn't been sufficient research investigating the role of knowledge in terms of writing development. The study did not compare students with and without learning disabilities but divided students between skilled and less skilled writers. This was done in order to compare good and poor writers in a typical classroom setting. The study examined if writing knowledge was connected with the length and quality of students' stories.

2.10.5. Self-Regulated Strategy Development (SRSD) Meta-analysis

As it has been previously stressed the direct teaching of fundamental writing processes, planning, drafting, and revising enhances students' writing skills. Graham and Perin's (2007) meta-analysis of writing intervention literature involving students in grades four (4) through twelve (12), with an emphasis on experimental and quasi-experimental studies demonstrated that explicit and systematic strategy instruction highly impacted students overall writing quality. More particularly Graham and Perin (2007) depicted that SRSD had a strong and positive effect on the quality of students' writing with an average

weighted effect size of 1.14. In addition, the SRSD had the largest weighted effect size of other writing interventions examined.

Graham and Harris (2005) conducted a meta-analysis that involved group comparisons and effect sizes that were computed by subtracting the post-test mean of the control group from the post-test mean of the SRSD group and divided by the standard deviation for the control group. Effect sizes for single-participant design studies were calculated using the percentage of non-overlapping data (PND) points. The PND is an indicator that measures the impact of an intervention in a data series (Scruggs, Mastropieri and Castro 1987; Scruggs and Mastropieri, 2001). PND scores of over 50% indicate intervention effectiveness.

The meta-analysis involved eighteen diverse writing intervention studies that had investigated different types of students ranging from LD, poor writers or low-achievers, average writers good writers or gifted students in order to form a more coherent perspective as to the effectiveness of the SRSD writing instruction model. The questions under investigation as regards to the meta-analysis investigation included whether (i) SRSD improves students' writing performance, (ii) SRSD improves students' revising process, (iii) SRSD effects are maintained and generalized (iii) SRSD is effective with younger and older students (iv) SRSD is effective with different types of genres (v) SRSD can be effectively applied by teachers (vi) independent evaluations support the effectiveness of SRSD (vii) specific components of the SRSD are most important.

The SRSD writing instruction, generally, showed large effect sizes for students. Following the grouping of all studies, average effect sizes at post-test for group design investigations fluctuated from: 1.47 for writing quality, 1.78 for elements and 2.0 and higher for length and story grammar. In addition, average PNDs for single participant designs as regards to quality elements, and story grammar were above 90%. In essence, the SRSD was determined to have validated positive effects on students' writing quality, structure and length (Graham and Harris, 2005).

Following a general discussion as regards to foreign language acquisition is provided leading to a specific discussion concerning foreign language writing.

2.11. Second/Foreign Language

To reiterate, for reader ease, second language acquisition is considered any language that an individual knows aside from the native language (L1) and was acquired in ones natural environment. The acquisition of a native language (L1) is considered an obvious achievement for a typical human being. In opposition, the acquisition of a second language is usually a long and arduous process leading to uncertain outcomes (Bella, 2007:19). Over the past thirty years linguistics, psycholinguists, cognitive psychologists, and second language educators have intensely researched Second Language Acquisition. Among the basic queries researchers of the field have been concerned with is to explain the reason certain language learners are more successful than others (Saville-Troike, 2006:2) so that existing teaching methodology is supplemented and language learners' needs more adequately fostered.

In English language teaching, the teaching of writing is considered a particular component of English language teaching instruction, one, that has come to take up a conspicuous place in both research and teaching for two reasons: (i) the increasing student body, and (ii) the cognizance regarding changes in global realities (Kroll, 2003:2). Thus, over the last twenty-five years, both investigators and language instructors have acknowledged that they should reflect upon foreign language writing as a specific skill. The promotion of writing development and the reflection of writing as a specific skill is thus vital as in the various academic setting world wide students' achievement are both performed and assessed through second/foreign writing knowledge.

The following discussion evolves around basic concepts in foreign language acquisition.

2.11.1. Writing Development And Orthographic Transparency

Writing proficiency development in a second language is based on various interconnected factors such as: expertise in first language writing (Hirose and Sasaki, 1994), previous writing instruction in school (Liebman-Kline, 1986) and general L2 proficiency (Cumming, 1989). These factors interrelate depending on other factors as well, such as learners' age, gender, learning style, affective variables and culture. Orthographic

transparency is an additional characteristic affecting reading and consequently writing proficiency development. The following section provides a discussion as regards to the intricate differences that characterize transparent vs. non-transparent orthographic systems, aiming to stress the complex aspect involved in English foreign language acquisition.

Reading and Writing

Research has shown that integration of reading and writing, enhance language development, literacy acquisition and content learning (Fitzgerald, Shanahan, 2000). Additional, research has supported the theoretical framework that reading and writing rely on analogous mental processes and isomorphic knowledge (Fitzerald, and Shanahan, 2000:1). In particular the research into reading-writing connection has been directed by three basic approaches: rhetorical relations, procedural connections and shared knowledge (Tierney and Shanahan, 1991). The third approach, shared knowledge, has received most attention based on the premise that reading and writing are unified cognitive processes that depend on knowledge representations at various linguistic levels such as phonemic, orthographic, semantic, syntactic and pragmatic. That is, reading and writing are basically connected as they depend on identical or similar knowledge representations, cognitive processes, and contexts as well as contextual constraints. Based on this premise, Fitzerald and Shanahan (2000:1) posit that reading and writing are quite similar in nature, their developments should parallel each other, and integrative instructional approaches may be useful in terms of making learning more efficient. Reading and writing development should be approached not only in an integrative manner but also in respect to the particular orthographic system learned (Read et. al., 1986).

Orthographies-Transparent vs. Non-Transparent

European orthographies differ according to the complexity and consistency they entail between letters and sounds (or graphemes and phonemes) (Seymour, 2007). By the term “orthographic transparency”, we refer to the consistency with which the orthographic

system of a given language represents the way words are pronounced. A transparent (or shallow) orthographic system consistently and systematically symbolizes the sounds (phonemes) of oral language with letters or letter combinations (graphemes). On the other hand, in a non-transparent (or deep) orthographic system words are written in a way that cannot be directly or systematically reveal existing correspondence between sounds/phonemes and graphemes (Protopapas, 2010; Seymour, 2007; Spencer, 2009; Spencer, 2010).

2.11.2.The English Language

The English language is considered of low orthographic transparency. In the English language every phoneme can be represented with different letters or letter combinations, depending on the other sounds that surround it and many other linguistic and non-linguistic factors (i.e. historic orthography, etc.). The English language essentially, is considered to be a language of low-transparency, due to the inconsistency of the way in which words are read or pronounced (Frost, 2007). Many English words thus cannot be read solely based on the way they are written, but require a rule for the decoding of letters (Protopapas, 2010). Seymor (2007) posits that the English language, a deep orthography, is multifarious. The English language is not only characterized by its orthographic depth but by its various complexities, variations, and inconsistencies and is considered one of the most difficult European orthographies to acquire. The English language thus falls into the category of a challenging and non-transparent language that entails a more systematic modus operandi for its acquisition.

It has been shown that high grapheme-phoneme correspondence assists to more effortless reading that could lead to enhanced reading development (Landerl, 2006). Accordingly, it has been shown that learning to read in English is harder than learning to read in other European orthographies (Seymour, et. al., 2003; Ziegler, et. al., 2003) and that reading delays characterize more often English-speaking children (e.g., Frith, Wimmer, and Landerl, 1998). In a similar manner, English language learners appear to face specific reading difficulties making the process of language proficiency attainment a strenuous task to acquire (Ziegler, et. al., 2003). Seymour (2007) has stressed that one of the most complex orthographic systems in terms of structure, syllable and depth is the English

orthographic system. Due to this factor, the decoding of many English words is a difficult task, as there are no clear grapheme-phoneme correspondences. Consequently, a large amount of English words are termed irregular since their pronunciation deviates the grapheme-phoneme pronunciation rule. In order for an English reader to identify these words it is necessary to be informed about their pronunciation as well as their spelling.

Reading and writing development and orthographic transparency are interrelated. That is, the effort which the student places as regards to the correspondence between letters and sounds plays an integral role for the speed in which students learn to read and write (Wimmer and Goswami, 1994; Frith, Wimmer and Landerl, 1998). Hence, students' failure or success in their reading and writing ability is also interlinked with the orthographic transparency of a language. For this reason, researchers have placed great emphasis on the comparison between orthographic transparency of a language and the reading and writing ability of students. Comparisons between students' performance and orthographic transparency have shown that beginner students learning a transparent orthographic system perform better than beginner students learning a non-transparent language (Wimmer and Goswami, 1994; Frith, Wimmer and Landerl, 1998). Hence, second language readers face difficulties in writing due to weaker language skills and reading comprehension abilities arising from the complexity of the English orthographic system.

Fashola, et. al., (1996) have proposed a more holistic approach to writing instruction, portrayed as "proactive curricula". In particular, Fashola, et. al., (1996) conducted an investigation in which it was determined that errors made by Latino students in English were in most cases predictable, and could become the basis of proactive curricula. That is, the investigators noted that "rather than simply marking a predicted error as incorrect, the teacher could explicitly point out that the phonological or orthographic rule in English is different from the one in Spanish" (Fashola, et. al., 1996:840). Additionally, the authors posit that educators can effectively, provide numerous parallel strategies, for other languages to adequately assist students whose language is radically different from English. Fashola's, et. al., (1996:840) recommendations as regards to proactive curricula for ESL instruction based on language learners background could simultaneously enhance students' self-efficacy and outcome expectancy beliefs and achievement (Shell, Murphy and Bruning, 1989; Bandura, 1982). That is, as self-efficacy mediates the

integration and application of existing skills the influence of self-efficacy on performance increases as component skills are mastered. Thus, language learners that face difficulties in developing reading and writing skills due to the inconsistency of the writing system may subsequently experience reduced self-efficacy. However, when specific strategies are employed, and for the purpose of this study, specific writing strategies, mastery may be achieved and self-efficacy in turn could be restored.

The aforementioned discussion, aimed to stress the intricateness entailed during the acquisition of the English language in general, and specifically when it is being acquired as a foreign language. The non-transparent nature of the English language adds additional stain to EFL learners in terms of acquiring both reading and writing skills.

2.11.3. Individual Differences and Second/Foreign Language Learning

Individual differences play an integral role in second language learning (Ehrman, 2003). Some of the key areas of individual differences that are further on discussed include: (i) students' input-output experiences, (ii) implicit-explicit knowledge, and (iii) learning styles. An additional, however, defining element that plays a vital role as regards to individual difference in second language learning deals with language learning strategies – that relate to metacognitive knowledge and self-regulation skills, students' cognitive abilities in the L1 and students' metaknowledge.

(i) Second/Foreign Language Input-Output Experiences

An obvious, but often forgotten disadvantage of L2 writers is that of limited-practice, over a lifetime, leading not only to a restricted command of vocabulary but English structure as a whole (Sisaki and Hirose, 1996, Williams, 2005, Raimes, 1985). In contrast to L1 learners, who have had exposure to the target language linguistic knowledge, and have implicitly acquired grammar and lexical knowledge prior to formal writing instruction at primary school, L2 writers deal with a lack of command over vocabulary and grammar, and in turn, are inclined to spend more time in selecting the precise word, expression or grammatical form so as to convey meaning (Silva and Matsuda, 2001:44).

The language available to a learner that is either read or heard as part of natural communication, or simply out in the real world, is referred to by the term "input". "Input" is most useful for developing implicit knowledge when it contains meaningful messages rather than rules and information about language. Foreign language learners lack exposure to "input", as they do not live in countries where the target language is spoken. In regards to the association between "input" and foreign language writing, this involves reading in the foreign target language. Unfortunately the lack of literacy exposure acts as an additional detriment to acquiring foreign language writing skills. In opposition, L2 environments are more successful, as language learners are surrounded by "input", and "output" opportunities, which inevitably transcend into implicit knowledge through which the retrieval process becomes quick and automatic (Williams, 2005).

(ii) Second/Foreign Language Implicit-Explicit Knowledge

Furthermore, as foreign language writers draw upon knowledge so as to employ the composing process, "implicit" and "explicit" knowledge also plays a fundamental role. "Implicit" knowledge essentially shares close resemblance to native language knowledge as it is characterized as "tacit and abstract". Particularly, "implicit" knowledge refers to knowledge that language learners can effortlessly recall so as to either produce or comprehend language. This derives from past-acquired knowledge in the L2 from various sources, such as stimuli from a classroom setting, in language that has been addressed to them or even language that has been read or heard as part of natural communication (Williams, 2005:3). In contrast, "explicit" knowledge refers to circumstances in which rules and reasons are provided so as to explain why and how forms are used. For beginning language learners, "explicit" knowledge is valuable, as they often tend to refer to it. Foreign language classes frequently emphasize the teaching of vocabulary and grammar rules through the use of "explicit" knowledge. Students can draw-upon "explicit" knowledge when engaged in exercises, tests and most importantly during writing production (Williams, 2005:4).

Even though the distinction between "implicit" and "explicit" knowledge is lucid, considerable debate has been sparked as to the more intricate role these types of knowledge play, as well as the most effective teaching practices to support language

learners. Some argue that in reality the role of "explicit" knowledge in L2 acquisition is minor and that its primary function is to edit "implicit" knowledge. This factor explains why focus on L2 learning and instruction should be on the development of "implicit" knowledge. Others however, have claimed that repeated use of "explicit" knowledge could transform into "implicit" knowledge. Hence, under this hypothesis the beneficial objective of language learning and instruction should be the development of both types of knowledge as well as the conversion of "explicit" knowledge into "implicit" knowledge. A final aspect as regards to the role of "explicit" vs. "implicit" knowledge is that "explicit" knowledge remains separate from "implicit" knowledge, even though "explicit" knowledge plays an important role in the structuring and shaping of the development of "implicit" knowledge (Williams, 2005).

For the purpose of this study, composing, which entails expressing meaning though writing, is a complex process involving a variety of skills and practice. It requires both "implicit" and "explicit" knowledge of the L2 and the development of writing skills. The ability to write clearly and effectively is a skill that takes time to develop and involves much more than simply transcribing spoken language. Writing, involves gathering ideas and information, analyzing and organizing this information and presenting it in a way that effectively communicates those ideas to the reader. Writing is a multidimensional skill that takes years and great endeavors to develop. Writers are called upon to juggle and balance the generation, analysis and synthesis of ideas, the organization of discourse, the control of sentence structure and vocabulary, spelling and mechanics. "Output", "input" and reading are essential in acquiring the skill of writing. Consequently, language learners become better writers by engaging in writing practice and essentially build-up but also draw-upon both sources of knowledge to engage in the writing process. Language learners are thus, called upon to develop and apply both "implicit" and "explicit" linguistic knowledge as well as to develop and apply their writing skills.

From a cognitive perspective, L2 acquisition, in a similar manner to the acquisition of other complex skills, involves a gradual progression from declarative to procedural knowledge and subsequently, to the automatization of procedural knowledge. L2 moves from noticing features in the "input" received, then hypothesizing L2 rules complexifying their L2 system, using rules with different degrees of accuracy and speed, to finally full automatization in the use of L2 resources (Roca de Larios, et. al., 2006:90).

(iii) Learning Styles

Learning styles play an important role in EFL and ESL acquisition as well as to the teaching of any other subject (Oxford, 2003; Ehrman et. al., 2003; Ehrman and Oxford, 1990; Carrell, Prince, Astika, 1996). An early but notable definition of learning styles was provided by Dunn and Griggs (1988:3) who described them as "the biologically and developmentally imposed set of characteristics that make the same teaching method wonderful for some and terrible for others".

Oxford (2003) however, is one of the most distinguished researchers of the field. A brief exploration of learning styles as investigated by Oxford (2003) in regards to sensory preferences, personality types, desired degree of generality and biological differences will follow as well as a discussion of the important connection between learning styles and LLs. Oxford (2003) has investigated the nature of four key learning styles, viewed as the most influential in terms of L2 learning, and deal with (i) sensory preferences, (ii) personality types, (iii) desired degree of personality, and finally (iv) biological differences:

The first component of key learning styles, sensory preferences, essentially deals with the physical and perceptual learning channels through which each individual student most successfully acquires learning. Sensory preferences involve the following four elements: visual, auditory, kinesthetic (movement oriented), and tactile (touch-oriented) Oxford (2003). Studies have stressed that cultural backgrounds can affect the way in which ESL students respond in terms of sensory preferences (Reid 1995; Oxford and Anderson 1995; Reid, 1995). One such study conducted by Reid (1987) investigated ESL Japanese and Hispanic students' sensory orientation. The findings showed that Japanese students were non-auditory as opposed to Hispanic students who were recurrently found to be auditory.

The second component of learning types involves personality types that also play an integral role in terms of ESL and EFL learning. Investigations have shown that students' personality types in terms of language learning are closely related (Carrell, Prince, Astika, 1996; Oxford 1996b Ehrman, and Oxford, 1990). The following key style features will be examined in terms of FL and SL learners' personality types: extroverted

vs. introverted; intuitive-random vs. sensing-sequential; thinking vs. feeling; and closure-oriented/judging vs. open/perceiving.

Extroverted vs. Introverted

Whereas extrovert learners have been observed to engage in activities involving interaction with individuals and friends, introverts opt for solitude. Group work is a way in which learners are provided an opportunity for equal engagement in activities. Rotating the person in charge of the task at hand would provide an introvert learner the opportunity to escape from this introverted world and equally participate in the activity.

Intuitive-Random vs. Sensing-Sequential

Intuitive-random individuals tend to make decisions and direct their choices regarding their individual learning and are inclined to think in abstract, nonfigurative ways. Sensing-sequential learning individuals, desire to adhere to teacher assistance, and their learning modality is characterized by a preference for a learning regularity or stability. Structured teaching is highly recommended to foster the needs of sensing-sequential learners and teaching methods that offer a variety of options and enhancement activities is suggested for intuitive-random learners.

Thinking vs. Feeling

Thinking learners are considered competent and determined while they may also be regarded as detached and in cases, inconsiderate towards valuing individual's feelings. In contrast, feeling learners tend to display empathy and require praise for their personal achievements. Group work tasks could stabilize the gap among thinking and feeling learners.

Closure-Oriented/Judging vs. Open/Perceiving

Closure-oriented or judging learners are those who enjoy being given specific tasks accompanied by specific deadlines. They benefit from reaching prompt closure, of a given task at hand, and make decisions or draw conclusions in terms of their personal achievements. According to Ehrman and Oxford (1989) these learners are likely to pursue a planned, organized, and controlled life. However, closure-oriented or judging learners are considered deficient in fluency levels due to their closure-oriented perception of learning (Ehrman and Oxford, 1989). In contrast, learners who are considered open and perceiving prefer to enjoy and have fun with their work. They consider ESL or EFL a long lasting insightful experience; use osmosis as their primary learning tool while utilizing the perceiving process, through flexibility, freedom and autonomy and tend to be open-minded. However, according to Ehrman and Oxford (1989) even though perceiving learning augments fluency-levels, open and perceiving learners have difficulties in a conventional classroom setting. Nevertheless, the promotion of teamwork amongst closure-oriented, judging, and open-perceiving learners through group work could provide productive outcomes for both (Oxford, 2003).

The third component Desired degree of generality is yet another aspect playing a distinct role in foreign language acquisition. Desired degree of generality refers to two kinds of learners: global/holistic learners, and analytic learners. Global/holistic learners adhere to focusing on the general picture of a given task at hand, avoiding centering on graphic details (Oxford, 2003). Analytic learners share a highly meticulous nature, tending to focus on the finer points paying close attention to details (Oxford, 2003). Fruitful knowledge can be provided through mutual activity engagement between the simplification nature of the "global/holistic learner" and the scrupulous nature of the "analytic learner".

Finally, Oxford (2003) posits that in terms of learning styles, biological differences further play a role as regards to EFL and ESL acquisition. Biological differences consist of three categories: biorhythms, sustenance and location. Biorhythms refer to the time of day during which students perform their best. Sustenance deals with the requirement for nourishment during learning, and location is associated with the classroom environmental such as lighting and sound (Oxford, 2003). L2 educators do not always take language

learners' biological differences into consideration even though certain accommodations could contribute towards improved learning experiences (Oxford, 2003).

However, even though educators are not enabled to take into consideration time or nourishment or even local, as it may not be feasible in most educational contexts, L2 educators are called upon to reflect on students learning styles so as to assist them achieve tasks beyond their comfort zone. Educators could successfully cater to the needs of students' learning styles by providing a plethora of tasks that would engage all language learners regardless of their learning styles (Oxford, 2003). Specifically, flexibility and procedural facilitative environments could engage all students in the learning process regardless of individual differences in learning styles. In essence, learning styles are a key facet concerning individual differences in language learning. The following section will portray a second individual difference in language learning that deals with learning strategies.

Learning styles and learning strategies are often viewed as interconnected since essentially, styles become apparent through learning strategies (Ehrman et. al., 2003). The following section portrays a discussion of language learning strategies.

2.12. Language Learning Strategies

This section provides a literature review focusing on language learning strategies (LLs). Initially, a presentation is provided dealing with a brief overview of LLs and empirical evidence regarding the way in which LLs promote language learning. Next, LLS definitions and classifications are discussed as well as a theoretical basis in terms of cognitive and social-cognitive psychology. Subsequently, an examination of the intricate role of learning strategies in a foreign language context is provided. The final part of this discussion evolves around a presentation concerning the association of the Self-Regulated strategy development writing instruction model in relation to LLs.

Overview of Language Learning Strategies

Rubin (1975) Stern (1975) and Naiman, et. al., (1976) were the first to note that good language learners seemed to be using a larger number and variety of language strategies than "poor" language learners. O'Malley and Chamot (1995:2) then came to argue that cognitive psychologists had predicted this early work positing that proficient learners are efficient because they are able to process information in special ways which could be learned by others. In any case, research on language learning strategies began to take a revolutionary course.

LLs have been described as having the potential to be an extremely powerful tool for second and foreign language acquisition (O'Malley, and Chamot, 1985). Studies have also determined that the use of appropriate language learning strategies often results in enhanced language proficiency and general achievement, or improvement in specific skill areas (Oxford et al., 1993; Thompson and Rubin, 1993). O'Malley and Chamot (1990) have stressed that strategies are essential tools so as to develop active and self-directed communication ability. In essence, learner strategy research argues that good language learners have the ability to make inferences, use deduction or seek clarification all of which greatly assist language learning (O'Malley and Chamot, 1990; Oxford, 1990; Weinstein et al., 1988; Wenden and Rubin, 1987).

Presentation and Examination of Definitions

Numerous LLs definitions have been offered by academics since there is no agreeable definition and classification of LLs used by ESL/EFL learners. However, prior to presenting and examining LLs definitions it is essential to define the term "strategy". The term strategy stems from the Greek "strategia". According to the Living Webster Encyclopedic Dictionary of the English Language (1972:967) the term strategy is defined as "the use of artifice or finesse in carrying out any project; a method, plan, or stratagem to achieve some goal". Thus, a "method" or a "plan" is an indispensable factor in terms of carrying out a strategy.

However, apart from the aforementioned terms, the literature consists of a plethora of additional terms that are used to describe learners' actions. LLs have also been described as a "technique" by Stern (1983) as a "tactic" by Larsen-Freeman and Long (1991) and

Seliger (1984) and as a "move" by Sarig (1984) which demonstrates that conformity regarding the terminology of LLs has not been reached by researchers in the field. This is a problematic issue and a cause of controversy amongst researchers. According to Ellis (1993:9) "there is no agreement on exactly what learning strategies are, how many of them there are, or what they consist of". In a similar line of thought to Ellis (1993), Oxford (1990:17) comes to add that: "there is not complete agreement on how many strategies exist; how they should be defined, demarcated, and categorized: and whether it is 'or ever will be' possible to create a real, scientifically validated hierarchy of strategies". This controversial issue becomes more lucid when one explores the transformations that language learning strategy definitions have undergone by researchers over the years.

Rubin (1975:43) provided one of the first definitions of learning strategies. He initially defined them as: "techniques or devices, which a learner may use to acquire knowledge". The author also argued that a strategy is "what learners do to learn" and "what learners do to regulate their learning" (Wenden and Rubin 1987:19). The aforementioned also described LLs as having an "elusive nature" (Wenden and Rubin, 1987:7). They have also been described as "fuzzy" by Ellis, (1994:529), as a "conflicting view" by Cohen, (1998:3), while O'Malley, Chamot, Stewner-Manzanares, Kupper, and Russo, (1985a: 23), argue that there is "considerable confusion about its definition". Even though LLs have not been clearly defined the differences in terms are nonetheless issues of emphasis rather than elemental discrepancies, or even more so, a matter of different approaches amongst researchers as ultimately all LLs share the same goal-orientation. That is to take specific action to achieve a "goal". For the purpose of this study, two key definitions of LLs, which have received great consideration by both the research society and educators, will be focused upon.

To begin with, O'Malley and Chamot (1990:1) have defined LLSs as "special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information". This definition, based on a cognitive information processing view of human thought and action, focuses on two main aspects:

a. That behavior can best be explained by reference on how individuals perceive knowledge and interpret their experiences.

b. The way in which individuals think and reason is parallel to the manner in which computers process information (Shuell, 1986).

O'Malley and Chamot (1990) make students' goals clear: to achieve comprehension, learn or retain new information. Nevertheless, the definition under question states that LLs can be either observable (behaviors) or unobservable (thought). Consequently, O'Malley and Chamot's (1990) definitions of LLs main goal are to facilitate language learning.

On the other hand, Oxford (1990:8) provides one of the clearest understandings of LLs, providing the following definition:

"Language learning strategies are operations employed by the learner to aid the acquisition, storage, retrieval, and use of information; specific actions taken by the learners to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations".

Oxford's (1990) definition is more developed in comparison to a plethora of other language learning strategy definitions as it provides a larger number of student intended goals. In addition, Oxford's (1990) definition enhanced or extended the previously accepted definition in comparison to O'Malley and Chamot's. Oxford (1990) has stressed some key factors. The aforementioned notes that strategies are in essence meant to be "easy", "fast", "enjoyable" and "transferable" to new situations, which is of vast importance especially in regards to fitting the needs of EFL grade school students and low proficient language learners. Furthermore, when LLs adhere to the key points mentioned in Oxford's (1990) definition, students are able to become independent learners. Independent or autonomous learners accept responsibility of their own learning, which is a fundamental objective of language learning strategy instruction (Little, 1995).

Classifying Strategies

Researchers have yet to unanimously reach consensus, so as to define LLs. Consequently, the classification of LLs has also been ambiguous. For the purpose of this study, focus will be drawn to the way in which LLs have been categorized by leading figures in regards to this area of study; Chamot and O'Malley (1990) and Oxford (2001).

To begin with, Chamot and O'Malley (1990, 1996) present three subcategories of learning strategies, based on interview and think aloud methods, contributing directly to the development of the language system constructed by the learner:

Cognitive strategies: resourcing (finding and using suitable recourses), grouping, note taking, deduction/induction, elaboration of prior knowledge, making inferences, summarizing, imagery, auditory representation.

Metacognitive strategies: planning (advanced organization, organizational planning, selective attention, self-management), monitoring (monitoring comprehension and production), and evaluating (self-assessment).

Social/Affective strategies: questioning for clarification, using affective control to help in a learning task, cooperation, and self-talk.

Researchers and instructors in the field of language learning and instruction, accept Chamot and O'Malley's taxonomy, based on cognitive psychology. Studies concentrating on the identification of LLs used by foreign and second language learners have confirmed that metacognitive, cognitive and social-affective strategies are used by proficient language learners in relation to both receptive tasks and production tasks.

Another classification of LLs has been presented by Oxford's (1990) which is the most widely acknowledged amongst researchers of foreign and second language teaching and learning. Oxford's model of LLs encompasses six categories: memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies. Each of which are discussed below:

1. Memory-related strategies: Memory strategies are specific devices (mnemonics) used by learners to make mental linkages. For example, using new words in a sentence.

2. Cognitive strategies: Cognitive strategies help learners process and use language for learning, such as writing notes, messages or letters. The ultimate goal of cognitive strategies is to use language through various ways.

3. Compensation strategies: Compensation strategies are used to compensate for limited knowledge. This could entail guessing meanings from context (reading or listening), rephrasing or using synonyms (writing and speaking), and gestures to convey meaning (speaking).

4. Metacognitive strategies: Metacognitive strategies deal with planning, organizing, revising, monitoring errors, evaluating one's progress and consciously searching for practice opportunities.

5. Affective strategies: Affective strategies involve dealing with ones emotions during the learning process. For example: anxiety reduction, self-encouragement or motivation and self-reward.

6. Social strategies: Social strategies involve asking questions for clarification, asking for assistance when required, engaging in discussion with native speakers, becoming aware of the target language's cultural aspects.

In essence, through the above presentation it becomes clear that Oxford (1990), broke down Chamot and O'Malley's (1990) social/affective category into two separate ones. Oxford, (1990), included more strategies in the categories under discussion and highlighted research from cognitive and educational psychology.

Learning Strategy Categories

Researchers have categorized LLs in different ways. However, Oxford (1990) has argued that there is no consensus on the precise number of strategies that exist; the way in which they should be classified and as well whether it validated hierarchy of strategies will be created as stressed previously on (Oxford, 1990:17).

Furthermore, as previously stressed, learning styles and learning strategies can either work jointly or clash with an instructional methodology. In the first case scenario, when students' learning style and strategy choice work in tandem with the instructional methodology and materials, the language learner could achieve greater performance, feel more confident, and experience low anxiety (Oxford, 2003). It is Oxford's definition that will be adopted for the purpose of the study.

One such writing strategy that could prove fitting to the profile of Oxford's (1990) description of language learning strategies and has proved to be "easy", "fast", "enjoyable" and "transferable" is the SRSD writing instructional model. Especially, when the previously mentioned are part of LLs as well as when the following characteristics are included (Oxford, 2003): (i) the strategy relates well to the L2 task, (ii) the strategy to a certain extent adheres to the students learning style (iii) the learner can efficiently perform the LLs and connect it to others. What's more, Oxford and Schramm (2010) have posited that when L1 learners share a common background and if strategy instruction is present in the L1 the SRSD is applicable in L2 learning.

Language Learning Strategy Characteristics and the Communicative Approach

LLs share certain objectives according to Oxford (1990) that ultimately are the essence of language learning strategy teaching. These characteristics are to contribute to the main goal (communicative competence) and assist learners to become self-directed and independent learners.

The communicative approach, which is based on communicative functions (eg. apologizing, describing, inviting, and promising) highlights that learners need to be aware of these functions. It also emphasizes the way in which specific grammatical forms may be used to convey grammatical functions accordingly (Canale and Swain, 1980: 2). Thus, the ultimate goal of the communicative approach is communicative competence.

The communicative approach aims to encourage learners to take greater responsibility of their own learning and use a variety of language learning strategies to achieve communicative competence (Oxford, Lavine and Crookall's 1989: 30-34). It encompasses a synthesis of four main principles supporting the use of highly efficient

language learning strategies, which are as follows (Oxford, Lavine and Crookall's 1989: 30-34):

1. The attainment of communicative competence as the main goal;

   (a) Grammatical accuracy

   (b) Sociolinguistic competence

   (c) Discourse competence

   (d) Strategic competence

2. Dealing communicatively with forms and errors;

   The communicative approach, which stresses coherence and cohesion states that errors are accepted on the basis that they represent natural, and predictable states of the learning process (Oxford, Lavine and Crookall's 1989: 30-34).

   (a) Metacognitive strategies: self monitoring and self-evaluating to help learners learn from errors.

   (b) Affective strategies: self-encouragement for anxiety reduction, to accept error engagement and continue to take risks.

3. An orientation which integrates the four language skills

   (a) Listening, speaking, reading and writing development that requires language-learning strategies (i.e. writing competence entails the use of metacognitive strategies such as planning and self-evaluating).

4. A focus on meaning, context, and authentic language.

   (a) Compensation strategies (guess meanings of authentic language input)

   (b) Affective strategies (cope with anxiety-aggravated situations)

   (c) Social strategies (understand and respond to feedback)

All of the four communicative approach principles aim to encourage students to take greater responsibility for their own learning and use a wide range of language learning

strategies. Furthermore, the communicative approach attempts to engage the learner in a self-directed process which, in due course, leads to learner autonomy and self-regulation in which students are able to execute second language tasks successfully with minimal or no external support.

Language Learning Strategies Promote Learner Autonomy

As already mentioned through LLs definitions (O'Malley and Chamot, 1990, Rubin, 1981) and the communicative approach**,** one fundamental aim of language learning strategies is the promotion of learner autonomy through which the learner takes conscious control of the learning process. Holec (1981:3) has described autonomy as: "to have, and to hold, the responsibility for all the decisions concerning all aspects of this learning". Littlewood (1996:428) has described an autonomous person as someone who has "an independent capacity to make and carry out the choices which govern his or her actions".

According to Holec (1981), Dickinson (1987), Allwright (1990) and Little-Wood (1996) the following definition of learner autonomy can be characterized as follows:

(a) Willingness to perform a language task with little or no assistance, with flexibility according to the situation, and with transferability to other contexts;

(b) Relevant action, including the use of appropriate L2 strategies for accomplishing the task.

It should be noted that learner autonomy is directly related to self-regulation in the field of cognitive psychology. According to Vygotsky's (1978) theory (cited in Hsiao and Oxford 2002:369), metacognitive actions such as planning, monitoring and higher-order cognitive functions are internalized with more competent learners, via social interactions that provide the learner with scaffolding. Following scaffolding, assistance is gradually removed from the progressively autonomous, self regulated learner.

Strategies as Conscious Actions

Chamot and Kupper (1989:1) have defined LLs as techniques that are used to comprehend, store and remember new information and skills but make no reference to conscious engagement. Stern (1992: 261) has stated that LLs are dependent on the supposition that learners "consciously" engage in activities to achieve certain "goals". Pressley and McCormick (1995) also argue that learning strategies are intentionally used as well as controlled by the learner. Strategies are conscious actions employed by the learner. When strategies are no longer consciously employed, when they become proceduralized or are not available through verbal description they lose their value as "strategies" (Ellis, 1994). Cohen (1996) has posited that when strategies become observable behaviors, then "strategies" are referred to as "processes". Robinowitz and Chi (1987) have also stated that strategies must be conscious actions in order for them to be considered strategic. However, once they are performed automatically they should not be described as strategic behavior.

Taking into consideration that consciousness is an essential feature of LLs, Oxford and Cohen (1992) further state that when learners reach a state where strategies become "automatic" and a certain strategy is no longer consciously engaged in, this strategy becomes a "process".

Language Learning Strategies and Cognitive Theories

Despite the growing interest language and cognition there is a lack of theory surrounding development in second language acquisition that deals with cognitive processes as well as a more specific theoretical interest in the role of learning strategies in second language acquisition (O'Malley and Chamot, 1990:17). Nevertheless, it is from cognitive psychology that the theory development in second language acquisition has emerged. In particular, theory development in second language acquisition is partly based on information processing and partly on studies and theory, which has emerged over the years concerning the role of cognitive processes in learning (O'Malley and Chamot, 1990:17).

O'Malley and Chamot (1990:1) have stated that language learning strategies are parallel to cognitive processes and have proposed that learning strategies be considered as cognitive skills. More specifically, the authors posit that "in cognitive theory, individuals are said to "process" information and the thoughts involved in this cognitive activity are referred to as "mental processes". Thus, as with cognitive theory, LLs also deal with "processing" acquired information, in order to achieve an efficient result. Weinstein and Mayer (1986:315) have also defined learning strategies from a cognitive theory perspective, arguing that they are "behaviors and thoughts that a learner engages in during learning intended to influence the learner's encoding process". The function of learning strategies in the acquisition of information can be explained through the information-processing framework of learning, which aims to elucidate the way in which information is stored in memory and more specifically, how it is acquired (O'Malley and Chamot, 1990:17).

The information processing framework of learning explains how information is stored in memory and how new information is acquired. Specifically, according to this framework, information is stored either in short-term memory or long-term memory. Short-term memory or the working memory holds a limited amount of information for a short period of time (Ericsson and Kintsch 1995). On the other hand, long-term memory has a limitless capacity regarding how much or for how long information resides in memory.

Moreover, information is stored in long-term memory as either declarative knowledge or procedural knowledge (Anderson, 1983). The aforementioned differentiated between: "what we know *about*, or "static" information in memory, and what we know *how to do*, or "dynamic" information in memory" (Anderson, 1983). Declarative knowledge is our knowledge about things such as "facts", whereas procedural knowledge involves our knowledge of how to perform various skills. Furthermore, declarative knowledge is best acquired through "schemata", which enables us to organize and understand new information.

Anderson (1983) has described three stages of skill acquisition: the cognitive stage, associative stage and the autonomous stage, in an attempt to clarify learners' progress from declarative knowledge to procedural knowledge (O'Malley and Chamot, 1990: 24-26).

The Cognitive stage: In the cognitive stage the learner is consciously active and the acquired knowledge is declarative and can be verbally explained. However, the knowledge that has been acquired in the cognitive stage, on its own, is insufficient for proficient performance as, at this stage, performance is weighed down by errors.

The Associative stage: The associative stage firstly deals with the detection and elimination of errors in terms of proficiency development. In turn, the components of the skill are consolidated. In essence, during this stage, declarative knowledge gradually takes a procedural form. Moreover, performance could remain slower due to the occurrence of errors, even though it initially may appear as a proficient stage.

The Autonomous stage: In the autonomous stage skill performance is achieved effortlessly and automatically without demands on working memory.

O'Malley and Chamot (1990:52) have stated that learning strategies are "complex procedures that individuals apply to tasks; consequently, they may be represented as procedural knowledge, which may be acquired through cognitive, associative and autonomous stages of learning".

Language Learning Strategies and Sociocognitive Psychology

Vygotsky's social-cognitive psychology or social-cognitive constructivism strongly influences the role of LLs in supporting second and foreign language acquisition. As previously mentioned in the section of learner autonomy, Vygotsky's (1978) theory focuses on the individual who is powerfully rooted in the group context. In particular: "an individual's cognitive system is a result of interaction in social groups and cannot be separated from social life". Vygotsky's zone of proximal development in essence, states that the educator's role is that of a facilitator or guide. More specifically, the educator provides assistance and guidance as well as "scaffolding to ensure that the learner's constructs will continue to grow stronger and more complex" (Oxford, 1997:43). Then gradually, as the learner becomes self-efficient and self-directed, scaffolding is removed.

The previously mentioned interaction is essential for successful language acquisition. Language learning strategy characteristics closely relate to the scaffolding process previously mentioned. The scaffolding process provided by the facilitator-educator not only guides students throughout the learning process, but also more importantly allows them to become autonomous self-regulated learners. In a similar manner, language learning strategies are meant to assist language learners accomplish a goal, while guiding them through the process and leading them to self-regulation and learner autonomy through which they will be able to more "strategically" explore their language journey over the years.

Language Learning Strategies in a Foreign Language Context

In an attempt to distinguish what proficient language learners do, researchers listed the strategies that they employ. Rubin (1975) suggested that good language learners are accurate and willing guessers; do not hesitate to communicate; are unconstrained and willing to make mistakes; take advantage of all practice opportunities; focus on form; observe others speech as well as their own; and pay attention to meaning. Researchers have argued that LLs, which are undertaken by language learners, deal with a variety of characteristics: taking advantage of practice opportunities, willingly and accurately guessing, handling emotional issues in language learning, consciously developing the L2 as a meaning system and a structure system, and monitoring one's own speech (Naiman, Frohlich, and Todesco, 1975; Naiman, Frohlich, Stern, and Todesco, 1978; Rubin, 1975; Stern, 1983). Language learners are conscious of the strategies they utilize and the reasons they use them, which is determined by think aloud studies (O'Malley and Chamot, 1990). Proficient language learners have the ability to adapt their strategies according to the task at hand, as well as to their needs (Green and Oxford, 1995). These learners also tend to choose strategies that work in a highly orchestrated way (Chamot and Kupper, 1989).

Difference in strategy use between ESL/EFL learners

Differences in the environment in which a learner belongs to, can play an essential role in regards to strategy use. Rossi-Le (1989) posits that second language learning strategies are more common in a second language setting than in a foreign language setting. This is explained by the fact that in a second language setting the learners are in an environment, which contains characteristics of the target language. In opposition, learners of EFL lack every day practice as well as environmental stimuli.

Not all students are able to apply Language Learning Strategies

The frequency and variety of strategy use is what distinguishes efficient from less efficient learners as stressed in the overview section (Chamot, Barnhardt, El-Dinary and Rubbins, 1999). More successful language learners make greater use of strategies (Green and Oxford, 1995), while the kind of strategies used between more proficient and less proficient language learners varies (O'Malley, Chamot, Stewner-Manzanares, Russo and Kupper, 1985b).

In 1975, Rubin and Stern were the first to point out that "the good language learner might be doing something special or different that we can all learn from" (Rubin and Stern, 1975:2). Thus, the perception being held, that some individuals simply have an "ear" for language or even an "inherent ability" for successful language acquisition, was now considered outdated. In a similar line of thought cognitive psychologists had also come to the same realization agreeing that proficient language learners are effective, due to the special ways in which they process information. Furthermore, the aforementioned stress that these learning strategies, being used by proficient language learners should be taught to less proficient learners who have trouble discovering them on their own. Chamot and Kupper (1989) have also posited that whereas effective language learners use LLs and know how to use them to attain their goal**,** ineffective language learners are less successful for two reasons: The first one deals with successfully choosing the appropriate strategy for the task at hand and the second involves knowing how to apply it. One could thus argue that less proficient language learners require explicit strategy instruction to be able to reach their language learning goals.

Second/Foreign Language Acquisition and Metacognition

A further characteristic feature of foreign language acquisition and foreign language teaching involves metacognition. Extended theoretical and empirical research has been conducted on the phenomenon of metacognition and its role as regards to human learning and performance (Allen, and Armour-Thomas, 1993). However, as the research community has not yet reached unanimous consensus regarding the term "metacognition itself", (Hongxia and Zhibo, 2010:34, McCormick, 2003:79), various terms have been employed to relate to metacognition such as metacognitive awareness, metacognitive beliefs, metacognitive knowledge, executive skills, higher order skills and self-regulation (Veenman et. al., 2006). From the diverse theoretical perspectives emphasized by the research community, however, a common conceptualization has emerged defining metacognition as the knowledge and control individuals have over their own cognition and learning experiences (Flavell, 1979, Jacobs and Paris, 1987). Flavell (1979:907) originally described the term metacognition positing that metacognitive knowledge "consists primarily of knowledge or beliefs about which factors or variables act and interact in which ways that they affect the course and outcome of cognitive enterprises". In a similar manner, Brown (1978) has argued that metacognition, essentially, refers to learners' knowledge, awareness, and control of their learning process. Nonetheless, it is indisputable that metacognition plays a vital role as regards to reading comprehension, writing, and language acquisition.

Metacognitive knowledge, according to Flavell (1978; 1981) refers to individuals' personal knowledge of how they learn and process information or, in other terms, the writers' understanding and control of cognitive processes. Metacognitive knowledge is fundamental in order to successfully fulfill language tasks (Flavell, 1979). Flavell (1987) has posited that as metacognition is learners' knowledge of their own cognition, metacognition could be divided into two distinct categories: (i) metacognitive knowledge, and (ii) metacognitive experience (Flavell, 1979; 1987). Metacognitive knowledge metacognitive knowledge is essentially, knowledge that can be used to control cognitive processes. Metacognitive knowledge could be divided into three major categories or variables according to whether it focuses on the individual, the task, or the process of the task. That is: (i) knowledge of person variables, (ii) task variables, and the (iii) strategy variables.

Flavell (1987:22) posits that the person variables, refers to the kind of acquired knowledge and beliefs that concern what human beings are like as cognitive entities. Specifically, person variables involve knowledge or the learner's personal beliefs about their ability, or others abilities, (i.e., strengths or weaknesses). Flavell (1979) posits that knowledge of the person variables could be further subcategorized into three categories: (i) beliefs about intraindividual differences, (ii) interindividual differences, and (iii) universals of cognition. The first subcategory or variable, (i) intraindividual differences, involves the individuals personal belief as regards to the best way they acquire knowledge. The second subcategory or variable (ii) interindividual differences, deals with the individuals' knowledge, concerning how well they understand other individuals, whereas, (iii) universal variables, involve ones personal beliefs about universal properties of cognition that are gradually acquired such as: attending, remembering, communicating, and problem solving.

The task variables refer to the available information throughout a cognitive enterprise (Flavell, 1979:907). Specifically, this involves having metacognitive knowledge or a clear understanding of how to manage available information, as well as having metacognitive knowledge of how successful one may be in achieving a given goal. Task demands or goals are a further subcategory of metacognitive knowledge. This involves being aware that certain cognitive enterprises are more demanding and difficult than others. In essence, task variables include how difficult a problem is, and how that affects the processes the learner uses. The strategy variable refers to the metacognitive knowledge as regards to what strategies are most suitable to achieve specific goals. That is, knowledge about both cognitive and metacognitive strategies, (i.e., what strategies are, how, when, and where to use such strategies, as well as how those strategies work) (Flavell, 1979; 1987). Fundamentally, metacognition knowledge refers to the knowledge about learning (Wenden, 1998).

Metacognitive experiences refer to one's current cognitive or affective state. Metacognitive experiences involve the use of metacognitive strategies or metacognitive regulation (Brown, 1987) and are cognitive and affective experiences that an individual is conscious of. Metacognitive experiences can have important effects on: cognitive goals or tasks, metacognitive knowledge, and cognitive actions or strategies. Metacognitive experiences are gradually accumulated. This way, adding, deleting, or adapting

experiences can affect the metacognitive knowledge base. Finally, metacognitive experiences, essentially, execute strategies so as to attain both cognitive and metacognitive goals. Flavell (1979; 1987) has posited that metacognitive experiences play a vital role, as they can be any kind of effective or conscious experience that navigates one's intellectual life.

According to Flavell (1979) metacognitive knowledge is often distinguished from metacognitive skills. Metacognitive knowledge involves the declarative knowledge as regards to the recursive interaction of task characteristics, personal characteristics (age and ability), and the available strategies in a learning situation. Metacognitive skills, in turn, involve the procedural knowledge that is required for the actual regulation of, and control over one's learning activities (Flavell, 1976; 1979; Anderson, 1996; Veenman and Elshout, 1999). Task orientation, planning, monitoring, checking, recapitulation, and reflection, are all behavioral indications of metacognitive skill activity. However, availability deficiency or production deficiency may obstruct the application of an appropriate level of metacognitive skillfulness (Flavel, 1976, Veenman and Elshout, 1999, Brown and DeLoache, 1978). That is, students who are characterized by an availability deficiency do not have metacognitive skills at their disposal and do not know *how* to plan or monitor their actions. In antithesis, students characterized by production deficiency possess metacognitive skills, but fail to utilize them, as they do not know *when* to plan or monitor their actions and fail to recognize the relevance of those skills for a particular task (Veenman, et. al., 2000: 393).

In a similar manner to Flavell (1979) Brown (1985) has posited that metacognitive skills refer to learners' abilities to use appropriate cognitive and metacognitive strategies to achieve a given goal, and know, why, when, and where, to use these strategies. By the same token, based on individual differences and various situations, learners must be able to modify the strategies so that they conform to their specific needs and interests.

According to Brown (1985) metacognitive strategies involve a series of processes that are used to control cognitive activities and to ensure that a cognitive goal has been reached. Metacognitive strategies include: planning, checking, monitoring, testing, revising and evaluation, and basically, assist learners to regulate and manage their own learning. Anderson (2002) has divided metacognitive strategies for language learning into five

principal components: (i) preparing and planning for learning, (ii) selecting and using learning strategies, (iii) monitoring strategy use, (iv) orchestrating various strategies, and (v) evaluating strategy use and learning. The first component, (i) preparing and planning for learning, deals with the metacognitive skills that enhance student learning. Specifically, students engage in setting a specific goal and the way in which they aim to accomplish it. Monitoring, being reflective and attentive of their learning process are all components embedded in preparing and planning for learning. The second component (ii) selecting and using learning strategies refers to the selection and usage of strategies that work best in a given context. That is, having the metacognitive ability to make conscious decisions as regards to their learning process. The third component (iii) monitoring strategy use refers to the ability to periodically self-question the progress or effect of the strategy being used. The fourth component (iv) orchestrating various strategies is another important metacognitive skill that refers to selecting strategies that work well together in a highly orchestrated way. That is, having the capability to coordinate, organize and make associations among the selected strategies. Finally, the fifth component (v) evaluating strategy use and learning refers to evaluating the effectiveness of strategy use and the whole cycle of preparing and planning, selecting and using, monitoring and orchestration of strategies. Debriefing discussions, learning logs and strategy checklists, are amongst the methods used for evaluation of strategy use. Anderson (2002) posits that essentially, each of the five metacognitive skills previously discussed interact with each other. Fundamentally, metacognition is not considered a linear process, strictly directed through the process of preparing and planning, to evaluating. In antithesis, more than one metacognitive process along with cognitive ones may take place during a learning task. The orchestration of various strategies plays a crucial role in second language learning, and especially as regards to second/foreign language writing. Specifically, providing learners the opportunity to reflect on how to combine strategies facilitates the improvement of strategy use.

2.13. Second/Foreign Language Acquisition and Self-Regulation

Metacognition has been described as an individual's capacity to reflect, monitor and regulate ones' thinking processes (Ruan, 2004:106), and is of vital importance as students are able to become independent and autonomous learners (Englert, et. al., 1988). Self-

regulation skills are an additional component that have been added to a more recent conceptualization of metacognition (Efklides, 2001; Schunk and Zimmerman, 1998), based on the interest to investigate the way in which learners become masters of their own learning processes. Ghonsooly and Ghanizadeh (2011) posit that theories and practices that deal with self-regulation have been widely applied to the learning process. The application of self-regulation to writing plays a fundamental role. Through self-regulatory processes students are able to mobilize, direct and sustain their instructional efforts. Possessing metacognitive knowledge and skill, however, does not necessarily determine the presence of self-regulation, especially in regards to fatigue, stressors, or competing attractions (Zimmerman, 1995:217). From a social cognitive perspective, self-regulation involves a sense of personal agency to regulate other sources of personal influence, such as: emotional processes and behavioral and social-environmental sources of influence (Zimmerman, 1989). Graham and Harris (1997:102) argue that writing is a demanding task, necessitating self-regulation and attention control. The role of self-regulation in writing is acknowledged in most current models of composing either explicitly or implicitly (Flower and Hayes, 1980, Hayes, 1996, Bereiter and Scardamalia, 1987).

Zimmerman (1986) argues that definitions of self-regulated learning involving specific processes often differ, based on the researchers' theoretical orientation. However, a common conceptualization of these students has emerged as: (i) metacognitively, (ii) motivationally, and (iii) behaviorally active participants of their learning. As regards to metacognitive processes, self-regulated learners plan, set goals, organize, self-monitor, and self-evaluate at various points during the process of acquisition. In this way, learners are essentially able to be self-aware, knowledgeable and decisive regarding the way in which they approach writing. In turn, through motivational processes, students develop high levels of self-efficacy, self-attributions and task interest. Finally, as regards to behavioral processes, self-regulated learners select, structure, and create environments that optimize learning.

Additionally, self-regulated learning is deeply affected by variations in social-contextual variables, such as task features and setting conditions. Students' sense of self-efficacy and personal agency, greatly influence the limitations in self-regulated functioning (Zimmerman, 1995). That is, it is essential to understand students' individual differences

so as to know how students' sense of self-efficacy is affected, as their beliefs regulate a variety of self-regulatory processes, which influence performance, cognition, motivation, choice and affect (e.g., anxiety and despondency).

Pintrich (1999) presents a framework so as to more clearly understand the relationship between motivation and self-regulated learning. Pintrich (1999:459) posits that self-regulated learning involves the strategies that students use to regulate their cognition. That is, the use of various cognitive and metacognitive strategies, in addition to the use of resource management strategies that students use to control their own learning processes. Pintrich (1999) posits that self-regulation embraces three general categories of strategies: (a) cognitive learning strategies, (b) metacognitive and self-regulatory strategies to control cognition, and (c) resource management strategies.

The first category of self-regulation, (a) cognitive learning strategies, refers to (i) rehearsal, (ii) elaboration and (iii) organizational strategies. Rehearsal strategies refer to the recitation or repetition of items. However, these strategies, alone, do not warrant higher-order processing of materials to be learnt as an outcome. Elaboration and organizational strategies consequently come into play, which are required to attain a deeper understanding of the learning material. Elaboration strategies involve forming internal connections so that information is stored in long-term memory and a deeper understanding of learning material is reached. Elaboration strategies include: paraphrasing, summarizing the material to be learned, analogy making and generative note taking (rather than linear, passive note-taking), and finally, question asking, and answering. Through organizational strategies in turn, learners are able to select suitable information from the text, and use various techniques so as to apply structure to the learned materials.

The second category of self-regulation, (b) metacognitive or self-regulatory strategies, includes the two general aspects of metacognition: knowledge of cognition and self-regulation of cognition (Flavell, 1979). The predominant models of metacognitive control or self-regulating strategies have included three general types of strategies: planning, monitoring and regulating. Planning strategies, deal with aiding learners to plan their use of cognitive strategies in addition to activating prior, relevant, knowledge that essentially makes the organization and comprehension of the material easier. The second category of

self-regulation, monitoring strategies, refers to the usage of self-assessment techniques, test-taking strategies as well as comprehension checking techniques as regards to individual, self-set goals. In the case of writing, for example, the monitoring strategies involve re-reading what has been written, or retracing steps to check whether self-set audience needs have been met, so as to regulate strategies to restore deficits, or to re-establish performance of prior individual self-set goals.

Pintrich (1999) posits that the final type of self-regulation strategy that refers to (c) resource management strategies is of crucial importance in terms of aiding learners to not only adjust to their environment but also adjust the environment to their self-set goals or conditions. Time management, effort, study context and help seeking assistance are amongst the resource management strategies involved in aiding learners.

Self-regulated learners are able to set goals for themselves, possess accuracy of their behavioral self-monitoring and resourcefulness of strategic thinking (Schunk and Zimmerman, 1994). Along with other self-initiated processes, learners are enabled to actively contribute to their learning goals, and exercise control over goal-attainment rather than be passive recipients of information (Schunk and Zimmerman, 1998:1, Schunk and Zimmerman, 2003:59). The development of self-regulation or autonomy in writing largely depends on diminishing the teacher's "substantive facilitation" to students' written products (Ruan, 2005).

Skilled writing relies on high levels of self-regulation. Skilled writers, use various strategies to regulate the environment, their behavior, or convert processes when writing (Zimmerman and Risemberg 1997). Brown (1987) posits that metacognitive regulation refers to strategies that are sequential in nature and used to control cognitive activities. The Flower and Hayes's (1980) cognitive composing model provides a vivid depiction of these. That is, the composing behavior of skilled writers is characteristically different compared to that of novice writers as regards to the greater frequency with which self-regulatory mechanisms, such as: planning, and monitoring are used, compared to non-regulatory mechanisms, such as generating, and transcribing (Ruan, 2005:176). Bereiter and Scardamalia's (1987) knowledge telling, and knowledge transforming models offer an additional illustration as to novice and skilled writers differences in composing processes. Concerning the knowledge telling model, novice writers engage in a writing

task by simply telling what they know, and transcribing any information retrieved from memory. In antithesis, in the knowledge-transforming model, skilled writers approach the writing task through meticulous goal setting and the deliberate pursuit of these goals in which the role of planning, revising, and other self-regulation processes is maintained at a maximum level. In essence, novice writers, in contrast to skilled writers, fail to approach the writing task as the reorganization of their knowledge through methodical and executive control over the process of composition (Ruan, 2005).

According to Zimmerman, and Kitsantas (1999) self-regulation in writing encompasses three specified elements: the person, behavior and the environment. Boscolo, and Hidi (2007) posit that according to this perspective, writing self-regulatory activities can be identified and grouped based on these three elements. In regards to the person element, writers internally control the writing activity such as setting specific objectives and assigning time for the writing task. By the same token, writers further control their behavior. That is, writers engage in utilizing the best ways to express their ideas, in addition to reflecting upon the already produced text. What's more, writers establish a writing setting that accommodates their standards.

In a similar manner to Brown (1987) Zimmerman and Kitsantas (1999) have posited that the strategies of a self-regulated writer can be described in the frameworks of the recursive writing model of Hayes and Flower (1980) which specified three writing phases: planning, transcribing, and revision. Zimmerman, and Kitsantas (1999) further posit that there are four progressive levels as regards to the development of writing self-regulation. The first level of self-regulation involves the learner observing a model (e.g., illustration of to how to combine simple sentences into a complex one). The second level of self-regulation involves emulation that entails the students' attempt to copy the model's performance (e.g., writers compose complex sentences based on the teacher's demonstration).

The third level of self-regulation involves self-control in which the learner can plan and use a particular strategy and self-monitor the learning process. In regards to this level the learners are characterized by self-assurance and self-satisfaction. Learners are capable of successfully applying the model, but, fundamentally, apply self-control so as to manage it with awareness as well. The fourth level, involves self-regulation, in which students adapt

their performance to numerous internal and external situations. That is, learners at this level are characterized by sources of motivation, high levels of self-efficacy, and ultimately, interest in writing. Zimmerman and Kitsantas (1999) posit that a basic feature of self-regulation involves the ability to shift from process goals to outcome goals. Specifically, being able to shift from the steps through which a skill is achieved at a proficiency level, to the self-set goal.

Boscolo, and Hidi (2007) posit that Zimmerman and Kitsantas's studies established that teaching students self-regulatory strategies contributes to three key factors: (i) improving their writing performance, (ii) attitude to writing, and (iii) self-efficacy. The Self-Regulated Strategy Development (SRSD) writing instructional model, designed by Graham, Harris, and colleagues, (e.g., Graham, Harris, and Troia, 2000; Harris, Graham, 1996; Harris, Graham, Mason, and Saddler, 2002) targeted struggling writers under the postulation that a self-regulated writer is one who wants to write. The Self-Regulated Strategy Development (SRSD) research program has determined its effectiveness as regards to struggling writers' performance.

2.13.1 Second/Foreign Language Acquisition and Metaknowledge

Foreign language acquisition, involves an additional aspect termed Metaknowledge. Metaknowledge involves students' perceptions about themselves as writers (personal-knowledge), about the task of writing in general (task-knowledge) and about the appropriate strategies for successful task completion (strategic knowledge), in interaction with the specific demands of a given task (Devine et. al, 1993; Flavell, 1985). Unskilled and skilled writers have been determined to share persistent differences in skill as regards to the task and strategic components. Specifically, whereas skilled writers have a deeper conception of the composing process, as they are flexible towards the reconstruction of mental frameworks to accommodate those changes (Zamel, 1983), unskilled writers in contrast are inclined to see writing primarily, as a grammar-governed collocation of sentences rather than the production of discourse (Zamel, 1983).

The distinct writing behaviors that characterize second language unskilled writers' suggest that they can be defined by the following elements: (i) difficulty to control

intricate mental representations, (ii) difficulty to create rhetorical and structural goals and hold them in working memory in the development of the composing process, (iii) difficulty in competently operating problem-solving actions so as to express writing, (iv) difficulty in the capacity to discriminate between editing and revision as two distinct processes, (v) difficulty in the implementation of an adaptable attitude as regards to the use of rhetorical strategies (Roca de Larios, 2002).

2.13.2. Foreign Language Acquisition and the Interdependence Hypothesis

There is evidence to support the notion that second language literacy development is affected by the learners' literacy capabilities in the L1 (Cummins, 1981; Carson et. al., 1990). Second language learners build their second language system based on two sources. The first one deals with acquired knowledge of the first language and the second one with input from the second language. Language learners utilize literacy skills and knowledge of literacy practices from their first language, termed *Interlingual Transfer*, and also input from literacy activities, termed *Intralingual Input,* in the developing second language (Carson et. al., 1990). Cummins, (1981), posits that there is a general cognitive/academic proficiency across all languages that enable the transfer of different literacy-related skills across all languages.

Various studies have been conducted to investigate the possibility concerning writing skills being transferred from one language to another, (Roca De Larios, et. al., 2002). One of the most widely known theoretical accounts of how languages are related involves Cummins', (1980) *Concept of Common Underlying Proficiency (CUP),* which states that there is a common set of abilities between first and second language performance. That is, when a specific literacy operation or procedure has been acquired in a language it will always be in turn, available and does not have to be re-acquired in the second language. Based on this supposition, the literacy operation of planning for example in L1 writing will be transferred to the L2. This can be explained through Cummin's theory of the *Interdependence Hypothesis.*

Cummins (1981) created what he termed the *Interdependence Hypothesis* after investigating that language one (L1) and language two (L2) were essentially

interdependent of each other. This hypothesis stated that instruction in students' first language promoted proficiency in the development of the second language. Specifically, the *Interdependence Hypothesis* essentially claims that L2 literacy is in part, dependent on the literacy already developed in the L1 when exposure to the L2 begins (Cummins, 1980). Various studies have been conducted in terms of analyzing the transfer of writing abilities across languages by comparing L1 and L2 writing behaviors based on the theoretical grounds of the Cummin's (1980) *Interdependence Hypothesis*. Another associated approach widely used in L2 research is the *Threshold Hypothesis* that in turn, asserts the view that in order to write in an L2, a certain threshold or level of L2 proficiency must be acquired so that L1 skills can be successfully transferred.

Even though adequate research does not exist so as to determinedly ascertain to what degree L1 writing strategies transfer to L2, empirical studies have established that transfer does occur. A study by Jones and Tetroe (1987) following the conduction of a study of Spanish-speaking student writers, utilizing both English and Spanish writing determined that transfer of higher level planning skills in writing does occur, especially as regards to more proficient L2 writers. Hall (1990) has also determined that certain revision strategies are utilized across languages. Carson, Carrel, Silberstein, Kroll, and Kuehn (1990) conducted a study among Chinese and Japanese students' writing and reading skills to find an intricate pattern of connections in L1 and L2. Sasaki's (2000) influential article as regards to an investigation of Japanese learners' cognitive processes of English expository writing further determined that expert native language writers tend to be better at writing in the L2 than novice native language writers. Hyland (2002:213) has also determined that L1 writing skills and strategies, particularly as regards to proficient L1 writers, transfer to the L2. Wang, and Wen (2002:225) in their study, which was based on think aloud protocols, as regards to how ESL/EFL writers' utilize their L1 when composing in their L2, also found that proficient L2 writers are able to utilize both L1 and L2 cognitive processing resources when composing. Thus, under the supposition that writing skills in actual fact transfer across languages then ESL students may utilize writing strategies acquired from L1 writing environment to L2 writing contexts (Leki, 1991)

2.14. Second/Foreign Language Teaching Methods-Approaches

Over the years, many different methods or approaches to the teaching and learning of language evolved, each encompassing a unique underlying theoretical basis. Amongst the most widely adopted methods to the teaching and learning of language were: (i) the grammar-translation approach, (ii) the audiolingualism approach, and (iii) the communicative approach.

The Grammar Translation Approach

The underlying theoretical basis of the structure-based grammar translation method relied heavily on teaching grammar and practicing translation as the core of both teaching and learning activities. Reading and writing overpowered speaking and listening activities and vocabulary was typically taught in lists with precedence on accuracy and the ability to construct correct sentences. Reflection on students' promotion of their own learning was abandoned by the grammar translation instructional method, which adhered to the assumption, that when students simply pursue the method, learning would inevitably result (Griffiths, Parr, 2001). In essence, the grammar translation-method based priority on students' ability to construct correct sentences with lack of consideration to the process of writing. Two additional general characteristics depicting the grammar translation approach entail: (a) the teaching of classes in the mother tongue with minimal active use of the target language and (b) the utilization of drills that adhered to exercises in translating disconnected sentences from the target language into the mother tongue (Brown, 1994:16).

The Audiolingualism Approach

In the mid-twentieth century, the prevalence of the audio-lingual method (Matsuda, 2001) that partly grew due to the limitations of the grammar-translation method (Griffiths, Parr, 2001), writing instruction dominated over speaking instruction. The audio-lingual method greatly relied on the drills of repetition, and substitution exercises. Learners were viewed as passive entities, without valued contribution towards the learning process and discouraged from interfering with their own learning (Griffiths, Parr, 2001). However, the

failure of both the audio-lingual method, and the grammar translation method to foster real communication skills stimulated language instructor researchers to investigate more effective ways to promote the needs of language learners.

The Communicative Approach

This directed the way to the development of the communicative approach in Britain in the 1970's (Matsuda, 2003). The communicative approach focuses on actively developing competence in terms of understanding and communicative meaning was adhered to in many parts of the world (Matsuda, 2003). The definitive goal was to stress the importance of active, communicative involvement in language learning (Oxford, Lavine, Crookall, 1989). Contrary to the audio-lingual method and the grammar-translation approach, the communicative approach gives priority to the semantic content of the language learning. That is, "meaning" is the central focus through which learners acquire the grammatical form. The focal point of this approach is in the use of language in everyday situations and the functional aspects of language rather than on the formal structures of language. Nonetheless, the communicative approach has been criticized for lacking a more "direct instruction" to language teaching such as grammatical, lexical, and socio-pragmatic features (Spada, 2007).

Apart from grammar-translation, audiolingualism and communicative language teaching, other less widely utilized methods and approaches have been adopted such as the Natural Method, the Direct Method and Suggestopeidia and all without doubt have had an influence on second language teaching. Currently, research has tended to focus on a variety of methods and approaches valuing the varying advantages they bring to the teaching and learning of a foreign language. However, the foundation of contemporary research bases its premises on the learners themselves, their learning styles and the learning strategies that they employ in the process of second language learning (Griffiths and Parr, 2001). Therefore, focus is now reflected upon the field of individual differences as regards to language learning and more specifically, students' learning styles, learning strategies, as well as affective variables that essentially affect both educators and foreign language learners.

2.15. Second/Foreign Language Writing – Historical Background

It was not until the 1990's when the nature of second language studies underwent a remarkable shift. More specifically, only recently has writing become a fundamental component of L2 teaching (Matsuda, 2003, Leki, 2001). The predominant reason writing instruction in Second Language contexts did not receive attention until the 1990's was due to the ascendance of applied linguistics in the late nineteenth century with Henry Sweet and Paul Passy, as the two leading figures of that time positing that phonetics should be the foundation of theoretical and practical language studies, with focus placed mainly on spoken language in the sphere of second language teaching (Matsuda, 2003). Priority was thus initially focused on spoken language, and writing was only viewed as an orthographic representation of speech. In essence, it was believed that language teaching was an application of scientific descriptive linguistics and it was assumed that students would be able to write once they had mastered the structure and sounds of a language (Matsuda, 2003).

The audiolingual approach in the mid twentieth century further posed a detriment towards the evolution of second language writing due to "the view that speech primary meant that writing served a subservient role: to reinforce oral patterns of the language" (Raimes, 1991:408). However, the rise of higher education in the United States, subsequently, led to a rapid increase of L2 studies. Specifically, following the expanding number of international ESL students in higher education, and the compulsory enrollment in first year composition courses, second language writing instruction became an issue which could no longer be ignored. It was due to this objective that second language writing developed as a "sub-discipline" of TESL bringing to the surface various pedagogical approaches, and denoting a distinctive perspective as regards to the nature of second language writing (Matsuda, 2003, Raimes, 1991).

2.15.1. Second/Foreign Language Writing Approaches or Methods

Second language writing covers a plethora and a multifaceted set of behaviors and has significantly benefited from the large variety of approaches that have been used to study it (Ransdell and Barbier, 2002). Some predominant L2 writing approaches have focused

on the rhetorical and linguistic features of L2 texts (Raimes, 1991) while psycholinguistic approaches have more explicitly focused on the cognitive processes involved in L2 writing. Four influential pedagogical approaches that navigated the area of L2 writing research involve: (i) the controlled composition approach *(*ii) the guided composition approach, (iii) the principles of rhetorical form or contrastive rhetoric and (iv) the principles of process pedagogy or the pedagogical approach (Matsuda, 2003).

The Controlled Composition Approach

The Controlled composition approach ultimately centered on sentence-level structure and involved combination and substitution exercises intended to aid learning of sentence structures. The controlled composition approach was based on a habit-formation theory of learning in which the role of the writer was essentially defined as manipulator of the formerly acquired language structures, whereas the role of the teacher was that of editor, highly preoccupied with accuracy of structures. The controlled composition approach to writing nonetheless, proved to be unfruitful as students were not producing original sentences or original pieces of writing but rather focused on building grammatical sentences. This "Focus on Form", as termed by Raimes (1991) fundamentally indicating grammatical form, led the way to the Guided Composition to Writing approach.

The Guided Composition Approach

In the *Guided Composition Approach* students were provided with a model, plan or outline to follow (Matsuda, 2003). The guided composition approach to writing rapidly also proved to be inadequate, as in a similar manner to the controlled composition approach, it was criticized for strictly adhering to sentence-level structures rather than assisting L2 learners' free composition production.

The Principles of Rhetorical Form or Contrastive Rhetoric

The principles of Contrastive Rhetoric filled the gap between the controlled and guided composition approach to writing. The Contrastive Rhetoric approach is based on the notion that the use of specific structures differs across languages. In particular, as the use of language is inevitably affected by culture, contrastive rhetoric research, essentially determined that individual cultures share their own patterns of discourse. Consequently, L2 writers are inclined to transfer their native schemata, or prior knowledge, to L2 writing situations. The leading figure of contrastive rhetoric, Robert B. Kaplan, initially argued that paragraph structures are "language specific" and "culture specific" in a similar manner to sentence structures (Kaplan, 1966 as cited in Kroll, 2003:20). This observation was initially put forward following the perceived discrepancy of students' ability to produce grammatically correct sentences and the ability to achieve "logical organization" as judged by native English speaking readers (Matsuda, 2003:20). That is, as L2 writers' texts essentially portrayed a different cultural background compared to native L1 writers', they failed the expectancies of the native speaker audience (Silva and Matsuda, 2001:45). Specifically, argument structure, narrative structure, reader orientation morphosyntactic/stylistic features, and lexicosemantic features, are amongst the distinct differences found between adult L2 writing (Silva, 1993). These differences instigated researchers of the field to methodically examine the structures of written discourse in different languages, and their influence on L2 writing.

Nonetheless, ESL composition textbooks have been adopting Kaplan's diagrams of rhetorical patterns, and ESL classrooms have steadily adhered to what still remains, the valid traditional approach to teaching ESL writing (Silva, 1990, Silva, 1997, Leki, 1991:123). The fundamental query of contrastive rhetoric studies involves the investigation of L1 discourse so as to associate it with English discourse or more precisely, what English discourse is supposed to look like (Leki, 1991:127). Fundamentally, this over-reliance on style manuals or textbooks writers utilized to approach English writing, acquired immense criticism by process approach adherents who rejected students' focus on form rather than meaning (Raimes, 1991) and sparked a debate towards a process-pedagogy to writing.

The Principles of Process Pedagogy or the Pedagogical Approach

The supporters of the process approach to writing refuse to adhere to contrastive rhetoric's rigid context which essentially conceives that "In English we write like this; those who would write well in English must look well at this pattern and imitate it" (Leki, 1991:123). Compensatory exercises that highlight imitation of paragraphs or essay forms handling writing from an outline, paragraph completion, detection of topic and support and even scrambled paragraphs to reorder, lucidly define contrastive rhetoric's context (Raimes, 1991). Process approach devotees posit that contrastive rhetoric research examines the product alone, isolating the contrastive rhetorical context L2 writers surface from, as well as the processes they have experienced for text production (Leki, 1991). What is more, the process-oriented researchers and writing educators argue that L2 writing difficulties are those of any developing or inexperienced writer rather than difficulties arising from cultural and linguistic differences.

Process approach supporters argue that there is a high stake of intricacy involved in comparing L1 texts across cultures as they are: (i) distinctively characterized as text-types, (ii) different across cultures, and also (iii) utilized in different frequencies. More precisely that is, texts used in certain countries are not used in others, or even so, in a less frequent manner. By the same token, as different literacy instruction in writing across cultures exists, additional variables arise such as the economic, social and the political history of each country, which would have to be examined. This course of action would provide a clearer perspective regarding text development, as well as a solid perspective of L1 discourse since rhetorical style, in addition to purpose, task, topic and audience are also culturally explained (Leki, 1991:133).

Nonetheless, one cannot overlook the actuality of L1 discourse experience of most school children arising from various cultural and linguistic environments; nor the findings of empirical research investigations depicting L1 writing strategy transfer to L2. Great insight has been provided from contrastive rhetoric theorists as rhetoric studies have provided invaluable information on the nature of rhetorical skills and strategies that writers bring forward from different cultures but also its higher purpose of eliciting focus on audience. Specifically, when textual orientation does overlook the necessity of process-pedagogy, which focuses on students' developing text rather than obscure style-manuals, and adheres to investigating structure as a means to promote "meaning in texts-by comparing them, analyzing them, trying to uncover patterns and variation on patterns,

patterns which advance meaning" (Leki, 1991:133), its benefits can be rewarding. Contrastive rhetoric over-reliance on form resides in the fact that its ultimate goal is to create a social construction of knowledge in discourse communities. Specifically, to challenge EFL writers so as to acknowledge the substance of "how, when, and where" a position is customary and sustained in a text as regards to a target discourse community. However, this in essence is the actual intricacy EFL writers' deal with as they are called upon to fabricate an elusive setting, one which they have never experienced, and are requested to act as authentic participants in a delusional discourse community (Leki, 1991).

The process orientation and the textual orientation approach have evident differences but ultimately have a mutual goal, one that is approached from a different perspective. What both approaches adhere to is to basically familiarize EFL writers with the target discourse community. The significance of the process-orientation approach is evident as it fosters the development of students' cognitive resources. By the same token the textual orientation approach is also beneficial as it fosters the needs of EFL writers who are acquiring difficulties writing in English and in turn, may express feelings of failure. That is, language learners facing writing difficulties could be relieved once they recognize that the rhetorical tradition they have acquired so far, can only be in part adopted to English writing texts as it arises from a different cultural discourse than their own (Leki, 1999). Thus, considering, the beneficial characteristics of both the process orientation and the textual orientation approach, one could argue that the adoption of either or both approaches would offer potential EFL writers efficient environments so as to enter the target discourse community.

Nonetheless, regardless of the benefits provided by the previously mentioned influential approaches L2 writing research has predominately focused its attention on the pedagogical approach (Silva and Matsuda, 2003). Second language research thus, has now altered its course among the three theoretical orientations that comprise the writing activity which are typically referred to as: (a) writing as socializing, or the sociocultural context, in which the writer writes and learns to write, (b) writing as product, involving the text the writer produces, and (c) writing as process, involving the acts of thinking the writer engages in order to produce a text (Cummings, 1998). The pedagogical orientation towards the process movement, on which focus has predominately been placed, is based

on the principle that effective teaching procedures should fundamentally focus on a theory that lucidly depicts the actions writers actually engage in during the process of composing a text (Raimes, 1991, Zamel, 1983, Roca De Larios et. al., 2002).

Research has shown that L1 and L2 writing research has been highly influenced by the developments in the area of L1 writing and has tended to follow the approaches and designs of L1 writing processes (Silva, 1997, 1993; Grabe and Kaplan, 1996). Inspired by L1 research on composing processes (Emig, 1971; Zamel, 1976) the form-directed approach was overshadowed by second language writers' actions. Consequently, as of the 1980s the theoretical perspectives of L2 studies focused on case studies and experimental studies which have been viewed as complementary approaches to L2 writing research as they depicted the particular skills that are essential elements for L2 writing and determined the role of background knowledge transfer from L1 to L2 writing processes (Ransdell and Barbier, 2002). L2 writing research has thus placed focus on the high level order processes such as planning and revising as well as metalinguistic knowledge (Ransdell and Barbier, 2002).

L2 writers employ a recursive composing process, involving planning, writing, and revising to develop their ideas as well as to discover the suitable rhetorical and linguistic means to express them (Silva, 1993:657). What's more, L2 writing studies have even reflected the findings of Flower and Hayes' work with L1 writers' (Kelly, 1986). Thus, based on the hypothesis that L2 writing, in the same manner as L1 writing requires specific control and activation of high level writing processes, apart from lexical, syntactic and spelling knowledge so as to achieve L2 writing goals, the Hayes and Flower (1980), and Bereiter and Scardamalia (1987) L1 writing models, formed the groundwork for L2 writing research whose interest focused on investigating L2 writers' performances. The change of interest in investigating L2 writers' processes involves a concrete modification from the product-oriented pedagogy to the process-oriented pedagogy in L2 writing research (Matsuda, 2003).

The process approach to writing initially emerged in the late 1960s and early 1970s (Matsuda, 2003). Zamel (1976) initially brought forward the notion of writing as process to L2 studies, and posited that L2 investigators have ignored the research that has been done in the teaching of L1 English composition and have denied important sources of

information. That is, as advanced L2 writers are similar to L1 writers they can benefit from instructional practices that highlight the process of writing. Thus, in contrast to the process approach to writing, the traditional product approach passively navigated students towards writing on topics assigned by educators, received no feedback, and were provided with no opportunity for revising. The traditional writing "product approach" adheres to the following five principles: (a) writing is a linear process, (b) writing is a solitary process, (c) writing emphasis is placed on correctness of the final text, (d) writing focus is placed on the final product, and finally (e) in writing, the teacher's role is that of a judge and corrector (Williams, 2005). Second language writing thus highly focused on L2 written text features such as: orthography, sentence-level structure, and discourse-level structure but most importantly on the way in which L2 texts deviated from the L1 norm (Williams, 2005, Zamel, 1982, 1983).

The 1980s brought about important developments in composition studies and second language studies which instigated researchers to investigate alternative issues rather than finely polished text features. The process-oriented approach to writing, highly affected writing instruction (Zamel, 1982, 1983). The process-oriented approach to writing essentially highlighted the shift of focus as it overshadowed the shallow interest of textual features of that time. From a cognitivist perspective, the word "process" refers to the mental operations writers employ when trying to generate, express and refine ideas in order to produce a text (Roca De Larios et. al., 2002:12). The process approach to writing was based on teaching writing as a process rather than a final product, in which students discovered their own voice, were able to choose their own topic, were offered feedback from educators or peers and were able to engage in the revising process (Roca De Larios et. al., 2002:12). Writing was thus not viewed as a reproduction of previously learned syntactic or discourse structures, but a writing process of developing organization as well as meaning (Kroll, 2003). Intervention strategies, multiple drafts, and teacher-peer feedback are all essential elements characterizing process-oriented instruction (Williams, 2005). Most importantly, the process-oriented approach to writing implies that revision should become the fundamental component with teacher-student intervention as well as audience awareness (Zamel, 1982, 1983).

Williams (2005) has posited that teaching the writing process is more than taking students through the stages of writing as it fundamentally asks the writer to consider audience and

purpose. Just as important, it focuses on the discovery of "meaning" in one's writing. In contrast to the product oriented approach to writing, the process oriented approach aims to: (a) teach learners to become better composers, (b) stress that what is important happens before the final draft, (c) stimulate language learners to think through ideas, revise, discard, (d) instruct learners to cope with the composing process, (e) teach learners to actively revise content, (f) raise learners awareness of the writing process, (g) instigate learners to think of writing as an exploratory and not linear process, (h) emphasize focus on composing and not the finished product, (i) emphasize the learning and thinking process, (j) direct learners focus on invention and discovery strategies, (k) foster a collaborative environment with peers, (l) provide intervention and support from educator, (m) direct learners focus on planning, audience purpose, author's voice, (n) highlight reader-writer relationship, (o) draw learners attention to expression of meaning and personal voice, (p) promote the evaluation of audience needs, (q) stress writer purpose, (r) emphasize the importance of task fulfillment. The process approach to writing ultimately asserts that "writing is not just a finished product but also a process of discovering our own thoughts" (Farrell, 2006:72) and that attention should primarily be placed on the language learner and creator of text (Raimes, 1991:409).

2.15.2. Second/Foreign Language Writing Models

Research is still inadequate and contradictory as regards to second language writing, justifying the lack of an established comprehensive theory of L2 writing to date (Grabe, 2001; Carson, 2001; Santos, 1992; Woodwall, 2002, Matsuda, 2003b). Second language writing theory thus, faces the absence of a second language genuine predictive model that would predict relative difficulty of performance based on task, topic and writer knowledge as well as general stages of writing development (Cummings, 1998, Grabe, 2001). In particular, second-language writing models have yet to associate fundamental components of second language writing, including: (i) second language texts, (ii) students' writing processes and characteristics, (iii) methods of evaluating second-language writing and (iv) social contexts wherein second-language writing occurs (Cummings, 1998, 2000; Raimes, 1991, Silva, 1990). As the aforementioned central elements in second language writing have remained static, full-scale educational models

have yet to be established and research has focused on certain teaching methods to guide writing instruction (Cummings and Riazi, 2000).

One explanation for this factor may lie in the fact that essentially L2 writing research is a relatively new area of investigation. Another explanation underlying this phenomenon may be based upon the conventional assumption that the L1 and L2 composing processes are more or less similar in nature, which explains why L1 writing models have been their basis (Flower and Hayes, 1981, Bereiter and Scaradamalia, 1987, Kellogg, 1994, 1996). Grabe (2003:54) has argued that it has not been directly addressed how a theory of L2 writing might be different from a theory of L1 writing while Cumming and Riazi (2000:57) have posited that "we have very little information on how people actually learn to write in a second language or how teaching might influence this". Raimes (1991) has indicated that second-language writing instruction follows certain "traditions", such as focusing on students' processes of composing, or the rhetoric or grammar of their written products or even both, instead of the existence of an explicit writing model that may stipulate all aspects of learning and instruction as regards to this field.

Fundamentally however, the lack of research on English language development, has led to an absence of knowledge on how to effectively support English language learners in second language learning, so that parallel progress occurs in both oral and written English-language proficiency (Gersten and Baker, 2005:107). The aforementioned, have posited that the use of approaches such as "sheltered English", in which the linguistic demands placed on students are aligned with their knowledge of English, may ignite students' drive towards learning complex, age-appropriate content, while boosting English language development. Moreover, it has been suggested that exceptionally effective teachers are able to vigilantly modulate their use of English so that they fit the needs of their teaching goals (Gersten and Baker, 2005:107). One example of achieving this is by reducing cognitive demands when English-language development is the primary goal and increasing cognitive demand when content acquisition is the primary goal (Gersten and Baker, 2005:107).

What's more, apart from the void in literature in terms of the knowledge base regarding the best ways to teach English language learners, researchers tend to argue that a disproportionate representation of certain groups of students being identified as having a

learning disability exists. That is, the basis of underlying difficulties may in fact lie in students' lack of familiarity with cultural conventions or language difficulties, rather than actual learning difficulties. Ruizs' (1995) investigation is based on case studies of bilingual students in a special education classroom regarding effective learning environments for Latino children. More specifically, Ruiz (1995) pointed out the deficiency of a medical-model view that categorizes students' abilities and disabilities arguing that it undervalues the communicative and academic competence of bilingual learners. The investigation proposes the necessity of an instructional context that can more accurately relate to students' profiles (severe to moderate disability, mild disability to normal ability, normal ability) and ultimately improves language and literacy skills. Ruiz (1995) argues that the Optimal Learning Environment (OLE) integrates all four areas of language skill development and creates effective learning contexts for bilingual learners in special education programs and an optimal learning environment.

The promising principle however, is that investigations focusing on various approaches have been conducted to assist foreign language learners' literacy development. These investigations provide a strong basis in terms of the positive effects of explicit, structured instruction in all four areas of language skill development (speaking, listening writing and reading) and redirect our focus for further research in writing which is considered the most strenuous task, especially in regards to foreign language learning. Additional research is in fact required to fully comprehend second language composing processes so as to confidently propose efficient pedagogic methodologies and to reach a unified consensus for a second language theory of writing. Nonetheless, what has been concretely established, as well as extensively cited, as regards to second language writing research is that basic characteristics of literacy developed in the native-language do transfer to literacy tasks in a second language as stressed previously on (Cumming, 2000:56).

2.15.3. The L1 vs. L2 Composing Process

Everyone who has attempted to write something in a second language feels that the experience is astoundingly different from writing in the L1 (Raimes, 1985). The assumption thus, that L1 and L2 writing are virtually identical or at least very similar, on

a superficial level, according to Silva (1993:657) seems defensible. Second language writing, however, is a distinct field, which is related with, but does not completely overlap with the field of first language writing instruction, second language acquisition, or even second language pedagogy as a whole (Kroll, 2003, Silva, 1992, Silva, 1993). Unquestionably, L2 writing research findings have important pedagogical implications for L2 teaching. Nonetheless, it is significant to determine how and to what extent the L1 composing process differs from the L2 composing process so as not to only adopt and adapt L1 instructional practices in a productive manner but most importantly to grasp a strong understanding of the challenges language learning writers face. Kroll (2003:25) has noted that "for those engaged in teaching second language [writers], what is needed is both a firm grounding in the theoretical issues of first and second language writing *and* an understanding of a broad range of pedagogical issues that shape classroom writing instruction". Students learning a second language have distinct needs as writers that are defined by their second language environments (Kroll, 2003:11), hence caution is essential so as not to blindly transpose recommendations for the teaching of L1 writing to the L2 situation (Silva, 1992; 1993; 2003; Zamel, 1983).

As overreliance on L1 research has caused concern, Kroll (2003:21) has notably posited that, "the applicability in the L2 context of pedagogical practices that had been developed for L1 writers came to be questioned, and researchers began to examine L2 processes to see how they were similar to *and* different from L1 processes". Hence, even though certain perspectives are true for all students from any academic environment other views are distinctively true for students acquiring a second language (Kroll, 2003). Particularly, the research literature specifies the broad similarities between L1 and ESL writing, specifically its complex and recursive intellectual processes (Raimes, 1985) that is, to develop their ideas and find the appropriate rhetorical and linguistic means to express them (Silva, 1993:657). However, research literature also examines some interesting differences. Some of the fundamental composing differences found between L1 and L2 writing inevitably include: cognitive, linguistic, discourse, genre and audience. Specifically, research findings specify noticeable numeral differences between L1 and L2 writing, as regards to both composing processes (planning, transcribing, and reviewing), and features of written texts (fluency, accuracy, quality, and structure, i.e., discourse, morphosyntactic, and lexicosemantic (Silva, 1992,1993).

A closer and more salient examination between L1 and L2 writing reveals that ESL composing processes, in contrast to L1, are generally slower and more laborious in nature (Silva, 1992; 1993, Roca de Larios, et.al. 2001; 2006). Planning for example, necessitates more effort, while the material generated is in effect less detailed, less developed and less useful. Transcribing in turn, which entails moving from thought to written form, is also a more strenuous task. By the same token L2 language learners' reviewing processes mainly involve concerns of a lexical and grammatical nature. Nonetheless, even though they tend to revise more, lack of effectiveness characterizes their unfruitful effort. In addition, ESL written texts have been documented as having differences compared to L1 written texts. ESL writers' texts tend to be shorter; less developed; and consequently receive lower quality ratings. Paragraphs are less unified, lacking cohesion, as L2 writers lack control over these processes, while less figurative language is used; smaller vocabularies and more errors are part of the characteristic differences entailed between L1 and L2 writing (Silva, 1992:28). L2 writing, thus, tends to be a more strenuous process with attention highly focused on sentence construction rather than generating ideas, planning, and goal-setting (Wang, and Wen, 2002:239). L2 writers experience a kind of overload when writing, owing to the fact that they have to pay more attention to language issues as they write and as a consequence are unable to devote time planning their writing, reviewing and editing work.

Difference of skill between expert and novice L2 writers has also been noted in regards to sense of audience, awareness of the recursive nature of writing and management of discourse levels (Roca De Larios, 2002). Particularly, L2 novice writers fail to reflect on purpose and audience even when the wording of the task-prompt at hand unambiguously indicated purpose and audience (Raimes, 1985, 1987). Cummins (1984) has further attempted to establish an understanding concerning students' L1 and L2 composing processes and has argued that the cognitive demand of the task plays an integral role. That is, that language proficiency, task difficulty, and the context in which the language takes place are basically interrelated. Academic tasks for example are viewed as rather demanding, and usually require "language in which contextual cues for meaning are reduced", whereas under-demanding tasks, those outside the classroom that are "rich in contextual cues" or easy to understand impose a lesser cognitive demand on writers'. Raimes (1987) in a similar manner further extended on L2 writers' failure to reflect upon audience needs stating that essentially, audience consideration is a more complex issue as

it requires more than mere topic wording, as the intellectual effort involved in thinking about both the practical nature of the text-content in addition to its linguistic components while composing, may not be activated when writing is being perceived as an utter practice of language forms rather than the conveyance of genuine information to foster audience needs (Cummings, 1990). Both proficient and less proficient writers are thus essentially called upon to harmonize the specific characteristics that reflect ESL writing.

Another factor distinguishing L2 novice writers and L2 expert writers is that apart from the fact that they fail to consider purpose and audience, L2 expert writers engage in consulting their own background knowledge, "let ideas develop, plan, reread as they plan and do not necessarily, strictly adhere to the chain order of planning, writing and revising (Raimes, 1985:229) but rather approach writing as a recursive cyclical process (Zamel, 1983, Silva, 1989) throughout which they move back and forth on a continuum, so as to discover, analyze, and synthesize ideas. In contrast, inexperienced or low proficiency foreign language writers tend to focus on surface-level features, such as grammatical choices and mechanics, rather than higher-order rhetorical problems and audience awareness. Even though not all language writers are characterized by the previously mentioned traits, these features do provide a clear perspective as to challenges foreign language learners face with the writing process (Silva, 1992).

The process of formulation, which is the process of converting thoughts into language, is an additional characteristic feature highlighting the discrepancy between the L1 and L2 composing process. The process of matching intention and expression is automatic for L1 writers, however for L2 writers great complexity is involved in attempting to convert thought into language (Zimmerman, 2000, Roca De Larios, et al. 2006). Under the supposition that writing involves a fundamental dialectic between content and rhetorical concerns, that is, between what to say and how to say it, in addition to a continuing effort to resolve the discrepancies that may arise (Cumming, 1990), average L2 writers may face far more writing difficulties than L1 writers when faced with the task of translating ideas (Roca De Larios et al., 2006). Thus, during the writing process, L2 writers, in contrast to their L1 counterparts, allocate considerable time to decisions such as the form of the second language or to finding resources like suitable word choice; which basically infers that the text-generating activity may in essence be one of the most challenging amongst all composing activities (Wang and Wen, 2002:239; Cumming, 2001:5).

According to Roca De Larios, et. al., (2006) the difficulty L2 writers face as regards to the formulation process, has not been the main focus of research attention but has nonetheless, so far, been categorized under two distinct categories: (i) the role of writing-fluency as indicator of problem-solving activity behavior, and (ii) the actual type of problem-solving behavior L2 writers employ during formulation. Writing-fluency has been utilized to mark or actually reflect L2 writers' problem solving behavior. The number of words written, the number and length of pauses or the interruption of the writing process by other processes, have in turn, been utilized to determine second language writing fluency (Roca De Larios, et. al., 2006). Specifically, research has determined that L2 writing is fundamentally a less fluent process (Benson, Deming, Denzer, and Valeri-Gold, 1992, Silva, 1990; 1993, Roca de Larios, Murphy, and Marin, 2002) as L2 writers produce fewer words of written text (Sasaki and Hirose, 1996**;** Silva, 1993; Chenoweth and Hayes, 2001), face difficulty sustaining the effort of writing as confirmed by the higher number of pauses, the interruptions of formulation processes by other processes, and by the lesser number of words produced between pauses (Chenoweth and Hayes, 2001; Roca de Larios, 2001, Roca De Larios, et. al., 2006). By the same token, L2 writers, irrespective of writing ability, devote more reflective time to the writing process, which according to Silva (1993) is determined through the analysis of L2 writers' pausing time. This in turn, depicts that fundamentally, the locale of L2 writing pauses can become evident at any stage of the writing process whereas in the case of L1 writing, the locale of pauses are more likely to occur at a mere or single clause. Essentially, fluency is affected by the demanding and unfruitful nature of the formulation processes governing L2 writing (Silva, 1993) and differences in fluency may in fact, rationalize the similarities and differences between L1 and L2 writing.

Whereas the role of writing-fluency as indicator of problem-solving activity behavior has been supported by investigations, the actual type of problem-solving behavior L2 writers employ during formulation remains unclear. In particular, whereas certain studies have determined that L2 writers were significantly affected by the lack of L2 linguistic resources, focusing predominantly on grammar, vocabulary and spelling rather than structure and style (Silva, 1992) other studies have determined opposing results. Sisaki and Hirose's (1996) study of EFL Japanese students found that the subjects' paid equal attention to language considerations in both their L1 and L2, whereas Roca de Larios et.

al., (2001) study of L1 and L2 Spanish EFL learners' time-based distribution of formulation processes, found both similarities and differences. Specifically, even though the subjects were found to allocate the same amount of time to formulating L1 and L2 texts, the subjects devoted five times longer for their L1 condition for fluent formulation, depicting that the L2 formulation process was of a more complicated problem-solving nature. Another investigation conducted by Roca de Larios et. al., (2006) as regards to the distribution of composing time to problem-solving formulation processes of ESL Spanish students, focused on two independent variables (a) the language of composition (L1 vs. L2) and (b) writers' L2 proficiency. The findings of the study revealed that the subjects dedicated twice as much time to issues relevant to formulation problems in the L2 rather than the L1, highlighting the fact that L2 writers are called upon to increase their formulating efforts owing to the different accessibility to knowledge by L1 and L2 users. The findings further depicted that increased proficiency, in turn, increased the time devoted to improving the expression of meaning, as proficient writers were inclined to view writing as a task entailing numerous levels of complexity and respond with numerous strategies, procedures, knowledge sources, and skills. In opposition, when proficiency decreased subjects of the study engaged in compensating for the lack of linguistic resources.

Studies have documented that L2 texts of unskilled writers were shorter (i.e., contained fewer words) (Sasaki and Hirose, 1996; Silva, 1993, Thorson, 2000; Chenoweth and Hayes, 2001; Ransdell, Arecco, and Levy, 2001). Furthermore, the overall quality, accuracy and structure is poor, as research has determined that generally L2 writers make more errors overall (Silva, 1990; Benson et. al., 1992), more morphosyntactic errors (Silva, 1990), more lexicosemantic errors (Benson et. al., 1992; Frodesen, 1991 in dissertation), more errors with verbs (Silva, 1990; Benson et. al., 1992), prepositions (Silva, 1990, Benson et. al., 1992), and nouns (Silva, 1990); and that the overall quality (holistic scores) is in fact lower (Hafernik, 1990) whereas the structure of L2 texts, are characterized by their "language specific" and "culture specific" nature (Kaplan, 1966 as cited in Kroll, 2003:20) as stressed in the previous section.

2.15.4. ESL Metacognitive Knowledge and Writing Skills

As L2 writing process research has usually trailed L1 writing designs and approaches, writing expertise has also been included as a rational writing research component. This in turn, has involved the exploration of the distinct approaches exhibited by proficient and less proficient writers in terms of: task representation, the writer's approach to planning, formulation and revision, and the relationship between metacognitive knowledge and writing skill (Roca De Larios, 2002).

For proficient ESL writers, the composing process has been determined to hold a different series of events and stages. Zamel's (1982) influential case study has provided invaluable insight as to the composing processes of eight (8) proficient ESL students. Zamel's fundamental queries regarded whether (i) ESL students experience writing as a creative act of discovery, or whether they were pre-occupied with language and correct form condensing writing to a mechanical exercise, (ii) what happens after their ideas are written down and (iii) what students' initial notes and the final draft portray about their writing experiences. The data collection methods employed for this study were individual student interviews so as to detect writing experiences and behaviors, and a study of students' different stages of writing to cross-examine whether their reported experiences reflected their writing. The subjects of the study had completed ESL writing courses and were successfully achieving University level content area writing products. Zamel's (1982) subject selection was based on two assumptions: (i) to investigate whether proficient writers composing experiences resembled the experiences of other writers**,** (ii) to determine whether the existing teaching methods and approaches "promote" and "reinforce" proficient writers composing processes or "inhibit" and "undermine" them as it is through the examination of the composing processes of proficient writers that these detections could be established (Zamel, 1982:199).

The interview results of the study indicated that the subjects' outlook regarding the composing process was that of a creative nature in which writing and creating is simultaneous and reciprocal. Only one subject reported making a formal outline as a writing guide, and reported feelings of low confidence when not resorting to an outline prior to engaging in the composing process. Nonetheless, the same subject specified persisting feelings of insecurity with English even when having a formal outline. Another subject reported making an outline but not following it stressing that very often the completed written product ends up being different than the original outline. This

provided evidence for the non-linear nature of writing. This statement further serves to emphasize the internal dialogue that the subjects continuously engaged in prior to, during, as well as after the written product had been completed. That is, through inner dialogue students reported being able to "hear" and consequently, evaluate the clarity of their own writing. Engaging to inner dialogue did not take place in a series of stages but was transactional and overlapping, with new insights occurring at any stage of the writing process leading to extended development of ideas (Zamel, 1982:201). Proficient ESL writers further expressed being preoccupied with audience awareness so as to serve the audiences' expectations. Furthermore, only one student reported using translation from the L1 while the other subjects were opposed to this practice.

The findings of the study were further confirmed through the examination of students' written papers (first notes to the final copy), depicting the creative nature through which they approached the writing process, as they reported during the interviews. All students engaged in writing multiple drafts that attested to their constant battle in attempting to discover and generate meaning. Students reported making drastic changes to their written products during all stages of the composing process. Syntactic, sentence-level concerns, structure and vocabulary and audience were also factors diligently attended to. In essence, the multiple versions of the subjects' written products reveal clearly the cyclical manner in which their ideas were generated, elucidated, reshaped, and polished. Particularly, it shows that the ESL writing process, much like L1 writing, is a matter of creating meaning which necessitates flexibility with one's ideas so as to explore, discover and select the way in which to express them.

In 1983, Zamel yet again conducted a similar study to fill the gap of the 1982 study in which he did not observe the composing behaviors of second language writers. The new (1983) study involved the investigation of the composing processes of six (6) advanced ESL students embodying a variety of language groups, so as to determine the extent to which the subjects experienced writing as a process of discovering and creating meaning and the extent to which second language factors affect this process. The findings determined that skilled ESL writers explore and elucidate ideas and engage in language-related affairs predominantly following the delineation of their ideas.

In attempt to complement the literature-gap regarding unskilled L2 writers' composing processes, Raimes (1985) adopted the methods employed in L1 process writing studies (e.g., Flower and Hayes, 1984) so as to examine think-aloud writing data collected from eight (8) unskilled ESL students' narrative texts from various backgrounds. The findings of the study determined implication for both pedagogy and research as students displayed a high level of attention and commitment to the task at hand. Specifically, most subjects' language emerged out of their own creativity and generative power rather than textbook instruction or teacher-supplied input.

Raimes (1985) argues, however, for the necessity for ESL students to attend to product as well as process. Essentially, ESL learners should be skilled in both the exploratory strategies to focus on meaning but also the exploratory strategies to focus on rhetorical and linguistic features once their ideas have found some form. Raimes (1985) further posits that think-aloud composing and analysis of students' language activities while writing have exposed the significance of writing as a language-learning tool. Writing should be used as a language-teaching tool through which language writers experiment, work with language, explore interesting words, adjust their thoughts and assure audience response rather than a language skill to be learned.

Sasaki (2000) has also conducted a significant investigation as regards to the expository writing of proficient Japanese second language learners' writing processes. The data sources utilized included students' written texts, videotaped writing behavior and stimulated recall protocols. The subjects of the study included twelve (12) experts and twelve (12) novices, compared cross-sectionally and longitudinally. The results of the study determined that the eight (8) hypothetical queries that guided the purpose of the study were confirmed. That is: (i) EFL expert writers wrote longer texts at greater speed compared to EFL novice writers (ii) following two semesters of process writing instruction, novices improved their writing ability but not their fluency, (iii) experts spend a longer time planning prior to engaging in the composing process whereas novices attended to local planning and translation from L1 and L2 more often than expert writers, (iv) following instruction, novices made fewer local plans but stopped to translate from L1 to L2 more or as often as before, (v) throughout the composing process experts reread or refine their expressions, more laboriously (vi) after a two-month course of instruction, novices spent longer time prior to writing, engaged in detailed planning in terms of the

overall text content, (vii) experts engaged in detailed overall organization (i.e., Global Planning), parallel with the characteristics of expert writing behavior (viii) and finally, following two semesters of process writing instruction, both novice and expert writers' processes were navigated by "Global (detailed planning of overall organization) and Local Planning (Planning what to write next).

Cumming (1989) conducted one of the largest scale studies of twenty-three French-speaking college students' English writing processes utilizing their written texts and think-aloud data. Cumming's study included (i) the application of multivariate statistical analyses and (ii) a comparison of students' writing processes for three different tasks (letter, summary, and argumentation) and (iii) controlled variables of L1 writing expertise and L2 writing proficiency. Based on the subjects think aloud data the study investigated four key writing aspects: language use, discourse organization, gist, and procedure for writing. The findings of the study showed that: skilled L2 writers were similar to L1 skilled writers adhering to planning, discourse level revising, and spent more time so as to successfully complete the task at hand.

Various behaviors and procedures portraying the planning process have thus, been determined from the aforementioned investigations. Two equally but efficient procedures thus surfaced: advanced and emergent planning Sasaki, 2002). Particularly as advanced planners adhere to a frame-driven approach (overall frames are initially delineated and then filled with relevant propositions), emergent planners adhere to a proposition-driven approach (propositions are the starting point and larger frames are constructed as writing progresses).

From a socio-cognitive perspective both approaches are different but parallel accounts depict the way in which discovery takes place through the act of writing in order for writers to achieve social goals. Advanced planning characterizes the classical view, stating, "discovery depends on the adaptation of the writer's thought to rhetorical goals" (Roca De Larios, 2002:24). However, even though advanced planning enables writers to navigate the way in which their ideas are provided to the audience, primary order of thought can pose a detriment to the subcategory of the "romantic position" of writing. The fundamental principles of the "romantic position" lie in the fact that discovery is "the result of a spontaneous dialectic between the writer's internal disposition towards the

topic and the emerging text" (Roca De Larios, 2002:24). Writers that follow this approach would be unrestricted towards the development of a formation of the topic but would nonetheless be inclined to significantly revise so as to mind textual restraints.

The distinguished researcher in the field of second language acquisition, Zamel (1983) has posited that there is no debate over the necessity of ESL writers having to deal with concerns which are linguistic-specific in nature, but is seems that it is their writing strategies and behaviors rather than principally language proficiency that determines the composing skill. In essence, in a similar manner to inexperienced L1 language writers L2 writers have limited knowledge of what the composing process entails (Raimes, 1985).

Silva's (1992) investigation concerning thirteen (13) international students from eight different countries and six (6) different L1s stated that their lack of command as regards to L2 resources was fundamentally the reason their texts were less elaborated, as their writing was predominantly form-focused, laborious and time consuming. Grammar, vocabulary and spelling were language reflections that navigated the L2 subjects' writing experience rather than text structure, which was the main concern of L1 writers.

According to Silva (1993) numerous studies have reported that in general terms, even though the composing process patterns among L1s and L2s were of a similar nature empirical evidence determines that for L2 writers the composing process is strikingly more difficult. Silva's (1993) findings of seventy-two (72) reports based on empirical research as regards to a direct comparison of ESL and NES writing and/or the L1 and L2 writing of ESL subjects, L2 composing was found not only to be highly more constrained but more difficult and essentially less effective for L2 writers. That is, L2 writers were found to engage in less planning at global and local levels and were confronted with more difficulty in terms of setting goals, generating and organizing material. Their writing was characterized, as being laborious in nature, was less fluent and less productive portraying a lack of lexical resources. Reviewing, rereading and reflection on written texts were also found to be lacking. By the same token, even though revising occurred more often it was found to be a more strenuous task in which L2 writers adhered to a surface level (by ear). On the whole, L2 writers' texts were characterized as less fluent (fewer words), less accurate (more errors), and less effective (lower holistic scores). As regards to the discourse level, L2 writers' texts depicted dissimilar patterns as regards to exposition,

argumentation and narration. Reader orientation was found less appropriate while their sentences were shorter and simpler in structure. Finally, noteworthy dissimilarities were found as regards to the use of cohesion and lexical variety and general style.

Fidalgo, Torrance, and Garcia (2008) investigated students who had been provided instructional strategies for planning and revising their writing and compared them to students of analogous academic ability who had received no writing intervention. The two groups were assigned an expository essay during which their writing actions were recorded. The subjects were also requested to complete a writing metaknowledge and self-efficacy questionnaire. The results of the investigation determined that students who had received writing strategy instruction adhered to pre-planning (but not revising) and produced writing of better quality. Their written product was reader focused with a clear understanding of the necessity of text structure.

Jacobs (1982) has posited that composing difficulties fundamentally exceed language elements and are communal for both native as well as non-native English speakers. Jacob's (1982) investigation of six native and non-native students' writing depicted the way in which the subjects dealt with the composing constraints of various assignments. The study determined that the complexity of a given task and the skills students utilize, or the way in which they approach a complex task may essentially be related more to the issue of composing difficulties rather than linguistic skill.

2.15.5. L2 Writing Instructional Provision Recommendations

L2 writing research has signified that the process approach to writing greatly assists students generate more ideas, revise more effectively, and have more motivation to write (Alhosani, 2008). Hence, investigations have also hence began to center their attention on "processes, "writing behaviors" and "strategies" language learners employ while they generate, express, and refine their ideas in a L2 language (Manchon et. al., 2010). Findings soon showed that as most skilled writers have established certain methods that allow them to proceed with the recursive and exploring nature of writing, less experienced writers require explicit instruction on how to utilize prewriting strategies or intervention techniques in general (Zamel, 1982, 1983). As Shaughnessy has posited

"instruction in writing must begin with the more fundamental mental processes whereby writers get their thoughts in the first place and then get them underway" (Shaughnessy, 1977 as cited in Zamel, 1982: 203). Second language writing provision thus found that the process approach to writing could successfully cater for the needs of second language learners and explicit instruction on how to utilize writing strategies to foster the needs of language learners writing process development.

The instructional provision of second language writing through the process approach to writing acknowledges that many writers figure out what they want to say only after they have begun writing. Discovery and intervention techniques used in the prewriting stage, which include free writing looping, brainstorming, note-taking, mind maps and questioning activities are all essential elements involved in the process approach to writing. Another important principle characteristic of the process approach to writing is that writers, at times, rather than generate ideas, are simply required to uncover what the task is. That is, deconstructing the prompt, by careful reading of the assignment, and subsequently engaging in the drafting stage. What's more, writers do not necessarily need to start at the beginning and write to the end. At times, it may work best to start in the middle, with what the writer knows, and then proceed to writing an introduction. Once the draft is complete writers will need to revise. Outlining and editing, are also necessary tasks. The teachers' responsibility is to design effective assignments. Prompts, in turn, should indicate a purpose context, and adequate guidance so to carry out the task successfully. Instructions and expectations for task completion should be clearly expressed. Additionally, multi-draft writing is one of the core principles of L2 writing instruction. However, it is equally important to provide student practice in single draft writing, as for example in rigorous situations under pressure, such as they would experience in tests (Williams, 2005:91).

Numerous educators hold the belief that the best way to increase linguistic accuracy is through direct instruction of grammar and vocabulary. However, even though drawing attention to form is important, it is not clear how explicit such instruction must be. Studies have even stressed that grammar instruction for example has little effect on literacy development (Elley, 1994; Saville-Troike, 1984). Leki, Cumming and Silva (2008) have noted that errors are an inevitable, though defining characteristic of writing with limited proficiency in a second language. Error correction in second/foreign

language contexts has been a controversial issue. According to Truscott's (1996) argument correcting errors in students writing is counterproductive to students' writing development. In opposition, Ferris (2002, 2003) and Goldstein (2001, 2005) posit that sensible, purposeful error correction is valuable. The controversial beliefs regarding error correction stem from the ambiguous nature of the term itself. In particular, research has shown that more fluent writers for example produce more and different types of errors (Grant and Ginther, 2000). By the same token, the hypothetical severity of errors differs according to language aspects or texts or even by the situations and interests of the assessors (Janopoulos, 1992). Nonetheless, research has also shown through surveys and interactions of L2 learners that writers have distinctly requested error correction by teachers particularly to their final draft (Cumming and So, 1996; Ferris, 1995).

Various approaches have been proposed that permit a less obtrusive focus on form. One major form of teacher intervention for example is through the provision of teacher-feedback. However, this is yet again an issue that remains controversial on the basis that even though feedback can clearly assist a student on a piece of writing the long-term impact remains ambiguous. For this reason, researchers argue that indirect teacher feedback can be more beneficial as it allows students to find their own mistakes whereas direct feedback on errors is questionable as the directness of the teachers' response can lead to negative effects. Furthermore, an additional valuable tool for second language writing instruction involves editing strategies as they have been proven to augment the promotion of linguistic accuracy. The editing process should be modeled and practiced as with other activities (Williams, 2005).

Peers also play a distinct role in providing feedback on classmates' writing, that is as peers could offer ideas in a less threatening manner than a teacher, and also provide supportive feedback that could assist writers in becoming better judges of their own writing (Williams, 2005:88). Literature has stressed the social dimension of peer feedback. Specifically relevant research has posited that peer feedback enhances students' attitudes towards writing, increases their motivation, augments personal responsibility, and interest towards writing (Topping, 2000; Rollinson, 2005). By the same token, peer feedback has also been considered to lead to a reduction in writer apprehension as well as a determinant writer confidence factor (Grabe and Kaplan, 1996).

Writing instructions that facilitate both L2 development and writing development augment second language learning. Research has suggested that collaborative tasks in which learners interact and negotiate meaning may facilitate language development by tailoring input and pushing learners toward more target-like output. Learner dialogue and interaction has shown to result in the creation of new linguistic knowledge. This way L2 learning is enhanced in a dual faceted manner as the writing process itself may also indirectly assist language learning. It permits hypothesis testing, encourages feedback, forces syntactic processing and consolidates linguistic knowledge. It can also assist learners notice gaps in their knowledge that may in turn foster their awareness of relevant forms in subsequent input (Williams, 2005).

Technology can play a highly significant role in the promotion of literacy development of all students, and computer supported environments have been shown to be motivating in terms of language learners' writing development (Cummins, Brown, Sayers, 2007). Fuchs and Woessmann (2004) have also stressed the positive impact of computers on students' motivation to engage in writing. In particular, the authors argue that students who never use computers or the Internet at school show lower performance than students who occasionally use computers or the Internet at school. As regard to language learning, LeLoup and Ponterio (2003:1) have clearly stressed "language learners report a positive attitude towards computer use overall when engaged in language learning tasks". McMillan and Honey (1993) also argue for the highly motivational effects of computer-supported environments. The investigators have conducted a one-year study in which eighth grade students were provided with laptop computers to keep journals, write stories and complete assignments. The results of the study showed marked improvements in students' persuasive communication in writing, more effective organization on ideas and more effective use of broader vocabulary as well as increased motivation in writing in general. The investigators posit that the results of the study are fundamentally due to the increase of language learners' motivation due to computer use. Meskill and Mossop (2000) in a similar manner have argued that technology use essentially results in increased motivation and excitement for learning. The investigators conducted a two-year survey of technology use by eight hundred (800) ESL educators. The results of the survey showed that educators firmly stressed the motivational aspects of technology use, as students expressed their enthusiasm by being able to create pieces of their personal writing to share with peers. The investigators stress the importance of technology-

supported instruction to increase cognitive engagement and identity investment in learning. In particular, as the investigators observed, English language learners were able to efficiently participate in classroom instruction in terms of both intelligence and imagination.

Role-play has also been shown to be a powerful facilitative tool one that improves the effectiveness of teaching and enhance learning (Baruch, 2006) but could also cultivate positive attitudes towards EFL learning through stress free environments. Essentially, through role-play students are called upon to choose a role through which they have to consider their own "who", "when", "where" and "what" of the acting (Benedetti, 1999) factors that are also part of short story writing (and story telling) while also that of the debate manager for logic-based argument, factors connected to argumentative writing. Integrating role-play into classrooms settings could, thus, serve in a dual faceted manner, as both speaking and writing skills could be enhanced while a pleasurable and more meaningful and relaxing atmosphere could be established.

2.15.6. Students' Second/Foreign Language Writing Experiences

Acknowledging the intricacy surrounding L2 writing and its effects, L2 researchers have investigated L2 writers' personal testimonies so as to form a holistic impression of their writing production experiences. Leki (2001) through her influential article titled *"Hearing Voices: L2 students' experiences during their L2 writing courses"* offers a lucid illustration of language learners writing psyche. Leki's (2001) interest in examining students' perceptions and L2 experiences focused on research studies dealing with "in depth case studies", "longitudinal studies" "multiple interviews" and "observational methods". The author was not concerned with "what students did, how they did it or whether a particular teaching method or technique improved their writing" (Leki, 2001:18), but rather hear their voices about their encountered problems or successes as well as their personal interpretations of the underlying factors stimulating these experiences.

Students' feelings, perceptions and viewpoints when engaged in the process of L2 writing production revealed the bold truth. Within the pieces of writing that educators come

across, students' strenuous effort becomes obvious highlighting the difficulties students face while producing a piece of writing in L2. These students themselves were aware of the fact that their writing production in L2 is not as successful as in L1 making them feel low self-confidence (Silva, 1992).

Silva et. al., (2003) present and comment on accounts given by students who are L2/bilingual writers and narrate their experiences in terms of writing in a second language. The subjects under discussion are not only accomplished but also highly skilled individuals in terms of L2 writing. Consequently, they do not hold the same experiences as struggling L2 writers, which this study investigates. Nevertheless, these accounts provide an insight regarding the complexities of writing in the second language experienced even by highly skilled L2/bilingual writers as well as provide encouragement for struggling L2 writers. The subjects under investigation stated that they encountered difficulties in terms of making an outline, spelling mistakes, choice of prepositions, countable and uncountable nouns, the use of "the" and "a", and other grammatical difficulties such as verb tense and difficulties due to limited lexical resources (Silva et al, 2003:96). Other feelings that were reported by the subjects under investigation were feelings of low self-consciousness, diminished pleasure in terms of writing, aesthetic struggle, feelings of insecurity or the feeling of being overwhelmed, being at loss and sheer panic. Without doubt, the path to successful L2 writing, even for highly skilled L2 or bilingual students, is a never-ending endeavor. It is a thorny, lengthy, pain staking and time consuming process that entails the orchestration of a plethora of skills.

Fu (1995) in his book my *Trouble is my English* presents a lucid representation of the off-putting experiences of four (4) students from Laos who were enrolled in ESL high school classes. In a similar manner, Malicka (1996) describes the painful experiences of ESL students in L2 writing classes. The most recent describes the feelings of ESL students in a writing course stating that their initial feelings were those of excitement and high aspirations which later on transformed to feelings of dissatisfaction, failure, and boredom. The previously mentioned testimonies provide a revealing interpretation in terms of students' painful experiences in ESL courses during L2 writing. Hyland (1998) studied the effect that teachers' negative comments had in terms of students' writing. The aforementioned posits that teachers can in many instances be misinformed as regards to the negative consequences their comments can have on students with low self-confidence

and lack of self-esteem. If this were the case for students who do not face writing difficulties in L1 or L2 then one would assume that students who face writing difficulties would have even greater difficulty acquiring L2 writing skills.

The discussion that follows proceeds from a general discussion as regards to anxiety literature to a more specified discussion concerning the role of anxiety in foreign/second language writing

Anxiety

2.16. Anxiety Definitions and Theories

Freud (1924 as cited in Spielberger, Moscoso and Brunner, 2005:348) initially sought to elucidate the meaning of anxiety through the context of psychological theory holding the view that anxiety is "something felt" an unsettling affective state, portrayed as "nervousness" that is comprised of apprehension or anxious expectation and behavioral discharge phenomena. The *Living Webster Encyclopedic Dictionary of the English Language* (1972:46) defines anxiety as pain or uneasiness of mind, respecting some event, future, or uncertain; concern; solicitude; care; disquietude. Psychologists have described anxiety as a "state of apprehension, a vague fear that is only indirectly associated with an object" (Hilgard, Atkinson, and Atkinson 1971 as cited in Scovel, 1978:134).

One of the most distinguished researchers in the field of anxiety has succinctly defined anxiety as a feeling of uneasiness and apprehension, usually in regards to a situation entailing uncertain outcomes (Spielberger, and Gorsuch, 1983). Though Spielberger's definition lucidly depicts anxiety reactions each individual must have experienced at some point, anxiety scholars of various theoretical orientations have also provided additional definitions to explain the complex nature of anxiety that are reviewed in this section. Some of the most established theories as regards to anxiety involving: (i) state vs. trait anxiety, (ii) general vs. situation-specific anxiety, and finally, (iii) facilitating vs. debilitating distinctions are examined (Spielberger, 1983 as cited in MacIntyre and Gardner, 1991). Additionally, a discussion of relevant literature as regards to attentional control theory, processing efficiency theory, anxiety measurements, and the conceptual and theoretical framework of anxiety are presented.

(i) Trait Anxiety- State Anxiety

The first classification regards anxiety as a relatively consistent personality trait that is pertinent across several circumstances and is referred to as Trait anxiety (T-Anxiety)

(MacIntyre and Gardner, 1991:87). Spielberger has defined T-Anxiety as an individual's probability of becoming anxious in any given circumstance (Spielberger, 1983 as cited in MacIntyre and Gardner, 1991:87). Individuals with high trait anxiety are inclined to have anxiety reactions and experience more intense feelings of anxiety compared to individuals with low trait anxiety.

The second approach examines individuals' temporary emotional state or anxiety experienced at a given particular moment and is interested in the "here-and-now" experience of anxiety, referred to as State anxiety, (S-Anxiety), (MacIntyre and Gardner, 1991:87). The state anxiety approach involves querying individuals as to whether they are anxious or not, however, it does not explore the source of anxiety (MacIntyre and Gardner, 1989). Nonetheless, even though the distinction between state and trait anxiety seems lucid, state anxiety and trait anxiety are related, while at the same time are different constructs. Particularly, state anxiety is interactively determined by trait anxiety and situational stress (Eysenck, 1992; Derakshan and Eysenck, 2009). Hence, individuals high in trait anxiety will logically reveal greater intensity in state anxiety.

(ii) General vs. Situation- Specific Anxiety

State and Trait anxiety are measured in context to a specific situation. However, neither State nor Trait anxiety are adequate to detect complex-environment interactions regarding human behavior (Mischel, 1973). Situation-specific anxiety, contrary to general anxiety deals with specific forms of anxiety reactions that take place in specific situations. This enables investigations on the specific sources of anxiety to focus on the process through which a specific anxiety is generated. Thus, the situation-specific approach examines the situational characteristics of a particular circumstance such as anxiety reactions during writing exams or public speaking (MacIntyre and Gardner, 1991a). Investigations involving situation-specific anxiety offer vital information as the respondents are asked questions regarding a variety of aspects of the situation at hand. MacIntyre and Gardner (1991a) have posited that situation-specific scales offer invaluable information.

(iii) Facilitating vs. Debilitating Anxiety

The division of anxiety between facilitating vs. debilitating is principally dependent on the effects of anxiety on the learners' performance. In particular, facilitating anxiety motivates the learner to deal with the new writing task at hand (Young, 2008), by generating sufficient anxiety to arouse the neuromuscular system to optimal levels of performance, however, not so much so, as to cause disruption to the neuromuscular system. Contrary to facilitating anxiety, debilitating anxiety provokes the learner to abandon the new writing task at hand, or in other terms, navigates the learner towards adopting avoidance behavior (Scovel, 1978). Essentially, anxiety has a dual effect on performance one that has been characterized as an inverted-U or curvilinear relationship. Specifically, based on the Yerkes-Dodson Law when anxiety is low, performance in turn is low. However, as anxiety increases, performance in turn increases to a peak level. Nonetheless, as anxiety increases even further performance essentially drops. This curvilinear relationship between anxiety and performance relates to the level of task difficulty (Smith, Sarason and Sarason, 1982). That is, anxiety does not interfere with performance when the task at hand is considered easy and could even enhance performance through augmented effort. However, anxiety debilitates performance when the task at hand is considered difficult, as the augmented effort may not serve to counteract the task-irrelevant cognitive interference resulting from anxiety.

Attentional Control Theory

From an anxiety and cognitive performance perspective, attentional control theory, deals with the effects of anxiety on attentional processes. Particularly, the supposition as regards to attentional control theory concerns the exploration of the effects of anxiety on attentional processes as they are of indispensable importance in order to offer a clear understanding of the affects of anxiety on performance. Under this assumption, anxiety impairs attentional control, the main function of the central executive, which in turn, inevitably leads anxious individuals to allot attentional resources to external or internal threat-related stimuli (Eysenck, Derakshan, Santos and Calvo, 2007).

The adverse effects of anxiety on cognitive processing capacity depend on two functions of the central executive system of working memory relating to attentional control. These functions are identified as (i) inhibition, which involves using attentional control to oppose distraction or interference from irrelevant stimuli; and (ii) shifting, that deals with making changes in attentional control so as to fulfill task demands at hand. Attentional control theory holds the assumption that anxiety weakens processing efficiency as it decreases attentional control. Under this presupposition, task-irrelevant stimuli would in all probability, distract attention from task-relevant stimuli. Individuals with high anxiety levels would thus divert their attention to weaken external (conventional distractions) or internal (worrisome thoughts) task-irrelevant stimuli.

Processing Efficiency Theory

Prior to proceeding to an investigation of the processing efficiency theory, it is important to note a vital distinction made in this theory that involves effectiveness, and efficiency. Processing efficiency theory considers that effectiveness deals with the quality of task performance, and is described through standard behavioral measures such as response precision. Efficiency, in turn, involves the association between performance effectiveness and the individual's endeavors involved in task performance, with processing efficiency declining due to usage of additional resources to achieve the desired performance level (Eysenck, Derakshan, Santos and Calvo, 2007:336).

The processing efficiency theory is based on two key suppositions. Initially, that worry is primarily the element of state anxiety accountable for the effects of anxiety on performance. Worry or apprehension, involves distress over failure or negative evaluation as regards to tests or competitive contexts and usually emerges in individuals described with high trait anxiety levels. Thus, worry, is an extra load on the cognitive system (Cassady and Johnson, 2002).

The effects of worry are supported by two assumptions. The first one deals with cognitive interference, which hinders the processing and temporary storage capacity. Specifically, feelings of apprehension and distress overwhelm the limited attentional resources of working memory. Hence, anxiety impairs working memory capacity threatening task

processing. The second assumption as regards to the effects of worry involves increased motivation to reduce the anxiety state. However, individuals who are able to engage in augmented effort and make usage of supplementary processing resources, such as strategies, are able to achieve this. Nonetheless, when auxiliary resources are inaccessible, performance is threatened (Eysenck, Derakshan, Santos and Calvo, 2007).

The second assumption on which processing efficiency theory is based involves the mechanisms and components of working memory that are affected by anxiety. Baddeley (1986) has provided a version of working memory which is divided into three systems: (a) the central executive system that organizes and integrates incoming information, retrieves existing information, plans and makes decisions; (b) the verbal phonetic system used to store verbal information; and (c) the visual-spatial system specializing in the storage of visual and/or spatial information. The central executive holds the most significant role of the working memory system, (Eysenck and Calvo, 1992). Its usage involves tasks that require planning, and decision-making, circumstances involving insufficiently mastered response sequences, and inadequate processing systems (Baddeley, 1986).

Based on the cognitive perspective, researchers posit that anxiety over a given task essentially, decreases the individual's attention control ability as they disconnect in order to use part of their attention focusing on the extraneous stimuli that initially instigated their feelings of anxiety (Eysenck, Derakshan, Santos and Calvo, 2007; Eysenck and Calvo, 1992). Hence, the element in working memory that controls human attention is the central executive. Effects of anxiety or worry, over a given demanding task divert attention necessitating the central executive to dispense additional resources so as to stand firm to unrelated intervention and move attention to the task at hand. Higher levels of anxiety or worry demand higher levels of additional resources from the central executive. All in all, feelings of anxiety have negative effects on working memory capacity imposing a direct threat to performance.

Anxiety Measurements

Various anxiety methods have been used to determine anxiety levels in the past. Two of the most prominent ones include the Zuckerman Inventory of Personal Reaction

(ZIPERS: Zuckerman, 1977) and the Wechsler Intelligence Scale (1981). However, the aforementioned anxiety instruments have not been successful in terms of providing a sound distinction between state and trait anxiety; nor, have they conveyed evidence of the anxiety differentiation prior to and following the individuals' experience on a specific event. It was Spielberger's contribution that proved to be indispensable, as he initially classified anxiety into two situations: trait anxiety and state anxiety and developed the State-Trait Anxiety Inventory (STAI) as to more accurately elucidate individuals' state and trait anxiety levels.

The Conceptual and Theoretical Framework of Foreign Language Anxiety

Cognitive variables such as intelligence, language aptitude and learning styles have been amongst the areas of close investigation (Horwitz, Tallon and Luo, 2010:95) as regards to language learning, until the 1970s when Canadian psychologist Gardner, R. C., and Wallace, L., investigated attitude and motivation in second language learning. It was during that time period when affective or emotional variables began to be closely observed in terms of how they facilitate or hinder language acquisition. Anxiety was thus, determined as an affective variable that inhibits the learning and/or production of a second language (Horwitz, Tallon and Luo, 2010). In particular, foreign language anxiety has been depicted as a situation specific anxiety related to foreign language learning that negatively influences performance (Horwitz, 2001).

Furthermore, during the last several decades, anxiety, amongst other affective variables, has stimulated increased attention in the field of second language acquisition and learning; a fundamental reason being that a noteworthy percentage of individuals allege to possess difficulties as regards to learning a foreign language, associated to an anxiety reaction impeding their ability to thrive in a foreign language setting (Horwitz, Horwitz and Cope, 1986). In particular, foreign language anxiety has been depicted as a negative emotional reaction to language learning (Horwitz, 2001).

Empirical studies have hence determined that anxiety along with negative emotion may become evident and develop into an impediment during language learning (Atay and Kurt, 2006; Cheng, 2004; Kurt and Atay, 2007, Horwitz, 2001). Foreign language anxiety

has thus, proven to be evident when anxiety is specific to foreign language learning and numerous investigators in the field of anxiety have confirmed that the specific anxiety, particular to language learning, has negative effects on both language learning and achievement (Horwitz, Horwitz and Cope, 1986; Young, 1991).

The learning process is determined by various factors such as the individual learners' metacognitive, cognitive abilities, personality characteristics, learning styles, learning strategies, social contexts and affective aspects. The affective aspects, which in turn, deal with attitude, motivation and anxiety, are also determinant factors of the learning process, with foreign language anxiety being considered a leading affective variable in foreign language acquisition (MacIntyre, Gardner, 1994: 284). In essence, foreign language anxiety is a universal phenomenon that ultimately hinders ESL/EFL achievement (MacIntyre, Gardner, 1994) one which has consistently been identified as a key variable affecting performance in particular and foreign language learning in general (Aida, 1994; Horwitz, Horwitz and Cope, 1986; MacIntyre and Gardner, 1994). Educators and researchers share concern in regards to the negative effects of anxiety on second language performance (MacIntyre, Noels, and Clement, 1997; Ehrman and Oxford, 1995) as well as the more subtle effects of anxiety.

2.16.1. Second/Foreign Language-Language Specific Anxiety

Early studies on foreign language anxiety approached foreign language learners' anxiety as either trait or state anxiety. However, as the trait or state approach provided assorted results and failed to depict the nature of foreign language anxiety (MacIntyre and Gardner, 1991), more "meaningful and consistent results" surfaced through the situational anxiety approach (MacIntyre and Gardner, 1991:92). Horwitz, Horwitz, and Cope (1986) initially examined foreign language anxiety as a specific language learning circumstance, and recent literature maintains the theory that foreign and second language anxiety is a particular language learning anxiety.

Horwitz, Horwitz and Cope (1986:125) in their influential article, depict anxiety as a subjective feeling of tension, apprehension, nervousness, and even worry stimulated by an arousal of the autonomic nervous system. According to Horwitz, Horwitz, Cope

(1986:128) foreign language anxiety is explicitly connected with foreign language learning contexts and is regarded as a "distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process". Foreign language anxiety is associated with three related anxieties, involving: communication apprehension, test anxiety and fear of negative evaluation (Horwitz, Horwitz, Cope, 1986). MacIntyre, and Gardner (1994: 284) have defined language anxiety as the "feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening and learning". Language anxiety is thus, a form of anxiety that is essentially stimulated by situational factors as for example speaking in front of class, tests or even being called on by the teacher (Horwitz, Horwitz and Cope, 1986; MacIntyre and Gardner, 1991).

Price (1991) has noted that causes of anxiety also entail the difficulty level of foreign language classes, personal perception of language aptitude, and personality variables (e.g. perfectionism or fear of public speaking), and stressful classroom experiences. Young (1991) has distinguished six sources of language anxiety that are interrelated in terms of three distinct aspects: the learner, the teacher, and the instructional practice. Young (1991) has postulated that language anxiety is instigated by the following interconnected factors (a) personal and interpersonal anxiety (b) learner beliefs regarding language learning (c) instructor beliefs about language teaching (d) instructor-learner interactions (e) classroom procedures, and (f) language testing. Fundamentally, all previously noted causes of foreign language anxiety act as a determent to language acquisition.

Young (1991) has noted that controversial beliefs have been held in academia in regards to the role and effects of language anxiety on learning achievement due to an assortment of research inconsistencies. In particular, findings from early research as regards to the association between anxiety and foreign language acquisition are inconclusive in part, due to the inconsistent definitions of the term itself and the discrepancy of measurements used to assess second language anxiety, but also due to the fact that the association between anxiety and language learning could not be examined without prior consideration of a series of variables such as language setting, age of subjects, language skill and research design, as well as anxiety measures (Young, 1991:426).

Certain investigators thus have claimed that language anxiety facilitates learning (or facilitating anxiety as termed by Alpert and Haber, cited in Aida, 1994) whereas others argue for its debilitating effects (Horwitz, Horwitz, and Cope, 1986; Trylong, 1987; Young, 1991), while there are also those who support that language anxiety does not affect learning performance and second/foreign language achievement (Backman, 1976 as cited in Aida, 1994) as L2 achievement is dependent solely on the learner's capability and cognitive abilities (Sparks and Ganschow, 1991). Empirical research has thus been navigated in a dual faceted manner with devotees as to the facilitating effects of anxiety on language learning and the supporters of the debilitating effects of anxiety and language learning.

2.16.2. Facilitating vs. Debilitating Anxiety and Language Learning

In contrast to those who support the notion that anxiety restrains language acquisition, certain researchers claim that anxiety has no effect on language learning. Sparks and Ganschow (1991) argue that based on their "Linguistic Coding Deficit Hypothesis" (LCDH) anxiety has no effect on foreign language acquisition as L2 achievement is entirely dependent upon the independent learner's ability and primary cognitive aptitude. Hence, language anxiety is not a principal causative variable but it is grounded on native language learning difficulties and cognitive deficits, which obstruct the learners' ability to process, input and produce output (Sparks and Ganschow, 1991:4).

Spielman and Radnofsky (2001) have conducted a study on language anxiety that aimed to increase motivation and improve learning results. In particular, the investigators examined the role of tension in terms of instructed second/foreign language acquisition in a summer French school. The researchers determined that students experienced both euphoric and dysphoric tension as they came across different learning situations. Euphoric tension was seen to have challenging, manageable and advantageous effects in terms of their learning experience, whereas dysphoric tension impeded students' learning process. In essence, contrary to the views claiming the disadvantageous effects of anxiety, the researchers determined that beneficial effects could be brought about through euphoric tension. In a similar manner, according to Horwitz (2001), empirical studies

have determined that learners with high levels of anxiety actually showed higher achievement scores.

Furthermore, supporters of the connection between anxiety and language learning such as Horwitz (2000, 2001) argue for its debilitating effects on learning achievement. Horwitz (2001) posits that language anxiety is a vital affective factor greatly influencing language-learning achievement. Horwitz (2000) argues that certain language learners face language learning anxiety that has no association to processing deficits, as posited by researchers such as Saito et. al., (2000) and that essentially this anxiety has debilitating affects on the language learning process directly affecting the learners' poor linguistic performance. Debilitative anxiety can be caused by various factors associated with the language learner's lack of self confidence or self esteem, challenging tasks related to oral production, or even unfriendly teaching environments (Cheng Y-S, Horwitz, and Schallert, 1999; Horwitz, 2000; Hotwitz et al., 1986).

A leading figure in language anxiety research, Krashen (1982), in a similar manner to Horwitz argues for the debilitating effects of anxiety, particularly in terms of corrective feedback. The author posits that corrective feedback increases students' level of anxiety and raises their affective filters, that in turn, limits the learners' capacity to process input and confines their capacity for L2 acquisition. Deeming speaking/talking (in front of the class) as the most anxiety-arousing classroom activity, Krashen (1998) has argued that the promotion of "pushed output" restrains language acquisition as it provokes learner anxiety that in turn, raises the affective filter. Thus, initially empirical studies mainly placed focus on the language skill of speaking, as speaking was considered the main anxiety-provoking skill amongst the four language skills: speaking, writing, listening and reading (Young, 1986; Aida, 1994; Philips, 1992; Woodrow, 2006). During the 1990's a closer investigation of foreign language anxiety (Saito, Horwitz and Garza, 1999; Cheng Y-S, Horwitz and Schallert, 1999) found that language skills are in essence, related to different anxiety levels.

Moreover, the debilitating effects of language anxiety have also been supported through the affective filter hypothesis. The affective filter hypothesis developed by Krashen (1985) provides clarification as regards to the "mental blocks" that act as an impediment to language acquisition. The affective filter hypothesis bases its theory on the

supposition that high levels of anxiety obstruct language acquisition. Nonetheless, the enigmatic impediment concerning the facilitating vs. debilitating effects of anxiety on language learning could be resolved once research on the subject adheres to a specific type of anxiety under investigation and takes into account the numerous types of anxiety identified (Scovel, 1978; as cited in Horwitz, 2001:113). Hence, the investigation of foreign language anxiety is of fundamental importance (Horwitz, 1995:573) so as to obtain a lucid portrayal of its origins, effects and ways to combat this unsettling feeling hindering language learners' performance.

Additionally, the debilitating effects of anxiety as regards to language learning have also been examined from the cognitive process perspective. Knowledge as to the effects of anxiety on cognitive performance is a prerequisite for both practical and theoretical issues as it has been established that anxiety impairs performance particularly concerning difficult tasks entailing attentional demands, which is supported through investigations in regards to both state and trait anxiety (Derakshan and Eysench, 2009:168). However, few studies have examined the effects of anxiety on cognitive processing regarding second language acquisition. Generally speaking however, the investigations that have been conducted have determined the debilitating effects of anxiety on various stages of language learning and processing (Steinberg and Horwitz, 1986; MacIntyre, and Gardner, 1994a; 1994b; Mackey et. al., 2002).

Apart from the debilitating effects of language anxiety supported by the affective filter hypothesis and the cognitive process perspective, according to Sparks and Ganschow (1993) the Linguistic Coding Deficit Hypothesis is the fundamental element triggering low language achievement. Based on this hypothesis, language anxiety is a side effect instigated by linguistic deficiency in processing language input. Sparks and Ganschow (1993) do not account affective variables such as anxiety as being a central element to language development but report that cognitive capacity is primarily the engine that drives second/foreign language acquisition. According to this hypothesis, first language coding competency and second language coding competency are closely associated. However, even though this approach provides evidence as to a parallel connection between L1 and L2 coding competency, it fails to depict the marked differences between L1 and L2 development such as the distinctiveness characterizing second/foreign language learning settings (Zheng, 2008).

2.16.3. Language Anxiety and Performance

Spielberger, Vagg, McKeachie (1995) have posited that the association of anxiety and performance is considered a complex one, as anxiety is in most cases related to negative effects. Empirical research has validated that test anxiety for example, negatively affects students' performance; hence, by reducing anxiety, test performance improves, and in turn, academic achievement is enhanced. MacIntyre and Gardner (1991) have argued that concept clarification and instrument validation are essential for the provision of a more accurate knowledge as to the effect of second/foreign language performance. Additionally, the task itself, the individuals coping anxiety traits, as well as the relation of anxiety with further personal characteristics or situational variables, assist in offering a better understanding of the effects of anxiety on second/foreign language performance.

Nonetheless, following research advancements, and more specifically subsequent to Horwitz, Horwitz, and Cope's (1986) Foreign Language Classroom Anxiety Scale (FLCAS) as well as McIntyre and Gardner's (1991) Anxometer, second language anxiety obtained a more lucid image largely because second language anxiety was approached as an explicit type of anxiety fundamentally occurring in second language classroom contexts.

During the last decade, empirical research has validated that anxiety hinders performance in five manners: (i) academically, as it is associated with low academic achievement: (ii) socially, anxious learners avoid interpersonal communication more so than less anxious ones, (iii) cognitively, anxiety may act as an affective filter impeding information from entering the cognitive processing system, prone to influence both speed and learning accuracy (iv) information output quality, due to the intrusion of retrieved information by anxiety provoking situations; and finally, (v) personally, as language learning may become an unpleasant or even traumatic experience, (Zheng, 2008).

An investigation conducted as regards to the relationship between language anxiety and learning promotion by Sheen (2008) examined whether classroom language anxiety affects learners' ability to progress as regards to their use of English articles if offered corrective feedback in the form of recasts and whether language anxiety affects the degree to which learners modify output subsequently to recasts. The study explored

communicative English in a second language (ESL) setting, in which students received recasts of their erroneous (mistaken) utterances. The participants of the study involved sixty-one (61) students from an ESL program enrolled in a community college in the United States. Four groups were formed based on questionnaire responses measuring language anxiety**.** The experimental group consisted of high-anxiety and low anxiety learners who received recasts, whereas the control group consisted of high anxiety and low anxiety learners who received no recasts whatsoever. The two-recast groups received treatment sessions in terms of article errors, which were audiotaped. The recordings were then coded in terms of the frequency (rate of occurrence) of recasts and modified output/production. The results clearly determined that recasts proved to be effective for learners with low anxiety levels, and assisted them in producing high levels of modified output as well as overall repair. In essence, the findings confirmed that language anxiety negatively influenced learning.

In a similar manner to this study, Spantidakis, and Vassilaki (2007) conducted a study investigating the writing performance in writing, the metacognitive skills, and the levels of anxiety as well as writing attitudes of one hundred and fifteen sixth 6th grade primary school students in Greece. Students were divided into three levels: high, average and low based on their writing performance. The results of the study indicated that writers with developed metacognitive skills, or of high writing performance, greatly differed from the other two groups in terms of both anxiety levels and writing performance. The specific study highlights the importance of learning environments that promote writing skill development and emphasize the communicative purpose of writing. Learning environments that promote the teaching of metacognitive skills essentially foster students' needs in a dual faceted manner. That is, succeeding metacognitive skill enhancement the writing quality is improved as well as the effective management of cognitive load and anxiety (Spantidakis, and Vassilaki 2007).

2.16.4. Second/Foreign Language Writing Anxiety – Gender and Grade Level

Gender differences have been abundantly investigated in cognitive, learning, and social behavior. Nonetheless, gender differences in foreign language research remain inadequate (Bacon, 1992; Baker and MacIntyre 2000). However, previously the literature has

generally accepted that gender differences showed enhance performance for women on verbal tasks and men on spatial tasks (Tittle, 1986). By the same token, due to an ambivalence characterizing research results that have been put forward regarding the association between gender and foreign language anxiety, the literature itself has yet to be clearly established. The limited research that does exist, involves the relationship between gender and foreign language anxiety basically evolves around the various learning strategies (Bacon, 1992) that male and female learners utilize for acquiring the foreign language (Abu-Rabia, 2004:714).

The Assessment of Performance Unit (APU) that is, a Survey on Foreign Language Performance in Schools (DES, 1986) has showed that boys performed at a lower level than girls and that boys generally had a less positive view of foreign language learning. Clark, and Trafford (1996) have posited that difference in attitudes between enthusiastic and positive learners opposed to negative and reluctant learners essentially relates to ability. Specifically, that the more proficient a learner was, the better attitude they would have towards foreign language learning. However, girls seemed to find that learning a foreign language was more essential than boys did. By the same token both boys and girls with high career aspirations held the belief that foreign language learning was a necessity requirement for international affairs and future goals in general.

Cheng Y-S, (2002) has also posited that research has shown mixed results regarding the individual effects of gender and grade level on L2 class anxiety. The investigator conducted a study in which a two-way analysis of variance (ANOVA) was adopted to explore the relationship between L2 writing anxiety and the two learner variables. Gender (male vs. female) and grade level (freshman through junior) were specified as independent variables in the analysis. The results of the study indicated that the two-way Anova showed significant effects for gender. However, significant effects were not found for grade level or interaction between grade level and gender. In particular, the female subjects of the study were found to have much higher levels of English writing anxiety than males. As regards to differences in the level of English writing anxiety among the groups of freshmen, sophomores, and junior no statistical significance was found.

2.16.5. Second/Foreign Language Anxiety Scales

The most prominent foreign language anxiety scales include: (i) McIntyre and Gardner's (1991) (Attitude/Motivation Test Battery), which is a classroom anxiety scale measuring students' anxiety level as regards to attitudes and motivation, and (ii) the FLCAS (foreign language classroom anxiety scale) developed by (Horwitz, Horwitz, Cope, 1986) that is a self-report instrument that assesses the degree of anxiety specific to foreign language classroom settings. The FLCAS has been characterized as a general type of anxiety concerning learning a second language, which involves a closer association to speaking anxiety.

On account of foreign language writing anxiety Cheng Y-S (2004) developed the SLWAI (Second Language Writing Anxiety Inventory), a self-report L2 writing anxiety measure that consists of three subscales: Somatic Anxiety, Cognitive Anxiety, and Avoidance Behavior. The SLWAT has been depicted as a language skill-specific anxiety as it has showed higher correlation with writing achievement (Cheng Y-S, Horwitz and Schallert, 1999).

2.16.6. Second/Foreign Language Writing Anxiety Research

Writing anxiety and writing apprehension have been defined in various ways and consequently both terms have been used interchangeably in the literature. However, an attempt is made to provide a lucid distinction amongst the two terms.

McLeod (1987:427) in a straightforward manner has described writing anxiety as a negative, anxious feeing (about oneself as a writer, one's writing situations, or one's writing task) that fundamentally, disrupts the writing process. Writing anxiety, as a term, thus, refers to writers who are competent enough to intellectually adhere to a task, but nonetheless face difficulty with the process of writing production.

Writing apprehension is also a term used to portray writing anxiety referring to language learners who experience cognitive stress (Dally and Miller, 1975b). The aforementioned developed a self-report measure which they termed "writing apprehension" (Dally and

Miller, 1975b: 176) and developed the Daly–Miller liker type Writing Apprehension Test, (SLWAT), (second language writing apprehension test), that has been the primary instrument of investigation. The SLWAT has proved to be essential in terms of understanding the importance of the influence of writing anxiety. However, the SLWAT has been applied to heterogeneous groups of ESL students that has led to incomplete results in part due to the lack of cross-cultural studies but also because the nature of writing anxiety failed to be distinguished (Cheng Y-S, Horwitz and Schallert, 1999:418).

Furthermore, the scarceness of research in terms of writing anxiety and second language learning do not provide a clear picture in terms of the nature of writing anxiety (Cheng Y-S, Horwitz and Schallert, 1999). Most investigations dealing with foreign language anxiety have centered on difficulties as regards to speaking and listening activities depicting that communication is most challenging and anxiety provoking, as emphasized in the previous section (Horwitz, Horwitz and Cope, 1986; Steinberg and Horwitz, 1986). Nonetheless, writing anxiety has been confirmed as a specific type of anxiety particular to the language writing skill. Foreign language writing is as difficult as acquiring other language skills, as writing is principally product-oriented entailing personal work (Atay and Kurt, 2006:101). Language writers facing writing anxiety are led towards feelings of anguish and detestation for the writing process (Madigan, Linton, Johnson, 1996).

Early investigations on writing apprehension have determined that native speakers with high levels of writing apprehension utilized considerably less intense language, producing shorter pieces of writing, with less intense words, in comparison to those low in writing apprehension (Daly and Miller, 1975b). Writing apprehension has also been depicted to influence individuals' career choices, as well as future academic decisions (Daly and Miller, 1975a). Students faced with writing anxiety have difficulty in the production of effective and logical pieces of writing (Veit, 1980; Aitman, 1985) ranging from straightforward letters to multifaceted reports. Procrastination, apprehension, tension, low self-esteem, lack of motivation, withdrawal and avoidance has all been cited as problems related to the production of an assigned writing task (Cheng Y-S, 2004; Petzel and Wenzel, 1993). Writing causes anxiety due to the writer's failure of decision making as regards to organization. Unskilled writers' lack of organizational skills leaves them ill prepared to tackle writing tasks (Thomson, 1981).

Writing anxiety has been shown to negatively affect writing quality (Veit, 1980; Aitman, 1985). However, it has been shown that writing programs that emphasize pre-writing activities lower student-writing anxiety. Specifically, improving the organizational skills of unskilled writers is possible when the writing process is taught in a series of stages. These stages include: prewriting, writing, revising, editing and publishing. The prewriting stage is considered to be the most significant (Schweiker-Marra and Marra, 2000:99). Allowing the writer to prepare in the prewriting stage, aids in the decision making process, which includes choosing a topic, identifying an audience and focusing on purpose (Flower and Hayes, 1981).

It has been determined through investigations, that teachers who place a greater emphasis on the prewriting stage see a marked improvement in the production of writing tasks and in their scores (Goldstein and Carr, 1996). Students who are considered to be better writers are those who implement the prewriting stage when producing a writing task. Also important to note is the fact that students who employ the prewriting stage consider it to be the foundation for good quality writing (Goldstein and Carr, 1996).

Various studies have investigated the causes of writing anxiety and have concluded that one leading factor may be insufficient practice. This feeling of anxiety has a dramatic effect on self-image and personal productivity. Based on the fact that writing anxiety may be directly caused by a lack of essential writing skills, it is of the outmost importance to provide students with solutions and practical instruction so as to improve these skills and reduce their level of anxiety. It is generally accepted that one method of improving writing skills is through the writing process itself, with a particular focus on the prewriting stage. Most previous studies focusing on the benefits of the prewriting stage and its connection to an improvement in writing were thought to be inconclusive, in part because the studies centered on older or adult students. Other studies focusing on younger children cited improvement in lower grades in terms of quality and quantity but results were not as positive for higher grades.

Cheng (2002) investigated the differences between students' different perceptions of writing anxiety in the second language. The researcher also investigated the association between L2 writing anxiety and other forms of language anxiety. The data collection included four language anxiety scales and a background information questionnaire. The

results of the study depicted that: (i) L2 perceived writing competence predicts writing anxiety more so than L2 writing achievement (ii) L2 writing anxiety is essentially different from L1 writing anxiety (iii) female students experienced statistically significant higher writing anxiety than males (iv) no statistical significant difference was found amongst the language proficiency levels of students (v) L2 writing anxiety levels increased linearly during the time of study. The findings of the study make inferences about the necessity of learner variable consideration concerning L2 writing anxiety.

Another investigation conducted by Schweiker-Marra and Marra (2000) similar to the purpose of this study, focused on the effects of prewriting activities on the writing performance and anxiety levels of at risk fifth-grade students. The subjects came from a mid-Atlantic rural elementary school and were supported through a writing program for a period of six months, which essentially, utilized pre-writing activities, in order to investigate whether students' written expression would improve and writing anxiety would lessen. An evaluation of students' before and after papers was conducted using their holistic scores. A writing anxiety test was also implemented in order to reveal changes of students' levels of writing anxiety. The results of the study noted improvement for the experimental group as regards to written expression scores in comparison to the control group, while writing anxiety also seemed to decrease for the experimental group, more so, than in the control group, since the subjects felt less anxiety in regards to writing and believed that less effort was required from them during the writing process as a result of the instruction provided and emphasis placed on prewriting activities (Schweiker-Marra and Marra, 2000).

Studies have centered on various means of reducing student writing anxiety levels in L2 contexts. Ozturk and Cecen's (2007) contribution is noteworthy as they conducted an action research that investigated the effects of portfolios on the writing anxiety levels of students. The aforementioned, based their hypothesis on empirical research determining the significance of portfolio keeping in foreign language teaching. Fifteen perspective English educators, in Istanbul, Turkey, requested L2 learners to create personal portfolios through the completion of five writing tasks. The Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) a background questionnaire and two reflective sessions were the means of data collection. The findings of the study confirmed that portfolio keeping is beneficial in assisting L2 learners to overcome writing anxiety as

well as a teaching practice that would willingly be adopted by all (100%) perspective language teachers.

Erkan and Saban (2011) investigated the relationship amongst EFL students' writing performance, writing apprehension, self-efficacy and attitudes towards writing. One hundred and eighty-eight (188) tertiary level EFL University students in Turkey were administered a writing apprehension test (WAT), a writing self-efficacy scale (SES) and a questionnaire on attitudes towards writing (WAQ). The results of the study suggested that even though writing apprehension with writing performance and writing self-efficacy were negatively correlated, writing apprehension and attitudes towards writing were positively correlated.

Empirical findings depict that students' writing attitudes highly influence writing achievement in first language contexts (Graham, Berninger, and Fran, 2007), and that negative writing attitudes may lead to less efficient processing, given that the writing process is disrupted. Thus, writers are required to juggle a considerable amount of effort as well as apply effective management of various cognitive processes (Graham, 2006). In a similar manner, Erkan and Saban's (2011) determined that students' writing attitudes influence writing achievement in foreign language settings and essentially that as writing is a cognitive as well as an emotional activity (McLeod, 1987), the affective components of writing guide the phases of the writing process (Erkan and Saban, 2011).

Interestingly enough, apart from foreign language learners' writing anxiety, it is noteworthy to mention that studies on EFL teacher writing anxiety have also been determined to play an integral role in foreign language writing educational settings. An investigation by Atay and Kurt (2006) examined whether prospective Turkish ESL/EFL teachers' writing anxiety influenced their teaching practices in order to unravel the vital role teachers' play in promoting students attitudes towards writing. Eighty-five (85) perspective teachers (PTs) participated in the study. The data collection methods included the SLWAI (Cheng, 2004) and an open-ended questionnaire to triangulate the data collected by the inventory and to collect in depth information concerning the subjects L2 writing anxiety experiences. The results of the SLWAI showed that 32% of the more subjects had high writing anxiety and that 49% had average writing anxiety while the results of the open-ended questionnaire showed that the subjects with high and average

anxiety faced difficulties as regards to organizing their thoughts and producing ideas as well difficulties during the L2 writing process. The subjects further stated that their University Instructors and past L2 writing experiences was the cause of their negative past L2 writing experiences. The subjects' psychological and physiological reactions were also expressed. In particular, the subjects with high anxiety stated that they suffered from nervousness due to fear of getting low marks, lack of concentration and physical symptoms (perspiration, blushing).

Essentially the results underscore the high probability of the teachers' negative writing experiences to affect their future teaching practices. The findings of the study also highlight that proficiency may not be the only factor determining writing anxiety. Particularly, only a small percentage of the subjects stated that poor L2 vocabulary and grammar were the factors determining their anxiety levels during the writing process. Lack of adequate pedagogical practices and negative past experiences were the fundamental causes of the subjects writing anxiety. According to Atay and Kurt (2006) the findings essentially highlight that focus should be placed on how writers should approach the process of writing rather than the form of the written product. The investigators further stress importance be placed on pre-writing tasks such as free writing, outlining or discussion on a regular basis.

Worde (2003) conducted a research study so as to identify the factors that contribute to anxiety as well as the factors that may reduce anxiety as identified by students themselves. Interview questions focused on the participants' beliefs, experiences as well as feelings. The Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz, Horwitz, and Cope, 1986) was utilized so as to obtain a lucid picture of the sources of anxiety in a language classroom. The results of the study elicited that out of the fifteen (15) subjects that participated in this study 73% were anxious students of which 34% of those were rated as highly anxious. The study confirmed previous research (Aida, 1994; Crookal and Oxford, 1991; Horwitz and Young, 1991; MacIntyre, 1995; Worde, 1998; Young, 2008, 1991), which has shown that anxiety impedes foreign language production and achievement as well as that reducing anxiety may enhance learner motivation (Horwitz and Young, 1991; Horwitz, Horwitz and Cope, 1986; Young, 2008; 1991).

The study under discussion provided valuable evidence as it elaborately depicted students' perceptions as to the factors that may reduce their feelings of anxiety. Specifically, students stressed that fundamentally, textbook changes as well as teachers' pedagogical practices and idiosyncrasies are factors that could lead to reduced language learning anxiety. The subjects stated that instructional materials relevant to their life goals would enhance their learning motivation, which would lead them to reduced feelings of anxiety. In accordance, the subjects stressed the necessity of a methodology, which would outline and highlight scaffolded learning and in turn, reinforce the material so as to aid comprehension and retention, which in turn could aid their language experience.

On the basis of the lack of research in terms of L2 classroom anxiety and L2 writing anxiety Cheng et. al., (1999) investigated the following anxiety constructs: L2 classroom anxiety and L2 writing anxiety. Additionally, Cheng et. al., (1999) investigated the subjects' conceptual links in terms of second language speaking and writing achievement. Four hundred and thirty three, (433), EFL English majors in Taiwan, were recruited. Their achievement and emotional experiences in English speaking and writing skills were the focus of the study. The results of the study indicated that the two constructs, second language classroom anxiety, and writing anxiety, were both related but also independent. The findings suggested that whereas certain language learners feel anxious about speaking, others might feel anxious about writing, whereas reading and listening may provoke different levels of anxiety in L2 learning. Thus, the results depicted that second language classroom L2 anxiety is a more general type of anxiety about learning a second language, with a strong speaking anxiety element, whereas second language L2 writing anxiety is a language skill specific anxiety.

Undoubtedly, second/foreign language learning can sometimes be a traumatic experience for language learners (Zheng, 2008) while learning to write in a foreign language is an even more challenging task. Whereas some are able to cope with the strenuous task of writing, others feel that learning to write in an L2 is a painstaking process and that the attainment of a desired proficiency level is a mere illusion. The present study thus attempted to complement existing literature by exploring the writing anxiety levels of grade (5) and six (6) Greek mainstream students learning English as a foreign language and whether following the implementation of strategy based-procedural facilitation guided by the Self-Regulated Strategy Development writing instructional model, the

subjects anxiety levels would lessen. Hence, this study posits that explicit writing strategy instruction fostering procedural facilitation may alleviate anxiety and stress and facilitate language acquisition. The fundamental queries of this study concerning foreign language writing anxiety deal with the relationship between foreign language writing anxiety and foreign langue writing performance as well as the relationship of background variables such as gender and grade level.

CHAPTER 3: Method

The present chapter deals with the research methodology that took place in the current study. Initially the research questions are restated for reader ease. Following, procedures and data obtained from the pilot study conducted prior to the specific study so as to test the instructional and assessment materials are presented. Next, basic background information as regards to the present study is provided. In particular, the setting and the participants are discussed. Finally the general instructional procedures for the experimental group (tasks, materials) are presented. The research questions are reiterated for reader ease:

Research Questions:

1. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the metacognitive knowledge metacognitive skills and metacognitive behavior of both short story English writing and argumentative English writing?

2. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the writing quality of short story English writing?

3. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the writing quality of argumentative English writing?

4. Will statistical important differences be found amongst EFL students (below average, average, above average) in the native language story writing quality of the experimental group, following the provision of procedural facilitation through guided, explicit, and structured strategy-based instruction in writing and self-regulation strategies, on EFL short story English writing?

5. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group and the control group, between writing anxiety levels and writing performance?

6. Will statistical important differences be found amongst EFL students (below average, average, above average) of the experimental group, on anxiety levels and writing performance, following the provision of procedural facilitation through guided, explicit, and structured strategy-based instruction in writing and self-regulation strategies, on both short story English writing and argumentative English writing?

7. Will important correlations be found between the writing quality of story writing and expository essay, metacognitive knowledge, metacognitive skills or strategies, metacognitive behavior and anxiety levels?

3.1. Experimental Design

An experimental design was undertaken for the purpose of this investigation, the effect of which was researched both quantitatively and qualitatively.

The data collection tools that were used for the purpose of this research involved pre-test and post-test: (a) pre-post student semi-structural personal interviews (b) pre-post observant participation (c) pre-post anxiety questionnaires, (d) pre-post writing samples in the foreign language (WWW for story writing and TREE for expository essay), (f) pre-post writing samples in the native language (for story writing). The data analysis method involved the procedure that follows.

3.1.1. Data analysis Method

1. Questionnaires: anxiety questionnaires through the Second Language Writing Anxiety Inventory (SLWAI), Cheng, (2004), were distributed to students; Statistical analysis will follow the data collection that will in turn, lead to a safer conduct of conclusions. The Second Language Writing Anxiety Inventory (SLWAI), Cheng, (2004), consists of 22 items, designed to assess ESL writing anxiety levels in FL writing. SLWAI was assessed and proved by means of correlation and factor analysis to be valid and reliable and has been adopted in numerous studies examining foreign language writing anxiety. The questionnaire consists of 22 items, scored on a Five-point Likert response scale ranging from one, (1), (strongly agree) to five, (5), strongly disagree. The higher the score obtained by the questionnaire is indicative of a higher level of writing anxiety.

2. Semi-structural personal interviews: were administered on an individual basis. Interviews aimed to investigate students' writing knowledge, beliefs regarding foreign language learning, and feelings of anxiety (Schoonen, and De Glopper, 1996) in addition to highlight issues that require a deeper analysis than that of questionnaires. Interviews were formed in simple language so as to encourage subject's express themselves at ease. In turn, the results were decoded and interpreted in order to enrich the data results. The semi-structural personal interviews included the following questions:

   Let's assume that you have a friend that wants to write a story or an expository essay.

1. What advice would you give your friend to write a good story? Why?
2. Do you thing that writing is an important subject? Why?
3. When you do not do well in writing what do you think the reason is and why?
4. What do you thing a student needs to do to be good in writing?
5. What do you think you need to do to become better in writing?
6. What advice would you give to a friend of yours to write a good essay?

   Participant Observation: Participant observation took place in classroom settings. The conduction of participant observation aimed to investigate the subjects writing behavior during the writing production process. The purpose of this stage is to obtain a

possible clear perspective in terms with the difficulties the subjects face during the writing process. Students' writing profiles were examined so that they could be identified as average, above average and below average writers. Participant Observation involved examining students': planning, re-planning, drafting, revising (a single word, the sentence, the paragraph), revising in the end, and editing skills.

3. Writing Samples L2: Students' writing samples were collected prior to and following the implementation of strategy based- procedural facilitation, in both story writing and expository essay so as to investigate students' writing profiles in the English foreign language at both pre and post tests.

4. Writing samples L1: Students' writing samples were collected prior to and following the implementation of strategy based - procedural facilitation, so as to investigate students' writing profiles at pre and post tests in terms of their story writing quality in the native language.

1. Data Import - Statistical analysis

The process of measurement and statistical analysis in regards to the data included the recording of the data in a database. Upon completion of the entry a re-establishment concerning the accuracy of input data took place, so as to avoid mistakes in data entry. For the statistical analysis of the results, the statistical program Statistical Package for Social Sciences for Windows (Version 19.0) was used. Taking into consideration response/measurement scale and therefore the kind of values they receive, as well as the way to handle them during the investigation of the research questions various statistical techniques were applied.

2. Internal Consistency and Reliability of the Measurement Instruments

To measure the internal consistency and the reliability of the measurement instruments in regards to the homogeneity of responses to the questions of the measurement instruments the following indices were used: (a) an index of α

Cronbach, (b) inter-item correlation and inter-item covariance between the questions for each scale, (c) corrected item-total correlations for assessing the contribution of each question on the scale.

3. Basic Statistical Analysis of the Research

The second and main stage of the statistical analysis in this study includes two phases. In the first phase the initial analysis of the data took place in order to comply with the conditions so as to perform the basic analysis in the second phase. Specifically, prior to the primary study the distribution and dispersion of the data were checked (Tabachnick and Fidell, 2006) and the following indicators were tested:

1. Descriptive statistics, as mean (M), standard deviation (SD), median, percentage frequency and cumulative percentage frequency.

2. Checking price dispersion data (univariate distribution, multivariate distribution, distance values control Levene (Levene's test).
After the preliminary statistical analyses were performed the following analysis took place so as to check the aims and questions of this study:

3. To check the frequency of responses, percentage frequency and cumulative percentage frequency, expected and observed values, chi-square χ^2 significance level (p-value).

4. To measure the differences between the categories the following analyses were used:

(a) Independent sample t-test[1] to determine differences between the two groups - categories [mean (M), standard deviations (SD), degrees of freedom (df), t-values and significance level (p)].

[1] In the case of comparisons between two categories or groups, if the distributions of the values of the responses, which were tested through the index Levene's test for equality of variances, supported the existence of heterogeneity of standard deviations, taking into account the value of the index *t*-test for custom distributions.

(b) Analysis of variance to determine the differences between more than two groups - categories [mean (M), standard deviations (SD), degrees of freedom (d*f*), *F*-values, significance level (p) and Tukey test]. To identify groups – categories that differed statistically significantly between them at the variables - factors that differed statistically significantly between them the Tukey (Tukey test)] was used. Finally, Bonferroni adjustment (Tabachnick and Fidell, 2006) to avoid type I error.

5. To examine the correlations between the variables examined, the Pearson *r* correlation coefficient (Cohen, 1988) was used.

6. To test the predictive ability of the variables of the study the multivariate regression analysis was used (Cohen, Cohen, West, and Aiken, 2003 · Tabachnick and Fidell, 2006). The indices used in the context of this analysis are: regression coefficient *R*, adjusted R^2, *F*-value, $F_{\text{-change}}$, the non-standardized regression indicators (β), the standard error (SE *B*), the standardized regression indices (b), the *t*-values, degrees of freedom · *df*, and the level of statistical significance (*p*) (Cohen et. al., 2003 · Tabachnick and Fidell, 2006).

All of these statistical analyses were performed using the statistical program Statistical Package for Social Science (SPSS) for Windows (Version 19.0), based on which the goals were examined, the assumptions and the above-mentioned statistical analysis of this study[2]

---

[2] The seperation of the examined independent and dependent variables in the research field is often necessary both for the investigation of the research hypotheses or questions, and for the application of statistical analyses (eg, analysis of variance). However, it should be noted that Based on the research and design methodology in the context of this study a causal relationship or cause-effect relationship can not be supported, which, it should be noted, is often difficult to determine due to the characteristics of the research Field of Social Sciences. Specifically, in Pedagogical Science it is difficult to argue for the proof of results and relationships, but it is acceptable to support or display results and relationships between variables. In conclusion, the variable *X* (independent variable) was the criterion and conceptually "exercised" influence on the pricing of variable Ψ (dependent variable) through a functional relationship *f* [Ψ = *f* (X)]. However, it is not practicable to determine the relationship and the exact function that expresses it.

3.1.2. Anticipated Outcomes

It was anticipated that strategy based procedural facilitation guided by the SRSD writing instructional model would have a stronger impact on EFL students of the experimental group compared to the control group in terms of their short story and persuasive writing performance, metacognitive knowledge, metacognitive behavior, and metacognitive skills. Specifically, as regards to writing, it was expected that strategy-based procedural facilitation guided by the SRSD writing instructional model would result in higher scores for number of basic elements or parts and overall writing quality. In regards to knowledge it was anticipated that students would be more likely to define good and poor writing in terms of substance and process. It was also predicted that students would be more knowledgeable as regards to how to plan a paper and better able to depict the elements of a good story and a persuasive essay.

It was also anticipated that following strategy-based procedural facilitation in writing and self-regulation strategy instruction on EFL short story writing, important differences be found amongst EFL students in the native language. As regards to anxiety levels, it was expected that important differences be found between the experimental group and the control group following strategy-based procedural facilitation. Particularly, it was expected that the experimental groups anxiety levels would lessen following the implementation of the intervention program applied. Additionally, it was expected that the experimental groups writing performance would improve as a result to their decreased anxiety levels. Finally, it was projected that significant differences will be found following the examination of correlations between the variables, concerning the experimental group and the control group, in terms of the writing quality of short story writing and expository essay, metacognitive knowledge, metacognitive skills or strategies, metacognitive behavior and anxiety levels.

3.1.3. Data Analysis Procedures

(i) Writing

Two rater's blind to the scope of the study scored all pre-test and post-test papers independently. Prior to scoring the raters were trained to assess all measures. Training was conducted separately for each measure and genre, and concluded when the percent of agreement between the two was 95%. The score for students' papers was the average score between the two raters. Scoring for all tests was performed upon completion of the study.

The appearance of text or surface level features, such as handwriting or spelling was not taken into consideration so as not to influence judgment on writing quality (Graham, 1999). Papers were scored according to number of words written (length). Total number of words included all written words, regardless of spelling, which represented a spoken word. Papers were also scored for compositional quality using a traditional holistic rating scale (Cooper, 1997). Examiners read each paper in order to form an opinion regarding the writing quality of each paper. A likert-type scale was used with 1 representing the lowest quality of writing and 8 the highest. The raters were given an anchor paper for a high, middle and low quality score to assist them in scoring.

Stories were scored for elements contained in the story writing and expository essays (elements contained in the SRSD- WWW and TREE). If an element was included it received one point, if it wasn't it received 0. Scoring for the analytic criteria included: organization, cohesion, expansion of ideas, aptness of word choice, originality, expression (sentence variety, active verbs, descriptive sentences), coherence (linking words), grammar, and syntax.

The students' language proficiency level was identified through their pre-test writing samples and divided into three groups: below average, average, and above average students. A distinction in terms of the subject's gender and age was obtained necessary for a realistic perspective in terms of the study.

3.1.4. Pilot Study

The pilot study was conducted in an attempt to establish the reliability and content validity of all instructional and assessment materials/procedures to be used in the main study. The implementation of the pilot study aspired to reduce possible treatment errors in the main study due to unforeseen complications as well as to obtain feedback from the research subjects that could lead to improvements in the main study. The participants, setting, as well as instructional procedures of the pilot study are described in the following section.

3.1.5. Participants and Setting

Participants of the pilot study involved fourteen (14) grade six students (eight boys and six girls) and fourteen (14) grade five students (six boys and eight girls). Students were randomly assigned into two groups. Seven (7) grade six students were assigned in the experimental group and seven (7) in the control group. Similarly, seven (7) grade five students were assigned in the experimental group and seven (7) in the control group.

	Control Group	***Experimental Group***	***Grade Five (5)***	***Grade Six (6)***
Subjects	100	77	90 (50.8%)	87 (49.2%)
Girls	47	41	46 (51.1%)	42(48.3%)
Boys	53	36	44 (48.9%)	45 (1.7%)

Instruction in the experimental condition was implemented three times a week in forty-five (45) minute sessions. Instruction on the control group did not take place. The control group received regular assistance, as assigned by the Greek Ministry of Education, by the regular class educator. Instruction took place in regular classrooms, as they were determined appropriate. The pilot study was completed over a four-week time period.

3.1.6. Instructional Procedures

The experimental group students were initially pre-tested on their knowledge on writing through interviews and requested to fill out an anxiety questionnaire. Next, the

experimental group students engaged in writing a story and then an expository essay during which participant observation took place.

Students in the experimental group received two weeks of instruction on story writing and two weeks of instruction on expository papers. Following instruction provided on story writing the experimental group students were requested to write a story in their native language so as to investigate strategy transfer from the foreign language to the native language as in the main study. After the experimental group students received instruction they were post tested on the same writing genres. Instruction provided to students in the experimental condition during the pilot study was basically the same with that provided to students during the main study. Alterations however that were made to the instructional procedure involved the final part of the expository writing sessions in which students were requested to color a rocket for each part of essay. In particular, during the pilot study it was found that grade six (6) students were able to

3.2. Main Study

In the next section information as regards to the main study is provided. In particular, background information is provided about both schools and the participants of the study. In addition a presentation as regards to the instructional procedures of this study are also provided in this section.

3.2.1. District Demographics

The participants of this study were enrolled in two primary schools located in the region of Chania, Crete. The two public schools were randomly selected in the city of Chania, Crete of which one served as the control group and one as the experimental group. The school that served as the control group consisted of one- hundred grade five (5) and six (6) students (100) and was a suburban school located West of the city of Chania. The school that served as a research group consisted of seventy-seven (77) grade five (5) and six (6) students and is also a suburban school located North of the city of Chania.

3.2.2. Instructional Setting

A total of eight (8) groups participated for the purpose of this study (total of eight (8). One school consisted of two grade-five (5) and two grade-six (6) groups and served as the experimental group. The other school consisted of two grade-five (5) and two grade-six (6) groups and served as the control. The classrooms consisted of twenty (20) to twenty five (25) students. The available resources in both schools, control and experimental were the same, including a projector, a blackboard, bulletin boards and a computer lab.

This investigation was interested in casting as broad a net as possible which is the reason the selection of the subjects focused on grade five (5) and six (6) students whose writing abilities could be investigated in greater detail and a clearer impression of their writing profiles would be obtainable. Grade five (5) and six (6) students had also completed necessary grammar instruction so as to be able to engage in writing stories and expository essays. Additionally, students of a higher elementary level would be more able to discuss and describe their learning strategies as well as complete the anxiety questionnaire provided for the purpose of the study.

None of the students had previously participated in a writing course. Greek EFL primary school students attend three hours of English lessons per wee in which all four language skill areas are practiced: writing, listening, reading, and speaking. The duration of each lesson is forty-five (45) minutes. A course book designed by the Pedagogical Institute guides the course of each lesson. The guidelines outlined by the Ministry of Education regarding the school syllabus are compulsory. English foreign language learners are not placed in an English class according to their English proficiency or ability level. Nonetheless, as mentioned in the introductory section, the majority of students are sent to Private English schools, so as to supplement the state school or to get a head start, at varying ages, depending upon the parents' judgment.

Following discussion with the classroom educators of both the control group and the experimental group, it was determined that writing strategies were not a component of the educators teaching methodology whereas students were infrequently asked to engage in writing tasks. In particular, the subjects of both the control and the experimental group were not taught planning or revising writing strategies. Writing skills such as handwriting, spelling, punctuation, grammar-drills, vocabulary and syntax through fill in the blank exercises characterized the traditional writing instruction procedure of both the control and the experimental group. The instructional approaches thus, adopted by both schools were similar in nature in terms of teaching writing. Both educators however, verified the importance of writing as a necessary skill to be acquired.

3.2.3. Participants

One hundred and seventy seven, (177), fifth (5^{th}) and sixth (6^{th}), grade school students partook this research. In particular, ninety (90, 50.8%), students were enrolled in the 5^{th} grade, and eighty-seven (87, 49.2%) students were enrolled in the 6^{th} grade of primary school. Of all students, one hundred (100) were part of the control group and seventy-seven (77) were part of the experimental group. From the total number of students eighty-eight were (88) girls and eighty-nine (89) were boys. The control group consisted of forty-seven (47) girls and fifty-three boys (53). The experimental group consisted of forty-one (41) girls and thirty-six (36) boys.

	Control Group	***Experimental Group***	***Grade Five (5)***	***Grade Six (6)***
Subjects	100	77	90 (50.8%)	87 (49.2%)
Girls	47	41	46 (51.1%)	42(48.3%)
Boys	53	36	44 (48.9%)	45 (1.7%)

3.3. Instructional Procedures

Procedural facilitation guided by the SRSD writing instructional model was integrated into the regular classroom. The researcher undertook the complete instruction of all eight (8) English language classes of both schools control and experimental, so as to integrate the SRSD model of instruction. In particular, two grade five (5) classes and

two grade six (6) classes were part of the experimental group. Similarly, two grade five (5) classes and two grade six (6) classes were part of the control group. Sixteen (17) weeks of instruction took place for the completion of the study. The initial week served for the investigator and students to get acquainted and for the administration of pre-tests. Fifteen weeks (15) of instruction followed and one (1) week of post-test administration. In particular, forty- five (45) sessions of forty-five minute instruction took place.

Participants were divided into two treatment groups, an experimental, and a control group. The control group received no writing instruction on story writing and expository essay. The experimental group received explicit structured strategy based-procedural facilitation guided by the SRSD writing instructional model (Graham and Harris, 1989; Harris and Graham 1986).

Prior to the beginning of instruction (pre-test) students' writing skills in two writing genres was examined: story writing and expositor writing. Assessment for both genres involved writing a paper in response to a writing prompt, and to increase motivation students were also allowed to choose their own topic. The writing prompt involving story writing depicted line drawings depicting children and animals engaged in an activity. The subjects were asked to use their imagination to write a story. The writing prompt involving the expository essay was: " Should children be allowed to choose their own pets?" or writing on an expository essay topic of their choice. During writing the researcher informed the students that no assistance would be provided apart from spelling. Students were individually tested during the interview sessions mentioned below, were never administered more than one assessment on an individual day (to minimize fatigue) and were provided with as much time needed for the completion of their papers (Graham, et al. 2005).

The experimental group was provided with procedural facilitation through the implementation of the SRSD model (Graham and Harris, 2005; Harris and Graham, 1996), on two genre specific writing strategies **"**WWW, What=2, How=2" and "TREE" and the general writing strategy in which these two strategies were embedded, POW, as well as the indispensable accompanying knowledge and self-regulatory procedures required to use these strategies. Through procedural facilitation navigated

by the SRSD model the experimental group was offered explicit and systematic strategy instruction so as to accomplish specific writing tasks. The experimental group was aided with additional information or skills (vocabulary, grammar-drill instruction, good word choice, interesting openings etc.) required for the utilization of these strategies (Graham and Harris, 2005; Harris and Graham, 1996). Procedural facilitation navigated by the SRSD writing approach aspired to explicitly teach self-regulation procedures incorporating goal-setting, self-monitoring, self-instructions and self-reinforcement to assist students in administering the target strategies, and writing task but fundamentally, to attain solid and evident or visible confirmation of their writing progress.

The emphasis of SRSD instruction was to promote student ownership and independent use of the target strategies and accompanying self-regulation procedures. Learners were active collaborators in the learning process and effort in learning was emphasized and rewarded. Instruction was scaffolded so as to gradually shift from instructor to students so that students are held accountable for the application and employment of the target strategies, accompanying knowledge skills, and self-regulation procedures. The instructor, individualized support and feedback so as to better cater to the needs of each student.

Social support through peer assistance was an added feature implemented throughout the investigation as investigators of the field have noted that learning has been suggested to involve social aspects (Salomon, 1993; Perkins, 1992; Hastie and Pennington, 1991). Previous studies have determined that peer-support enhances student learning (Graham and Harris, 2005). Students worked together in groups of two to promote the use of the strategy in other settings and discuss when, where, and how the strategies could be used outside the instructional setting as well as to investigate possible adjustments for specific circumstances such as different second language tasks like reading comprehension or even speaking in which students were called upon to state their opinion on a given topic or narrate a story. Other instances involved when writing a story or expository essay in their native language (in a regular classroom setting). Students thus reflected upon altering the specified procedure to a different situation and encouraged to apply the procedures they were learning to new situations under the condition that they would assist each other when necessary. During

instructional sessions students were also encouraged to identify the way in which it helped them improve their writing performance and any difficulties they came across. Students identified all cases in which they provided assistance to their partner. The peer support component in the study was utilized in order to enhance students' knowledge about planning, boost their persistence in writing in other uninstructed genres such as informative writing, personal narratives and emails. Essentially, procedural facilitation guided by SRSD instruction in accordance with the additional component peer-support enabled students to monitor as well as to evaluate their performance which according to Schunk and Zimmerman, (1998), and the self-efficacy theory such experiences give way to vital information that are the foundation of forming student beliefs about their self-confidence. The aforementioned section was used in accordance with word processing to assist fluent production of text (MacArthur, Graham, Schwartz, and Schafer, 1995). In particular, technological aid was an additional feature of procedural facilitation as regards to the provision provided. Procedural facilitation also included role-play due to its effectives in enhancing strategy use as well as learning outcomes (Dornyei and Malderez, 1997; Baruch, 2006). In particular, drama, questioning and answering techniques were integrated to enhance students' language skills as well as improve students' attitudes towards foreign language learning. Most importantly however, as language development depends entirely on social interaction (Vygotsky, 1987).

The study also incorporated the systematic use of visuals for teaching the basic diction or mnemonics necessary for students to comprehend in their native language as well so as to successfully apply the SRSD writing strategy. This way language development increased, while additionally the basic steps to incorporate the SRSD were taught. More importantly, students' processing and thinking was ignited. Provision of visual aid such as graphic organizers as well as concept and story maps, "compare-contrast" think sheets or even pictures were utilized as they have shown to effectively aid students during instruction and lead to augmented learning outcomes and language-development (Reyes and Bos, 1998).

3.3.1. Integrated Skills

The teaching of the language skills including reading, speaking and listening were taught in conjunction through writing activities. Specifically, students enhanced all the three language skills reading, speaking and listening (grammar and vocabulary) in conjunction with each other through the provision of explicit writing instruction and procedural facilitation on writing production. Communicative competence in the L2 was thus fostered rather than performance in each language skill in isolation. By promoting learning task that expose students to skills in conjunction, deeper understanding of the way in which communication words in the foreign language. By the same token, students become more motivated as they perceive the significance of performing meaningful tasks and activities in a classroom setting (McDonough and Shaw, 1993). Some examples of the ways in which listening, speaking and reading skills were integrated are as followed:

(i) Listening Skills

- Dialogue in the target English language regarding what students have learned following completion of each session.
- Practice in note taking of **WWW** story writing and **TREE** expository mnemonic elements.
- Queries as regards to facts and inferences that were made from students' notes in both story writing and expository essays.
- Recognition of the differences between the main points and incidental or less - relevant ideas and information in both story writing and expository papers.
- Selective listening for specific kind of information, such as the main purpose, the themes, the details and implications.

(ii) Speaking Skills

- Provision of insights on how to organize students' ideas for presentation (problems and solutions, causes and results, and similarities and differences).
- Instruction on how to adapt speeches. That is, informal and formal discussions

so as to correspond to the intended audience, the information to be communicated, and the circumstances of the occasion at which they would speak. The educator illustrated how to adapt their presentations so as to suit different circumstances.

- Presentation of ideas on either story writing or expository papers to individual peers, peer groups and entire classes. Students were enabled to speak on a subject of their choice apart from topics assigned by the instructor.
- Students were provided opportunities to prepare for debates so as to become exposed to both sides of various issues as regards to expository essay topics.
- Students also benefited from interviewing others and from participation in dramatic presentations that emerged from story writing topics.
- Students engaged in speaking about their personal experiences and benefited from instruction in the elements of good story telling.
- Oral presentations that derived from stories and essays provided rich opportunities to see how character and circumstance affect speech.
- A friendly atmosphere was maintained during speaking activities so as to foster a comfortable environment in which students were enabled to practice with one, other students, and in front of the class. Student practice included presenting information, answering questions and holding group discussions.
- Group discussion was part of every session in which students worked together in groups of twos, threes, or larger groups so as to facilitate more frequent insightful and meaningful communication in speaking, listening and reading activities.

(iii) Reading Skills

- Instruction focused on concepts and vocabulary to improve comprehension.
- New words and concepts prior to reading a text were discussed so as to activate prior knowledge and improve comprehension (e.g. having group discussions prior to reading stories and essays).
- Comprehension (word knowledge, thinking and reasoning) was approached as an active rather than passive process.

- Students were asked to draw inferences from words and expressions that the writer used to communicate information, ideas and viewpoint.
- Instructor guided students by modeling how to improve comprehension by: asking questions about the text while reading; identifying main ideas; using prior knowledge to make predictions.
- Instruction focused on various strategies rather than a single one such as cooperative or group learning, graphic organizers (flashcards), asking and answering questions, story structure, summarizing.

➢ **Vocabulary**

- Taught both directly (providing word definitions and pre-teaching prior to reading a text) and indirectly (mentioning, exposure to language-rich contexts).
- Repetition and exposure to vocabulary items (i.e. through speaking, listening and writing in connection with authentic leaning tasks).
- Active engagement in tasks (i.e. finding right words and expressions, collaborative writing practice).
- Word Walls (sight words with high frequency words).
- Prediction of what a vocabulary word means in groups of two or threes.
- Flashcards.
- Graphic Organizer (word in the middle, spokes going out are the translation, and a sketch, part of speech).
- Content Rich Words (words connected to the physical world and a picture of what it means).

➢ **Grammar**

- To assimilate and/or revise grammar students were initially (i) exposed to the grammar concept through reading, listening and speaking activities, (ii) provided with exercises and texts so as to make structures and patterns of language use visible and meaningful (iii) exposed to grammar exercises in order to determine the use of meaning and form, (iv) provided with authentic

contexts to practice the structure (speaking and writing activities), (v) offered a setting with various revising opportunities (Kolovou and Kraniotou, 2009).

- Grammar instruction was further integrated in the revising and editing stage in which students worked in groups or twos, or more and identified and corrected problems in sentence structure and usage so as to vividly see the relevance of grammar in writing samples (i.e. instructor revised a grammar concept, students identified grammar concept and discussed, additional drills on specific grammar concept).

SRSD Instruction:

Students worked on both story writing and persuasive writing, as they were both part of the schools fifth and sixth grade curriculum. Students received explicit, intensive and scaffolded instruction on generating ideas and include basic genre-specific elements to produce a story and a persuasive essay. In particular, instruction centered on the various stages including: choosing a topic, considering purpose, identifying audience and gathering and organizing ideas. Emphasis was given on prewriting strategies followed by a writing assignment. Choice of topic was not limited to that required by the teacher but also included ideas brought up during in-class discussion as well as from lists made by students which included interesting topics on either story writing or expository essays in addition to the according theme of each book Unit. Furthermore, multiple completed products were published, such as on class bulletin boards, or were compiled into the subject's personal booklets that were stored in each classroom's closet as a loss-prevention precaution. Stress was placed on the idea that writing was an outlet for personal thought and expression and not only as a school assignment.

The Self-Regulated Strategy Development was implemented so as to improve students' strategic behavior knowledge and motivation and aimed at three basic goals:

i. Teach composing strategies such as (planning, drafting, revising).

ii. Development of knowledge and self-regulatory procedures such as (goal-setting, self- monitoring, self-instruction and self-reinforcement).

iii. Enhance specific aspects of motivation such as self-efficacy and effort.

SRSD promotes students' ownership and independent use of the writing and self-regulation strategies.

Two genre specific strategies, the general planning strategy in which these two strategies were embedded, and the accompanying knowledge and self-regulatory procedures needed to use these strategies and manage the writing task were taught to Greek EFL students using the SRSD writing instructional model (Harris and Graham, 1996; Graham, Harris and Mason, 2005). Students were explicitly and systematically taught strategies for successfully completing writing tasks as well as information and skills required to utilize these strategies. Self-regulation procedures including goal setting, self-monitoring, self-instructions, and self-reinforcement were provided to assist students administer the task the target-strategies and task of writing and acquire concrete and visible confirmation of their writing progress (Graham, Harris and Mason, 2005).

Emphasis was placed on students' independent use of the target strategies as well as associated self-regulation procedures. Instruction was scaffolded so that the application and enforcement of the target-strategy, accompanying knowledge or skills, and self-regulation procedures transfers form instructor to students. Students were active collaborators of the learning process while feedback and instructional support was individualized in order to foster students' personal needs. Instruction was criterion-based rather than time-based so that students had the time they required to progress from one stage of instruction to the next as well as develop a superior writing product. Instructional stages were revisited and combined as necessary. The subject's first language, Greek, was used as a base for understanding and/or producing the second language. As sessions succeeded the mnemonics and instructions were gradually provided in English as students had become comfortable with the vocabulary. At any point students had difficulty comprehending instructions translation was provided.

3.3.2. Instructional Sessions-Introduction

The investigator initially clarified the research purpose to students. It was explained to students that the rationale behind the study was to help them become more successful writers. It was explained that "tricks" for writing stories and expository essays will be taught to them in a different context from what they had been taught so far, so as to assist them write more effectively. However, even though student enthusiasm was strong throughout the study, they initially demonstrated hesitation as regards to providing any sort of information that would negatively influence their grades or even their parents or teachers impressions. Students were reassured that the purpose of the study was the provision of high quality assistance during their writing process and in particular that (a) their responses to any questions, as well s their writing samples would be confidential (b) their answers would not affect their grades, their teachers or parents' impressions (c) data results would represent groups and not individuals. Students were encouraged to ask for any clarifications prior to, or during the implementation of the writing strategy.

During the study a notebook with detailed directions for implementing each activity and lesson was used. A checklist for each lesson was used to tick off each completed step. Instruction ended when the checklists showed that all steps in all lessons were completed. Additional instructional sessions were provided when considered necessary so as to provide students time for extra practice so as to apply the strategies to stories and persuasive essays.

3.3.3. Instructional Sessions

Lesson one (1) to five (5) - Grade Five 5 and 6

Purpose: Develop Background Knowledge, Discuss It

Objectives: Introduction to **POW**, story parts, and story parts reminder. Identification of story parts in story examples; Establish concept of transfer

Materials:

- Mnemonic charts
- Story examples
- W-W-W graphic organizer
- Paper
- Champion Card
- Flash cards
- Markers
- Scratch paper
- Individual Student Folder

Technological Tools

- Projector (Power Point Slides)

I. Introduction

During the first five (5) lessons of the study the subjects were initially requested to reflect about the learning process in general terms, so that the investigator could elicit background information regarding the subjects beliefs about learning. This aimed to obtain a perspective concerning the subjects motivation or self-esteem levels. The subjects were then asked to contemplate whether learning is a result of hard effort, intelligence, pure luck or the application of strategic techniques (Rubin, Chamot, Harris, Anderson, 2007).

Following the subjects were informed about what strategies are and requested to reflect upon strategies that they may already be using in different areas of their lives (Chamot et. al., 1999; Macaro, 2001; Chamot, 2004). Strategies were defined as "special tricks" for learning that can be used in various tasks (vocabulary, grammar) or other courses, as well as every day situations. This method aimed to raise student consciousness regarding learning strategies and make them think about their own learning processes. To assist students reflect upon strategies they were asked to think about any strategies they used in their L1 as regards to a reading or writing assignment. Then students were

told that they were going to learn a "trick" or strategy that good writers use for everything they write. Next it was explained that they are going to be taught a "trick" or strategy to help them write a good story. Subjects were told that stories should be fun to write, fun to read, make sense and have all their parts.

The subjects were also told that writing is an interactive process between what they write and what they want to write, and that such a process is cyclical, starting with planning and followed by writing and revising. Following, it was explained to students what rhetorical patterns are, in particular, story writing and were asked to think about stories that they knew or stories that were narrated to them as young children. A general discussion followed between the instructor and the subjects concerning story writing, in which some of the key areas of discussion included the following questions: (i) what is the purpose of writing stories? (ii) who are the readers of the stories that we write? (iii) what content should be included to make our stories more effective? and (iv) how should the content be expressed so that it could be more effective?

II. Introduction of POW (The general planning strategy adopted by Harris and Graham, 1996, that includes three steps, represented by the mnemonic **POW**).

A. Firstly, **POW+W-W-W, What=2, How=2**, charts were passed out to each student.

B. It was emphasized that POW is a trick that good writers use to write many things and that **POW** gives writers **POW(er)** to write.

C. Next, each **POW** part was discussed, explained, and translated in Greek.

1. P pick my idea (i.e., decide what to write about, a point of view on a given task, or an idea that we have).

2. O organize ideas into a writing plan using a graphic organizer. To recruit the second step of **POW**, Organize my notes the subjects were told that they will be taught a genre specific strategy that prompted them to generate ideas and make notes for each of the basic parts of the story later on (Weis, 1979; Grobe, 1981; Stein and Glenn, 1979).

3. W write and say more, continue to modify and upgrade the plan while writing.

D. The importance of writing notes was emphasized to the subjects. Examples from everyday situations were used (i.e. shopping lists, calendar, webs). Students were requested to think about all the situations in which they use notes. It was stressed that notes can always be changed later too.

E. It was then emphasized that **POW** is a trick they will be taught that would give them **POWer** to write and that writers use this strategy to write good stories. In order for students to be taught how to acquire knowledge, skills and vocabulary needed to apply the general planning strategy **POW,** its corresponding steps were elaborately discussed. That is, what each part of **POW** stood for and why each step was important. **POW** was revisited over lessons until students could explain what it meant and why it is important. Student practice at this point as well as in each succeeding session included:

a. Writing out **POW** on scratch paper and saying as well as translating what each letter meant.
b. Mini quizzes in groups.
c. Responding chorally to the investigator.
d. Flashcards used to quiz each other.
e. Tests (without grades) to verify students could remember the parts of **POW** what they meant and their translation.
f. Practice from projector (choral-reading-translation practice).

III. Introduction of WWW, What=2, How=2

The characteristics of a good story were once again discussed stressing that stories should be fun to read and write; make sense; have several parts; and include exciting, colorful and descriptive words (referred to as “right words or expressions”). The subjects were then told that they are going to be taught a “special trick” to remember the parts of a good story and to help them remember to include all the things they want to say.

A. The **WWW, What=2, How=2** strategy was put out on the subjects charts. The instructor introduced the mnemonic **WWW, What=2, How=2** as a "trick" for remembering the seven story parts emphasized in this study. It was emphasized once again that this is a strategy good writers use when they write a story. The parts of **WWW, What=2, How=2** were translated, discussed and students were asked to give examples by answering questions to the following parts: **WWW, What=2, How=2** (who could the main character be in a story, when could a story take place, where could a story take place, what could the main character do or want to do, what could other characters do, what could happen when the main character tried to do it, what could happen with other characters, how could the story end, how could the main character feel, how could other characters feel.

B. The vocabulary involved in the story parts was revisited, discussed, translated in Greek and practiced as well as revisited throughout the lessons.

Student practice included:

a. Writing out **WWW, What=2, How=2,** on scratch paper and saying as well as translating what each letter meant.
b. Mini quizzes in groups of four.
c. Responding chorally to investigator.
d. Flashcards to quiz each other.
e. Writing a short sentence with each part of the mnemonic.
f. Projector (choral-reading-translation practice).

IV. Find WWW, What=2, How=2, in a story. Instructor Models Making Notes on Graphic Organizer

A. Students were all given a copy of a story (while also on projector display) and were asked to listen and look at the story carefully to identify the parts of the mnemonic as it was being read out loud. Then students were introduced with the **WWW, What=2, How=2,** graphic organizer. Emphasis was placed on the fact that story parts could come in different orders. When a student identified a story part the

instructor wrote it in the appropriate place on a graphic organizer containing the story parts reminder. Each story part was labeled and had a picture prompt to help the student identify it. This continued with other stories until the subjects could identify accurately all of the parts. The subjects spent a few minutes during each succeeding lesson rehearsing the steps of **WWW, What=2, How=2,** the story part mnemonic and what each stood for and its translation; this continues throughout instruction until they were memorized and could be translated. Student practice at this point as well as in each succeeding session included:

a. Underlying or circling story parts as they are found.
b. Have students respond chorally.
c. In groups of four students compete to find the correct story parts.
d. Use flashcards to quiz each other.
e. Quiz each other in small groups of four.
f. Write out **POW** and **WWW**, **What=2, How=2** mnemonics of scratch paper to state the meaning and translation of each part.
g. Practice from projector-power point slides-choral-reading-translation practice.

V. **Introduce Transfer**

The instructor and the subjects discussed the importance of using new strategies whenever and wherever the student needed them. The term *transfer* was introduced and discussed and students were asked to think about instances in which they could use writing strategies or even **POW** and **WWW** outside of this instruction such as other writing tasks or other classes. It was emphasized that **POW** and **WWW** is used to write stories. Other tasks could include book reports, letters to friends or parents to write a story, reports of special topics, writing for a school newsletter, writing about something that happened on a special event (birthday, a day at the zoo etc.).

Lesson five (5) to ten (10) - Grade Five 5 and 6.

Purpose: Develop Background Knowledge, Discuss It

Objectives: Review and practice **POW**, and story parts reminder. Identification of story parts in story examples; recognize story parts that make sense; model self-statements; model story writing; guide students in establishing establish personal self-instructions; introduce rainbow; introduce role play.

Materials:

- Mnemonic charts
- Story examples
- W-W-W graphic organizer
- Paper
- Champion Card
- Flash cards
- Markers
- Scratch paper
- Individual Student Folder
- Role-Play

Technological Tools

- Projector (Power Point Slides)

I. Test POW and W-W-W, What=2, How=2.

Students were tested to verify that they remember the mnemonics by writing the mnemonics and their translation on a piece of scratch paper. Students practiced the parts out loud from projector through power point slides. Students were divided in groups of four and test each other. Group that gets all the parts right is rewarded with a champion card. Test **POW** and **W-W-W, What=2, How=2.** Emphasis was placed on the fact that the **WWW, What=2, How=2** mnemonic is a trick to remember **O** for organize my notes. It was also stressed to students that they will be tested on each succeeding lesson.

II. Find W-W-W, What=2, How=2 in a story, think of other or better story parts, teacher models making notes on graphic organizer.

A. Students read and examine another story. Students examine whether the story has all the parts. Students then examine if the reasons in the story make sense.

B. Graphic organizer is put on display on black board. Graphic organizer is used to write the parts of the story in note form. The students and instructor then modeled writing the parts of the story in different orders.

C. Students were then given a copy of another story. Students were asked to read along silently while the instructor read the story out loud.

i. Students identified **WWW** parts in the story, which did not appear in any particular order. Notes for the **WWW** were written in the graphic organizer. Emphasis was placed on the fact that notes are not complete sentences. Students practiced making notes.

ii. Students suggest how the notes should be written and write them in their graphic organizer.

iii. Students were then asked if all story parts made sense and were then asked to create parts that make sense in groups of four. The parts that didn't make sense were replaced with the parts that did make sense in the graphic organizer. It was stressed that the reader's attention is captured when the parts of the story make sense. Students were then requested to rewrite the story in groups of four making sure that all the parts make sense.

iv. "Right words and expressions" were then identified and highlighted or circled and then written down on by students on their "cool words and expressions" list could use them when writing their own stories.

v. Students were then requested to go over the story again in groups of four and identify any "Right words and expressions" that didn't make sense in the story and then replace with words and expressions that did make sense with the instructors assistance.

III. Find W-W-W, What=2, How=2 in Two More Stories, Think of Other or Better Story Parts and "cool words or expressions". Instructor models making notes on graphic organizer and using self-statements.

(i) The instructor modeled how to apply **POW** and the **WWW, What=2, How=2,** story part reminder in two more stories. The **WWW, What=2, How=2,** reminder chart and graphic organizer were on display. Students initially

identified the **WWW, What=2, How=2,** story parts and then thought of additional story parts and "cool words and expressions".

(ii) The instructor then introduced the use of self-instructions (i.e., self-talk). The instructor modeled, while talking out loud, how to plan and write a story using **POW** and the **WWW, What=2, How=2,** story parts reminder. The instructor began by setting a goal to include all of the parts and emphasized, and the importance of using the **POW** and **WWW** strategies. The subjects helped the instructor by generating ideas for the parts of the story and "cool words and expressions" words to use in the story. The instructor recorded the subjects' ideas on the graphic organizer. While applying the strategies, the instructor used a variety of personal self-statements to assist with problem definition (e.g., what do I have to do here?), planning (e.g., what comes next?), self-evaluation (e.g., Does that make sense?), self-reinforcement (e.g., I really like that part!), and coping (e.g., I'm almost finished!). The students continued to help the instructor to do additional planning while the story was being composed (i.e. "Write and say more") suggesting new words and ideas and recommending modifications to the initial ideas recorded on the graphic organizer. Once the story was completed, the importance of what we say to ourselves when writing was discussed and the types of self-instructions the instructor used were identified. The subjects then identified two to three self-statements that they could use themselves while planning and writing and recorded them on a small chart; self-statements for checking to see if the story had all the parts and for reinforcing oneself for a job well done were also generated. Goal setting was reinforced, by indicating that the goals when writing stories were to include all seven parts, to make sure that each part was well done, that "cool words and expressions" were used, that the story made sense, and that it was fun to read.

IV. Graphing Sheet/Graph the Story

At this point self monitoring and graphing were introduced. The instructor and students examined if the story the instructor wrote had all seven parts. They graphed the result, a score of seven (7), by coloring in one color on a chart that included the seven colors of the rainbow. They discussed whether each part was well done, "right words and expressions" words were used that the story made sense, and it was fun to read. They

reinforced themselves verbally for a job well done. Students that had added all their parts received a champion card for their achievement.

V. Role Play

Drama and questioning techniques are introduced. Students are divided in groups and use:

(i) The story prompt to work on the script.

Initially students engaged in investigating the background knowledge acquired at the previous sections. Next, students review the W-W-W mnemonic and decide upon how to illustrate the "Who" "When" "Where" "What" "How" parts of the story in short dialogues.

(ii) Engage in drama rehearsal.

At this point students rehearsed their roles based on the background knowledge established in the previous sections. The investigator closely monitored students so as to verify students understanding of their role, expression of the story's meaning, exploitation of facial expressions, gestures to convey intended meaning of each character.

(iii) Drama production.

Students engaged in performing their short dialogues in front of the class.

Lesson ten (10) to fifteen (15) - Grade Five 5 and 6.

Purpose: Review POW and Story Parts Reminder, Self-Statements, Collaborative Writing; Examine Prior Performance, Compare to Current Writing behavior and Establish Writing Goals

Objectives: Review and practice **POW**, story parts, and story parts reminder. Identification of story parts in story examples; write collaboratively; discuss pretests story; compare to current writing and establish goals for better stories.

Materials:

- Mnemonic charts
- Story examples
- W-W-W graphic organizer
- Paper
- Champion Card
- Self-statements sheets
- Story prompt
- Pretest Story
- Flash cards
- Markers
- Scratch paper
- Individual Student Folder
- Role-Play
- Rainbow Graphing Sheet
- Pencils

Technological Tools

- Projector (Power Point Slides).

I. Students were tested on **POW** and **WWW**, **What=2, How=2** once again.

During each lesson prior to this point students had practiced recalling the **POW** and **WWW**, **What=2, How=2** strategy mnemonics, their meanings and their translation. Practice included writing and explaining the mnemonics and doing fun activities such as flash cards, or group competitions in which the winning group received a champion card. At this point, most students had the mnemonics and their meanings memorized. Further assistance was provided for students who needed it, by allowing them to look at flashcards or their graphic organizer when desired until they were able to wean off both flashcards graphic organizer.

II. Collaborative Writing

A. This stage starts with a collaborating writing experience. Students use their **WWW, What=2, How=2** reminder chart, million dollar word list and self-statements list. The graphic organizer is put on display.

B. The instructor and students set a goal to include all seven elements in their story, review their additional goals, and then plan and write the story together using **POW**, the story part reminder, the graphic organizer and their self instructions.

C. At this point the students directed most of the process and the instructor provided support when needed. From the plan that was suggested collectively, the students wrote their own story with the assistance of the instructor only as needed.

III. Graph the Story

The students and instructor then identified the story parts included, again all seven, graphed the parts, by coloring all seven (7) colors of the rainbow, and noted that they had met this goal. They discussed how the strategies helped them make each part of a story better, making stories more fun to write and read, referred to their self-statements sheets for what was said while they wrote, and identified "right words and expressions" that were used.

IV. **Establish Prior Performance**

A. The pre-test stories were passed out to students so that they could identify how many story parts they had included. Students read their stories and graphed the corresponding number of segments that were included on their rainbow sheet if they wished to. A discussion followed as regards to which parts were included and which were not. Emphasis was in sequence placed on stressing the importance of improving a story parts when included. The instructor then stressed that even if a story part was included it could be improved (e.g. fleshed out). Instruction then centered on conversing the way **POW** and the story part reminder could assist them in producing higher quality writing including all the basic story elements. Students were allowed to rewrite their pretest stories if they wished, and to graph the results, but were not required to do so. Stress was also place on the fact that students had not learned the "trick" for writing good stories and that their writing has now improved. Students were

reminded to administer their own progress and achievements by examining their rainbow graphs. Following, instruction focused on the conception of goal setting elucidating that learner's ultimate goal in to include all seven parts when writing stories, that each part was accomplished to their best degree, that the story made sense, and it was fun to write and read.

V. Role Play

Drama and questioning techniques are introduced. Students are divided in groups and use:

(iv) The story prompt to work on the script.

Initially students engaged in investigating the background knowledge acquired at the previous sections. Next, students review the W-W-W mnemonic and decide upon how to illustrate the "Who" "When" "Where" "What" "How" parts of the story in short dialogues.

(v) Engage in drama rehearsal.

At this point students rehearsed their roles based on the background knowledge established in the previous sections. The investigator closely monitored students so as to verify students understanding of their role, expression of the story's meaning, exploitation of facial expressions, gestures to convey intended meaning of each character.

(vi) Drama production.

Students engaged in performing their short dialogues in front of the class.

Lesson fifteen (15) to twenty (20) - Grade Five 5 and 6.

Purpose: Review POW and Story Parts Reminder, Collaborative Practice; Review Self-Statements; Write with graphic organizer.

Objectives: Review and practice **POW**, story parts and story parts reminder; collaborative practice; write with graphic organizer.

Materials:

- Mnemonic charts
- Lined Paper
- W-W-W graphic organizer
- Pencils
- Champion Card
- Self-statements sheets
- Story picture prompts
- Graphic Organizer
- Scratch paper
- Individual Student Folder
- Role-Play
- Rainbow Graphing Sheet

Technological Tools

- Projector (Power Point Slides)
- Computer

I. Test POW and W-W-W-, What=2, How=2

Students were tested to verify that they remember **POW** and story parts reminder and to get prepared to wean off the graphic organizer by writing the mnemonics on a piece of scratch paper as well as practicing out loud through power point slides or fun activities in which the winning group received a champion card.

II. Group Collaborative Writing

A. At this point students initiated the process of collaborative practice and took the lead. Collaborative Writing included the use of the story reminder chart and self-statements list as well as a practice story prompt. Students were encouraged to use "right words and expressions", were reminded that the story should have seven parts is fun to write and read. Once the notes for the story had been written students were asked to examine their word choice for "right words and expressions" as well as add more detail or description for the story parts. Self-statements were referred to for what to say while students work. Sentences are generated for each part of the story, which is written on the class board.

B. Finally students examine the story and make sure that all the parts are there and draw the seven (7) colors of the rainbow for all their seven parts. This process took place in the schools computer lab in which they worked in groups. Once the stories had been completed they were printed out and

included in students folders (each student from every group had a copy of the story in the student folder).

III. Supported Individual Writing with Graphic Organizer

A. Students used their student folders, their "right words and expressions" list, their self-statements list, a blank graphic organizer and a copy of a practice picture prompt.

B. The instructor prompted students to pick an idea and assisted when necessary. The instructor then prompted students to use **WWW** to organize their notes reminded that stories have all seven (7) parts "right words and expressions" and are fun to write and read. Once students had completed their notes they were reminded to examine their ideas and words and expressions and to verify that they had all their parts.

C. In the final stage students were reminded to use their self-statements sheets as they write. Students completed the writing on their own and assistance was provided individually or in groups of two when necessary.

D. At this point the story was graphed by coloring each color of the rainbow.

IV. Role Play

Drama and questioning techniques are introduced. Students are divided in groups and use:

(vii) The story prompt to work on the script.

Initially students engaged in investigating the background knowledge acquired at the previous sections. Next, students review the W-W-W mnemonic and decide upon how to illustrate the "Who" "When" "Where" "What" "How" parts of the story in short dialogues.

(viii) Engage in drama rehearsal.

At this point students rehearsed their roles based on the background knowledge established in the previous sections. The investigator closely monitored students so as to verify students understanding of their role, expression of the story's meaning, exploitation of facial expressions, gestures to convey intended meaning of each character.

(ix) Drama production.

Students engaged in performing their short dialogues in front of the class.

Lesson twenty (20) to twenty five (25) - Grade Five 5 and 6.

Purpose: Review POW and WWW; Wean off Graphic Organizer; Independent Writing; Post testing Practice Preparation.

Objectives: Review **POW and WWW;** collaborative practice; wean off graphic organizer; Write Independently; Practice post testing conditions.

Materials:

- Mnemonic charts
- Lined Paper
- Rainbow Graphing Sheet
- Pencils
- Champion Card
- Self-statements sheets
- Story picture prompts
- Graphic Organizer
- Scratch paper
- Student Folder
- Role-Play

Technological Tools

- Projector-Power Point Slides

I. Test **POW** and **WWW**

Students were tested on **POW** and **WWW** by saying the mnemonics, what they stood for and their translation out load to verify that all students would be able to wean off graphic organizers. The majority of students were able to recall the mnemonics with the exception of some in which case they were allowed to keep them next to them on scratch paper.

II. Individual Supported Writing to Independent Performance

A. In the last stage of the strategy, Independent Performance, students engaged in independent writing, in which they used **POW** and the story part reminder to write a story without instructor, peer or props assistance (e.g. chart, with strategy steps, graphic organizer, or self-statement chart). However, the instructor provided as much assistance as needed to ensure that the students were successful in using the strategies. Scaffolding included support in carrying out the strategies, use of projector and charts with personal self-statements or reminders about the steps in **POW** or the seven story parts, and the graphic organizers. These supports were faded as appropriate. The graphic organizers were replaced with plain paper, and the students wrote the **WWW** reminder on the paper and then made notes for each part. Students were encouraged to set a goal to include all seven parts. They were also reminded of their goals to be sure each part was well done, "right words and expressions" were used, the story made sense, and it was fun to write and read. After a story was completed, students graphed their performances, determined if they had all their parts, and examined their progress.

B. To ensure that the learners could apply the strategy in a slightly altered condition, students were given a story starter that in a few words described a place in a one-sentence statement. Students had been informed that the story part reminder could be used in a different order if a specific element needs to be stressed. In this case students had to begin their story with the "where does the story take place" to examine whether they had comprehended altering the order of the first three elements in the story part reminder (who, when, where). This ensured that learners could autonomously implement what they had learned in a new situation. However, setting a goal to include all seven parts and graphing performance was sustained as a process.

III. Introduce Practice Test

A. At this point students were able to use **POW** and the story part reminder to write a story without using any of the props or receiving help from the instructors or peers. Students used their "right words and expressions list", their self-statements list and a blank sheet of paper and a picture prompt.

i. Students were requested to look at their self-statements sheets to get started, keep in mind their goals for writing as story, notes for all their story parts, and re-examine them in the end. Students that required extra assistance worked in groups of two or with the instructor.
ii. After students had completed writing their stories they were asked to graph their rainbow with their story parts.

B. Students were informed that they would engage in a practice test for writing a story so that they can prepare themselves for a future practice test.

i. Students were given a writing prompt and two blank pieces of paper. One served for writing notes and the other for writing their story.
ii. Students engaged in writing their story on their own and assistance was provided only when needed.
iii. At this point students had completed their story and were asked to count their parts and graph their papers on their rockets sheet.

IV. Role Play

Drama and questioning techniques are introduced. Students are divided in groups and use:

(i) The story prompt to work on the script.

Initially students engaged in investigating the background knowledge acquired at the previous sections. Next, students review the W-W-W mnemonic and decide upon how to illustrate the “Who” “When” “Where” “What” “How” parts of the story in short dialogues.

(ii) Engage in drama rehearsal.

At this point students rehearsed their roles based on the background knowledge established in the previous sections. The investigator closely monitored students so as to verify students understanding of their role, expression of the story’s meaning, exploitation of facial expressions, gestures to convey intended meaning of each character.

(iii) Drama production.

Students engaged in performing their short dialogues in front of the class.

TREE (expository essay)

Once determined that students had acquired the use of the strategies to write stories, they were taught how to apply the general planning strategy and a second genre-specific strategy to the production of persuasive essays. Initially, **POW,** the general planning strategy was again used in order to perform the second step **O** (organize my notes), as regards to producing writing content pertinent to a persuasive essay. The persuasive mnemonic **TREE**: **T**ell what you believe (topic sentence), **R**easons (give three or more reasons, why do I believe this), **E**xamine each reason (Will my reader believe this?), **E**nd it (Wrap it up right).

An equivalent process was used for teaching **POW** and the persuasive writing parts reminder. The only distinction was that during the stage Develop background knowledge, **POW** was re-examined and instruction centered on the parts of a persuasive essay, **TREE**. More specifically, the material used was developed specifically for instruction on persuasive essays. During the Discuss It stage, the graphic organizer, utilized was for a persuasive paper. Additionally, the pretest performance was graphed on a sheet of stars including the five parts of the persuasive genre. In the Model It stage, students added supplementary personal self-statements, to

their previously offered chart. In the Support It stage students were provided the same prompts used during testing.

Lesson twenty five (25) to thirty (30) - Grade Five 5 and 6.

Purpose: Develop Background Knowledge, Discuss It. Have reasons that make sense

Objectives: Review POW, writing to persuade, identification of **TREE** parts in essay example; establish concept of transfer; identify persuasive writing elements in paper examples; review concept of transfer; recognize reasons that make sense.

Materials:

- Mnemonic charts
- Paper Example
- TREE graphic organizer
- Pencils
- Champion Card
- Transition Word Chart
- Flash Cards
- Scratch paper
- Student Folder
- Role Play-Debate

Technological Tools

- Projector (Power Point Slides)

I. Introduction

Students were informed that they would now learn a "trick" for writing a paper to persuade someone about their opinion on a given topic.

II. Review POW

i. **POW** and **TREE** charts are passed out to students and the parts of **POW** are reviewed as well as the concept of writing notes.

III. Discuss Writing to Persuade

A. Students were asked to ponder on what it means to persuade. Examples were provided with instances in which we try to persuade someone about something by stating powerful and convincing reasons.

B. Students were then told that they would learn a "trick" for organizing their notes when writing an expository paper.

C. **TREE** was introduced and each part was discussed as well as how it related to a living tree.

i. **T**=topic sentence-tell the reader what we believe-the topic sentence is strong like a trunk and every part is connected to it (Students provide examples on topic sentences on various topics)

ii. **R**=reasons-three (3) or more-explaining to the reader why we support this point of view-the reason represent the roots which support the trunk.

iii. **E**=ending-Wrap it up right-the ending is like the earth in that it wraps the roots.

iv. **E**=examine-Do I have all my parts? - we examine carefully, or look closely like through a telescope if we have all our parts.

D. Students practice reviewing **TREE**, what each letter stands for and why it is important. **TREE** and **POW** were tested in each succeeding session as well so as to verify that students had memorized the mnemonics, their meanings and translation and that **TREE** is used specifically for writing persuasive papers. Student practice at this point as well as in each succeeding session included some or all of the following:

1. Writing **POW** and **TREE** on scratch paper and stating what each letter means and its translation.
2. Mini quizzes in groups in of two.
3. Responding chorally to the teacher.
4. Using flashcards to quiz each other.
5. Practice from projector-power point slides-choral-reading-translation practice.

IV. Find TREE in an Essay. Instructor Models Notes on Graphic Organizer.

A. A persuasive essay is read out loud. Each student has a copy so that they can read along. While the instructor is reading the essay students examine whether the writer has used all parts of **TREE** without the assistance of the **TREE** chart.

B. Next, the **TREE** graphic organizer is put on display and instruction centers on how students make notes for each part of **TREE** on the graphic organizer. It is emphasized that this is **O** for organize my notes from the **POW** mnemonic that good writers use to plan before they write a persuasive essay.

C. Students were each then given a copy of a persuasive essay, which was read out loud and were asked to generate notes for each part of **TREE.** Students did not have difficulty eliciting notes as they had previously practiced making notes for story writing and were familiar with the process at this point.

D. Once notes had been produced the instructor discussed the concept of transitions words. The instructor stressed that good writers use transition words to show that a reason will be given to support a point of view. The students were requested to go over their chart of transition words and locate them in the essay.

E. Finally students were requested to locate the ending sentence and examine if it wrapped up right. Subsequently the subjects examined whether all the parts of **TREE** were there. Students practiced locating the parts by highlighting them or responding chorally to instructor.

V. Find TREE in an Essay and Instructor Models Making Notes on Graphic Organizer

A. The instructor models how to utilize the graphic organizer to write the parts of **TREE** in note form. Students are active collaborators in this process as they had already comprehended and practiced this process for writing stories. Students were asked to be alert for the parts of **TREE** while the instructor read the persuasive paper. During this process the **TREE** chart as well as the graphic organizer was on display.

B. Once students had identified the topic sentence, the three reasons and the ending notes were written in the graphic organizer in point form. Each reason found was numbered while it was stressed that when writing to persuade three reasons or more should be included.

C. At this point students first reviewed transition words from their chart and then engaged in identifying them in the essay.

D. Students then engaged in identifying the ending sentence, and continued by examining if all the parts were there.

VI. Transfer is Introduced

A. Discussion centres on other instances in which **POW** and **TREE** can be used when writing to state our opinion or persuade someone on a given topic as for example: writing letters to friends or reports on special topics, writing for the school newsletter. Transfer is reinforced throughout all succeeding sessions.

VII. Find TREE in an Essay, Think of More or Better Reasons, Make Notes on Graphic Organizer

A. Students are given a copy of a persuasive essay. Students are asked to read along silently while the instructor reads out loud. The graphic organizer has already been put out on display on the board to write the parts of another essay in note form. It is emphasized that each reason identified is numbered and students are asked to carefully examine each reason and contemplate whether they make sense. Students are reminded that in persuasive essays the writer aims to convince the reader to agree with us.

B. At this point students are requested to identify transition words. The transition word chart is put on display and students are requested to identify the transition words in the essay.

C. Following, students are requested to identify the ending sentence and examine whether all the parts of **TREE** are included.

VII. Role Play-Debate

The instructor introduces the concept of a debate. It is explained to students that they have to present their point of view and convince their audience on a given topic. Students are divided in groups and attend to the following process:

(i) Re-examine the essay prompt
Initially students engaged in re-examining the five parts of the essay and focused on the three reasons.
(ii) Engage in debate rehearsal.
At this point students rehearsed their debate presentation. Based on the reasons established in the previous sections the investigator closely monitored students so as to assist their understanding of their role, expression of their reasons through exploitation of formal facial expressions and gestures.
(ii) Debate presentation.
Students engaged in performing their debate in front of the class.

Lesson thirty (30) to thirty-five (35)- Grade Five 5 and 6.

Purpose: Review **POW** and **TREE;** Instructor Models; Self-Instructions are Recorded; Collaborative Writing;

Objectives: Review **POW, TREE** and Self Instructions; Model; Collaboratively Identify Parts in Example Papers; Reinforce Transfer and Write Collaboratively;

Method

Materials:

- Mnemonic charts
- Lined Paper
- Paper Examples
- Pencils
- Champion Card
- Self-Instructions sheets
- TREE graphic organizer
- Lined Paper
- Practice Prompt
- Transition Word Chart
- Flash Cards
- Scratch paper
- Student Folder
- Role-Play
- Rainbow Graphing Sheet
- Practice Papers
- Blank Graph-Graphing Sheet

Technological Tools

- Projector (Power Point Slides)
- Computer

I. Test POW and TREE

Students practice **POW** and **TREE** by writing the story parts on scratch paper as well as out loud. At this point all students had memorized the **POW** and **TREE** mnemonics and had comprehended that **O** in **POW** is used to organize my notes using **TREE** to write a persuasive paper.

II. Find TREE in an Essay, Think of More or Better Reasons, Instructor Models Making Notes on Graphic Organizer.

Two essay examples are used, the **TREE** reminder chart, the graphic organizer and the transition word chart. Students are requested to identify the parts in **TREE**. For the first essay the instructor models writing notes for all parts on the graphic organizer and finding transition words. For the second paper this process is repeated but the instructor and students find additional reasons and transition words. The new transition words are added in the transition word list so that students can utilize them later.

III. Instructor Models Using Self-Statements for "P" in "POW".

A. The instructor puts the practice prompt example on display. Students are requested to use problem definition, self-evaluation, self-reinforcement and coping statements as they work. The instructor models self-statements as for example “I have to write to persuade someone for my opinion” “I need strong arguments” “How should I start?” “ I have to make sure my arguments make sense” etc. Next, self-statement sheets are passed out to students. Students are asked to share self-statements they may use during the writing process and record them on their self-statement sheet.

(iv) Discuss Using “O” in “POW”

A. Students discuss using “**O**” from “**POW**” to organize their notes so as to write a persuasive essay. The trick for using **POW**, **TREE** is once again practiced out loud. The instructor then proceeds to use the graphic organizer to organize the notes that are at this point collaboratively gathered. Once the notes for all the parts of **TREE** are gathered the instructor and students revisit the notes so as to supplement them or include additional reasons that make more sense or are stronger arguments. Coping statements are used throughout this process. At the final stage the students and instructor examine whether the notes for all the parts have been included.

(v) Model Writing a Paper Using POW and TREE.

A. At this point the **POW** and **TREE** chart are on display. The students and the instructor in collaboration use the last part of **POW-W-** to write and say more. Transitional words are carefully selected and added to the essay. Once all the parts of **TREE** have been noted down the instructor models writing the ending sentence and examines if all the parts are there. Self-statements are used throughout the whole process (i.e. How should I start? Do my reasons make sense? Do I have all my parts? Will the reader be persuaded? “I did a great job!”).

VI. Self-Statements for TREE

A. Students are asked to take out their student folders and add the self-statements they used to their list. The included (i) what the instructor or they said to themselves to get started (ii) what the instructor or they said to themselves while they were writing-coping statements; self-reinforcement statements; self-evaluation statements (iii) accomplishment self-statements.

VII. Graphic Sheet/ Graph the Paper

A. Students examine whether their persuasive parts had all five parts. The topic sentence, the reasons and the ending are examined. Next, students graphed the essay by coloring a fish skeleton with the five parts of **TREE** they had included. Their fish was now ready to swim in the deep end!

VIII. Prepare to Wean Off Graphic Organizer

A. To prepare students to wean off graphic organizer they are requested to write the mnemonics on scratch paper with **POW** on the top of the page and **TREE** on the left hand side to verify that they recall them and are informed that we don't have a graphic organizer with us and make our notes on paper.

IX. Group Collaborative Writing, Instructor Leads

The students and the instructor engage in collaborative writing practice. The **TREE** reminder chart, the transition word chard and the self-statements list are all utilized. The graphic organizer is put on display with **POW** on the top and **TREE** on the left hand side. At this point collaborative practice is employed with students leading the writing process. The students revisit their self-statements list to get started, organize their notes. Students then review their writing goals that is, to write to persuade and make sure that all their reasons make sense and convince the reader, that transition words are utilized prior to each reason and finally that persuasive papers are fun to write and for others to read. Once students have completed writing their notes, they are reminded to examine them and reflect on whether more reasons could be added or stronger arguments. They are also reminded to reflect on their choice of transition words. Then students engage in examining if all parts of **TREE** are there. The students

then engage in generating sentences for the essay while using their self-statements throughout the whole process. Part of this process was implemented in the computer school lab in which students worked cooperatively. Once the essays had been completed they were printed out and each student received a copy of their groups work to add in their student folder.

XX. Graph the Essay

Finally students graph the five parts of the essay by coloring their fish skeleton after they have reviewed all parts of **TREE**.

XXI. Role Play-Debate

Students have to present their point of view and convince their audience on a given topic in groups of two. Students attend to the following process:

(i) Re-examine the essay prompt

Initially students engaged in re-examining the five parts of the essay and focused on the three reasons.

(ii) Engage in debate rehearsal.

At this point students rehearsed their debate presentation. Based on the reasons established in the previous sections the investigator closely monitored students so as to assist their understanding of their role, expression of their reasons through exploitation of formal facial expressions and gestures.

(ii) Debate presentation.

Students engaged in performing their debate in front of the class.

Lesson thirty five (35) to forty (40)- Grade Five 5 and 6.

Purpose: Review POW and TREE; Examine Prior Performance; Compare to Current Writing Behavior; Establish Writing Goals; Group Collaborative Practice; Review Self-Statements; Write with Graphic Organizer.

Method

Objectives: Review and practice **POW** and **TREE**; discuss pretest essay, compare to current writing and establish goals for writing better essays; collaborative practice; write with graphic organizer.

Materials:

- Mnemonic charts
- Lined Paper
- Paper Examples
- Pencils
- Champion Card
- Self-Statements sheets
- TREE graphic organizer
- Graphing Sheets
- Transition Word Chart
- Collaborative paper
- Scratch paper
- Student Folder
- Role-Play
- Pretest
- Practice Prompt
- Blank Graph-Graphing Sheet

Technological Tools

- Projector (Power Point Slides)
- Computer

I. Test POW and TREE

Students practice **POW** and **TREE** by writing the story parts on scratch paper. Students write **POW** across the top of the page and **TREE** down the left side.

II. Establish Prior Performance

A. Each student's pretest is passed out so that they examine if all their parts were there. Discussion then centered on the parts that students had included as well as the ones they had left out. Students were reinforced on the progress that they had made and told that when writing the pretest story they had not learned the "trick" for writing good persuasive papers. The pretest paper was compared to the collaborative paper written previously and discussion centered on analyzing the differences.

III. Group Collaborative Writing

A. Students use their **TREE** reminder chart, their transition word chart and their self-statements list and **POW**, **TREE** as well as on the writing prompt are on display. At this point students took the lead to engage in the process of writing a persuasive paper. They were reminded to start off with **P**-pick my idea in **POW** and their self-statements to get started. Students collaboratively decide on an idea and continue to the second step of **POW, O,** to organize their notes. The goals for writing a persuasive essay are reviewed: say what we believe and try to convince the reader on a given topic, have three or more reasons that make sense to support our opinion, use transition words, have an ending sentence, and are also fun to write and read. Once notes for the essay had been gathered, students were prompted to look back at the notes and examine whether more reasons could be added, whether their choice of transition words were included in their notes and finally examine if all their parts were there. Students then proceeded to the next step of **POW-W**, for write say more. The generated sentences are written on the board while self-statements are used throughout the process. Part of this process was employed in the schools computer lab in which students worked collaboratively. Once students had completed writing their papers they were all given a copy to include in their student folder.

IV. Graph the Essay

Finally after students have reviewed all parts of TREE the essay is graphed by coloring the five parts of TREE included.

V. Supported Individual Writing with Graphic Organizer

A. Students are given a writing prompt, and a blank graphic organizer. They are asked to use their transitions word chart and their self-statements list to write a persuasive essay. At this point students are able to follow the process of using **POW** and **TREE** with hardly any assistance with the exception of some struggling writers who work in groups of two. The instructor makes a brief reference on the first letter in **POW- P** - pick my idea and refers students to their self-statement sheets. Students decide what

they believe and begin making notes. The instructor then refers to the second letter in **POW- O** -for organize my notes and reviews the goals for writing a persuasive essay. Once students have completed their notes for **TREE** there are reminded to examine their ideas and look for more, and then examine whether they have included all their transition words. The instructor then refers to the next part of **POW-W-** write and say more and students engage in transcribing. Students are reminded to use their self-statements throughout the whole process. Once students have completed writing the essay they are asked to verify if they have all their five parts.

VI. Graph the Essay

Once the students had finished transcribing and reviewed all parts of **TREE** graphed the five parts of the essay by coloring their fish skeleton. Students who had added more three reasons are rewarded with a champion card.

VII. Role Play-Debate

Students have to present their point of view and convince their audience on a given topic in groups of two. Students attended to the following process:

(i) Re-examine the essay prompt
Initially students engaged in re-examining the five parts of the essay and focused on the three reasons.
(ii) Engage in debate rehearsal.
At this point students rehearsed their debate presentation. Based on the reasons established in the previous sections the investigator closely monitored students so as to assist their understanding of their role, expression of their reasons through exploitation of formal facial expressions and gestures.
(ii) Debate presentation.
Students engaged in performing their debate in front of the class.

Lesson forty (40) to forty-five (45)- Grade Five 5 and 6.

Purpose: Review POW and TREE; Wean off Graphic Organizer; Independent Writing; Post Testing Practice and Preparation

Objectives: Review **POW** and **TREE**; Collaborative Practice; Wean off Graphic Organizer; Independent Writing; practice post testing conditions

Materials:

- Mnemonic charts
- Lined Paper
- Paper Examples
- Pencils
- Champion Card
- Self-Statements sheets
- Practice Prompts
- Transition Word Chart
- Rocket Graphing Sheet
- Graphing Organizer
- Student Folder
- Role-Play
- Pretest

Technological Tools

- Projector (Power Point Slides)

I. Test POW and TREE

Students are tested on **POW** and **TREE** out loud to verify that they remember the mnemonics and their meanings and wean off Graphic Organizer. By this point most students recalled the mnemonics and their meanings and the graphic organizer was weaned off. However, some struggling writers continued using it until it was gradually weaned off.

II. Individual Supported Writing to Independent Writing

In the last stage of the strategy, Independent Performance, students engaged in independent writing, in which they used **POW** and the persuasive writing reminder to write an essay without the assistance of the instructor, their peer or props (e.g. chart, with strategy steps, graphic organizer, or self-statement chart). Nonetheless, the instructor provided as much assistance as needed to ensure that the students were

successful in using the strategies. Scaffolding included support in carrying out the strategies, use of projector, charts with personal self-statements or reminders about the steps in **POW** or the five essay parts, and the graphic organizers. These supports were faded as appropriate. The graphic organizers were replaced with plain paper, and the students wrote the **TREE** reminder on the paper and then made notes for each part. Students were encouraged to set a goal to include all five parts. They were also reminded of their goals: powerful persuasive essay tell the reader what we believe, give three reasons of more, include transition words, have and ending sentence, and it are fun to write and read. After the persuasive paper was completed, students graphed their performances, determined if they had all their parts, and examined their progress.

III. Introduction of Practice Test

At this point students were able to use **POW** and the **TREE** reminder to write a persuasive paper without using any of the props or receiving help from the instructors or peers. Students used their "transition word list", their self-statements list and a blank sheet of paper and an essay prompt.

i. Students were requested to look at their self-statements sheets to get started, keep in mind their goals for writing a persuasive paper, notes for all their essay parts, and re-examine them in the end. Students that required extra assistance worked in groups of two or with the instructor.
ii. After students had completed writing their stories they were asked to graph their parts (only for grade five students).

IV. Practice Test

Students were informed that they would engage in a practice test for writing a persuasive paper so that they can prepare themselves for a future practice test. Students were given a writing prompt and two blank pieces of paper. One served for writing notes and the other for writing their essay. Students engaged in writing their persuasive essay on their own and assistance was provided only when needed. Specifically, when students required extra assistance they were prompted to write out **TREE** on their scratch paper for writing notes, think of more ideas when they are done, make sure

their ideas make sense, use transition words and self-statements as they write along. At this point the students and the instructor went over counted the parts of the essay and graphed it on the fish skeleton graphing sheets.

V. Role Play - Debate

Students have to present their point of view and convince their audience on a given topic in groups of two. Students attend to the following process:

(i) Re-examine the essay prompt

Initially students engaged in re-examining the five parts of the essay and focused on the three reasons.

(ii) Engage in debate rehearsal.

At this point students rehearsed their debate presentation. Based on the reasons established in the previous sections the investigator closely monitored students so as to assist their understanding of their role, expression of their reasons through exploitation of formal facial expressions and gestures.

(ii) Debate presentation.

Students engaged in performing their debate in front of the class.

CHAPTER 4. Data Analysis and Results

The present chapter presents the results of the study. Specifically, the present section deals with the participant observation, the interview, the argumentative English writing, and the short story writing of the English and Greek text, the anxiety and the correlations-regression results of Greek fifth (5^{th}) and sixth (6^{th}) grade English foreign language learners as regards to both the experimental and the control group.

4.1. Participant Observation

4.1.1. Writing Production: Differences between the experimental and the control group prior to and following the intervention program

Tables from 4.1.1. to 4.1.4. show the differences between the experimental group and the control group within the parameters of the observation scale and specifically in terms of writing strategies: planning, drafting, revising, and editing. In particular, the differences between the total number of participants in the experimental group and the control group in the initial and the final measurement, as well as the changes between the initial and final measurements in the two separate groups (experimental group, control group) of this study are presented.

Table 4.1.1. that follows presents the mean (M), standard deviations (SD), differences (t-values) and significance level (p-values) between the experimental group and the control group regarding the knowledge of students in terms of writing at the initial measurement, particularly with respect to the individually examined variables including planning, drafting, revising and editing.

The results of the statistical analysis, adjustment Bonferonni (.05 / 4 = .01), showed the existence of statistically significant differences at the initial measurement between the experimental group and the control group only in terms of the drafting variable (Table 4.1.1). Consequently it can be argued in general terms that the two groups were at the same level and therefore any differences in the final measurement indicated can be

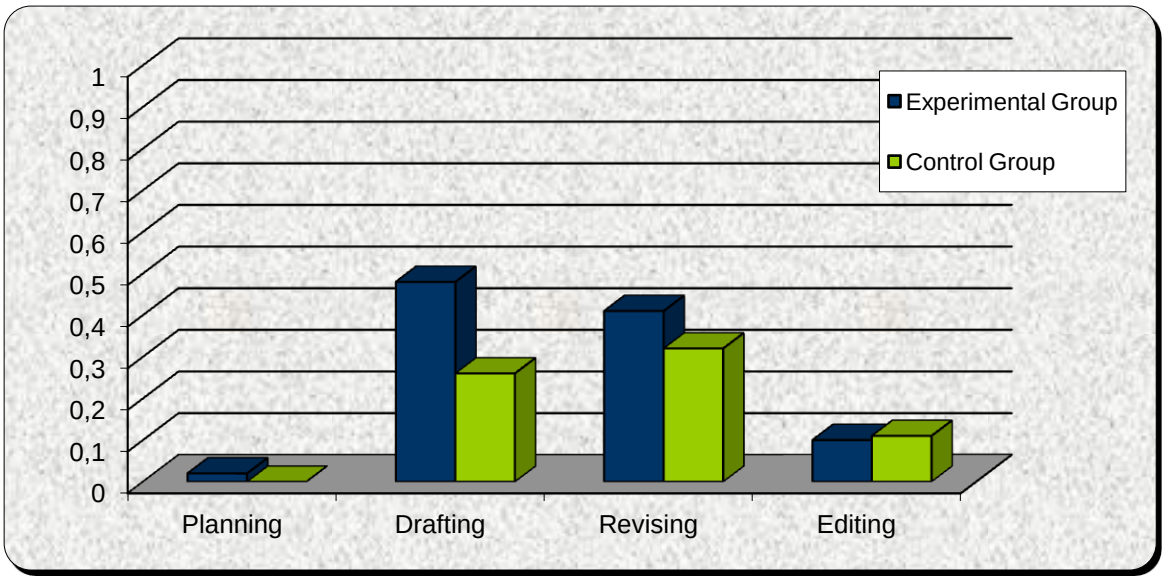
attributed to some extent to the intervention program applied within the framework of this study.

Table 4.1.1.

Mean values (M), standard deviations (SD), differences (t-values) and statistical significance (p-values), between the experimental group and the control group in regards to writing strategies at the initial measurement

	Experimental Group M (SD)	Control Group M (SD)	t-value	p-value
Planning	0.02 (0.10)	0.00 (0.00)	1.755	.083
Drafting	0.48 (0.50)	0.26 (0.44)	3.050	.003
Revising	0.41 (0.26)	0.32 (0.29)	2.181	.031
Editing	0.10 (0.31)	0.11 (0.31)	-.129	.897

As illustrated above in Table 4.1.1. the knowledge of participants in both groups of the experimental and the control, as shown through participant observation was about the same. Specifically, planning as a writing strategy was lower in the experimental group (M = 0.02, SD = 0.10), while not executed at all as a strategy by the control group. Of the other writing production strategies, the editing strategy also indicated low levels in both study groups (experimental group: M = 0.10, SD = 0.31, control group: M = 0.11, SD = 0.31). The other two strategies drafting and revising varied at a moderate level at the initial measurement (revising: experimental group: M = 0.41, SD = 0.26, control group: M = 0.32, SD = 0.29). Finally, the drafting strategy revealed statistically significant differences (t-test = 3.050, $p<.001$), showing that the participating students of the experimental group showed a higher degree of mean difference in comparison to the control group (Graph 4.1.1.).



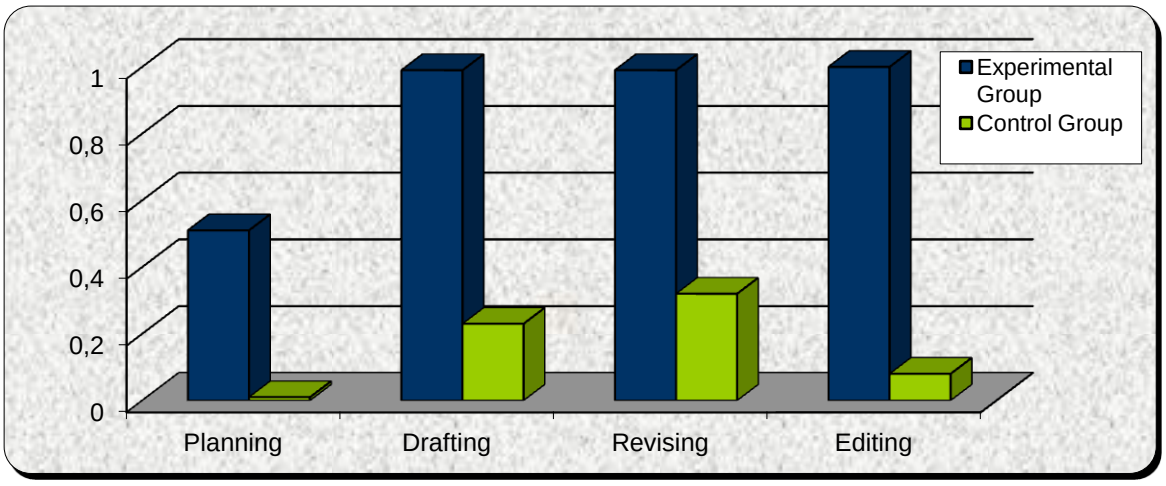
Graph 4.1.1. Graph values of writing production strategies between participants in the experimental group and the control group at the initial measurement

According to the results of the comparisons between the experimental group and the control group as shown below in Table 4.1.2. the knowledge of the participants of the two groups, experimental and control group, as determined through the process of participant observation differed statistically significantly.

Table 4.1.2.

Mean (M), standard deviations (SD), differences (t-values) and statistical significance (p-values) between the experimental group and the control group in terms of writing production strategies at the final measurement

	Experimental Group M (SD)	Control Group M (SD)	t-value	p-value
Planning	0.51 (0.08)	0.01 (0.05)	51.717	.000
Drafting	0.99 (0.11)	0.23 (0.42)	17.110	.000
Revising	0.99 (0.05)	0.32 (0.30)	22.144	.000
Editing	1.00 (0.00)	0.08 (0.27)	33.742	.000



Graph 4.1.2. Graph values of writing production strategies between participants in the experimental group and the control group at the final measurement

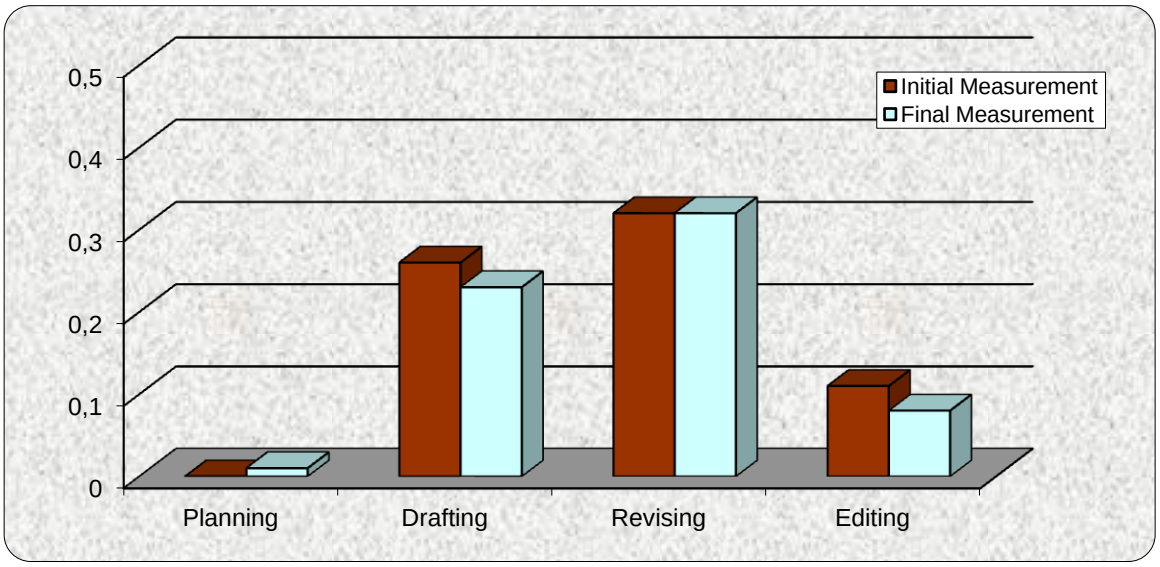
Specifically, the writing strategy of planning was significantly higher for the experimental group (M = 0.51, SD = 0.08) compared to the control group (M = 0.01, SD = 0.05), which was close to almost zero. Of the remaining writing production strategies (drafting, revising, editing) significantly higher mean values appeared for the experimental group, which were applied by almost all the participants (drafting: M = 0.99, SD = 0.11, revising: M = 0.99, SD = 0.05, editing M = 1.00, SD = 0.00), while the corresponding values of writing production strategies of the control group ranged from moderate to low levels (drafting: M = 0.23, SD = 0.42, revising M = 0.32, SD = 0.30, editing: M = 0.08, SD = 0.27) (Graph 4.1.2.).

Table 4.1.3. that follows shows the differences between the initial and final measurement of writing production strategies, according to the participant observation scale of the participants in the control group.

Table 4.1.3.

Means (M), Standard deviations (SD) differences (t-values) and statistical significance (p-values) between the initial measurement (pre-test) and final measurement (post-test) in terms of the writing production strategies of the control group

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value	p-value
Planning	0.00 (0.00)	0.01 (0.05)	-1.000	.320
Drafting	0.26 (0.44)	0.23 (0.42)	1.347	.181
Revising	0.32 (0.29)	0.32 (0.30)	-1.136	.259
Editing	0.11 (0.31)	0.08 (0.27)	1.136	.259



Graph 4.1.3. Graph values of writing production strategies at the initial and final measurement of participants in the control group

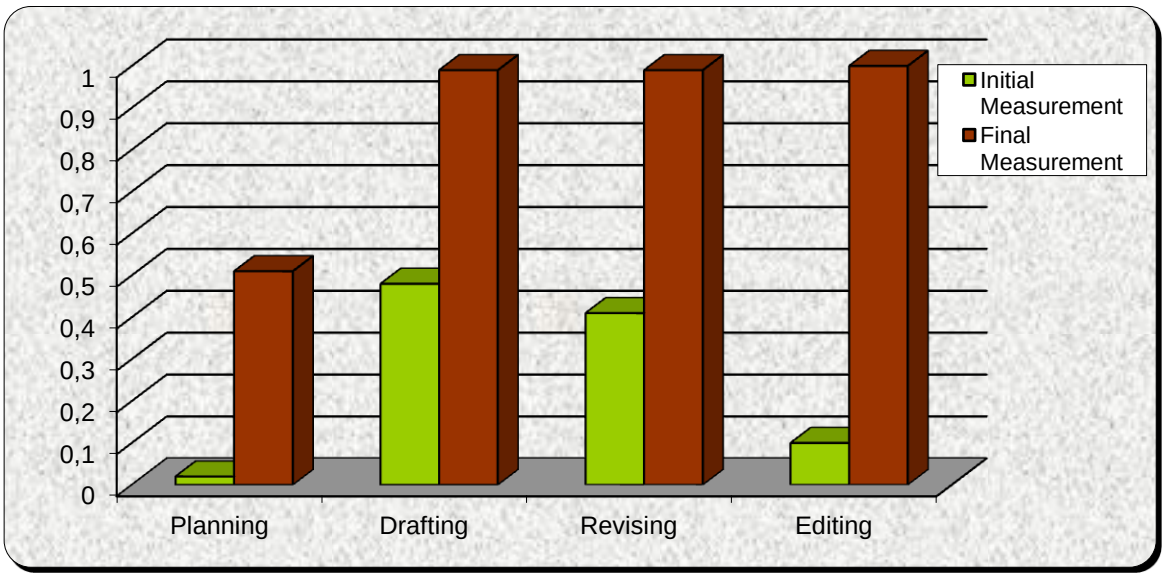
Specifically, the results above show no significant changes between the initial and final measurement, supporting that the degree to which writing production strategies were applied did not change between the two measurements among the participants in the control group.

The differences in writing production strategies of the participants in the experimental group, according to the participant observation scale, are presented in Table 4.1.4. that follows supporting the existence of statistically significant changes (Graph 4.1.4.).

Table 4.1.4.

Mean (M), standard deviations (SD), differences (t-values) and statistical significance (p-values) between the initial measurement (pre-test) and final measurement (post-test) in terms of the writing production strategies of the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value	p-value
Planning	0.02 (0.10)	0.51 (0.08)	-.76.000	.000
Drafting	0.48 (0.50)	0.99 (0.11)	-8.832	.000
Revising	0.41 (0.26)	0.99 (0.05)	-20.605	.000
Editing	0.10 (0.31)	1.00 (0.00)	-25.603	.000



Graph 4.1.4. Graph values for writing production strategies at the initial and final measurement for participants of the experimental group

More specifically, the above results indicate the existence of significant changes between the initial and final measurement, in which all writing production strategies increased significantly. In other words, the results of the analysis suggest that the degree of application of writing production strategies changed between the two measurements regarding the participants in the experimental group, in which the final measurement increased significantly.

4.2. Evaluation of the factors for short story writing of the English text: Differences between the experimental group and the control group in the initial and final measurement of all participants

Tables from 4.2.1. to 4.2.4. that follow present the results as regards to the evaluation factors for short story writing of the English text regarding the participants in the experimental group and the control group in both the initial and the final measurement.

Specifically, Table 4.2.1. shows the differences between boy/girl participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text. The results of multiple analysis of variance did not support the existence of statistically significant differences between boy/girl participants of the two groups (control - experimental) at the initial measurement (Wilks' Λ = .930, $F_{1,175}$ = 3.200, *ns*, η^2_p = .070).

Table 4.2.1. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text at the initial measurement for all participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.50 (2.41)	1.88 (2.02)
Analytical Criteria	2.78 (2.78)	2.11 (2.26)
Holistic Criteria	1.34 (0.95)	1.27 (0.67)
Quantitative Criteria	67.88 (47.51)	69.92 (42.88)

Table 4.2.2. that follows shows the differences between boys/girl participants of the experimental and the control group regarding the evaluation factors of short story writing of the English text in the final measurement. The results of multiple analysis of variance support the existence of statistically significant differences between boy/girls participants of the two groups (control - experimental) (Wilks' Λ = .202, $F_{1,175}$ = 170.038, p<.001, η^2_p = .798).

Table 4.2.2. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors of short story writing of the English text at the final measurement of all participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.71 (2.79)	14.25 (4.33)
Analytical Criteria	2.81 (2.84)	10.86 (3.19)
Holistic Criteria	1.45 (1.00)	4.79 (1.33)
Quantitative Criteria	58.65 (36.28)	83.48 (25.40)

Specifically, the individual variables presented above showed statistically significant differences in the content factors ($F_{1,175}$ = 461.644, p<.001, η^2_p = .725), the analytic factors ($F_{1,175}$ = 313.345, p<.001, η^2_p = .642), the holistic factors ($F_{1,175}$ = 364.313, p<.001, η^2_p = .676) and the quantitative factors ($F_{1,175}$ = 26.176, p<.001, η^2_p = .130) with boy/girl participants of the experimental group indicating higher mean values compared to boy/girl participants in the control group, a factor that indicates that boy/girl participants of the experimental group showed a higher quality of writing production.

Table 4.2.3. shown below depicts the changes regarding the evaluation factors for short story writing of the English text between the initial and final measurement of the boy/girl participants in the control group. The results of the multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of the boy/girl participants in the control group (Wilks' Λ = .908, $F_{1,98}$ = 2.442, *ns*, η^2_p = .092).

Table 4.2.3. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the English text in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.50 (2.41)	2.71 (2.79)
Analytic Criteria	2.78 (2.78)	2.81 (2.84)
Holistic Criteria	1.34 (0.95)	1.45 (1.00)
Quantitative Criteria	67.88 (47.51)	58.65 (36.28)

Table 4.2.4. below shows the changes in the evaluation factors for short story writing of the English text between the initial and final measurement of boy/girl participants in the experimental group. The results of the multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of boy/girl participants in the control group (Wilks' Λ = .071, $F_{1,75}$ = 229.993, p<.001 η^2_p = .929).

Table 4.2.4. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the English text for the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	1.87 (2.02)	14.27 (4.32)
Analytic Criteria	2.11 (2.26)	10.86 (3.24)
Holistic Criteria	1.27 (0.67)	4.81 (1.33)
Quantitative Criteria	69.92 (42.88)	83.62 (25.22)

Specifically, the individual analysis indicates the existence of statistically significant changes in the content ($F_{1,75}$ = 606.097, p<.001, η^2_p = .893), in the analytic factors ($F_{1,75}$ = 851.667, p<.001, η^2_p = .921) and in the holistic factors ($F_{1,75}$ = 681.400, p<.001, η^2_p = .903) and the quantitative factors ($F_{1,75}$ = 13.302, p<.001, η^2_p = .154) with a significant increase between the initial and the final measurement.

4.3. Evaluation factors for short story writing of the English text: Differences between the experimental group and the control group in the initial and final measurement based on gender

Tables from 4.3.1. to 4.3.4. that follow show the differences in the evaluation factors regarding short story writing of the English text (content, analytic criteria, holistic criteria, quantitative criteria) regarding the girl participants, in terms of the initial and the final measurement. More specifically, Table 4.3.1. shows the differences between the girl participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the initial measurement. The results of multiple analysis of variance did not support the existence of statistically significant differences between the girl participants in both groups (control - experimental) at the initial measurement (Wilks' Λ = .954, $F_{1,86}$ = .978, *ns*, η^2_p = .046) .

Table 4.3.1. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the initial measurement for girl participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.55 (2.52)	2.08 (2.14)
Analytic Criteria	3.01 (2.79)	2.47 (2.45)
Holistic Criteria	1.36 (1.06)	1.32 (0.78)
Quantitative Criteria	76.51 (47.37)	75.41 (43.46)

Table 4.3.2. that follows shows the differences between the girls participants in the experimental group and the control group regarding the evaluation factors for short story writing in the English text in the final measurement. The results of multiple analysis of variance support the existence of statistically significant differences between the girl participants in both groups (control - experimental) (Wilks' Λ = .181, $F_{1,86}$ = 93.871, p<.001, η^2_p = .819). Specifically, the individual variables indicate the existence of statistically significant changes in content ($F_{1,86}$ = 218.118, p<.001, η^2_p = .717), in the analytic factors ($F_{1,86}$ = 142.766, p<.001, η^2_p = .624), in the holistic factors

($F_{1,86}$ = 169.917, p<.001, η^2_p = .664) and the quantitative factors ($F_{1,86}$ = 9.033, p<.01, η^2_p = .095), with significantly higher values in the factors for the participants in the experimental group.

Table 4.3.2. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the final measurement for the girl participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.78 (3.10)	14.56 (4.35)
Analytic Criteria	3.16 (3.22)	11.29 (3.14)
Holistic Criteria	1.54 (1.15)	4.88 (1.25)
Quantitative Criteria	64.41 (41.41)	86.71 (24.86)

Table 4.3.3. displayed below shows the changes regarding the evaluation factors for short story writing of the English text between the initial and final measurement of girl participants in the control group. The results of the multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of girl participants in the control group (Wilks' Λ = .795, $F_{1,45}$ = 2.768, p<.05 η^2_p = .205). Specifically, the individual variables indicate the existence of statistically significant changes in the quantitative factors ($F_{1,45}$ = 5.266, p<.05, η^2_p = .103), whereas no significant changes occurred between the two measurements in the content ($F_{1,45}$ = .407, *ns*, η^2_p = .009), in the analytic factors ($F_{1,45}$ = .255, *ns*, η^2_p = .006) and the holistic factors ($F_{1,45}$ = 1.980, *ns*, η^2_p = .041).

Table 4.3.3. Mean values (M) standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors of short story writing in the English text in the control group for girl participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.55 (2.52)	2.78 (3.10)
Analytic Criteria	3.01 (2.79)	3.16 (3.22)
Holistic Criteria	1.36 (1.06)	1.54 (1.15)
Quantitative Criteria	76.51 (47.37)	64.41 (41.41)

Table 4.3.4. below shows the changes in the evaluation factors for short story writing of the English text between the initial and final measurement for girl participants in the experimental group. The results of multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of girl participants in the control group (Wilks' Λ = .057, $F_{1,39}$ = 146.110, p<.001 η^2_p = .943).

Table 4.3.4. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the English text in the experimental group for the girl participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.08 (2.14)	14.51 (4.33)
Analytic Criteria	2.47 (2.45)	11.28 (3.20)
Holistic Criteria	1.32 (0.78)	4.90 (1.24)
Quantitative Criteria	75.41 (43.46)	86.92 (24.15)

Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,39}$ = 300.349, p<.001, η^2_p = .888), in the analytic factors ($F_{1,39}$ = 434.973, p<.001, η^2_p = .920), in the holistic factors ($F_{1,39}$ = 515.683, p<.001, η^2_p = .931) and the quantitative factors ($F_{1,39}$ = 4.497, p<.05, η^2_p = .106) with a

significant increase in the above mentioned factors in the final measurement in comparison to the initial measurement.

Tables 4.3.5. until 4.3.8. depicted below, show the differences regarding the evaluation factors for short story writing of the English text (content, analytic criteria, holistic criteria, quantitative criteria) for the boy participants in terms of the initial and final measurement.

Specifically, Table 4.3.5. shows the differences between the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the initial measurement. The results of multiple analysis of variance did not support the existence of statistically significant differences between the boy participants of the two groups (control - experimental) in the initial measurement (Wilks' Λ = .895, $F_{1,86}$ = 2.442, *ns*, η^2_p = .105).

Table 4.3.5. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the initial measurement for boy participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.44 (2.33)	1.66 (1.89)
Analytic Criteria	2.58 (2.79)	1.71 (1.99)
Holistic Criteria	1.32 (0.86)	1.21 (0.52)
Quantitative Criteria	60.22 (46.75)	63.80 (41.98)

Table 4.3.6. that follows shows the differences between the boy participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the final measurement. The results of the multiple analysis of variance indicate the existence of statistically significant differences between boy participants of the two groups (control - experimental) (Wilks' Λ = .219, $F_{1,87}$ = 74.897, p<.001, η^2_p = .781). Specifically, the individual variables indicate the

existence of statistically significant changes in the content ($F_{1,87}$ = 238.688, p<.001, η^2_p = .733), in the analytic factors ($F_{1,87}$ = 171.184, p<.001, η^2_p = .663), in the holistic factors ($F_{1,87}$ = 189.846, p<.001, η^2_p = .686) and the quantitative factors ($F_{1,87}$ = 17.910, p<.001, η^2_p = .171) with significantly higher values in the factors for boy participants in the experimental group compared to the control group.

Table 4.3.6. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the English text in the final measurement of boy participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.65 (2.50)	13.89 (4.35)
Analytic Criteria	2.50 (2.44)	10.36 (3.23)
Holistic Criteria	1.37 (0.85)	4.69 (1.43)
Quantitative Criteria	53.54 (30.53)	79.81 (25.85)

Table 4.3.7. that follows shows the changes regarding the evaluation factors for short story writing of the English text between the initial and final measurement of the boy participants in the control group. The results of multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of boy participants in the control group (Wilks' Λ = .940, $F_{1,51}$ = .784, ns, η^2_p = .060).

Table 4.3.7. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the English text in the control group for boy participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.44 (2.33)	2.65 (2.50)
Analytic Criteria	2.58 (2.79)	2.50 (2.44)
Holistic Criteria	1.32 (0.86)	1.37 (0.85)
Quantitative Criteria	60.22 (46.75)	53.54 (30.53)

Table 4.3.8. that follows shows the changes regarding the evaluation factors for short story writing of the English text between the initial and final measurement of the boy participants in the experimental group. The results of multiple analysis of variance for repeated measures) did not support the existence of statistically significant differences between the initial and final measurement of boy participants in the control group (Wilks' Λ = .075, $F_{1,33}$ = 96.155, p<.001 η^2_p = .925). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,33}$ = 299.465, p<.001, η^2_p = .898), in the analytic factors ($F_{1,33}$ = 406.145, p<.001, η^2_p = .923), in the holistic factors ($F_{1,33}$ = 233.240, p<.001, η^2_p = .873) and the quantitative factors ($F_{1,33}$ = 9.637, p<.01, η^2_p = .221) between the initial and final measurement with a significant value increase in the final measurement.

Table 4.3.8. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the English text in the experimental group for boy participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	1.66 (1.89)	14.00(4.36)
Analytic Criteria	1.71 (1.99)	10.40(3.26)
Holistic Criteria	1.21(0.52)	4.71(1.44)
Quantitative Criteria	63.80(41.98)	79.94(26.21)

4.4. Evaluation factors for short story writing of the English text: Differences between participants of different writing quality (below average, average, above average) in the experimental group and the control group in the initial and final measurement

An important element within the framework of this research included the participants writing quality of both the experimental group and the control group. Based on the evaluation of the participants' writing quality they were divided into three categories, which included: (a) below average participants, (b) average participants, and (c) above average participants.

Table 4.4.1. presented below shows the differences regarding the evaluation factors for short story writing of the English text between the initial and final measurement of all below average participants in the control group. The results of multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .908, $F_{1,93}$ = 3.092, p<.05, η^2_p = .092) (Graph 4.4.1.). Specifically, the individual examined analysis indicates the existence of statistically significant changes in the quantitative factors ($F_{1,93}$ = 7.815, p<.01, η^2_p = .078), whereas no significant changes occurred in the content ($F_{1,93}$ = .014, *ns*, η^2_p = .000) and the analytic factors ($F_{1,93}$ = .098, *ns*, η^2_p = .001).

Table 4.4.1. Mean values (M), standard deviations (SD) of participants regarding the evaluation factors for short story writing of the English text between the initial and final measurement for below average group participants in the control group

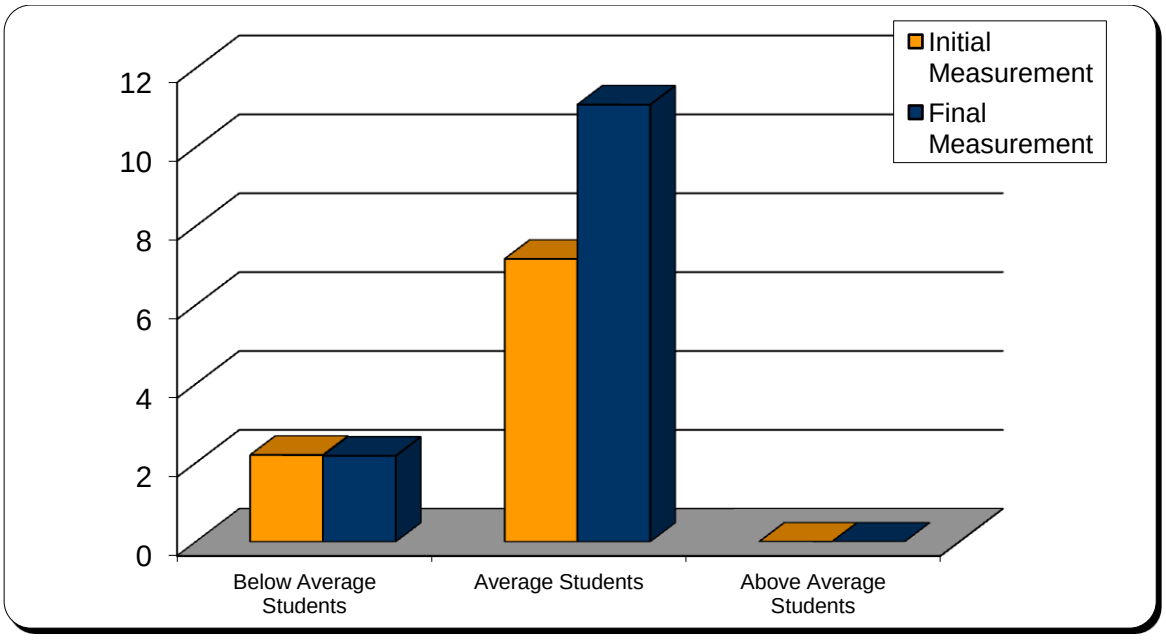
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.20 (1.73)	2.18 (1.81)
Analytic Criteria	2.40 (2.10)	2.35 (2.18)
Quantitative Criteria	62.96 (41.21)	54.07 (31.40)

Table 4.4.2. shows differences regarding the evaluation factors for short story writing of the English text between the initial and final measurement for all average group participants in the control group. The results of multiple analysis of variance for repeated measures did not support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .161, $F_{1,93}$ = 5.224, *ns*, η^2_p = .839).

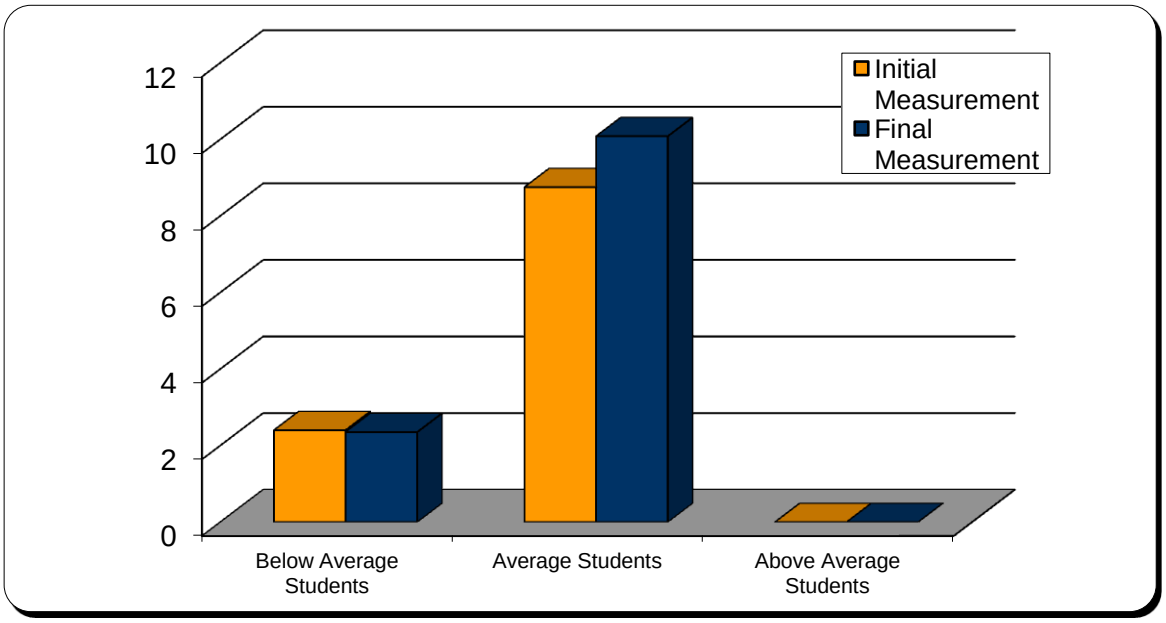
Table 4.4.2. Mean values (M), standard deviations (SD) of all participants regarding the evaluation factors for short story writing of the English text between the initial and final measurement among the average group participants in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	7.17 (5.65)	11.08 (1.86)
Analytic Criteria	8.75 (5.10)	10.08 (1.88)
Quantitative Criteria	144.83 (74.48)	130.33 (34.15)

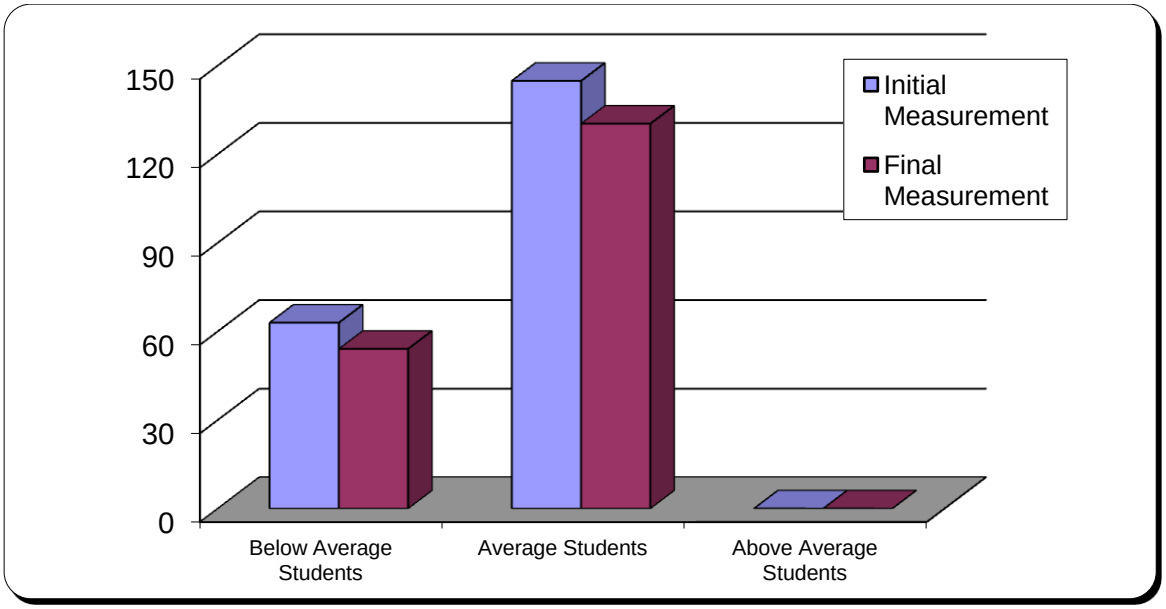
Comparisons of changes between the initial and final measurement were not made regarding above average participants of the control group as no above average participants were indicated in the initial measurement.



Graph 4.4.1.1. Graph values regarding the content evaluation factors for short story writing in the English text for the control group



Graph 4.4.1.2. Graph values regarding the analytic evaluation factors of short story writing in the English text for the control group



Graph 4.4.1.3. Graph values regarding quantitative evaluation as factors for short story writing in the English text of the control group

Tables from 4.4.3. to 4.4.5. present the differences of the evaluation factors for short story writing of the English text between the initial and final measurement regarding

all below average participants, average participants and above average participants in the experimental group.

Table 4.4.3. that follows shows the differences regarding the evaluation factors for short story writing in the English text between the initial and final measurement for all below average participants in the experimental group. The multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the experimental group (Wilks' Λ = .016, $F_{1,14}$ = 247.147, p<.001 η^2_p = .984). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,14}$ = 164.131, p<.001, η^2_p = .921), in the analytic factors ($F_{1,14}$ = 276.503, p<.001, η^2_p = .952) and the quantitative factors ($F_{1,14}$ = 10.660, p<.01, η^2_p = .432) between the initial and final measurement, with a significant increase in value in the final measurement.

Table 4.4.3. Mean values (M), standard deviations (SD) of all participants regarding the evaluation factors for short story writing in the English text between the initial and final measurement of the below average participants in the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	1.10 (1.15)	9.27 (2.22)
Analytic Criteria	0.60 (1.04)	7.33 (1.05)
Quantitative Criteria	34.30 (22.25)	51.60 (11.51)

Table 4.4.4. shows the differences regarding the evaluation factors for short story writing of the English text between the initial and final measurement for all average participants in the experimental group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the experimental group (Wilks' Λ = .048, $F_{1,39}$ = 243.063, p<.001 η^2_p = .952). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,39}$

= 523.062, p<.001, η^2_p = .931), in the analytic factors ($F_{1,39}$ = 585.771, p<.001, η^2_p = .938) and the quantitative factors ($F_{1,39}$ = 7.945, p<.01, η^2_p = .169) between the initial and final measurement, with a significant increase in value of the final measurement.

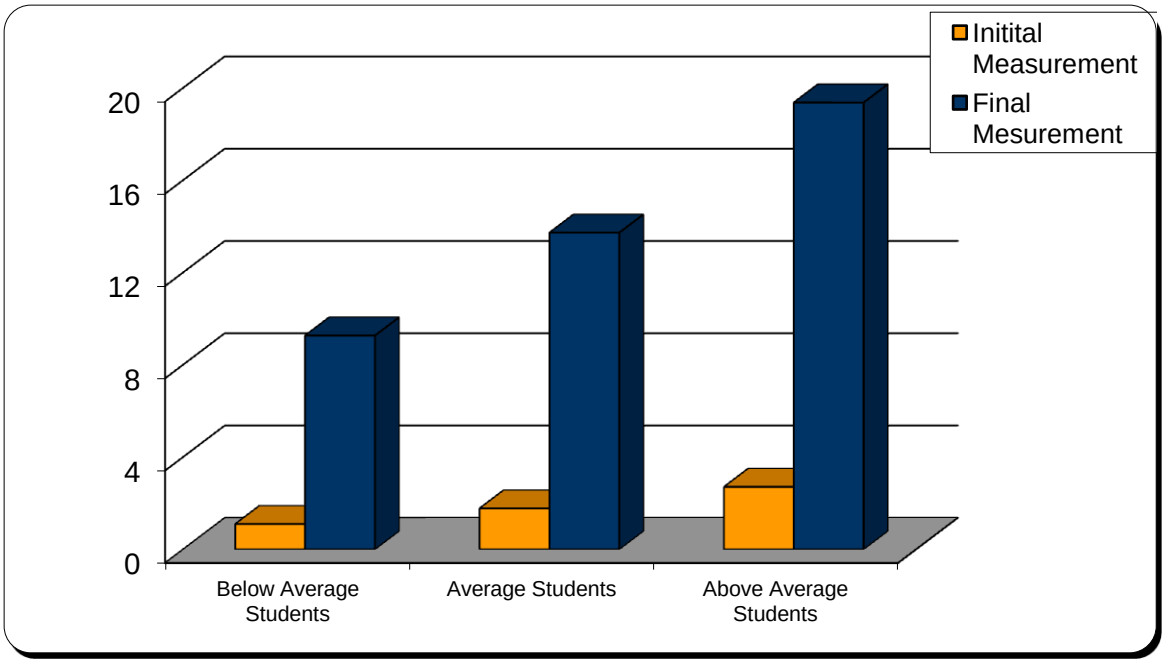
Table 4.4.4. Mean values (M), standard deviations (SD) regarding the evaluation factors for short story writing of the English text between the initial and final measurement for average participants in the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	1.78 (1.66)	13.73(287)
Analytic Criteria	1.84 (1.78)	10.28 (2.30)
Quantitative Criteria	67.99 (37.40)	83.13 (17.78)

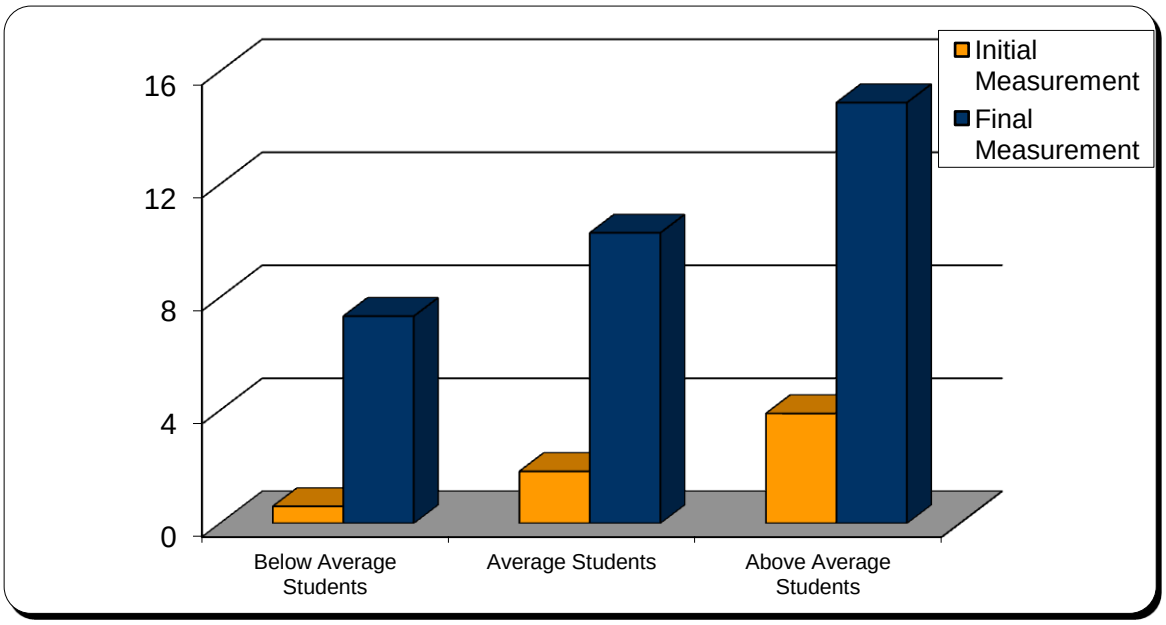
Table 4.4.5. shows the differences regarding the evaluation factors for short story writing of the English text between the initial and final measurement of all above average participants in the experimental group. The results of the multiple analysis of variance for repeated measure support the existence of statistically significant differences between the initial and final measurement of participants in the experimental group (Wilks' Λ = .025, $F_{1,18}$ = 208.020, p<.001, η^2_p = .975). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,18}$ = 402.074, p<.001, η^2_p = .957), in the analytic factors ($F_{1,18}$ = 411.761, p<.001, η^2_p = .958) with a significant increase of the value in the final measurement compared to the initial measurement, while no change was indicated in the quantitative factors ($F_{1,18}$ = 10.660, p<.01, η^2_p = .432) between the two measurements.

Table 4.4.5. Mean values (M), standard deviations (SD) regarding the evaluation factors for short story writing in the English text between the initial and final measurement of above average participants of the experimental group

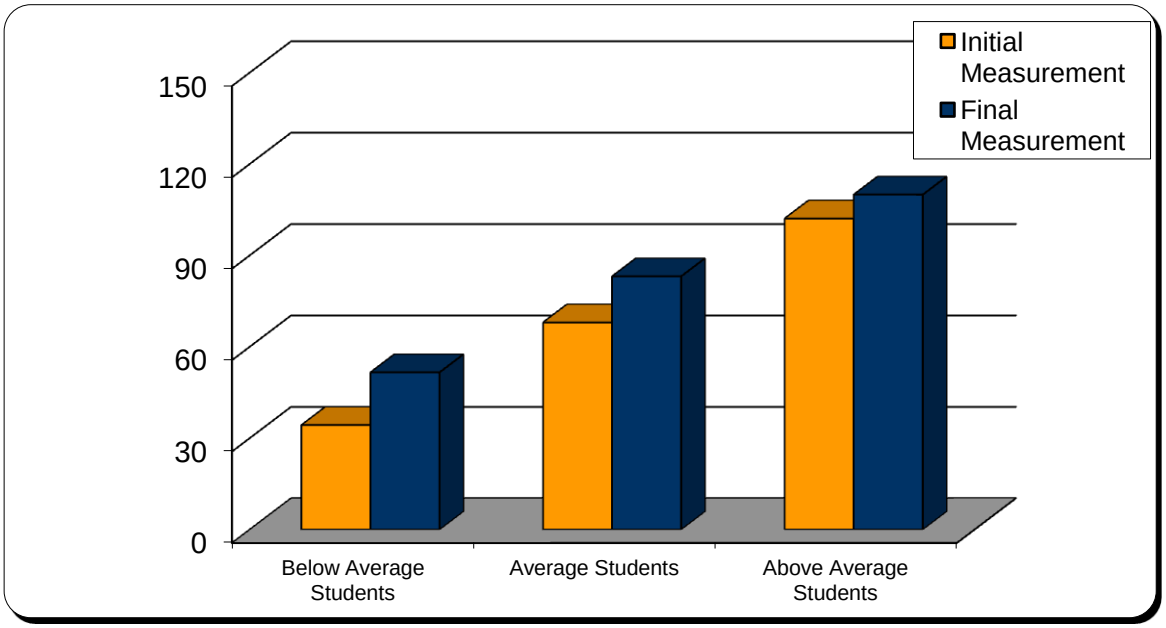
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.71 (2.89)	19.37 (2.27)
Analytic Criteria	3.89 (2.76)	14.89 (1.41)
Quantitative Criteria	102.11(43.37)	109.95 (14.29)



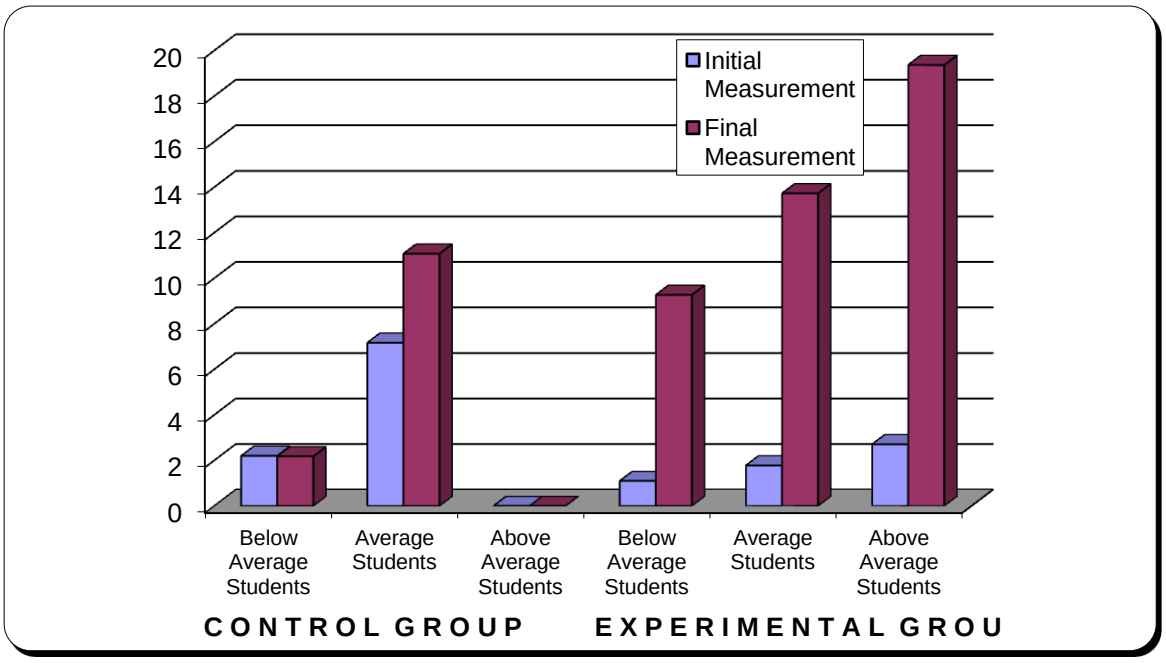
Graph 4.4.1.4. Graph values regarding the content evaluation factors for short story writing of the English text in the experimental group



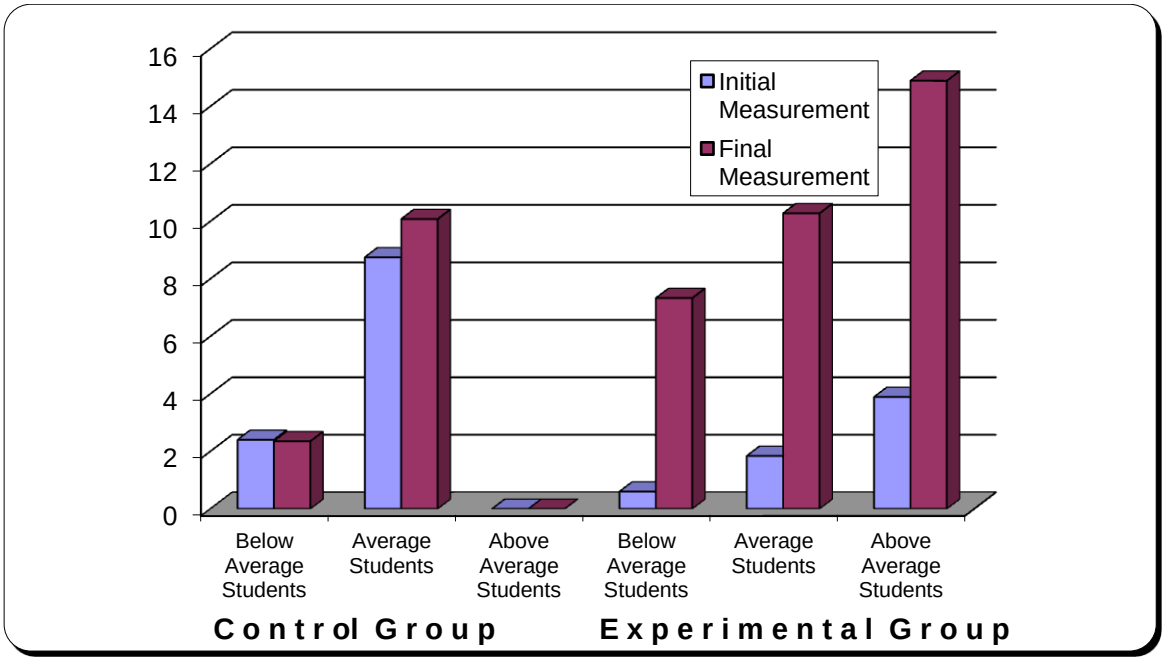
Graph 4.4.1.5. Graph values regarding analytic factors for the evaluation of short story writing of the English text in the experimental group



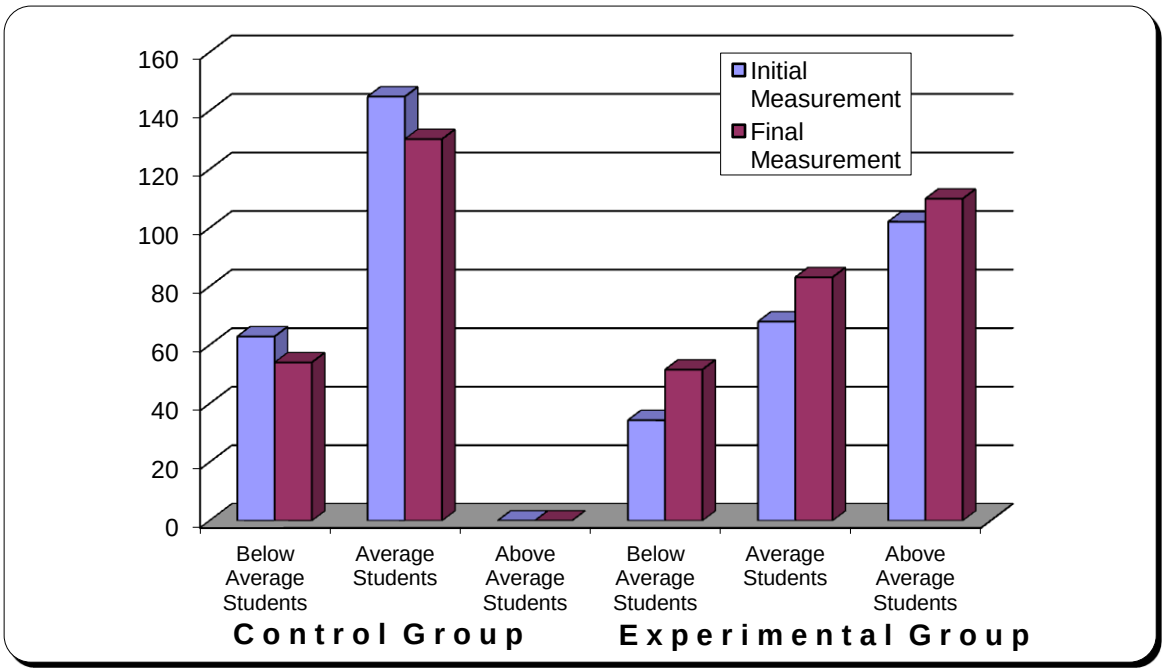
Graph 4.4.1.6. Graph values regarding quantitative factors for the evaluation of short story writing of the English text in the experimental group



Graph 4.4.1.7. Graph values regarding the content factors for the evaluation of short story writing of the English text in the experimental group and the control group for below average, average and above average participants



Graph 4.4.1.8 Graph values regarding analytic factors for the evaluation of short story writing of the English text of the experimental group and the control group for below average, average and above average participants



Graph 4.4.1.9. Graph values regarding the quantitative evaluation factors for short story writing of the English text in the experimental group and the control group for below average, average and above average participants

4.5. Evaluation factors regarding the argumentative English text: Differences between the experimental group and the control group in the initial and final measurement of all participants

Tables from 4.5.1. to 4.5.4. show the results regarding the evaluation factors of the argumentative English text of participants in the experimental group and the control group in both the initial and the final measurement.

Specifically, Table 4.5.1. shows the differences between the participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text. The results of multiple analysis of variance supported the existence of statistically significant differences between the participants of both groups (control - experimental) in the initial measurement (Wilks' Λ = .825, $F_{1,175}$ = 9.118, p<.001, η^2_p = .175). Specifically, the individual variables show statistically significant differences in the content factors ($F_{1,175}$ = 7.231, p<.001, η^2_p = .040), the analytic factors ($F_{1,175}$ = 12.509, p<.001, η^2_p = .067), the holistic factors ($F_{1,175}$ = 27.509, p<.001, η^2_p = .136) and the quantitative factors ($F_{1,175}$ = 26.176, p<.001, η^2_p = .130) with participants in the experimental group showing higher mean values compared to the participants in the control group, a factor which indicated that participants of the experimental group showed a higher quality of writing production.

Table 4.5.1. Mean values (M) standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors of the argumentative English text in the initial measurement of all participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.64 (1.98)	3.48 (2.18)
Analytic Criteria	2.37 (1.75)	3.31 (1.78)
Holistic Criteria	1.71 (1.22)	2.61 (1.02)
Quantitative Criteria	42.47 (21.87)	48.17 (18.28)

Table 4.5.2. shows the differences between participants in the experimental group and the control group regarding the evaluation factors of the argumentative English text in the final measurement. The results of multiple analysis of variance supported the existence of statistically significant differences between participants of both groups (control - experimental) (Wilks' Λ = .297, $F_{1,175}$ = 101.038, p<.001, η^2_p = .703). Specifically, the individual variables show statistically significant differences in the content factors ($F_{1,175}$ = 172.878, p<.001, η^2_p = .497), the analytic factors ($F_{1,175}$ = 243.742, p<.001, η^2_p = .582), the holistic factors ($F_{1,175}$ = 335.174, p<.001, η^2_p = .657) and the quantitative factors ($F_{1,175}$ = 134.415, p<.001, η^2_p = .434) with participants of the experimental group showing higher mean values compared to the participants of the control group, a factor which indicated that participants of the experimental group showed a higher writing quality.

Table 4.5.2. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text in the final measurement for all participants

	Control Group M (SD)	Experimental Group M (SD)
Content	3.90 (1.96)	9.66 (3.78)
Analytic Criteria	3.86 (2.10)	10.06 (3.17)
Holistic Criteria	1.76 (1.31)	5.55 (1.44)
Quantitative Criteria	33.75 (20.89)	73.36 (24.51)

Table 4.5.3. that follows shows the changes regarding the evaluation factors for the argumentative English text between the initial and final measurement of participants in the control group. The results of the multiple analysis of variance with repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .219, $F_{1,98}$ = 85.692, p<.001, η^2_p = .781). Specifically, the individual variables show statistically significant differences in the content factors ($F_{1,98}$ = 81.148, p<.001, η^2_p = .450), the analytic factors ($F_{1,98}$ = 117.541, p<.001, η^2_p = .543) and the quantitative factors ($F_{1,98}$ = 45.522, p<.001, η^2_p = .315) between the initial and final measurement

in the control group, with improvement in the content and the analytic factors and limitation of quantitative criteria.

Table 4.5.3. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors of the argumentative English text in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.64 (1.98)	3.90 (1.95)
Analytic Criteria	2.37 (1.75)	3.86 (2.10)
Holistic Criteria	1.71 (1.22)	1.76 (1.31)
Quantitative Criteria	42.47 (21.87)	33.75 (20.89)

Table 4.5.4. depicted below shows the changes regarding the evaluation of the argumentative English text between the initial and final measurements of the experimental group.

Table 4.5.4. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors of the argumentative English text of the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	3.48 (2.18)	9.66 (3.78)
Analytic Criteria	3.31 (1.78)	10.06 (3.17)
Holistic Criteria	2.61 (1.02)	5.55 (1.44)
Quantitative Criteria	48.17 (18.28)	73.36 (24.51)

The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of the participants in the control group (Wilks' Λ = .054, $F_{1,75}$ = 320.453,

p<.001, η^2_p = .946). Specifically, the individual variables indicate the existence of statistically significant changes in the content (F1, 75 = 432.180, p <.001, = .850 i2p) ($F_{1,75}$ = 432.180, p<.001, η^2_p = .850), in the analytic factors ($F_{1,75}$ = 757.153, p<.001, η^2_p = .909), in the holistic factors ($F_{1,75}$ = 1224.342, p<.001, η^2_p = .942) and the quantitative factors ($F_{1,75}$ = 316.252, p<.001, η^2_p = .806) with a significant increase between the initial and the final measurement.

4.6. Evaluation factors regarding the argumentative English text: Differences between the experimental group and the control group in the initial and final measurement based on gender

Tables from 4.6.1. to 4.6.4. show the differences regarding the evaluation factors of the argumentative English text (content, analytic criteria, holistic criteria, quantitative criteria) for the girl participants, in terms of the initial and final measurement. More specifically, Table 4.6.1. shows the differences between the girl participants in the experimental group and the control group regarding the evaluation factors of the argumentative English text in the initial measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between the girl participants in both groups (control - experimental) in the initial measurement (Wilks' Λ = .803, $F_{1,86}$ = 5.104, p<.001, η^2_p = .197). Specifically the individual variables indicate the existence of statistically significant differences for the analytic factors ($F_{1,86}$ = 6.173, p<.05, η^2_p = .067) and the holistic factors ($F_{1,86}$ = 15.037, p<.001, η^2_p = .149) with higher values regarding the factors for the girl participants in the experimental group compared to the control group.

Table 4.6.1. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors of the argumentative English text in the initial measurement for the girl participants

	Control Group M (SD)	Experimental Group M (SD)
Content	3.03 (2.10)	3.82 (2.33)
Analytic Criteria	2.46 (1.94)	3.43 (1.69)
Holistic Criteria	1.83 (1.33)	2.80 (0.97)
Quantitative Criteria	46.21 (22.48)	51.71 (18.65)

Table 4.6.2. shows the differences between the girl participants of the experimental group and the control group regarding the evaluation factors for the argumentative

English text in the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between the girl participants in both groups (control - experimental) (Wilks' Λ = .304, $F_{1,86}$ = 47.468, p<.001, η^2_p = .696). Specifically, the individual variables indicate the existence of statistically significant differences in the content ($F_{1,86}$ = 112.516, p<.001, η^2_p = .567), in the analytic factors ($F_{1,86}$ = 146.186, p<.001, η^2_p = .630), in the holistic factors ($F_{1,86}$ = 178.747, p<.001, η^2_p = .675) and the quantitative factors ($F_{1,86}$ = 74.288, p<.001, η^2_p = .463) with significantly higher values in the factors regarding the girl participants in the experimental group compared to the control group.

Table 4.6.2. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text in the final measurement for girl participants

	Control Group M (SD)	Experimental Group M (SD)
Content	3.93 (2.05)	10.44 (3.59)
Analytic Criteria	3.87 (2.31)	10.70 (2.98)
Holistic Criteria	1.76 (1.44)	5.82 (1.40)
Quantitative Criteria	34.72 (21.28)	77.24 (25.00)

Table 4.6.3. that follows shows the changes regarding the evaluation factors for the argumentative English text between the initial and final measurement of girl participants in the control group. The multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of girl participants in the control group (Wilks' Λ = .230, $F_{1,45}$ = 36.079, p<.001, η^2_p = .770). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,45}$ = 19.297, p<.001, η^2_p = .296), in the analytic factors ($F_{1,45}$ = 42.367, p<.001, η^2_p = .479) and the quantitative factors ($F_{1,45}$ = 25.707, p<.001, η^2_p = .359), while no significant changes were indicated between the two measurements in the holistic factors ($F_{1,45}$ = .363, *ns*, η^2_p = .008).

Table 4.6.3. Mean values (M), standard deviations (SD) regarding the initial and final measurement of the evaluation factors for the argumentative English text in the control group of girl participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	3.03 (2.10)	3.93 (2.05)
Analytic Criteria	2.46 (1.94)	3.87 (2.31)
Holistic Criteria	1.83 (1.33)	1.76 (1.44)
Quantitative Criteria	46.21 (22.48)	34.72 (21.28)

Table 4.6.4. presented below shows the changes regarding the evaluation factors for the argumentative English text between the initial and final measurement of girl participants in the experimental group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of girl participants in the control group (Wilks' Λ = .051, $F_{1,39}$ = 173.573, p<.001 η^2_p = .949). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,39}$ = 282.914, p<.001, η^2_p = .876), in the analytic factors ($F_{1,39}$ = 573.577, p<.001, η^2_p = .935), in the holistic factors ($F_{1,39}$ = 589.459, p<.001, η^2_p = .931) and the quantitative factors ($F_{1,39}$ = 131.738, p<.05, η^2_p = .767) with a significant increase of the above mentioned in the final measurement compared to the initial measurement.

Table 4.6.4. Mean values (M), standard deviations (SD) of the initial and final measurement regarding the evaluation factors for the argumentative English text in the experimental group for girl participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	3.83 (2.33)	10.44 (3.59)
Analytic Criteria	3.43 (1.69)	10.70 (2.98)
Holistic Criteria	2.80 (0.97)	5.82 (1.40)
Quantitative Criteria	51.71 (18.65)	77.24 (25.00)

Tables from 4.6.5. to 4.6.8. show the differences regarding the evaluation factors for the argumentative English text (content, analytic criteria, holistic criteria, quantitative criteria) for the boy participants in the initial and final measurement.

Specifically, Table 4.6.5. shows the differences between the boy participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text in the initial measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between the boy participants of both groups (control - experimental) in the initial measurement (Wilks' Λ = .803, $F_{1,87}$ = 5.104, p<.001, η^2_p = .197). Specifically, the individual variables indicate the existence of statistically significant differences in the analytic factors ($F_{1,87}$ = 5.850, p<.05, η^2_p = .063) and the holistic factors ($F_{1,87}$ = 11.422, p<.001, η^2_p = .116) with higher values regarding the factors for the boy participants in the experimental group compared to the control group.

Table 4.6.5. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text in the initial measurement for the boy participants

	Control Group M (SD)	Experimental Group M (SD)
Content	2.28 (1.82)	3.08 (1.96)
Analytic Criteria	2.28 (1.59)	3.18 (1.89)
Holistic Criteria	1.59 (1.11)	2.39 (1.06)
Quantitative Criteria	39.15 (20.96)	44.14 (17.22)

Table 4.6.6. shows the differences between boy participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text in the final measurement. The results of the multiple analysis of variance indicate the existence of statistically significant differences between boy participants of both groups (control - experimental) (Wilks' Λ = .273, $F_{1,87}$ = 56.024, p<.001, η^2_p = .727). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,87}$ = 238.688, p<.001, η^2_p = .733), in the analytic factors ($F_{1,87}$ = 171.184, p<.001, η^2_p = .663), in the holistic factors (F1, 87 = 189.846, p <.001, = .686 i2p) and the quantitative factors ($F_{1,87}$ = 17.910, p<.001, η^2_p = .171) with significantly higher values regarding the factors for boy participants in the experimental group compared to the control group.

Table 4.6.6. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for the argumentative English text in the final measurement for boy participants

	Control Group M (SD)	Experimental Group M (SD)
Content	3.88 (1.88)	8.78 (3.84)
Analytic Criteria	3.85 (1.92)	9.33 (3.27)
Holistic Criteria	1.75 (1.19)	5.24 (1.44)
Quantitative Criteria	32.89 (20.71)	68.94 (23.50)

Table 4.6.7. shows the changes regarding the evaluation factors for the argumentative English text between the initial and final measurement of the boy participants in the control group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of boy participants in the control group (Wilks' Λ = .176, $F_{1,51}$ = 57.212, p<.001 η^2_p = .824). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,51}$ = 74.903, p<.001, η^2_p = .590), in the analytic factors ($F_{1,51}$ = 79.035, p<.001, η^2_p = .603) and the quantitative factors ($F_{1,51}$ = 22.744, p<.001, η^2_p = .304) between the two measurements.

Table 4.6.7. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for the argumentative English text in the control group of the boy participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.28 (1.82)	3.88 (1.88)
Analytic Criteria	2.28 (1.59)	3.85 (1.92)
Holistic Criteria	1.59 (1.11)	1.75 (1.19)
Quantitative Criteria	39.15 (20.96)	32.89 (20.71)

Table 4.6.8. shows the changes regarding the evaluation factors for the argumentative English text between the initial and final measurement of the bot participants in the experimental group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of the boy participants in the control group (Wilks' Λ = .047, $F_{1,35}$ = 163.937, p<.001 η^2_p = .953). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,35}$ = 164.656, p<.001, η^2_p = .825), in the analytic factors ($F_{1,35}$ = 269.626, p<.001, η^2_p = .885), in the holistic factors ($F_{1,35}$ = 662.855, p<.001, η^2_p = .950) and the quantitative factors ($F_{1,35}$ =

214.310, $p<.001$, $\eta^2_p = .860$) between the initial and final measurement with a significant increase of value in the final measurement.

Table 4.6.8. Mean values (M), standard deviations (SD) of the boy participants in the initial and final measurement regarding the evaluation factors for the argumentative English text in the experimental group of boy participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	3.08 (1.96)	8.88 (3.84)
Analytic Criteria	3.18 (1.89)	9.33 (3.27)
Holistic Criteria	2.39 (1.06)	5.24 (1.44)
Quantitative Criteria	44.14 (17.22)	68.94 (23.50)

4.7. Evaluation factors for the argumentative English text: Differences between participants of different quality of writing (below average, average, above average) in the experimental group and the control group in the initial and final measurement

An important element in the framework of this research was the quality of the writing of boy/girl participants in the experimental group and the control group. Based on the evaluation of the participants writing they were divided into three categories, which are: (a) below average, (b) average and (c) above average.

Table 4.7.1. shows the differences regarding the evaluation factors for the argumentative English text between the initial and final measurement of all below average participants in the control group. The results of multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .236, $F_{1,89}$ = 93.756, p<.001, η^2_p = .764). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,89}$ = 85.168, p<.001, η^2_p = .489), in the analytical factors ($F_{1,89}$ = 105.636, p<.001, η^2_p = .543) and the quantitative factors ($F_{1,89}$ = 49.806, p<.001, η^2_p = .359).

Table 4.7.1. Mean values (M), standard deviations (SD) of the participants regarding the evaluation factors for the argumentative English text between the initial and final measurement of below average participants in the control group

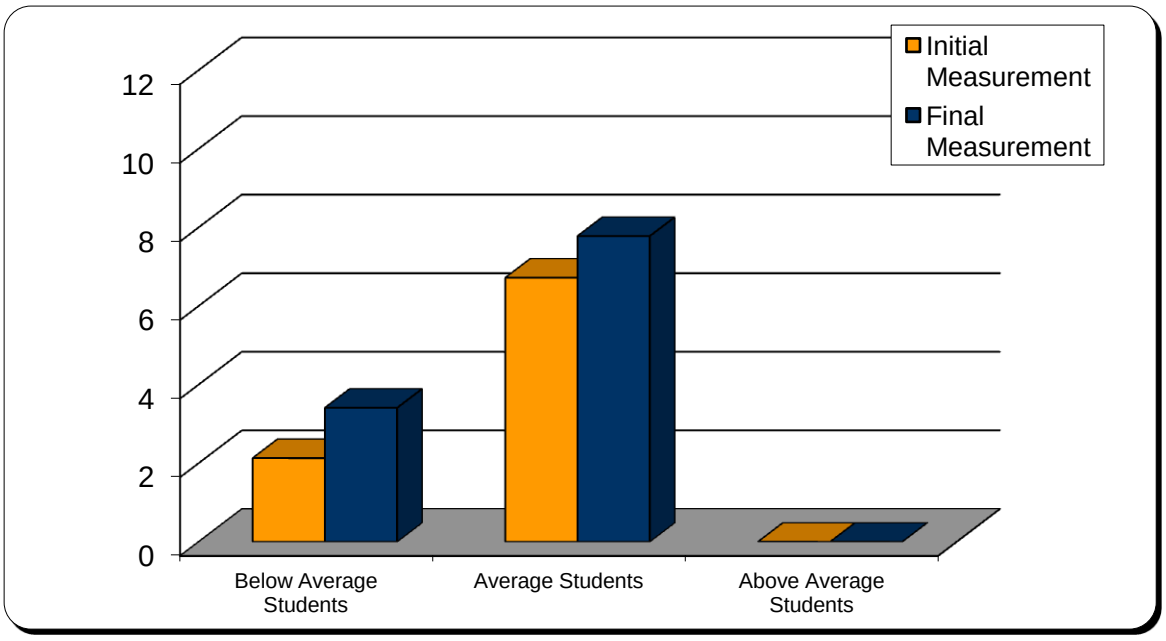
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.13 (1.17)	3.41 (0.98)
Analytic Criteria	1.96 (1.18)	3.33 (1.09)
Quantitative Criteria	39.00 (19.76)	29.97 (16.95)

Table 4.7.2. shows the differences regarding the evaluation factors of the argumentative English text between the initial and final measurement of all average participants in the control group. The results of multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .045, $F_{1,8}$ = 42.637, p<.001, η^2_p = .955). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,8}$ = 14.516, p<.001, η^2_p = .645), while no significant changes occurred in the content ($F_{1,8}$ = 1.970, *ns*, η^2_p = .198) and the quantitative factors ($F_{1,8}$ = 1.283, *ns*, η^2_p = .138).

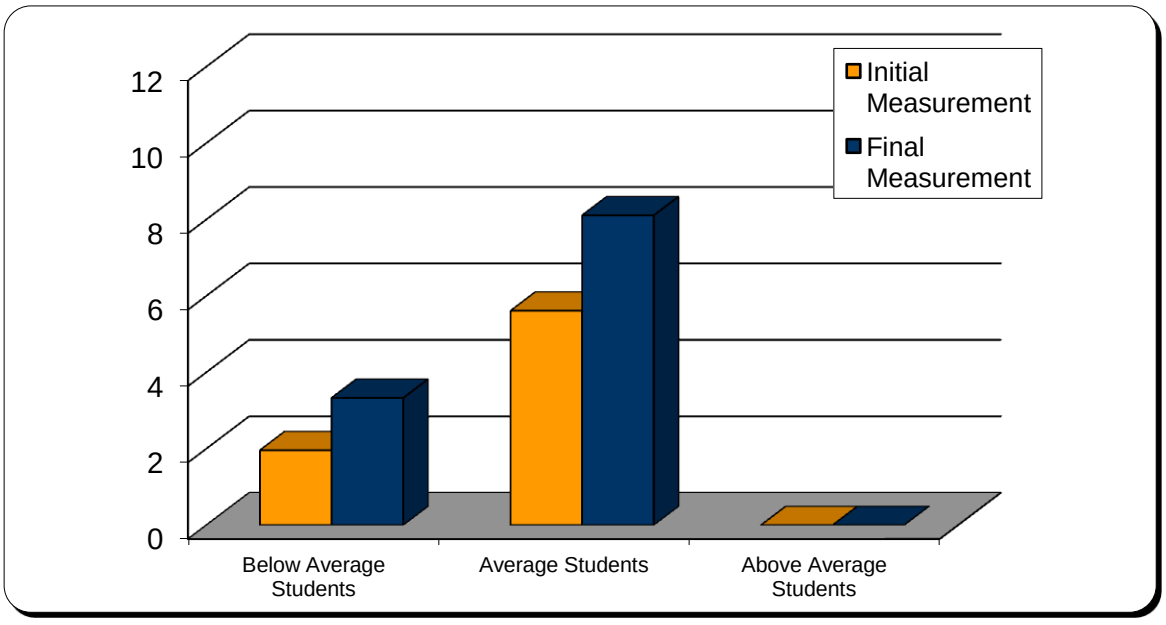
Table 4.7.2. Mean values (M), standard deviations (SD) of boy/girl participants regarding the evaluation factors of the argumentative English text between the initial and final measurement of average participants in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	6.72 (1.77)	7.78 (2.55)
Analytic Criteria	5.61 (1.58)	8.11 (2.71)
Quantitative Criteria	71.33 (12.53)	63.89 (20.56)

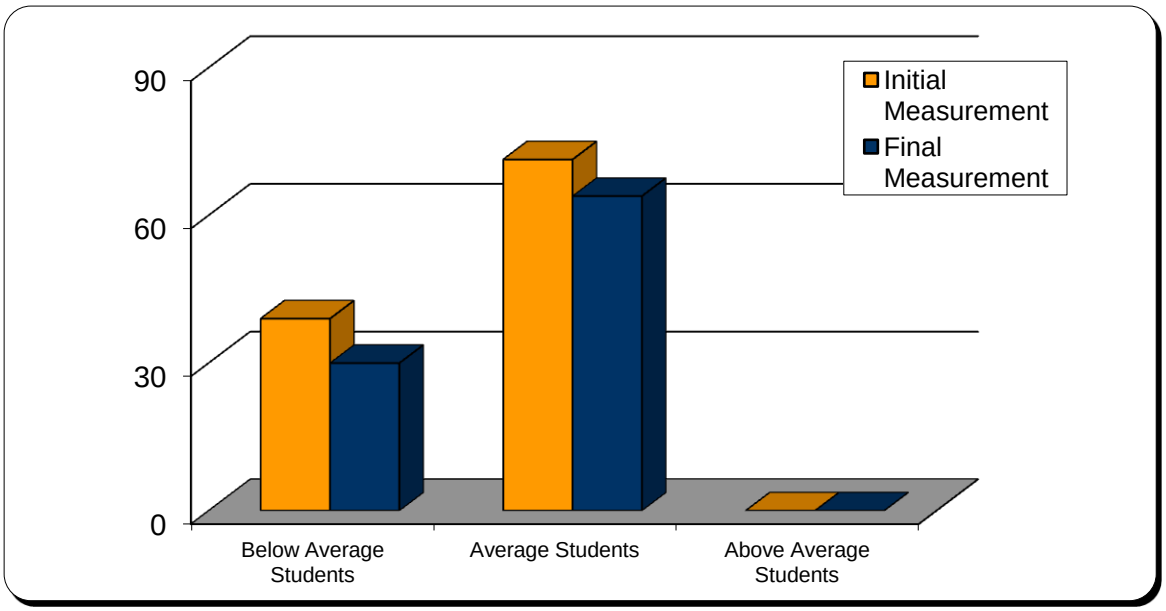
A comparison of changes was not made between the initial and final measurement of above average participants in the control group as there was only one (1) above average participant in the initial and final measurement.



Graph 4.7.1.1. Graph values regarding the evaluation of content for the argumentative English text in the control group



Graph 4.7.1.2. Graph values regarding the analytic factors for the argumentative English text in the control group



Graph 4.7.1.3. Graph values regarding the quantitative factors for the argumentative English text in the control group

Tables from 4.7.3. to 4.7.4. present differences regarding the evaluation factors for the argumentative English text between the initial and final measurement for all below average participants, average participants and above average participants in the experimental group.

Table 4.7.3. that follows shows the differences regarding the evaluation factors for the argumentative English text between the initial and final measurement for all below average participants in the experimental group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the experimental group (Wilks' Λ = .016, $F_{1,58}$ = 247.147, p<.001 η^2_p = .984). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,58}$ = 300.159, p<.001, η^2_p = .838), in the analytic factors ($F_{1,58}$ = 462.269, p<.001, η^2_p = .889) and the quantitative factors ($F_{1,58}$ = 249.802, p<.001, η^2_p = .812) between the initial and final measurement, with a significant value increase in the final measurement.

Table 4.7.3. Mean values (M), standard deviations (SD) of participants regarding the evaluation factors of the argumentative English text between the initial and final measurement of below average participants in the experimental group

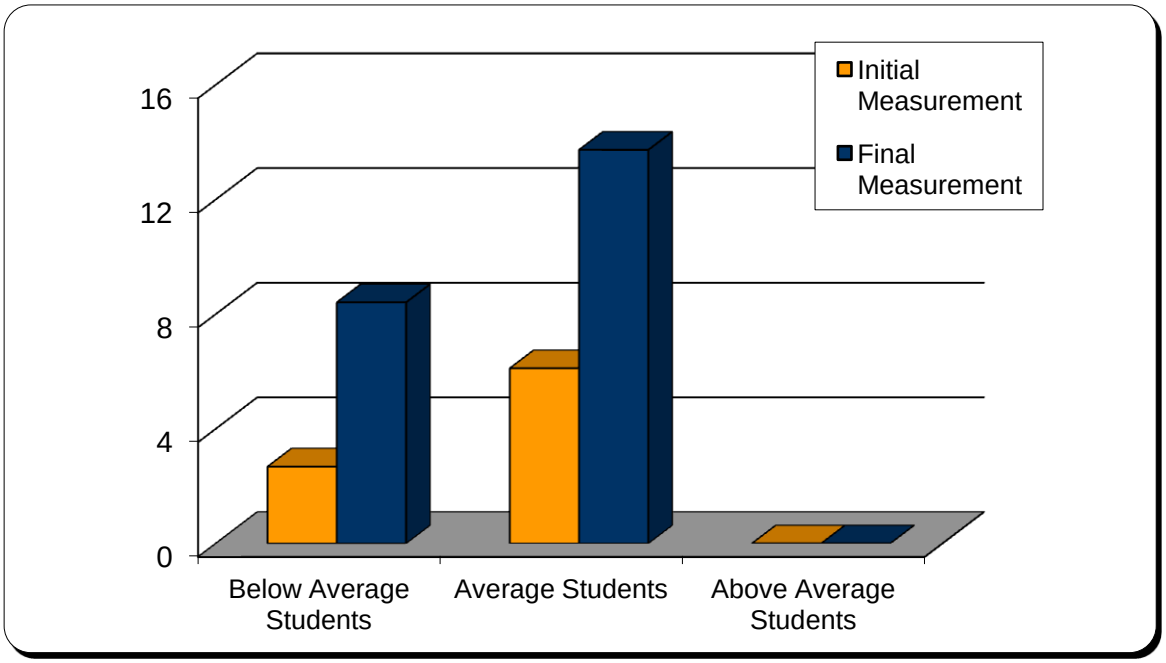
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	2.68 (1.42)	8.41 (3.31)
Analytic Criteria	2.51 (0.98)	9.03 (2.86)
Quantitative Criteria	47.71 (14.35)	65.37 (19.54)

Table 4.7.4. shows the differences regarding the evaluation factors of the argumentative English text between the initial and final measurement for all average participants in the experimental group. The results of multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the experimental group (Wilks' Λ = .019, $F_{1,17}$ = 261.347, p<.001 η^2_p = .981). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,17}$ = 196.568, p<.001, η^2_p = .920), in the analytic factors ($F_{1,17}$ = 704.950, p<.001, η^2_p = .976) and the quantitative factors ($F_{1,17}$ = 80.243, p<.01, η^2_p = .825) between the initial and final measurement, with a significant value increase in the final measurement.

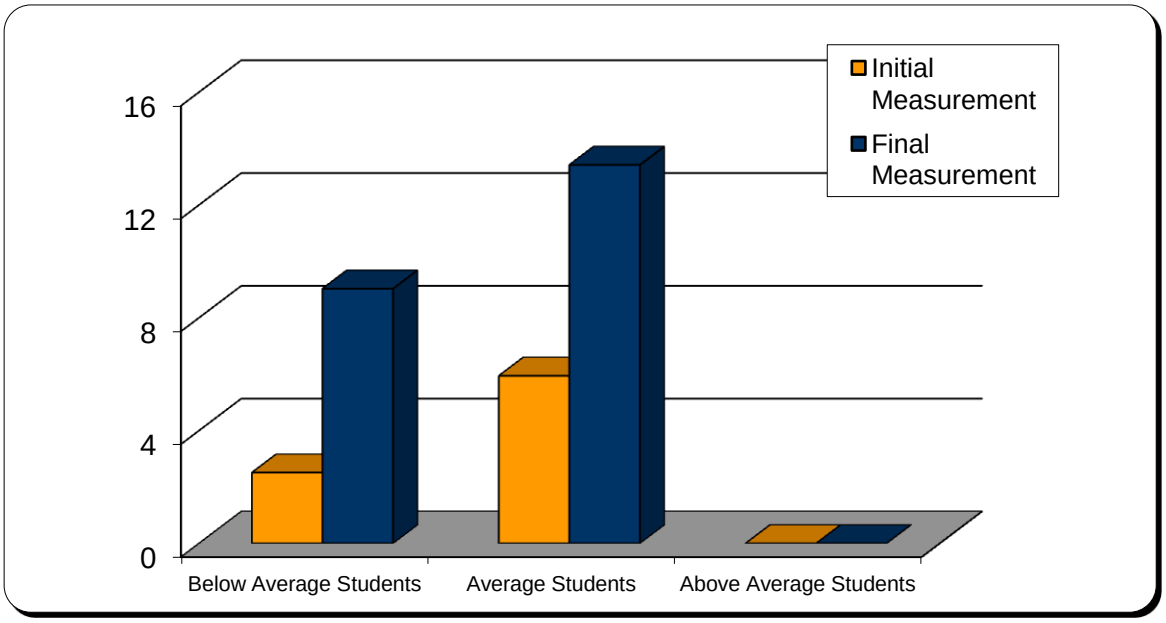
Table 4.7.4 Mean values (M), standard deviations (SD) of participants regarding the evaluation factors of the argumentative English text between the initial and final measurement of average participants in the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	6.11 (2.21)	13.78 (1.77)
Analytic Criteria	5.94 (1.14)	13.42 (1.22)
Quantitative Criteria	69.33 (13.11)	99.56 (20.85)

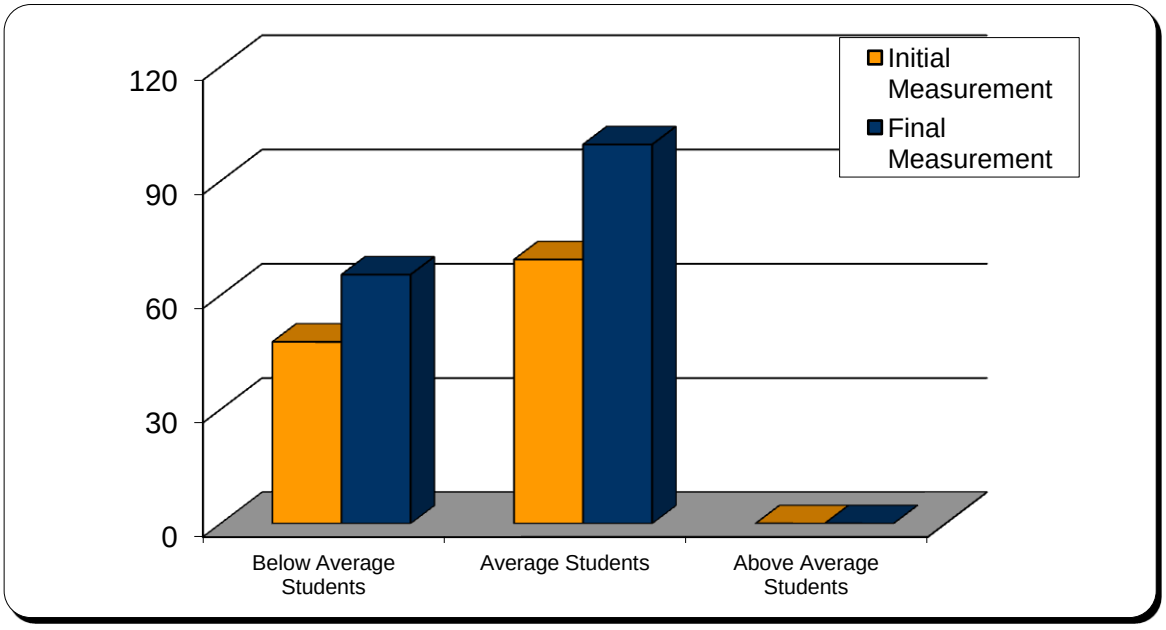
Comparisons of changes were not made between the initial and the final measurement of above average participants in the experimental group because there were no above average participants in the initial measurement of the experimental group.



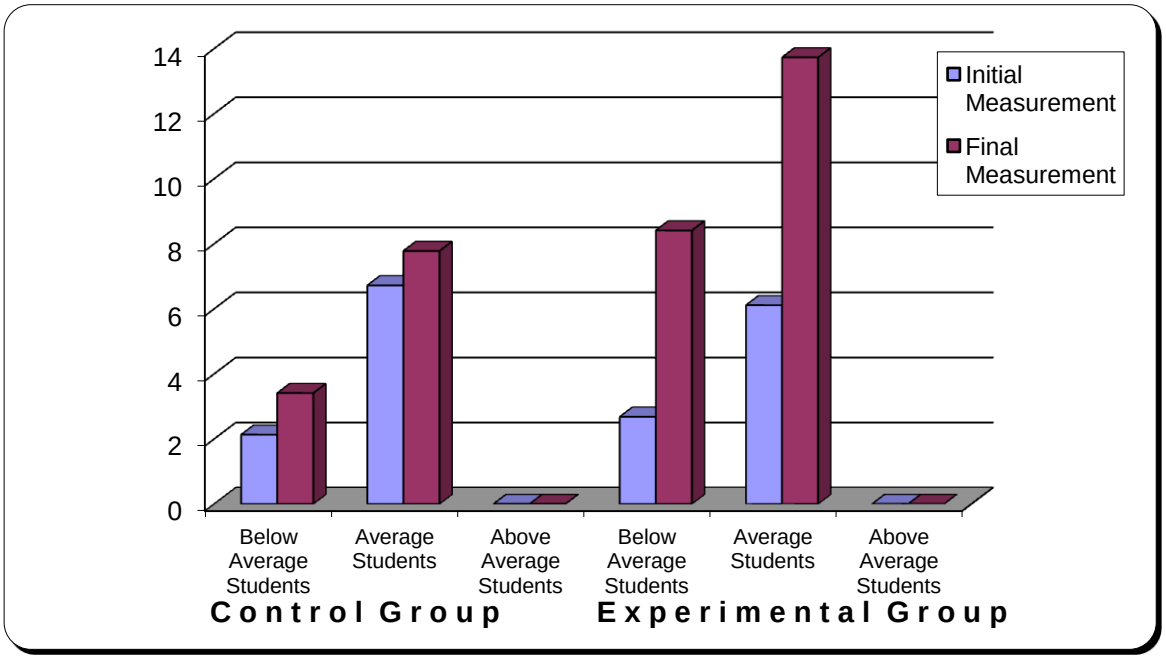
Graph 4.7.1.4. Graph values regarding the content of the argumentative English text for the experimental group



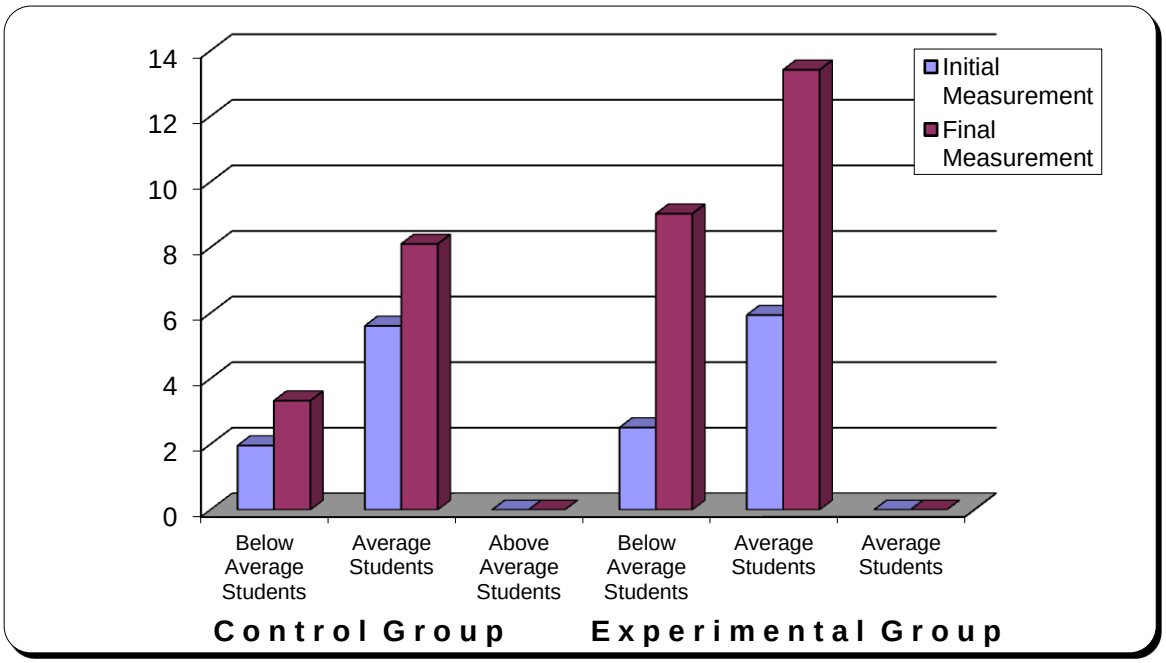
Graph 4.7.1.5. Graph values regarding the analytic factors of the argumentative English text for the experimental group



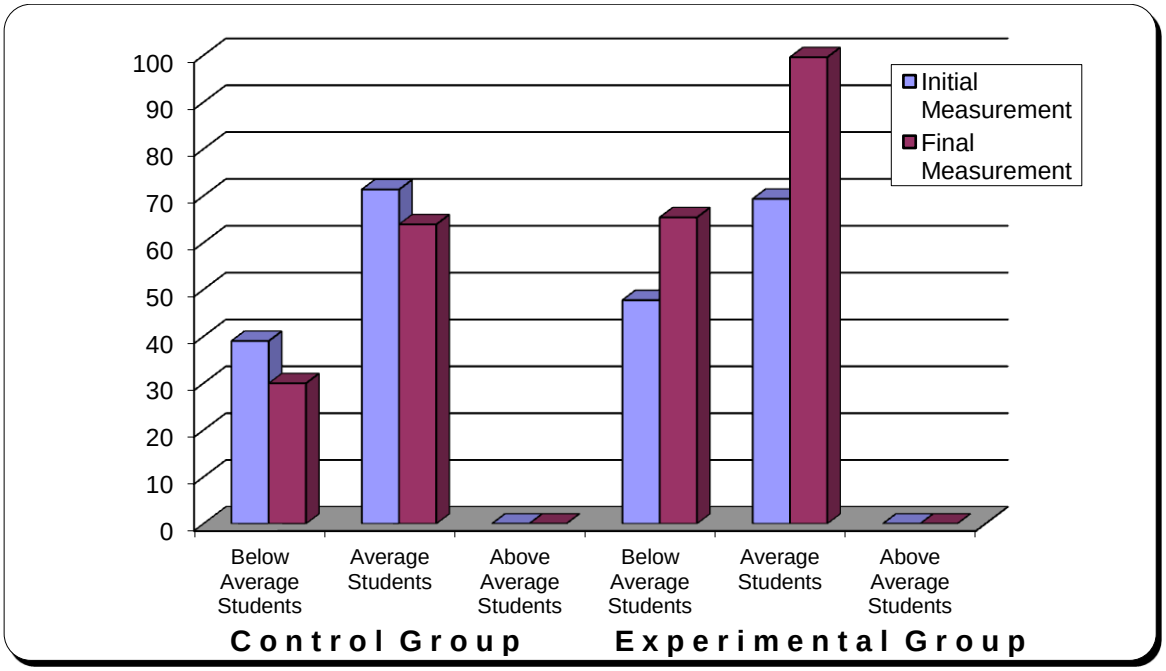
Graph 4.7.1.6. Graph values regarding the quantitative factors of the argumentative English text in the experimental group



Graph 4.7.1.7. Graph values regarding the content of the argumentative English text in the experimental group and the control group for below average, average and above average participants



Graph 4.7.1.8. Graph values regarding the analytic factors of the argumentative English text in the experimental group and the control group for below average, average and above average participants



Graph 4.7.1.9. Graph values regarding the quantitative evaluation factors of the argumentative English text in the experimental group and the control group for below average, average and above average participants

4.8. Evaluation Factors for short story writing of the Greek text: Differences between the experimental group and the control group in the initial and final measurement of all the participants

Tables from 4.8.1. to 4.8.4. presents the results regarding evaluation factors for short story writing of the Greek text for all the participants in the experimental group and the control group in both the initial and the final measurement.

Specifically, Table 4.8.1. show the differences between girl/boy participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text. The results of the multiple analysis of variance did not support the existence of statistically significant differences between the boy/girl participants of both groups (control - experimental) at the initial measurement (Wilks' Λ = .956, $F_{1,175}$ = 2.002, *ns*, η^2_p = .044).

Table 4.8.1. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing in the Greek text at the initial measurements of all participants

	Control Group M (SD)	Experimental Group M (SD)
Content	10.62 (3.57)	10.11 (3.35)
Analytic Criteria	9.47 (3.56)	9.76 (3.55)
Holistic Criteria	4.54 (1.69)	4.60 (1.47)
Quantitative Criteria	201.46 (108.86)	214.29 (143.99)

Table 4.8.2. shows the differences between boy/girl participants of the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between boy/girl participants of both groups (control - experimental) (Wilks' Λ = .919, $F_{1,175}$ = 3.755,

p<.01, η^2_p = .081). Specifically, the individual variables show statistically significant differences in the analytic factors ($F_{1,175}$ = 5.354, p<.05, η^2_p = .030) and the holistic factors ($F_{1,175}$ = 4.937, p<.05, η^2_p = .028), with boy/girl participants of the experimental group showing lower average values compared to the boy/girl participants in the control group, a fact which indicates that boy/girl participants of the experimental group indicating a higher quality of writing. On the other hand, significant differences in the content ($F_{1,175}$ = .357, *ns*, η^2_p = .002) and the quantitative factors ($F_{1,175}$ = 2.687, *ns*, η^2_p = .015) between the two groups was not indicated.

Table 4.8.2. Mean values (M) standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing in the Greek text in the final measurement of all participants

	Control Group M (SD)	Experimental Group M (SD)
Content	10.12 (3.98)	10.46 (3.55)
Analytic Criteria	9.83 (3.60)	11.06 (3.41)
Holistic Criteria	4.75 (1.58)	5.25 (1.38)
Quantitative Criteria	137.05 (80.74)	221.60 (505.39)

Table 4.8.3. shows the changes in the evaluation factors for short story writing of the Greek text between the initial and final measurement of boy/girl participants in the control group. The results of the multiple analysis of variance for repeated measures indicates the existence of statistically significant differences between the initial and final measurement of participants boy/girl in the control group (Wilks' Λ = .553, $F_{1,98}$ = 19.226, p<.001 η^2_p = .447). Specifically, the individual variables indicate the existence of statistically significant changes in the quantitative factors ($F_{1,98}$ = 28.055, p<.001, η^2_p = .223) with a significant reduction of the above mentioned in the final measurement and no significant changes occurring between the two measurements regarding the content ($F_{1,98}$ = 1.871, *ns*, η^2_p = .019), the analytic factors ($F_{1,98}$ = .618, *ns*, η^2_p = .006) and the holistic factors ($F_{1,98}$ = 1.193, *ns*, η^2_p = .012).

Table 4.8.3. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the Greek text in the control group for all participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	10.67 (3.55)	10.12 (3.98)
Analytic Criteria	9.56 (3.47)	9.83 (3.60)
Holistic Criteria	4.57 (1.66)	4.75 (1.58)
Quantitative Criteria	202.72 (108.68)	137.05 (80.74)

Table 4.8.4. that follows shows the changes in the evaluation factors for short story writing of the Greek text between the initial and final measurement of boy/girl participants of the experimental group. The results of the multiple analysis of variance for repeated measures show a statistically significant difference between the initial and final measurement of boy/girl participants three in the control group (Wilks' Λ = .553, $F_{1,75}$ = 7.319, p<.001 η^2_p = .286). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,75}$ = 15.323, p<.001, η^2_p = .168) and the holistic factors ($F_{1,75}$ = 20.695, p<.001, η^2_p = .214) with a significant increase between the initial and the final measurement, while no significant changes were indicated between the two measurements regarding the content ($F_{1,75}$ = .698, *ns*, η^2_p = .009) and the quantitative factors ($F_{1,75}$ = .018, *ns*, η^2_p = .000).

Table 4.8.4. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the Greek text in the experimental group for all participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	10.11 (3.35)	10.46 (3.55)
Analytic Criteria	9.76 (3.55)	11.06 (3.41)
Holistic Criteria	4.60 (1.47)	5.24 (1.38)
Quantitative Criteria	214.29 (143.99)	221.39 (505.39)

4.9. Evaluation factors for short story writing of the Greek text: Differences between the experimental group and the control group in the initial and final measurement based on gender

Tables from 4.9.1. to 4.9.8. shows the differences in the evaluation factors for short story writing of the Greek text (content, analytic criteria, holistic criteria, quantitative criteria) for all participants in terms of the initial and the final measurement. More specifically, Table 4.9.1. shows the differences between the girl participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the initial measurement. The results of the multiple analysis of variance do not support the existence of statistically significant differences between the girl participants in both groups (control - experimental) in the initial measurement (Wilks' Λ = .850, $F_{1,86}$ = 3.670, *ns*, η^2_p = .150).

Table 4.9.1. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the initial measurement of girl participants

	Control Group M (SD)	Experimental Group M (SD)
Content	11.74 (3.49)	10.70 (3.09)
Analytic Criteria	10.54 (3.12)	10.89 (3.18)
Holistic Criteria	4.95 (1.52)	5.00 (1.37)
Quantitative Criteria	228.49 (119.06)	240.21 (169.54)

Table 4.9.2. shows the differences between the girl participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the final measurement. The results of the multiple analysis of variance do not indicate the existence of statistically significant differences between the girl participants in both groups (control - experimental) (Wilks' Λ = .909, $F_{1,86}$ = 2.086, *ns*, η^2_p = .091).

Table 4.9.2. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the final measurement for all girl participants

	Control Group M (SD)	Experimental Group M (SD)
Content	11.09 (3.73)	11.00 (3.47)
Analytic Criteria	10.87 (3.28)	11.85 (3.36)
Holistic Criteria	5.24 (1.35)	5.59 (1.37)
Quantitative Criteria	151.04 (89.35)	287.87 (685.67)

Table 4.9.3. shows the changes regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement of the girl participants in the control group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of girl participants in the control group (Wilks' Λ = .486, $F_{1,45}$ = 11.376, p<.001 η^2_p = .514). Specifically, the individual variables indicate the existence of statistically significant changes in the quantitative factors ($F_{1,45}$ = 16.453, p<.001, η^2_p = .263) with a significant reduction of the above mention in the final measurement and no significant changes indicated between the two measurements regarding the content ($F_{1,45}$ = 1.406, *ns*, η^2_p = .030), the analytic factors ($F_{1,45}$ = .484, *ns*, η^2_p = .010) and the holistic factors ($F_{1,45}$ = 1.961, *ns*, η^2_p = .041).

Table 4.9.3. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the Greek text in the control group of girl participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	11.74 (3.49)	11.09 (3.73)
Analytic Criteria	10.54 (3.12)	10.87 (3.28)
Holistic Criteria	4.95 (1.52)	5.24 (1.35)
Quantitative Criteria	228.49 (119.06)	151.04 (89.35)

Table 4.9.4. shown below, depicts the changes regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement of girl participants in the experimental group. The results of the multiple analysis of variance for repeated measures indicate the existence of statistically significant differences between the initial and final measurement for girl participants in the control group (Wilks' Λ = .757, $F_{1,39}$ = 2.964, p<.05 η^2_p = .243). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,39}$ = 5.071, p<.05, η^2_p = .113) and the holistic factors ($F_{1,39}$ = 10.226, p<.01, η^2_p = .204) with a significant increase between the initial and final measurement, while no significant changes were indicated between the two measurements regarding the content ($F_{1,39}$ = .302, *ns*, η^2_p = .008) and the quantitative factors ($F_{1,39}$ = .221, *ns*, η^2_p = .005).

Table 4.9.4. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the Greek text in the experimental group of all girl participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	10.70 (3.09)	11.00 (3.47)
Analytic Criteria	10.89 (3.18)	11.85 (3.36)
Holistic Criteria	5.00 (1.37)	5.59 (1.37)
Quantitative Criteria	240.21 (169.54)	287.87 (685.67)

Tables from 4.9.5. to 4.9.8. show differences in the evaluation factors for short story writing of the Greek text (content, analytic criteria, holistic criteria, quantitative criteria) of all boy participants in terms of the initial and final measurement.

Specifically, Table 4.9.5. shows the differences between the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the initial measurement. The results of the multiple analysis of variance do not support the existence of statistically significant differences

between boy participants of the two groups (control - experimental) at the initial measurement (Wilks' Λ = .993, $F_{1,87}$ = .149, *ns*, η^2_p = .007).

Table 4.9.5. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the initial measurement of all boy participants

	Control Group M (SD)	Experimental Group M (SD)
Content	9.61 (3.36)	9.44 (3.55)
Analytic Criteria	8.52 (3.68)	8.47 (3.55)
Holistic Criteria	4.17 (1.76)	4.14 (1.46)
Quantitative Criteria	177.49 (93.68)	184.78 (102.41)

Table 4.9.6. that follows shows the differences between the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the final measurement. The results of the multiple analysis of variance do not indicate the existence of statistically significant differences between boy participants of the two groups (control - experimental) (Wilks' Λ = .932, $F_{1,86}$ = 1.524, *ns*, η^2_p = .068).

Table 4.9.6. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the evaluation factors for short story writing of the Greek text in the final measurement for all boy participants

	Control Group M (SD)	Experimental Group M (SD)
Content	9.24 (4.03)	9.85 (3.58)
Analytic Criteria	8.88 (3.65)	10.17 (3.28)
Holistic Criteria	4.30 (1.66)	4.88 (1.31)
Quantitative Criteria	124.40 (70.58)	146.14 (79.54)

Table 4.9.7. shows the changes regarding the evaluation factors for short story writing of Greek text between the initial and final measurement of the participants in the control group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of boy participants in the control group (Wilks' Λ = .542, $F_{1,50}$ = 10.146, p<.001 η^2_p = .458). Specifically, the individual variables indicate the existence of statistically significant changes in the quantitative factors ($F_{1,50}$ = 11.625, p<.001, η^2_p = .186) with a significant increase of the above mentioned in the final measurement and no significant changes indicated between the two measurements regarding the content ($F_{1,50}$ = .601, *ns*, η^2_p = .012), the analytic factors ($F_{1,50}$ = .190, *ns*, η^2_p = .004) and the holistic factors ($F_{1,50}$ = .078, *ns*, η^2_p = .002).

Table 4.9.7. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the Greek text in the control group for all boy participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	9.69 (3.34)	9.24 (4.03)
Analytic Criteria	8.66 (3.56)	8.88 (3.65)
Holistic Criteria	4.23 (1.72)	4.30 (1.66)
Quantitative Criteria	179.42 (93.52)	124.40 (70.58)

Table 4.9.8. depicted below shows the changes regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement of the boy participants in the experimental group. The results of multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of boy participants in the control group (Wilks' Λ = .426, $F_{1,34}$ = 10.801, p<.001 η^2_p = .574). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,34}$ = 10.636, p<.01, η^2_p = .233), the holistic factors ($F_{1,34}$ = 10.307, p<.01,

η^2_p = .227) and the quantitative factors ($F_{1,34}$ = 6.791, p<.05, η^2_p = .163) between the initial and final measurement, while no significant changes were indicated between the two measurements regarding the content ($F_{1,34}$ = .388, *ns*, η^2_p = .011).

Table 4.9.8. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the evaluation factors for short story writing of the Greek text in the experimental group for all boy participants

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	9.44 (3.55)	9.85 (3.58)
Analytic Criteria	8.47 (3.55)	10.17 (3.28)
Holistic Criteria	4.14 (1.46)	4.88 (1.31)
Quantitative Criteria	184.78 (102.41)	146.14 (79.54)

4.10. Evaluation factors for short story writing of the Greek text: Differences between participants with different quality of writing (below average, average, above average participants) in the experimental group and the control group at the initial and final measurement

Within the framework of this study the quality of the boy/girl participants writing in the experimental group and the control group was an important element. Based on the evaluation of their writing the participants were divided into three categories that are: (a) below average, (b) average, and (c) above average.

Table 4.10.1. shows the differences regarding the evaluation factors short story writing in the Greek text between the initial and final measurement for all below average students in the control group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .534, $F_{1,20}$ = 5.237, p<.01, η^2_p = .466). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,20}$ = 8.589,

$p<.01$, $\eta^2_p = .300$), while no significant changes were indicated in the content ($F_{1,20} = 1.637$, *ns*, $\eta^2_p = .076$) and the quantitative factors ($F_{1,20} = .396$, *ns*, $\eta^2_p = .019$).

Table 4.10.1. Mean values (M), standard deviations (SD) of boy/girl participants regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for below average participants in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	6.38 (2.72)	7.21 (3.59)
Analytic Criteria	4.59 (1.91)	6.16 (3.59)
Quantitative Criteria	110.91 (55.08)	98.50 (68.72)

Table 4.10.2. shows the differences regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for all average participants in the control group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of all participants in the control group (Wilks' $\Lambda = .574$, $F_{1,59} = 14.086$, $p<.001$, $\eta^2_p = .426$). Specifically, the individual variables indicate the existence of statistically significant changes in the quantitative factors ($F_{1,59} = 15.526$, $p<.001$, $\eta^2_p = .208$), while no significant changes were indicated in the content (F1, 59 = .455, ns, i2p = .009) and the analytic factors ($F_{1,59} = 1.417$, *ns*, $\eta^2_p = .023$).

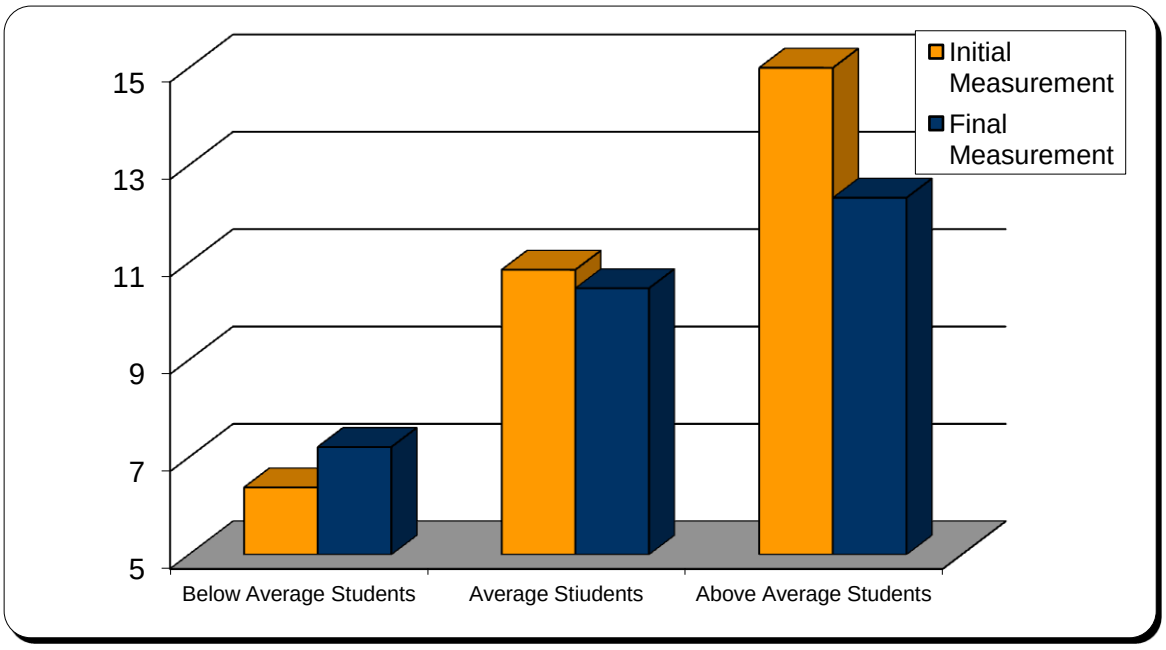
Table 4.10.2. Mean values (M), standard deviations (SD) of boy/girl participants regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for average participants in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	10.85 (2.12)	10.47 (3.57)
Analytic Criteria	9.86 (1.89)	10.38 (2.97)
Quantitative Criteria	201.39 (89.45)	140.34 (71.00)

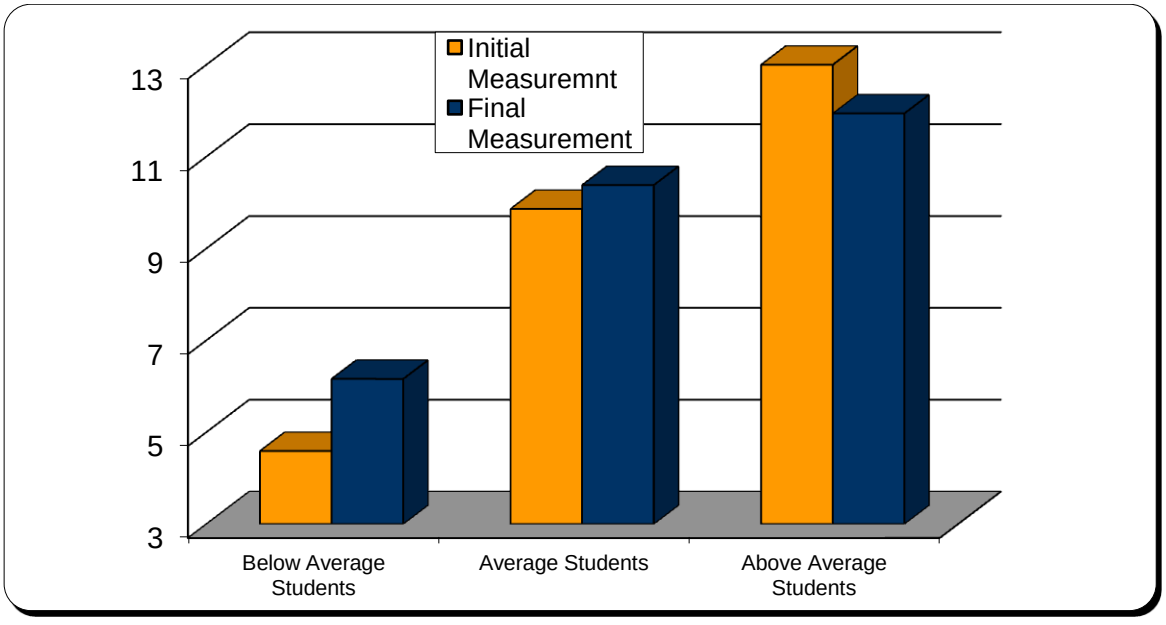
Table 4.10.3. below shows the differences regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for all above average participants in the control group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .476, $F_{1,17}$ = 5.504, p<.01, η^2_p = .524). Specifically, the individual variables indicate the existence of statistically significant changes in the content ($F_{1,17}$ = 6.571, p<.05, η^2_p = .279), in the analytic factors ($F_{1,17}$ = 7.168, p<.05, η^2_p = .297) and the quantitative factors ($F_{1,17}$ = 18.178, p<.001, η^2_p = .517).

Table 4.10.3. Mean values (M), standard deviations (SD) of boy/girl participants regarding evaluation factors for short story writing of the Greek text between the initial and final measurement for above average participants in the control group

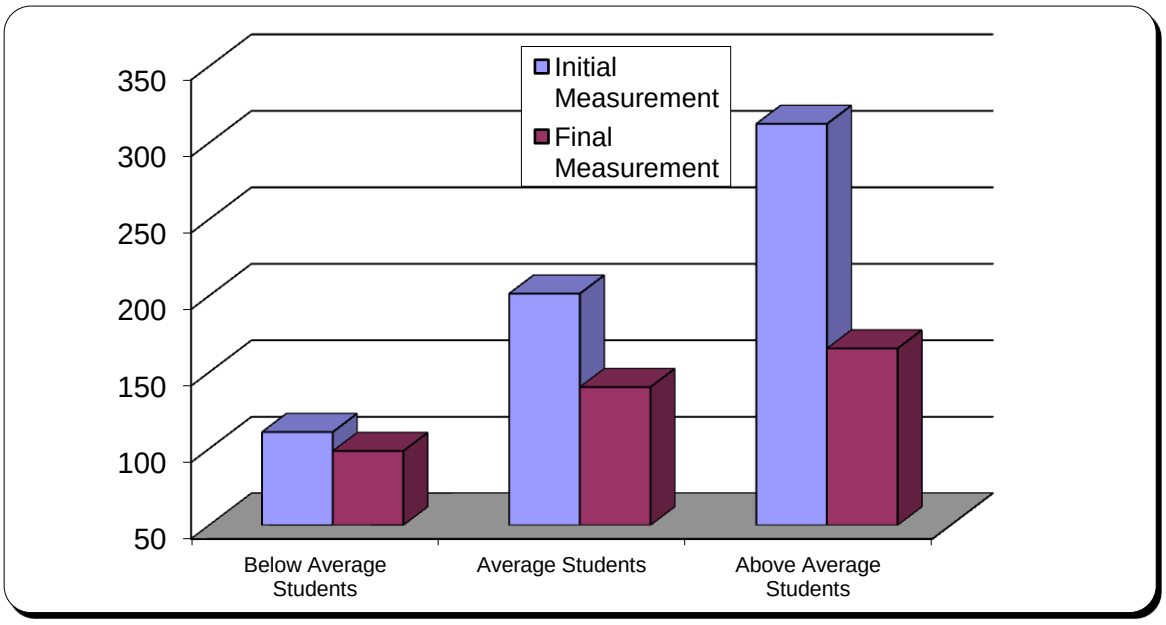
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	15.06 (2.24)	12.33 (3.99)
Analytic Criteria	14.14 (1.56)	11.94 (3.27)
Quantitative Criteria	312.36 (117.74)	165.58 (111.94)



Graph 4.10.1.1. Graph values regarding the content as an evaluation criterion for short story writing of the Greek text in the control group



Graph 4.10.1.2. Graph values regarding the analytic factors as an evaluation criterion for short story writing of the Greek text in the control group



Graph 4.10.1.3. Graph values regarding the quantitative factors as an evaluation criterion for short story writing of the Greek text in the control group

Tables from 4.10.4. to 4.10.6. present differences regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for all below average, average and above average boy/girl participants in the experimental group.

Table 4.10.4. shows the differences regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for all below average participants in the experimental group. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .534, $F_{1,13}$ = 5.481, p<.05, η^2_p = .599). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,13}$ = 14.081, p<.01, η^2_p = .520), whereas no significant changes were indicated in the content ($F_{1,13}$ = 4.326, *ns*, η^2_p = .250) and the quantitative factors ($F_{1,13}$ = 1.783, *ns*, η^2_p = .121).

Table 4.10.4. Mean values (M), standard deviations (SD) of boy/girl participants regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for below average participants in the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	6.14 (3.29)	7.68 (3.51)
Analytic Criteria	4.92 (2.93)	8.00 (3.52)
Quantitative Criteria	102.21 (63.29)	124.61 (58.88)

Table 4.10.5. that follows shows the differences regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for all average participants in the experimental group. Results of the multiple analysis of variance for repeated measures support the existence of statistically significant differences between the initial and final measurement of the participants in the control group (Wilks' Λ = .640, $F_{1,50}$ = 9.011, p<.001, η^2_p = .360). Specifically, the individual variables indicate the existence of statistically significant changes in the analytic factors ($F_{1,50}$ = 12.489, p<.001, η^2_p = .200) and the quantitative factors ($F_{1,50}$ = 7.734, p<.01, η^2_p = .134), while no significant changes were indicated in the content ($F_{1,50}$ = .607, *ns*, η^2_p = .012).

Table 4.10.5. Mean values (M), standard deviations (SD) of boy/girl participants regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for average participants in the experimental group

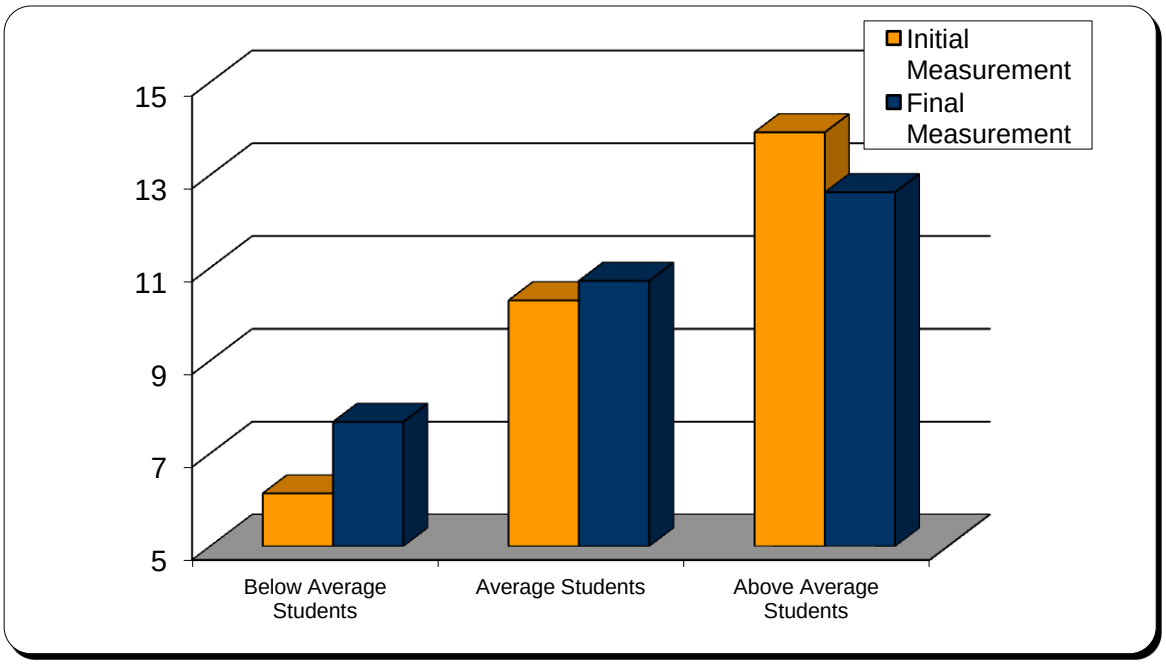
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	10.30 (2.46)	10.72 (3.13)
Analytic Criteria	9.88 (1.97)	11.16 (2.71)
Quantitative Criteria	197.37 (87.31)	160.07 (66.16)

Table 4.10.6. shows the differences regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for all above average participants in the experimental group. The results of the multiple analysis of

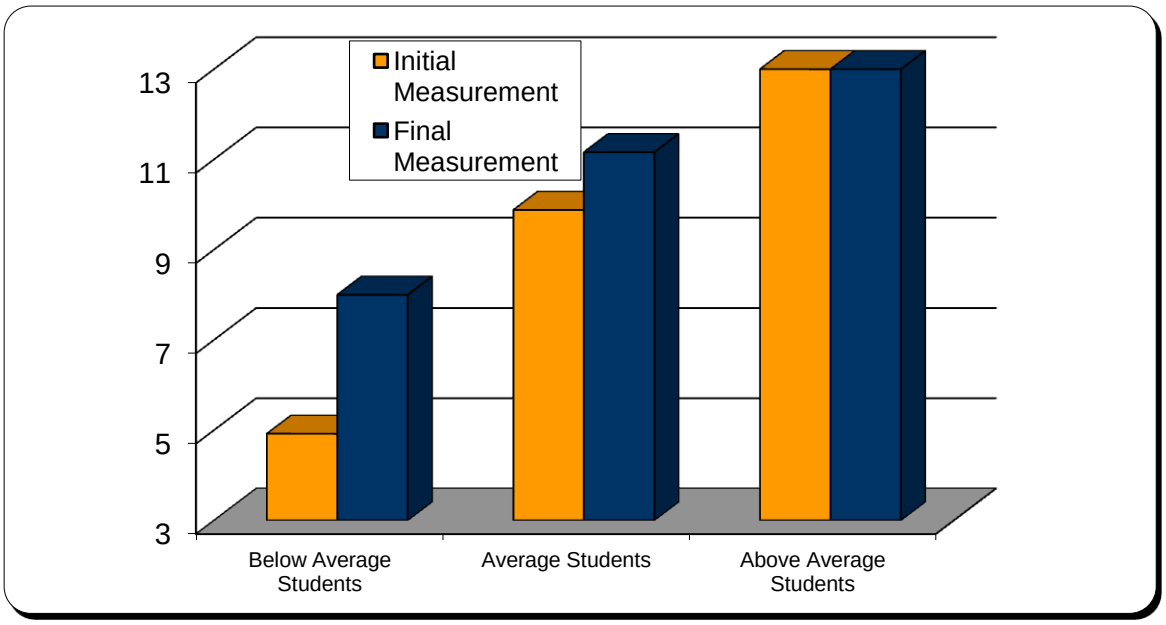
variance for repeated measures show no statistically significant differences between the initial and final measurement of the participants in the control group (Wilks' Λ = .842, $F_{1,11}$ = .562, *ns*, η^2_p = .158).

Table 4.10.6. Mean values (M), standard deviations (SD) of boy/girl participants regarding the evaluation factors for short story writing of the Greek text between the initial and final measurement for above average participants in the experimental group

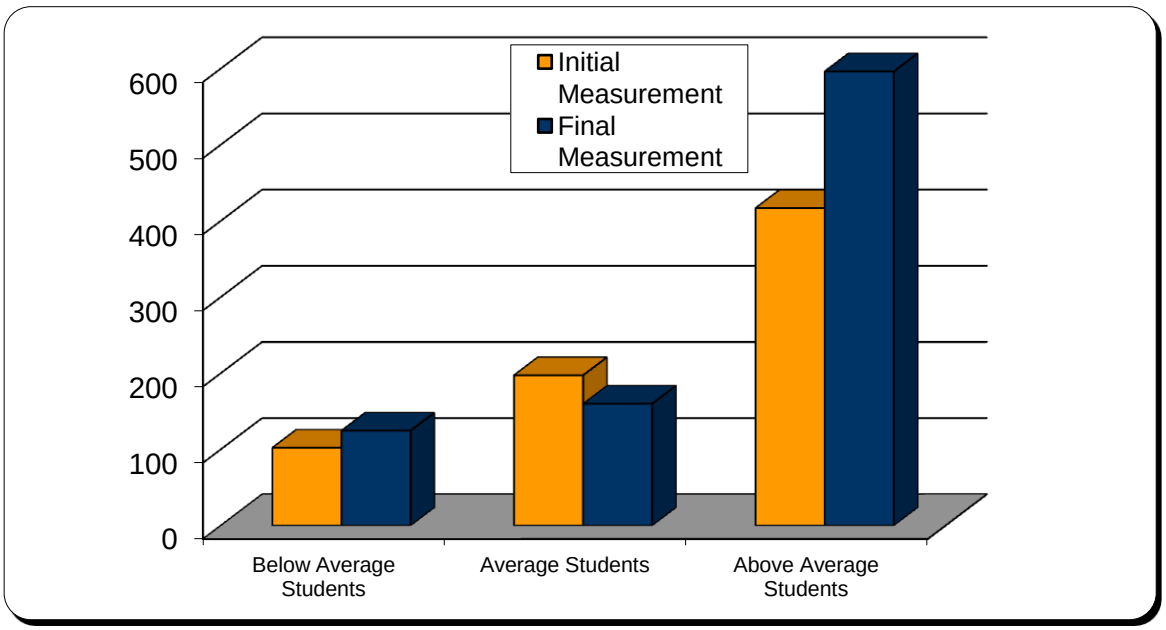
	Initial Measurement M (SD)	Final Measurement M (SD)
Content	13.92 (1.14)	12.63 (3.57)
Analytic Criteria	14.88 (0.98)	14.25 (3.00)
Quantitative Criteria	416.96 (204.30)	569.29 (248.23)



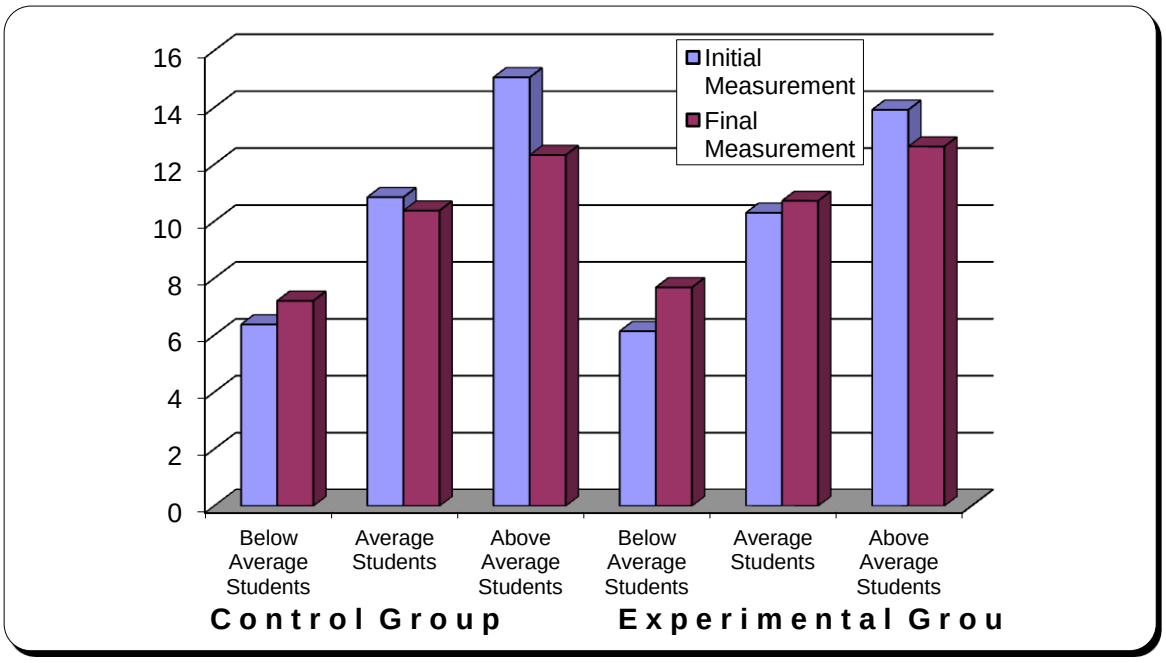
Graph 4.10.1.4. Graph values regarding the content as an evaluation criterion for short story writing of the Greek text in the control group



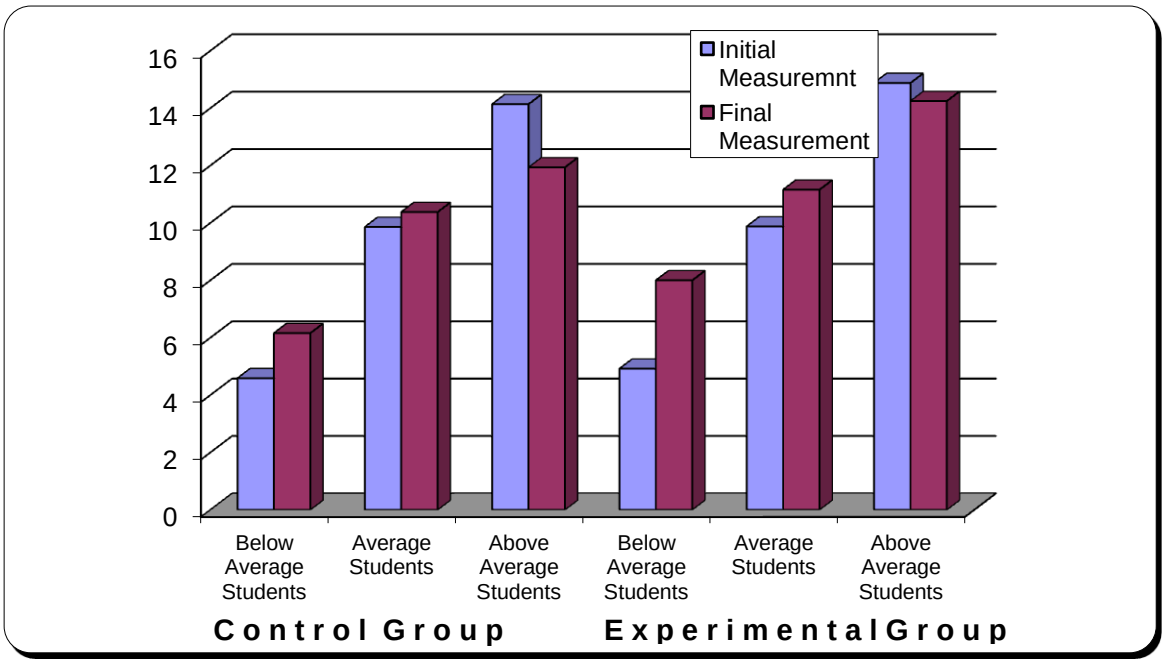
Graph 4.10.1.5. Graph values regarding the analytical factors as an evaluation criterion for short story writing of the Greek text for the control group



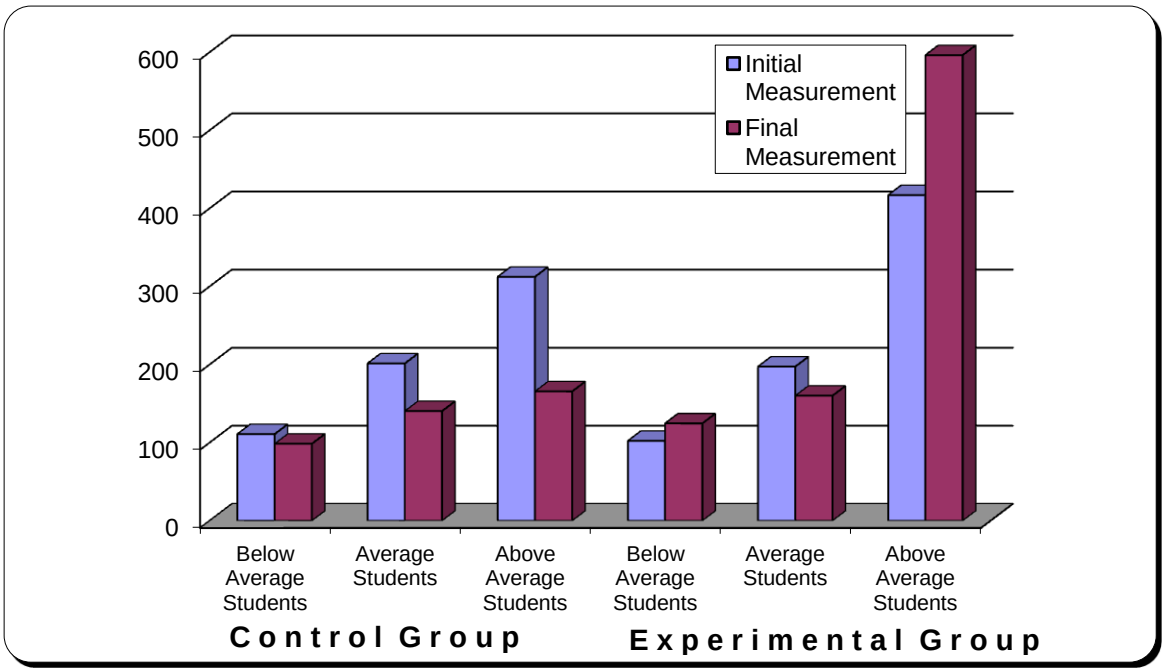
Graph 4.10.1.6. Graph values regarding the quantitative factors as an evaluation criterion for short story writing of the Greek text in the control group



Graph 4.10.1.7. Graph values regarding the content factors as an evaluation factors for short story writing of the Greek text in the experimental group and the control group for below average, average and above average participants



Graph 4.10.1.8. Graph values regarding the analytic factors of short story writing of the Greek text in the experimental group and the control group for below average, average and above average participants



Graph 4.10.1.9. Graph values regarding the quantitative evaluation factors for short story writing of the Greek text in the experimental group and the control group for below average, average and above average participants.

4.11. Factors regarding the evaluation of the interview: Differences between the experimental group and the control group in the initial and final measurement of all participants

Tables from 4.11.1. to 4.11.14. present the results of the factors regarding the evaluation of the interview for the participants in the experimental group and the control group in both the initial and the final measurement.

Specifically, Table 4.11.1. below shows the differences between boy/girl participants in the experimental group and the control group in terms of the factors regarding the evaluation of the interview in the initial measurement. The results of the comparisons (independent sample t-test) showed no statistically significant differences between the participants in the two groups (control - experimental) in the initial measurement, apart from motivation, behavior outside the classroom and the difficulties in foreign language. It should also be noted that no comparisons were made between the two groups as no mean values were indicated in the initial measurement in both the

experimental group and the control group and in particular for generalization – development of skills (foreign language, native language), self-regulation and preference for WWW-TREE.

Table 4.11.1. Mean values (M), standard deviations (SD) and differences (t-values) of the participants in the experimental group and the control group for the factors regarding the evaluation of the interview in the initial measurement of all participants

	Control Group M (SD)	Experimental Group M (SD)	t-value
Mechanics	.13 (.15)	.17 (.18)	-1.458
Substantial skills	.10 (.11)	.13 (.17)	-1.176
Self-Efficacy	.40 (.29)	.47 (.28)	-1.483
Foreign language writing anxiety	.33 (.23)	.41 (.26)	-2.259 *
Writing Motivation	.20 (.31)	.48 (.39)	-5.313 ***
Student behavior			
In class	.12 (.22)	.22 (.26)	-2.822 **
Outside class	.05 (.15)	.14 (.23)	-3.094 ***
Importance of foreign language knowledge	.66 (.25)	.72 (.21)	-2.067 *
Difficulties in the foreign-native language			
Difficulties in foreign language	.32 (.27)	.46 (.25)	-3.514 ***
Difficulties in native language	.43 (.39)	.60 (.41)	-2.861 **
Seeking help from the teacher	.14 (.22)	.26 (.28)	-3.232 **
Private foreign language schools			
Reference to the private school's book	.55 (.50)	.44 (.50)	1.431
I read the book and do the same	.62 (.49)	.43 (.50)	2.565 *
Exercises from the private school's book	.55 (.50)	.40 (.49)	1.955
Inadequate teaching	.80 (.40)	.86 (.35)	-1.955
Environmental factors	.03 (.13)	.10 (.31)	-2.112 *

* p<.05, ** p<.01, *** p<.001

Table 4.11.2. that follows shows the differences between boy/girl participants the experimental group and the control group for the factors regarding the evaluation of the interview in the final measurement. The results of the comparisons between the two groups show a statistically significant difference between boy/girl participants in both groups (control - experimental) in the final measurement. Specifically, significant differences were indicated in the mechanics and substantial skills, self-efficacy, anxiety and motivation. Significant differences also were indicated for the generalization – development of skills between the native and the foreign language, but also on other features of the interview which were assessed such as reference the private school's book, inadequate teaching, exercises from the private schools book, self-regulation and other differences, which are presented in detail in Table 4.11.2.

Table 4.11.2. Mean values (M), standard deviations (SD) and differences (t-values) of the participants in the experimental group and the control group regarding the factors of the evaluation of the interview in the final measurement of all participants

	Control Group M (SD)	Experimental Group M (SD)	t-value
Mechanics skills	.16 (.16)	.66 (.02)	-32.030 ***
Substantial Skills	.10 (.10)	.78 (.04)	-63.108 ***
Self-Efficacy	.31 (.18)	.50 (.03)	-10.129 ***
Foreign language writing anxiety	.40 (.18)	.25 (.03)	8.027 ***
Writing Motivation	.27 (.35)	.00 (.00)	7.688 ***
Generalization – Development of skills			
Foreign language	.00 (.00)	.99 (.11)	-76.000 ***
Native language	.00 (.00)	.99 (.09)	-101.667 ***
Writing Genres			
Student behavior			
In class	.09 (.21)	.01 (.05)	3.792 ***
Outside class	.05 (.15)	.92 (.17)	-35.304 ***
Importance of foreign	.72 (.23)	.83 (.08)	-4.306 ***

language knowledge			
Difficulties in the foreign-native language			
Difficulties in foreign language	.52 (.26)	.01 (.04)	19.191 ***
Difficulties in native language	.72 (.35)	.00 (.00)	20.332 ***
Seeking help from the teacher	.18 (.25)	.00 (.00)	7.158 ***
Private foreign language schools			
Reference to private school's book	.59 (.49)	.00 (.00)	11.936 ***
I read the book and do the same	.67 (.47)	.00 (.00)	14.000 ***
Exercises from the private school's book	.62 (.49)	.00 (.00)	12.709 ***
Inadequate teaching	.83 (.38)	.00 (.00)	21.985 ***
Self-regulation	.00 (.00)	.99 (.09)	-101.667 ***
Preference WWW / TREE	.00 (.00)	.86 (.24)	-31.158 ***
Environmental factors	.03 (.15)	.00 (.00)	1.682

* p<.05, ** p<.01, *** p<.001

Table **4.11.3.** below shows the changes between the initial and final measurement of all participants in the control group **for the factors in the control group**. The results show no statistical change between the two measurements, apart from the factors of difficulties in foreign and native language, which increased in the final measurement compared to the initial measurement.

Table 4.11.3. Mean values (M), standard deviations (SD) and differences (t-values) of the participants in the control group at the initial and final measurement of the factors regarding the evaluation of the interview

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.13 (.15)	16 (.16)	-1.490
Substantial skills	.10 (.11)	.10 (.10)	.606
Self-Efficacy	.40 (.29)	31 (.18)	3.153 **
Foreign language writing anxiety	.33 (.23)	.40 (.18)	-2.871 **
Writing Motivation	.20 (.31)	.27 (.35)	-2.099 *
Student behavior			
In class	.12 (.22)	.09 (.21)	.942
Outside class	.05 (.15)	05 (.15)	-2.45
Importance of foreign language knowledge	.66 (.25)	.72 (.23)	-2.285 *
Difficulties in the foreign-native language			
Difficulties in foreign language	.32 (.27)	.52 (.26)	-6.907 ***
Difficulties in native language	.42 (.39)	.72 (.35)	-6.907 ***
Seeking help from the teacher	.14 (.22)	.18 (.25)	-1.578
Private foreign language schools			
Reference to the private school's book	.55 (.50)	.59 (.49)	- .647
I read the book and do the same	.62 (.49)	.67 (.47)	- .869
Exercises from the private school's book	.55 (.50)	.62 (.49)	-1.153
Inadequate teaching	.80 (.40)	.83 (.38)	- .653
Environmental factors	.03 (.13)	.03 (.15)	.000

* p<.05, ** p<.01, *** p<.001

Table 4.11.4. that follows shows the changes between the initial measurement and the final measurement of all participants in the control group for the factors in the

experimental group. The results indicate statistical changes between the two measurements, with a significant increase in both the mechanics, and the substantive skills, while a significant reduction of anxiety was indicated. Factors generalization - skills development increased significantly in both the foreign language and the native language, while student behavior improved, as well as an increase in the importance of knowing a foreign language. A reduction was also indicated regarding the difficulties in both the foreign and the native language and for seeking help from the teacher, and it could be supported that the above-mentioned difficulties were virtually eliminated following the application of the intervention program. Finally, the reference to the private school's book, exercises from the private school's book, as well as inadequate teaching were almost eliminated in the final measurement, while the participants self-regulation skills increased significantly.

Table 4.11.4. Mean values (M), standard deviations (SD) of the participants in the experimental group in the initial and final measurements of the factors regarding the evaluation of the interview

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.17 (.18)	.66 (.02)	-23.710 ***
Substantial Skills	.13 (.17)	.78 (.04)	-34.375 ***
Self-Efficacy	.47 (.28)	.50 (.03)	- .913
Foreign language writing anxiety	.41 (.26)	.25 (.03)	5.570 ***
Writing Motivation	.48 (.39)	.00 (.00)	10.737 ***
Generalization – Development of skills			
Foreign language	.00 (.00)	.99 (.12)	76.000 ***
Native language	.00 (.00)	.99 (.09)	-100.333 ***
Student behavior			
In class	.22 (.26)	.01 (.05)	6.897 ***
Outside class	.14 (.23)	.92 (.17)	-24.868 ***
Importance of foreign	.73 (.21)	.83 (.08)	-3.908 ***

language knowledge			
Difficulties in the foreign-native language			
Difficulties in the foreign language	.46 (.25)	.01 (.04)	15.855 ***
Difficulties in the native language	.60 (.41)	.00 (.00)	12.768 ***
Seeking help from the teacher	.26 (.28)	.00 (.00)	8.247 ***
Private foreign language schools			
Reference to private school's book	.44 (.50)	.00 (.00)	7.752 ***
I read the book and do the same	.43 (.50)	00 (.00)	7.550 ***
Exercises from the private school's book	.40 (.49)	.00 (.00)	7.157 ***
Inadequate teaching	.86 (.35)	.00 (.00)	21.354 ***
Self-regulation	.00 (.00)	.99 (.09)	-101,667 ***
Preference WWW / TREE	.00 (.00)	.86 (.24)	-31.158 ***
Environmental factors	.10 (.31)	.00 (.00)	2.968 **

* p<.05, ** p<.01, *** p<.001

An examination then followed as regards to the differences between the below average, average and above average participants in the control group at the initial measurement, regarding the factors of the interview, which are presented in Table 4.11.5. The results show no statistically significant differences between the three categories of participants indicating that they did not differ.

Table 4.11.5. Mean values (M), standard deviations (SD) and differences (F-values) of below average, average and above average participants in the control group at the initial measurement regarding the factors of the evaluation of the interview

	Below Average Students M (SD)	Average Students M (SD)	Above Average Students M (SD)	F-value
Mechanics	.11 (.14)	.13 (.15)	.18 (.15)	1.061
Substantial Skills	.05 (.08)	.11 (.11)	.17 (.15)	5.913 **
Self-Efficacy	.35 (.31)	.45 (.29)	.32 (.27)	1.704
Foreign language writing anxiety	.25 (.24)	.37 (.21)	.26 (.23)	3.240 *
Writing Motivation	.14 (.28)	.23 (.32)	.19 (.30)	.658
Student behavior				
In class	.06 (.17)	.14 (.25)	.09 (.19)	1.260
Outside class	.01 (.05)	.06 (.18)	.04 (.10)	.812
Importance of foreign language knowledge	.62 (.28)	.66 (.25)	.69 (.26)	.361
Difficulties in the foreign-native language				
Difficulties in foreign language	.22 (.27)	.35 (.26)	.34 (.27)	2.046
Difficulties in native language	.30 (.40)	.48 (.39)	.41 (.35)	1.682
Seeking help from the teacher	.16 (.24)	.15 (.23)	.06 (.16)	1.417
Private foreign language schools				
Reference to private school's book	.41 (.50)	.55 (.50)	.72 (.46)	1.980
I read the book and do the same	.45 (.51)	.65 (.48)	.72 (.46)	1.803
Exercises from the private	.41 (.50)	.55 (.50)	.72 (.46)	1.980

school's book				
Inadequate teaching	.59 (.50)	.92 (.28)	.83 (38)	4.105*
Self-regulation				
Preference for WWW / TREE				
Environmental factors	.05 (.15)	.03 (.14)	.00 (.00)	.595

p<.05, ** p<.01, *** p<.001

Then the differences between the three categories of participants were examined in the final measurement, which also showed no differences between the three categories of participants indicating that they did not differ as to the factors of the interview (Table 4.11.6.) that are presented below.

Table 4.11.6. Mean values (M), standard deviations (SD) and differences (F-values) of below average, average, and above average participants in the control group at the final measurement regarding factors of the interview evaluation

	Below Average Students M (SD)	Average Students M (SD)	Above Average Students M (SD)	F-value
Mechanics	.10 (.13)	.17 (.16)	.15 (.16)	1.117
Substantial Skills	.08 (.09)	.09 (.09)	.16 (.15)	2.852
Self-Efficacy	37 (.16)	.32 (.18)	.19 (.16)	3.943 *
Foreign language writing anxiety	.38 (.19)	.42 (.16)	.23 (.23)	6.682 **
Writing Motivation	.13 (.30)	.31 (.27)	.21 (.26)	1.1781
Student behavior				
In class	.02 (.09)	.12 (.23)	00 (.00)	2.769
Outside class	.03 (.13)	.05 (.15)	.06 (.22)	.127
Importance of foreign language knowledge	.62 (.23)	.73 (.22)	.79 (.24)	2.052
Difficulties in the foreign-native language				
Difficulties in foreign language	.61 (.30)	.52 (.24)	.42 (.31)	1.866
Difficulties in native language	.77 (.42)	.72 (.33)	.60 (.40)	.866
Seeking help from the teacher	.10 (.21)	.20 (.26)	.17 (.25)	.976
Private foreign language schools				
Reference to private school's book	.47 (.52)	.60 (.29)	.67 (.49)	.631

I read the book and do the same	.47 (.51)	71 (.46)	.67 (.49)	1,636
Exercises from the private school's book	.47 (.52)	.64 (.48)	.67 (.49)	.881
Inadequate teaching	.72 (.46)	.84 (.37)	.92 (.29)	.813
Environmental factors	.00 (.00)	.03 (.17)	.00 (.00)	.518

* p<.05, ** p<.01, *** p<.001

The differences between below average, average and above average participants of the experimental group at the initial measurement regarding the factors of the interview were then examined, which are presented in Table 4.11.7. that follows. The results showed no statistical differences between the three categories indicating that the participants did not differ amongst them.

Table **4.11.7.** Mean values (M), standard deviations (SD) and differences (F-values) of below average, average and above average participants in the experimental group at the initial measurement regarding the factors of the interview evaluation

	Below Average Students (SD)	Average Students M (SD)	Above Average Students M (SD)	F-value
Mechanics	.21 (.16)	.16 (.18)	.17 (.21)	.555
Substantial Skills	.11 (.13)	.12 (.17)	.21 (.17)	1.718
Self-Efficacy	.46 (.22)	.47 (.20)	.46 (.30)	.010
Foreign language writing anxiety	.46 (.32)	.37 (.25)	.50 (.18)	1.584
Writing Motivation	.29 (.38)	.46 (.39)	.79 (.26)	6.333 **
Student behavior				
In class	.26 (.32)	.22 (.24)	.17 (.27)	.439
Outside class	.11 (.21)	.16 (.25)	.08 (.16)	.701
Importance of foreign language knowledge	.62 (.24)	.73 (.20)	.88 (.15)	.5.278 **
Difficulties in the foreign-native language				
Difficulties in foreign language	.46 (.29)	.46 (.25)	.47 (.23)	.005

Difficulties in native language	.62 (.43)	.57 (.41)	.72 (.40)	.718
Seeking help from the teacher	.25 (.26)	.25 (.27)	.29 (.33)	.094
Private foreign language schools				
Reference to private school's book	.36 (.50)	.51 (.50)	.25 (.45)	1.580
I read the book and do the same	.29 (.47)	.51 (.50)	.25 (.45)	2.083
Exercises from the private school's book	29 (.47)	.47 (.50)	.25 (.45)	1.467
Inadequate teaching	86 (.36)	.86 (.35)	.83 (.39)	.033
Environmental factors	.21 (.43)	.08 (.27)	.08 (.29)	1.110

* p<.05, ** p<.01, *** p<.001

The differences between the three categories of participants in the final measurement were examined, where significant differences were indicated between the three categories of participants indicating that they differ based on the interview evaluation (Table 4.11.8.). In particular, the substantial skills were more frequent in both average and above average participants as well as in terms of the concept of self-efficacy. The generalization – development of skills in both foreign as well as in the native language was lower for below average participants, compared to above average and average participants. Finally, the level of self-regulation for average and above average participants was significantly higher compared to below average participants.

Table 4.11.8. Mean values (M), standard deviations (SD) and differences (F-values) of below average, average and above average participants in the experimental group at the final measurement regarding factors of the interview evaluation

	Below Average Students M (SD)	Average Students M (SD)	Above Average Students M (SD)	F-value
Mechanics	.69 (.04)	.66 (.02)	.66 (.02)	3.416 *
Substantial skills	.71 (.15)	.78 (.00)	.79 (.01)	11.634 ***
Self-Efficacy	.44 (.13)	.50 (.00)	.50 (.00)	11.693 ***
Foreign language writing anxiety	.19 (.13)	.25 (.00)	.25 (.00)	11.693 ***
Generalization – Development of skills				
Foreign language	.75 (.50)	1.00 (.00)	1.00 (.00)	11.693 ***
Native language	.81 (.38)	1.00 (.00)	1.00 (.00)	11.693 ***
Writing Genres				
Student behavior				
In class	.08 (.17)	01 (.04)	.00 (.00)	4.597 *
Outside class	.94 (.13)	.91 (.17)	.92 (.20)	.036
Importance of foreign language knowledge	.75 (.21)	.84 (.05)	.80 (.09)	3.845 *
Difficulties in the foreign-native language				
Difficulties in the foreign language	.05 (.09)	.01 (.03)	01 (.03)	2.114
Self-regulation	.81 (.38)	1.00 (.00)	1.00 (.00)	11.693 ***
Preference WWW / TREE	.63 (.48)	87 (.22)	.87 (.23)	2.004

* p<.05, ** p<.01, *** p<.001

Then, examining the changes between the initial and final measurement in individually examined groups of participants (below average, average, above average) in the control group regarding the factors of the interview evaluation are presented in Tables 4.11.9. up to 4.11.11. that follow.

Table 4.11.9. Mean values (M), standard deviations (SD) for below average participants in the control group in the initial and final measurement regarding the factors of the interview evaluation

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.11 (.14)	.11 (.13)	.000
Substantial Skills	.05 (.08)	.05 (.07)	- .472
Self-Efficacy	.35 (.31)	.35 (.15)	.000
Foreign language writing anxiety	.25 (.24)	.39 (.18)	-2.806 *
Writing Motivation	.14 (.28)	.23 (.30)	-1.702
Student behavior			
In class	.06 (.17)	.03 (.10)	.699
Outside class	.01 (.05)	.03 (.13)	1.000
Importance of foreign language knowledge	.62 (.28)	.62 (.23)	-1.668
Difficulties in the foreign-native language			
Difficulties in foreign language	.22 (.27)	.61 (.30)	-4.525 ***
Difficulties in native language	.30 (.40)	.77 (.42)	-4.655 ***
Seeking help from the teacher	.16 (.24)	.10 (.21)	-1.000
Private foreign language schools			
Reference to the private school's book	.41 (.50)	.47 (.52)	.326
I read the book and do the same	.45 (.51)	.47 (.51)	.000
Exercises from the private school's book	.41 (.50)	.47 (.52)	.000
Inadequate teaching	.59 (.50)	.72 (.46)	.000

Environmental factors	.05 (.15)	.00 (.00)	1.449

* p<.05, ** p<.01, *** p<.001

The results showed no statistically significant changes between the initial and final measurement of below average participants, not including the fact that difficulties in both the foreign language and the native language increased.

Following is an examination of the Mean values (M), standard deviations (SD) of average participants in the control group at the initial and final measurement regarding the factors of the interview evaluation.

Table 4.11.10. Mean values (M), standard deviations (SD) of average participants in the control group at the initial and final measurement regarding the factors of the interview evaluation

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.13 (.15)	.17 (.16)	-1.725
Substantial Skills	.11 (.11)	.09 (.09)	.750
Self-Efficacy	.45 (.29)	.32 (.18)	3.208 **
Foreign language writing anxiety	.37 (.21)	.42 (.16)	-1.345
Writing Motivation	.23 (.32)	.31 (.27)	-1.187
Student behavior			
In class	.14 (.25)	.12 (.23)	1.033
Outside class	.06 (.18)	.05 (.15)	.148
Importance of foreign language knowledge	.66 (.25)	.73 (.22)	-1.596
Difficulties in the foreign-native language			
Difficulties in the foreign	.35 (.26)	.52 (.24)	-4.707 ***

language			
Difficulties in the native language	.48 (.39)	.72 (.33)	-4.870 ***
Seeking help from the teacher	.15 (.23)	.20 (.26)	- .652
Private foreign language schools			
Reference to private school's book	.55 (.50)	.60 (.29)	-1.230
I read the book and do the same	.65 (.48)	.71 (.46)	-1.426
Exercises from the private school's book	.55 (.50)	.64 (.48)	-1.657
Inadequate teaching	.92 (.28)	.84 (.37)	- .903
Environmental factors	.03 (.14)	.03 (.17)	- .275

* p<.05, ** p<.01, *** p<.001

Along the same lines, regarding all average participants there was also a significant increase in both the foreign and the native language, while the other factors did not show significant changes between the initial and final measurement. Finally, the above average participants did not show significant changes between initial and final measurement.

Following an examination of above average participants in the control group at the initial and final measurement regarding the factors of the interview evaluation was conducted as shown at table 4.11.11. below.

Table 4.11.11. Mean values (M), standard deviations (SD) of above average participants in the control group at the initial and final measurement regarding the factors of the interview evaluation

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.18 (.15)	.15 (.16)	- .122
Substantial Skills	.17 (.15)	.16 (.15)	.243
Self-Efficacy	.32 (.27)	.19 (.16)	1.641
Foreign language writing anxiety	.26 (.23)	.23 (.23)	-1.304
Writing Motivation	.19 (.30)	.21 (.26)	-1.374
Student behavior			
In class	.09 (.19)	.00 (.00)	-1.000
Outside class	.04 (.10)	.06 (.22)	- .889
Importance of foreign language knowledge	.69 (.26)	.79 (.24)	- .811
Difficulties in the foreign-native language			
Difficulties in foreign language	.34 (.27)	.42 (.31)	-2.732 *
Difficulties in native language	.41 (.35)	60 (.40)	-2.469 *
Seeking help from the teacher	.06 (.16)	.17 (.25)	-1.458
Private foreign language schools			
Reference to private school's book	.72 (.46)	.67 (.49)	.437
I read the book and do the same	.72 (.46)	.67 (.49)	.437
Exercises from the private school's book	.72 (.46)	.67 (.49)	.437
Inadequate teaching	.83 (.38)	.92 (.29)	.000
Environmental factors	.00 (.00)	.00 (.00)	-1.000

p<.05, ** p<.01, *** p<.001

An examination then followed in terms of the changes between the initial and final measurement for the individual variable groups of participants (below average, average, above average) for the experimental group regarding the factors of the

interview evaluation that are presented in Tables from 4.11.12. to 4.11.14. The results supported the existence of statistically significant changes between the initial and final measurement for below average participants, which increased significantly both in terms of mechanics as well as substantial skills. Also, there was a significant increase - generalization of skills in terms of both the foreign and the native language. At the same time the difficulties in the foreign and the native language were limited and almost eliminated, while seeking assistance was also significantly limited. Finally, inadequate teaching was significantly limited and self-regulation was significantly increased. (Table 4.11.12.).

Table 4.11.12. Mean values (M), standard deviations (SD) for below average participants in the experimental group at the initial and final measurement regarding the factors of the interview evaluation

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.21 (.16)	.69 (.04)	-10.114 ***
Substantial Skills	.11 (.13)	.71 (.15)	-17.481 ***
Self-Efficacy	.46 (.22)	.44 (.13)	- .366
Foreign language writing anxiety	.46 (.32)	.19 (.13)	2.879 *
Writing Motivation	.29 (.38)	.00 (.00)	2.828 *
Generalization – Development of skills			
Foreign language	.00 (.00)	.75 (.50)	-13.000 ****
Native language	.00 (.00)	.81 (.38)	-16,333 ***
Student behavior			
In class	.26 (.32)	.08 (.17)	2.500 *
Outside class	.11 (.21)	.94 (.13)	-14.894 ***
Importance of foreign language knowledge	.62 (.24)	.75 (.21)	-2.880 *
Difficulties in the foreign-native language			

Difficulties in the foreign language	.46 (.29)	.05 (.09)	5.979 ***
Difficulties in the native language	.62 (.43)	.00 (.00)	5.440 ***
Seeking help from the teacher	.25 (.26)	.00 (.00)	3.606 **
Private foreign language schools			
Reference to the private school's book	.36 (.50)	00 (.00)	2.687 *
I read the book and do the same	.29 (.47)	00 (.00)	2.280 *
Exercises from the private school's book	.29 (.47)	00 (.00)	2.280 *
Inadequate teaching	.86 (.36)	00 (.00)	8.832 ***
Self-regulation	00 (.00)	81 (.38)	-17.667 ***
Preference WWW / TREE	00 (.00)	.63 (.48)	-9.706 ***
Environmental factors	.21 (.43)	00 (.00)	1.883

* p<.05, ** p<.01, *** p<.001

The examination that follows concerns the changes between the initial and final measurement of average participants in the experimental group regarding factors of the interview evaluation is presented in Table 4.11.13. The results support the existence of statistically significant changes between the initial and final measurement for average participants, which increased significantly both for mechanics as well as substantial skills. Also, there was a significant increase - generalization of skills in both the foreign and the native language. At the same time, difficulties in both the foreign and the native language were limited and almost eliminated, while seeking assistance was significantly limited. Finally, inadequate teaching was limited to a significant degree and self-regulation significantly increased.

Table 4.11.13. Mean values (M), standard deviations (SD) of average participants in the experimental group at the initial and final measuring regarding the factors of the interview evaluation

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.16 (.18)	.66 (.02)	-20.079 ***
Substantial Skills	.12 (.17)	.78 (.00)	-28.324 ***
Self-Efficacy	.47 (.20)	.50 (.00)	- .694
Foreign language writing anxiety	.37 (.25)	.25 (.00)	3.475 ***
Writing Motivation	.46 (.39)	.00 (.00)	8.541 ***
Student behavior			
In class	.22 (.24)	.01 (.04)	6.214 ***
Outside class	.16 (.25)	.91 (.17)	-18.107 ***
Importance of foreign language knowledge	.73 (.20)	.84 (.05)	-3.929 ***
Difficulties in the foreign-native language			
Difficulties in foreign language	.46 (.25)	.01 (.03)	12.856 ***
Difficulties in native language	.57 (.41)	.00 (.00)	9.790 ***
Seeking help from the teacher	.25 (.27)	.00 (.00)	6.704 ***
Private foreign language schools			
Reference to private school's book	.51 (.50)	.00 (.00)	7.211 ***
I read the book and do the same	.51 (.50)	.00 (.00)	7.211 ***
Exercises from the private school's book	.47 (.50)	.00 (.00)	6.667 ***
Inadequate teaching	.86 (.35)	.00 (.00)	17.728 ***
Preference WWW / TREE	.00 (.00)	.87 (.22)	-26.473 ***
Environmental factors	.08 (.27)	.00 (.00)	2.063 *

p<.05, ** p<.01, *** p<.001

Then, an examination of the changes between the initial and final measurement for above average participants in the experimental group regarding factors of the interview evaluation is presented in Table 4.11.14. The results support the existence of statistically significant changes between the initial and final measurement for above average participants, which increased significantly both for mechanical and substantial skills, while writing anxiety in the foreign language was limited. Also difficulties in the foreign, but also in the native language were limited and almost eliminated, while seeking foreign assistance was also significantly limited.

Table 4.11.14. Mean values (M), standard deviations (SD) of above average participants in the experimental group at the initial and final measurement regarding the factors of the interview evaluation

	Initial Measurement M (SD)	Final Measurement M (SD)	t-value
Mechanics	.17 (.21)	.66 (.02)	-7.705 ***
Substantial Skills	.21 (.17)	.79 (.01)	-11.349 ***
Self-Efficacy	.46 (.30)	.50 (.00)	- .484
Foreign language writing anxiety	.50 (.18)	.25 (.00)	4.690 ***
Writing Motivation	.79 (.26)	00 (.00)	10.652 ***
Student behavior			
In class	.17 (.27)	.00 (.00)	2.171
Outside class	.08 (.16)	.92 (.20)	-11.726 ***
Importance of foreign language knowledge	.88 (.15)	.80 (.09)	1.101
Difficulties in the foreign-native language			
Difficulties in foreign language	.47 (.23)	.01 (.03)	6.935 ***
Difficulties in native language	.72 (.40)	00 (.00)	6.191 ***
Seeking help from the teacher	.29 (.33)	00 (.00)	3.023 *
Private foreign language schools			

Reference to private school's book	.25 (.45)	00 (.00)	1.915
I read the book and do the same	.25 (.45)	00 (.00)	1.915
Exercises from the private school's book	.25 (.45)	00 (.00)	1.915
Inadequate teaching	.83 (.39)	00 (.00)	7.416 ***
Preference WWW / TREE	00 (.00)	.87 (.23)	-16.316 ***
Environmental factors	.08 (.29)	.00 (.00)	1.000

* p<.05, ** p<.01, *** p<.001

Finally, inadequate teaching was limited significantly, while the preference for WWW / TREE increased significantly. The results of the comparison of the changes between the initial and final measurement in the three categories of participants indicate the significant and substantial effect of the intervention program, which, regardless of the level of participants (below average, average, above average) the factors of the interview improved. Also, the significant changes in all three categories of participants demonstrate to a significant degree the quality and the positive impact of the intervention program regardless of the writing ability of the student.

4.12. ANXIETY

Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004): estimation of construct validity and reliability

Principal factor analysis: The significant results of the sphericity of Bartlett's (1410.857 *df* 231, *p*<.00001) lead to rejection of the null hypothesis (Tabachnick & Fidell, 2006) that the variables are independent, while the criterion value KMC = .886 is at a perfectly satisfactory level (Kaiser, 1974). The principal components analysis with oblique rotation of axes, according to the selection factors, as supported by (Tinsley & Tinsley, 1987 ˙ Kline, 1994 ˙ Nunnally & Bernstein, 1994 ˙ Tabachnick & Fidell, 2006) support the existence of three (3) factors that explain the 47,926% of the

total variance. The loadings and communalities of the questions ranged from .367 to .822 to .315 and .619, respectively (Table 4.12.1.).

Table 4.12.1. Indicators of exploratory factor analysis of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004)

	Prices
Estimation sphericity of Bartlett	1410.857 (231)
Criterion-of adequacy KMO sample adequacy	.886
Eigenvalues	1.450 – 7.173
Explained Variance	6.589 - 32.607
Total Explained variance	47,927
Item Loadings	.367 - .822
Communalities explained variance	.315 - .619

*** p<.001

Reliability analysis: Besides checking the validity through an exploratory factor the analysis tested the reliability of factors for the specific questionnaires. The results of applying the methods to check the reliability of the questionnaire factors (covariances and correlations of questions, Cronbach *a*) met the factors for acceptable reliability. Specifically, the index *a* of internal consistency Cronbach, for somatic anxiety factor was .77 for cognitive anxiety factor and .82 for behavioral anxiety factor .80, values that are deemed adequate. The index value of Cronbach *a* for the total questionnaire was .89.

Table 4.12.2. that follows presents the intercorrelations between the factors regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004). The results supported the existence of positive, statistically significant, correlations between the factors of the questionnaire, which showed high level.

Table 4.12.2. Interrelations among the factors of the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004).

	Somatic Anxiety	Cognitive Anxiety	Behavioral Anxiety
Somatic Anxiety	1.00	.927 ***	.771 ***
Cognitive Anxiety		1.00	.746 ***
Behavioral Anxiety			1.00

*** p<.001

4.13. Second Language Writing Anxiety Inventory (SLWAI) (Cheng 2004): Differences between the experimental group and the control group in the initial and final measurement

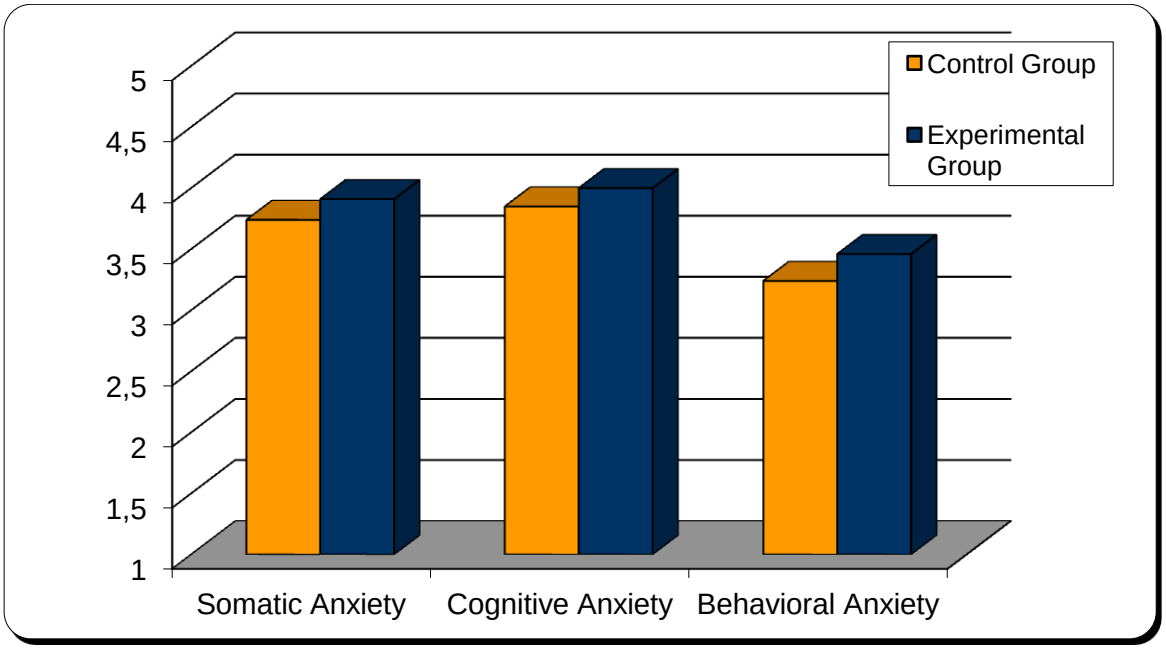
Tables from 4.13.1. to 4.13. 4. presents the anxiety results as based on the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) for participants in the experimental group and the control group in both the initial and the final measurement.

The results of multiple analysis of variance (2X2) [(group: control - experimental) X (time: pre - post)] factors for the Second Language Writing Anxiety Inventory (SLWAI) Cheng (2004) showed the existence of statistically significant differences and changes (group: Wilks' Λ = .499, $F_{3,173}$ = 57.930, p<.001, η^2_p = .501, time: Wilks' Λ = .189, $F_{3,173}$ = 247.373, p<.001, η^2_p = .811, group X time: Wilks' Λ = .174, $F_{3,173}$ = 272.886, p<.001, η^2_p = .826).

Specifically, Table 4.13.1. that follows shows the differences between the participants in the experimental group and the control group at the initial measurement of the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004). The results of multivariate analysis of variance did not support the existence of statistically significant differences between participants of the two groups (control - experimental) at the initial measurement (Wilks' Λ = .977, $F_{1,175}$ = 1.337, *ns*, η^2_p = .023) (Graph 4.13.1.1.).

Table 4.13.1. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) in the initial measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.74 (0.58)	3.91 (0.64)
Cognitive Anxiety	3.85(0.59)	4.00 (0.71)
Behavioral Anxiety	3.24 (0.76)	3.46 (0.84)



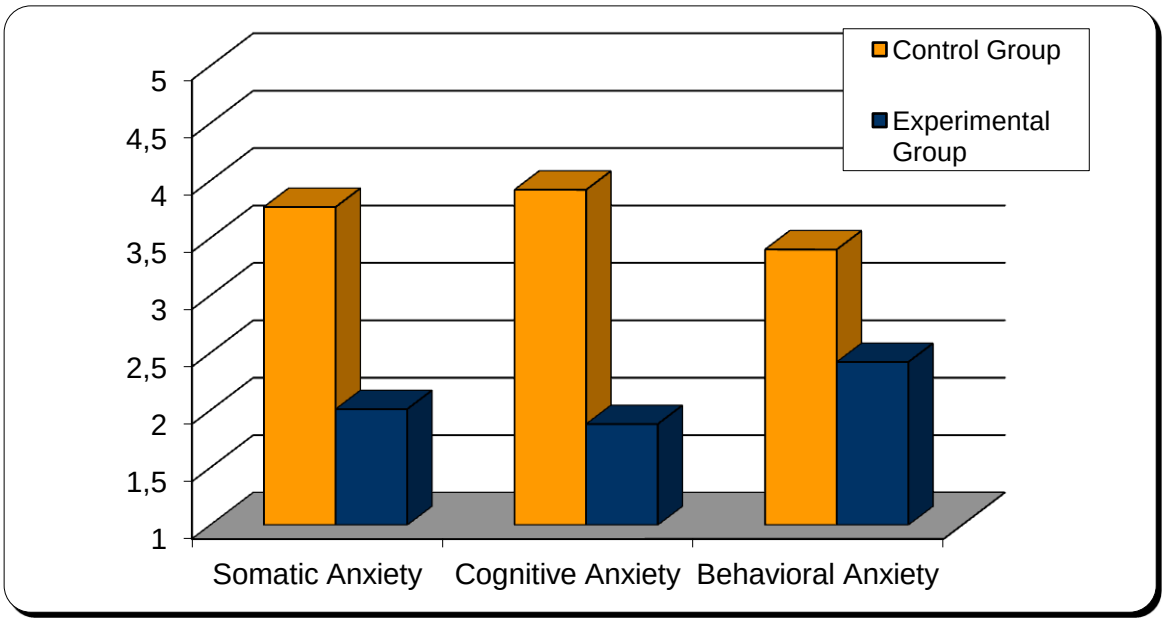
Graph 4.13.1.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) among participants in the experimental group and the control group at the initial measurement

Table 4.13.2. shows the differences between the participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) at the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between participants of the two groups (control - experimental) (Wilks' Λ = .167, $F_{1,175}$ =

288.449, $p<.001$, $\eta^2_p = .833$) (Graph 4.13.2.2.). Specifically, the individual variables show statistically significant differences in the factors of somatic anxiety ($F_{1,175} = 447.533$, $p<.001$, $\eta^2_p = .719$), cognitive anxiety ($F_{1,175} = 873.485$, $p<.001$, $\eta^2_p = .833$) and behavioral anxiety ($F_{1,175} = 143.430$, $p<.001$, $\eta^2_p = .450$) with participants of the experimental group indicating lower mean values compared to participants in the control group, a factor which indicated that participants in the experimental group indicated lower writing anxiety regarding all three factors (Graph 4.13.2.1.).

Table 4.13.2. Mean values (M), standard deviations (SD) of the participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory factors (SLWAI) (Cheng, 2004) in the final measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.77 (0.62)	2.01 (0.45)
Cognitive Anxiety	3.92 (0.54)	1.88 (0.32)
Behavioral Anxiety	3.40 (0.64)	2.42 (0.38)

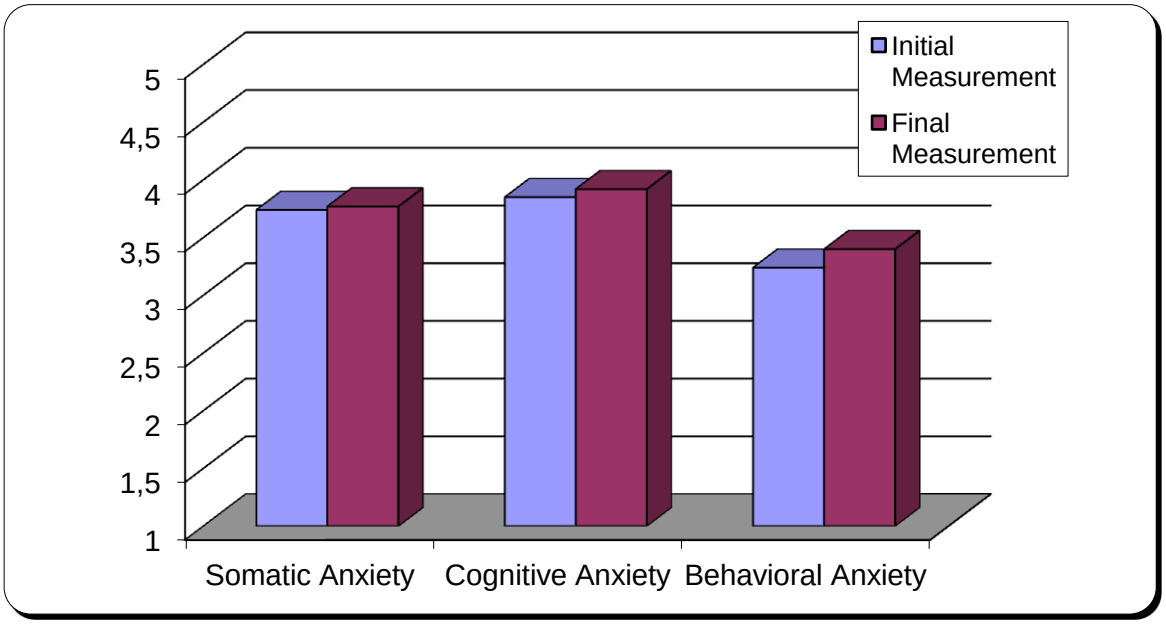


Graph 4.13.2.1. Graph values regarding the Second Language Writing Anxiety Inventory factors (SLWAI) (Cheng, 2004) among participants in the experimental group and the control group at the final measurement

Table 4.13.3. below shows the changes regarding the Second Language Writing Anxiety Inventory factors (SLWAI) (Cheng, 2004) between the initial and final measurement of the participants in the control group. The results of the multiple analysis of variance for repeated measures do not support the existence of statistically significant differences between the initial and final measurement of participants in the control group (Wilks' Λ = .926, $F_{2,97}$ = 2.581, *ns*, η^2_p = .058) (Graph 4.13.3.1.).

Table 4.13.3. Mean values (M), standard deviations (SD) of the participants at the initial and final measurement of the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.74 (0.58)	3.77 (0.62)
Cognitive Anxiety	3.85 (0.59)	3.92 (0.54)
Behavioral Anxiety	3.24 (0.76)	3.40 (0.64)

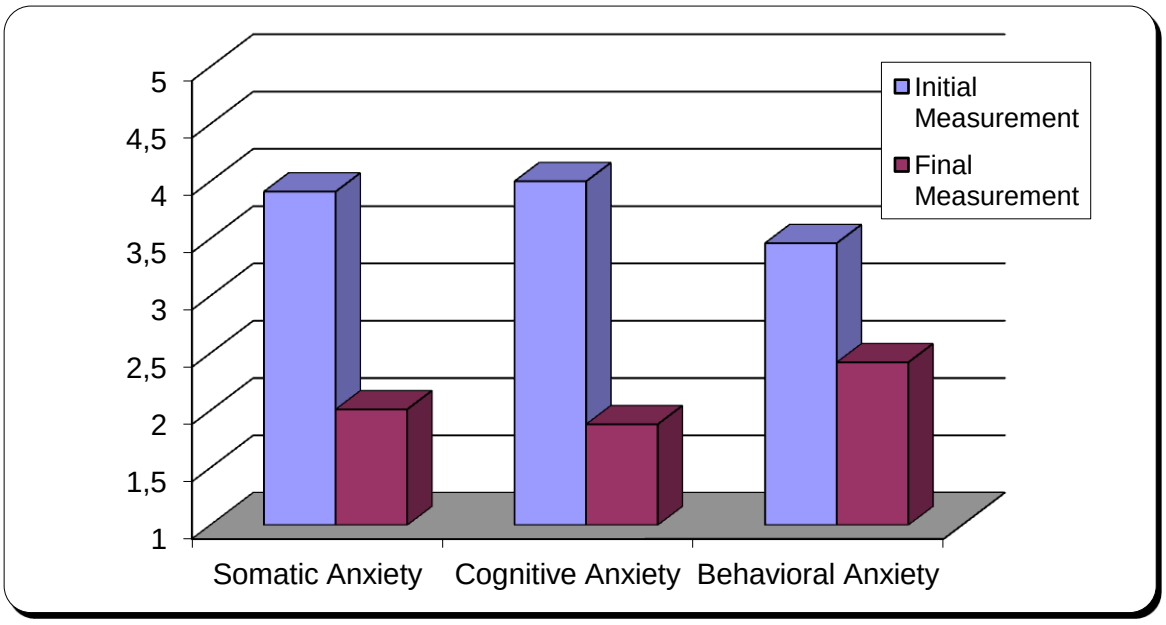


Graph 4.13.3.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors between the initial and final measurement of participants in the control group

Table 4.13.4. shows the changes regarding the Second Language Writing Anxiety Inventory factors (SLWAI) (Cheng, 2004) between the initial and final measurement of the participants in the experimental group. The results of the multiple analysis of variance for repeated measures validate statistically significant changes between the initial and final measurement for the participants in the experimental group (Wilks' Λ = .073, $F_{2,74}$ = 311.949, p<.001, η^2_p = .927) (Graph 4.13.4.1.). Specifically, the individual variables indicate the existence of statistically significant changes regarding the factors of somatic anxiety ($F_{2,74}$ = 744.505, p<.001, η^2_p = .907), cognitive anxiety ($F_{2,74}$ = 711.153, p<.001, η^2_p = .903) and behavioral anxiety ($F_{2,74}$ = 129.327, p<.001, η^2_p = .630). Specifically, the results of the analysis show a significant reduction of anxiety in all three factors in the final measurement, compared to the initial measurement.

Table 4.13.4. Mean values (M), standard deviations (SD) of the participants in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.91 (0.64)	2.01 (0.45)
Cognitive Anxiety	4.00 (0.71)	1.88 (0.32)
Behavioral Anxiety	3.46 (0.84)	2.42 (0.38)



Graph 4.13.4.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the initial and final measurement for the participants of the experimental group

4.14. GENDER

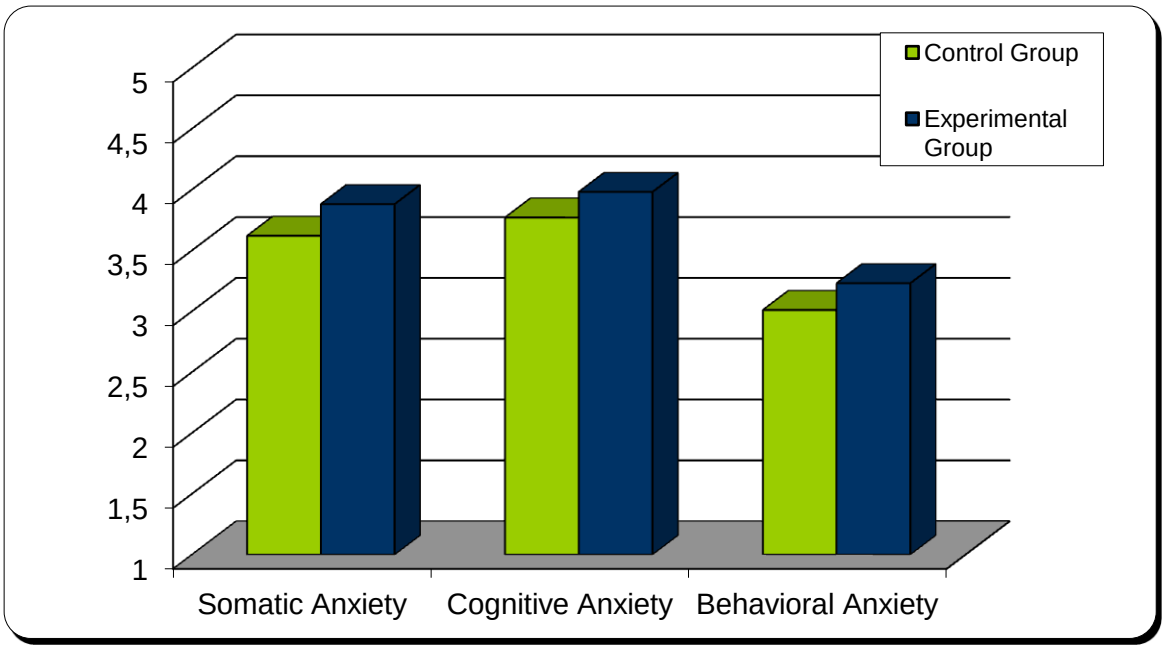
Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004): Differences between the experimental group and the control group at the initial and final measurement regarding boy and girl participants

Tables from 4.14.1. to 4.14.4. present the results regarding the perceived anxiety, as assessed by the Second Language Writing Anxiety Inventory (SLWAI) (Cheng 2004), for the girl participants of the experimental group and the control group in both the initial and the final measurement.

Specifically, Table 4.14.1. shows the differences between the girl participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004), at the initial measurement. The results of multiple analysis of variance do not support the existence of statistically significant differences between the girl participants in both groups (control - experimental) at the initial measurement (Wilks' Λ = .955, $F_{3,84}$ = 1.325, *ns*, η^2_p = .045) (Graph 4.14.1.).

Table 4.14.1. Mean values (M), standard deviations (SD) of girl participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004), factors at the initial measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.62 (0.61)	3.88 (0.63)
Cognitive Anxiety	3.77 (0.64)	3.98 (0.62)
Behavioral Anxiety	3.01 (0.67)	3.23 (0.73)

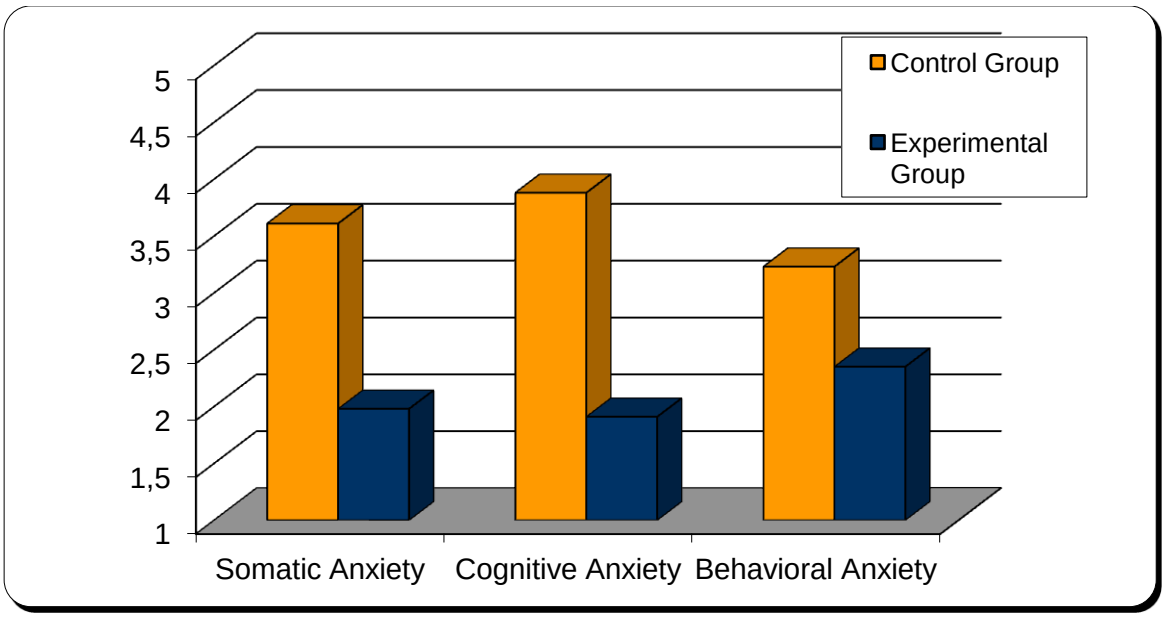


Graph 4.14.1.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) factors between the girl participants in the experimental group and the control group at the initial measurement

Table 4.14.2. that follows shows the differences between the girl participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the final measurement. The results of multiple analysis of variance support the existence of statistically significant differences among the girls in both groups (control - experimental) (Wilks' Λ = .206, $F_{3,84}$ = 107.728, p<.001, η^2_p = .794) (Graph 4.14.2.1.). Specifically, the individual variables show statistically significant differences regarding the factors of somatic anxiety ($F_{3,84}$ = 156.212, p<.001, η^2_p = .645), cognitive anxiety ($F_{3,84}$ = 325.206, p<.001, η^2_p = .791) and behavioral anxiety ($F_{3,84}$ = 52.078, p<.001, η^2_p = .377) with the girl participants in the experimental group indicating lower mean values compared to those of the control group. This factor indicates that participants in the experimental group showed lower anxiety in all three factors following the completion of the intervention.

Table 4.14.2. Mean values (M), standard deviations (SD) of girl participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the final measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.61 (0.71)	1.98 (0.47)
Cognitive Anxiety	3.88 (0.64)	1.91 (0.31)
Behavioral Anxiety	3.23 (0.70)	2.35 (0.36)



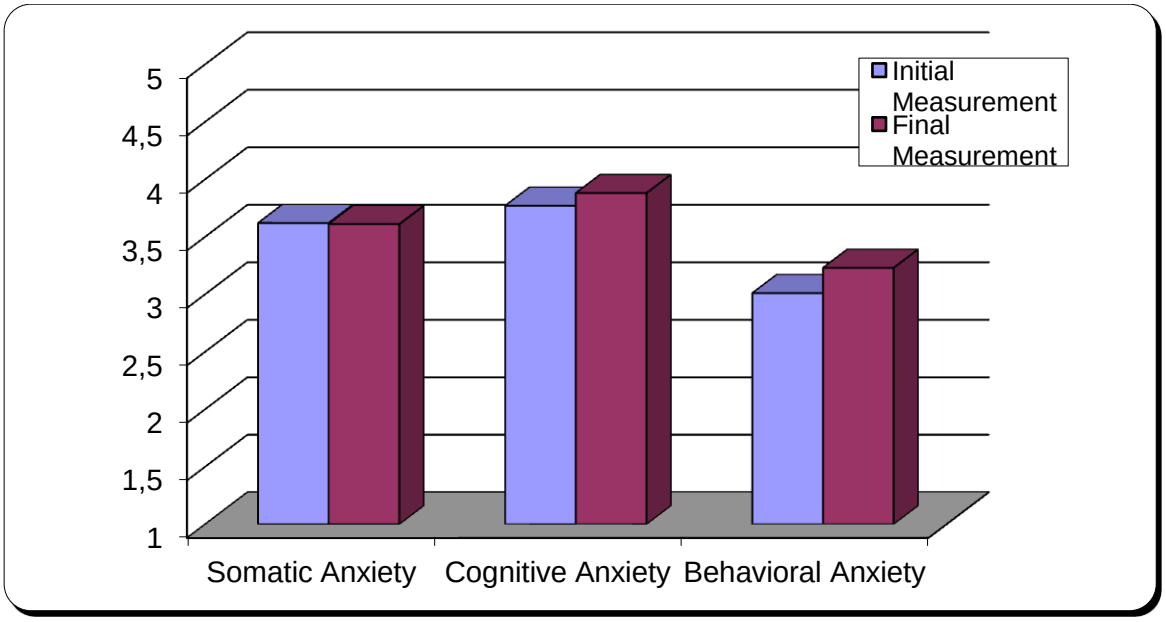
Graph 4.14.2.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors for the girl participants in the experimental group and the control group in the final measurement

Table 4.14.3. below shows the changes between the initial and final measurement of girl participants in the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors. The results of multiple analysis of variance for repeated measures support the existence of statistically significant changes between the initial and final measurement for girl participants in the control group (Wilks' Λ = .789, $F_{2,44}$ = 3.933, p<.05, η^2_p = .211) (Graph 4.14.3.). More specifically, the individual variables show the existence of significant differences only in the behavioral anxiety factor ($F_{1,45}$ = 7.533, p<.01, η^2_p = .141) with girl participants of the control group

indicating higher values in the final measurement, while the factors of somatic anxiety ($F_{1,45}$ = .007, *ns*, η^2_p = .000) and cognitive anxiety ($F_{1,45}$ = 3.471, *ns*, η^2_p = .071) do not show statistically significant changes between initial and final measurement of the girl participants.

Table 4.14.3. Mean values (M), standard deviations (SD) of girl participants in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.62 (0.61)	3.61 (0.72)
Cognitive Anxiety	3.77 (0.64)	3.88 (0.64)
Behavioral Anxiety	3.01(0.67)	3.23 (0.70)



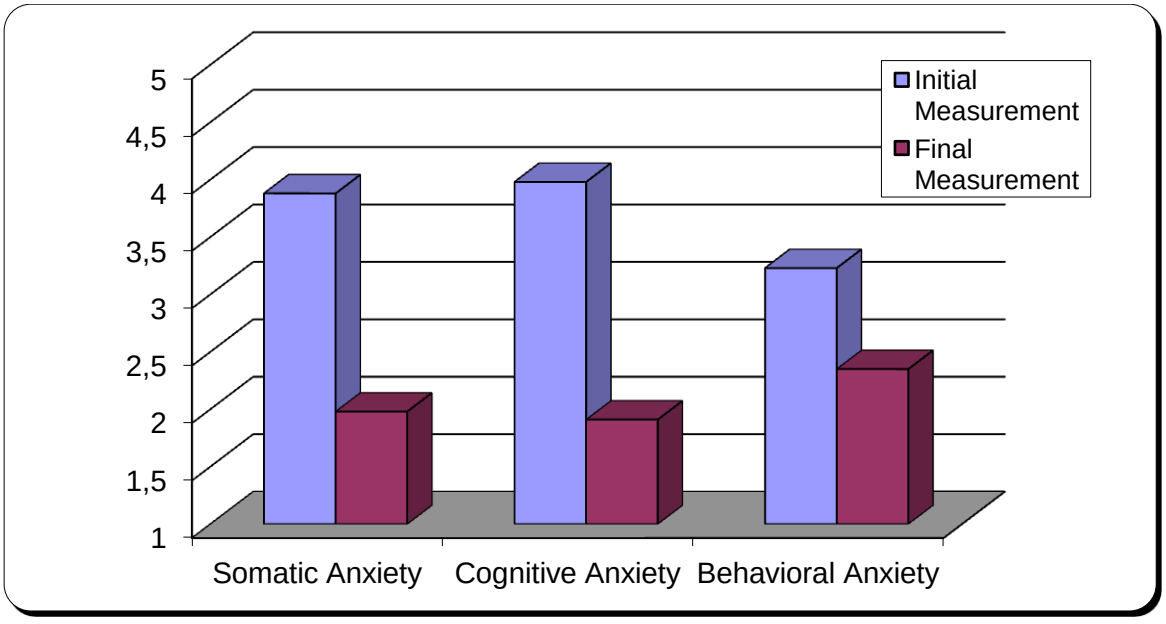
Graph 4.14.3.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the initial and final measurement for the girl participants in the control group

Table 4.14.4. shows the changes between the initial and final measurement of girl participants in the experimental group regarding the Second Language Writing Anxiety

Inventory (SLWAI) (Cheng, 2004) factors. The results of the multiple analysis of variance for repeated measures indicate the existence of statistically significant changes between the initial and final measurement of girl participants of the experimental group (Wilks' Λ = .066, $F_{2,38}$ = 179.609, p<.001, η^2_p = .934) (Graph 4.14.4.1.).

Table 4.14.4. Mean values (M), standard deviations (SD) of girl participants in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors for the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.88 (0.63)	1.98 (0.47)
Cognitive Anxiety	3.98 (0.62)	1.91(0.31)
Behavioral Anxiety	3.23 (0.73)	2.35 (0.36)



Graph 4.14.4.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors for girl participants in the experimental group in the initial and final measurement

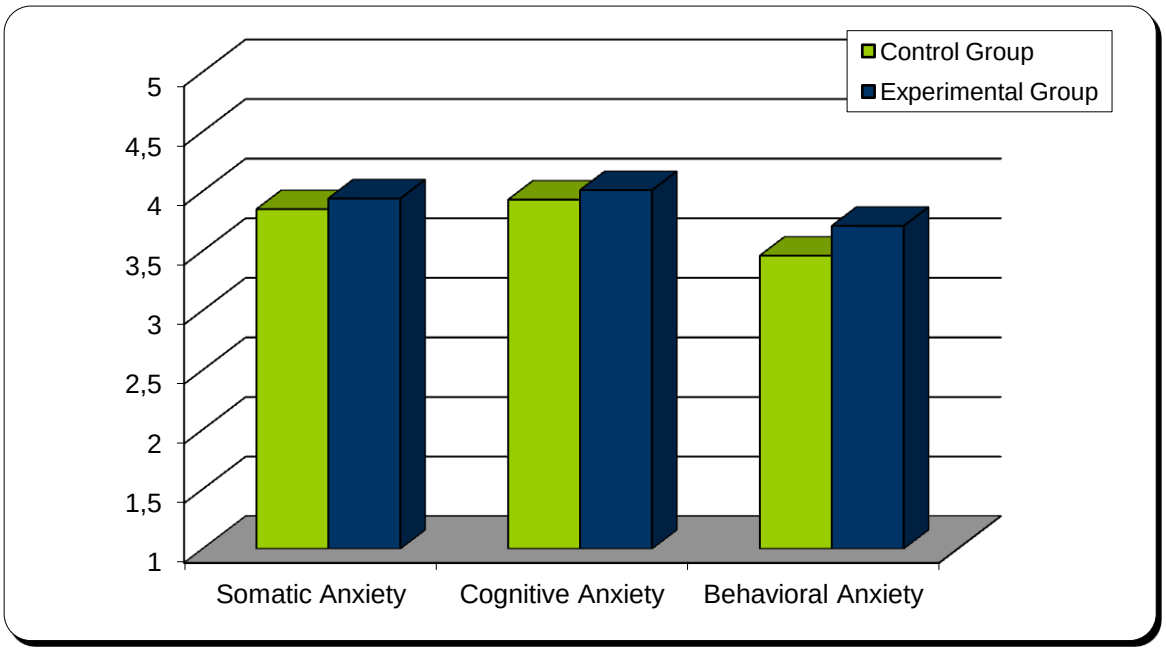
Specifically, the individual variables above show statistically significant changes in the factors of somatic anxiety ($F_{1,39}$ = 432.240, p<.001, η^2_p = .915), cognitive anxiety ($F_{1,39}$

= 418.255, $p<.001$, $\eta^2_p = .913$) and behavioral anxiety ($F_{1,39} = 55.163$, $p<.001$, $\eta^2_p = .580$) with the girl participants in the experimental group indicating lower mean values in the final measurement compared to the initial measurement, a factor which indicates that girl participants in the experimental group show lower anxiety in all three factors, following the completion of the intervention.

Tables from 4.14.5. to 4.14.12. that follow present the results concerning the factors of anxiety of boy participants in the experimental group and the control group in both the initial and the final measurement, as based on the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004). Specifically, Table 4.14.5. shows the differences between the boy participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) in the initial measurement. The results of the multiple analysis of variance show no statistically significant differences between boy participants of the two groups (control - experimental) at the initial measurement (Wilks' $\Lambda = .976$, $F_{1,87} = .697$, *ns*, $\eta^2_p = .024$) (Graph 4.15.5.1.).

Table 4.14.5. Mean values (M), standard deviations (SD) of the boy participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the initial measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.85 (0.53)	3.94 (0.67)
Cognitive Anxiety	3.93 (0.53)	4.01 (0.82)
Behavioral Anxiety	3.46 (0.77)	3.71(0.89)

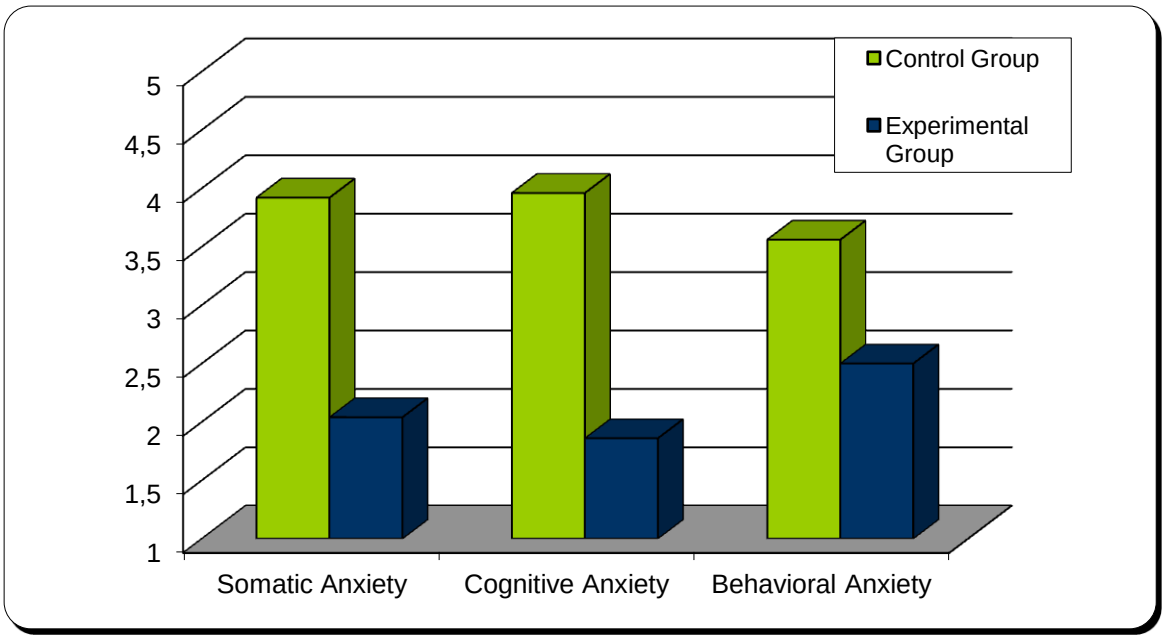


Graph 4.14.5.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors among boy participants in the experimental group and the control group at the initial measurement

Table 4.14.6. depicted below shows the differences between the boy participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) in the final measurement. The results of multiple analysis of variance indicate the existence of statistically significant differences between the boy participants in both groups (control - experimental) (Wilks' Λ = .123, $F_{2,86}$ = 201.535, p<.001, η^2_p = .877) (Graph 4.14.6.1.).

Table 4.14.6. Mean values (M), standard deviations (SD) of the boy participants in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors in the final measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.92 (0.48)	2.04 (0.42)
Cognitive Anxiety	3.96 (0.43)	1.86 (0.32)
Behavioral Anxiety	3.56 (0.53)	2.50 (0.40)



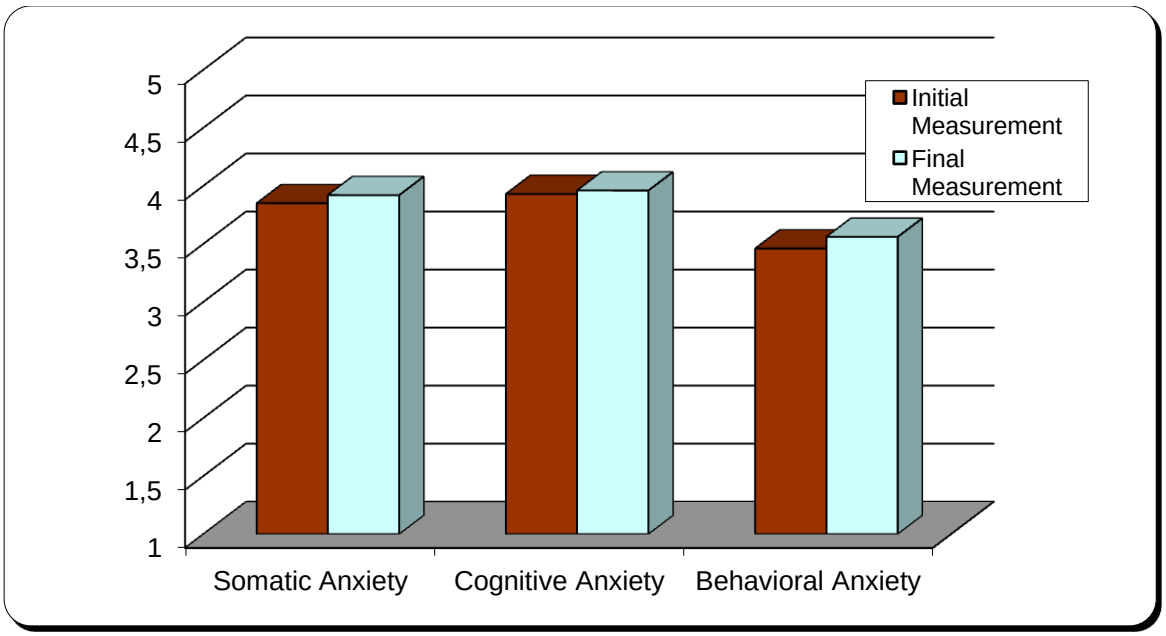
Graph 4.14.6.1. Graph values regarding Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors for boy participants in the experimental group and the control group in the final measurement

Specifically, the individual variables show statistically significant differences in the factors of somatic anxiety ($F_{1,87}$ = 355.955, p<.001, η^2_p = .804), cognitive anxiety ($F_{1,87}$ = 611.917, p<.001, η^2_p = .876) and behavioral anxiety ($F_{1,87}$ = 102.973, p<.001, η^2_p = .542) with boy participants of the experimental group indicating lower mean values compared to those of the control group. This specific result indicates that the boy participants in the experimental group indicate lower anxiety in all three factors, following the completion of the intervention program.

Table 4.14.7. that follows shows the changes between the initial and final measurement of the boy participants in the control group regarding the Second Language Writing Anxiety Inventory (SLWAI) factors. The results of the multiple analysis of variance for repeated measures do not support the existence of statistically significant differences between the initial and final measurement of boy participants in the control group (Wilks' Λ = .965, $F_{2,44}$ = .597, *ns*, η^2_p = .035) (Graph 4.14.6.1.).

Table 4.14.7. Mean values (M), standard deviations (SD) of boy participants in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors for the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.85 (0.53)	3.92 (0.48)
Cognitive Anxiety	3.93 (0.53)	3.96 (0.43)
Behavioral Anxiety	3.46 (0.77)	3.56 (0.53)



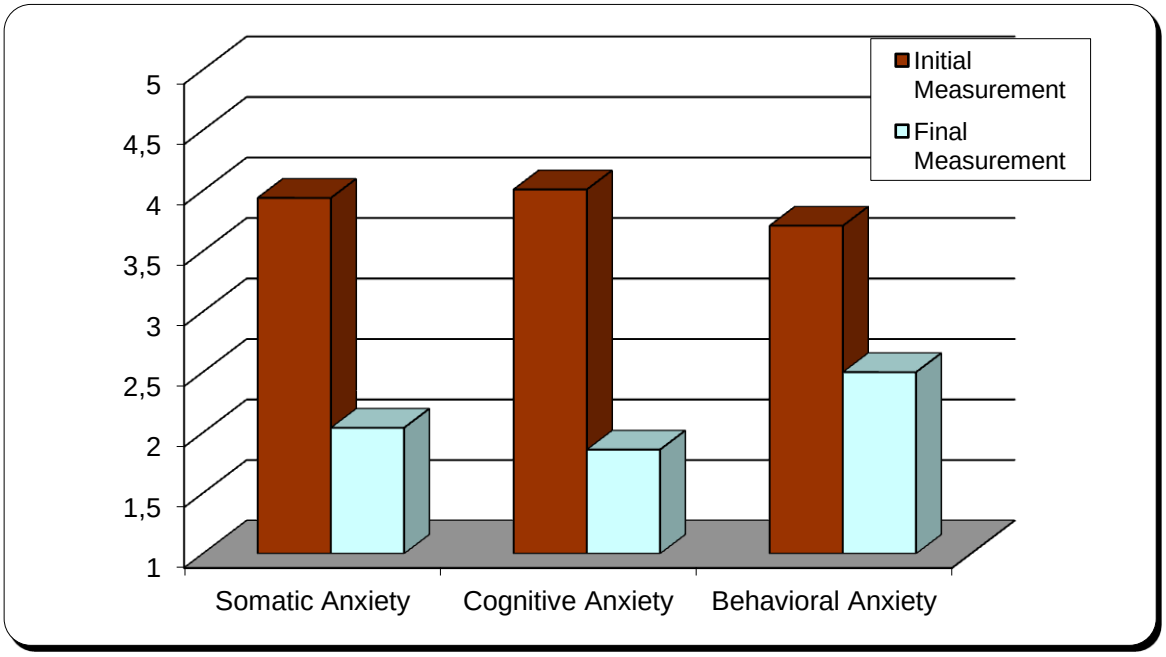
Graph 4.14.7.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors of boy participants in the control group at the initial and final measurement

Table 4.14.8. that follows shows the changes between the initial and final measurement of the boy participants in the experimental group regarding the Second Language Writing Anxiety Inventory factors (SLWAI) (Cheng, 2004). The results of the multiple analysis of variance for repeated measures support the existence of statistically significant changes between the initial and final measurement of the boy participants in the control group (Wilks' Λ = .081, $F_{2,33}$ = 125.343, p<.001, η^2_p = .919) (Graph 4.14.7.1). Specifically, the individual variables show statistically significant changes in the factors of somatic anxiety ($F_{1,34}$ = 309.719, p<.001, η^2_p = .898), cognitive anxiety

($F_{1,34}$ = 296.553, p<.001, η^2_p = .894) and behavioral anxiety ($F_{1,34}$ = 79.368, p<.001, η^2_p = .694) with boy participants of the experimental group indicating lower mean values at the final measurement compared to the initial measurement, a factor that indicates that the boy participants of the experimental group show lower anxiety in all three factors, following the completion of the intervention program.

Table 4.14.8. Mean values (M), standard deviations (SD) of boy participants in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) factors for the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.94 (0.67)	2.04 (0.42)
Cognitive Anxiety	4.01 (0.82)	1.86 (0.32)
Behavioral Anxiety	3.71 (0.89)	2.50 (0.40)

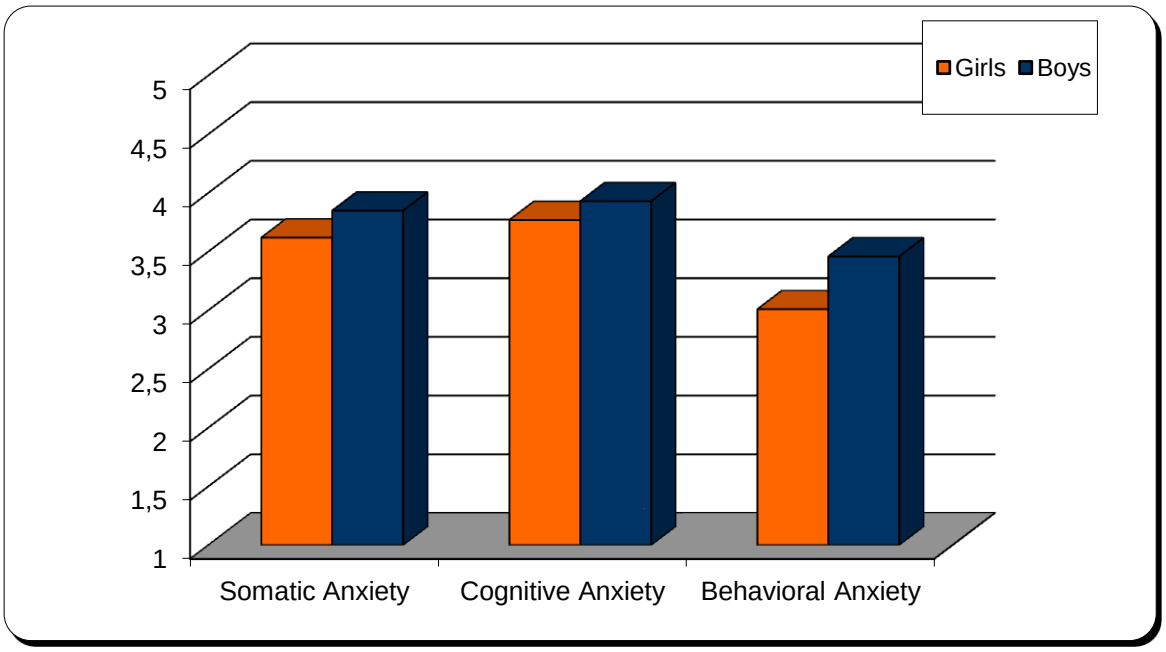


Graph 4.14.8.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boy participants in the experimental group at the initial and final measurement

Table 4.14.9. that follows shows the differences between the boy and the girl participants in the control group regarding the Second Language Writing Anxiety Inventory factors (SLWAI) at the initial measurement. The results of the multiple analysis of variance show statistically significant differences between boy and girl participants in the control group (Wilks' Λ = .910, $F_{1,98}$ = 3.147, p<.05, η^2_p = .090) (Graph 4.14.8.1.). Specifically, the individual variables show statistically significant differences in the factors of somatic anxiety ($F_{1,98}$ = 3.992, p<.05, η^2_p = .048) and behavioral anxiety ($F_{1,98}$ = 9.566, p<.01, η^2_p = .089) with the boy participants indicating higher mean values compared to the girl participants, while regarding the factor of cognitive anxiety ($F_{1,98}$ = 1.869, *ns*, η^2_p = .019) no significant differences were indicated.

Table 4.14.9. Mean values (M), standard deviations (SD) of boy and girl participants in the control group regarding the Second Language Writing Anxiety Inventory factors (SLWAI) (Cheng, 2004) at the initial measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	3.62 (0.61)	3.85 (0.53)
Cognitive Anxiety	3.77 (0.64)	3.93 (0.53)
Behavioral Anxiety	3.01 (0.67)	3.46 (0.77)

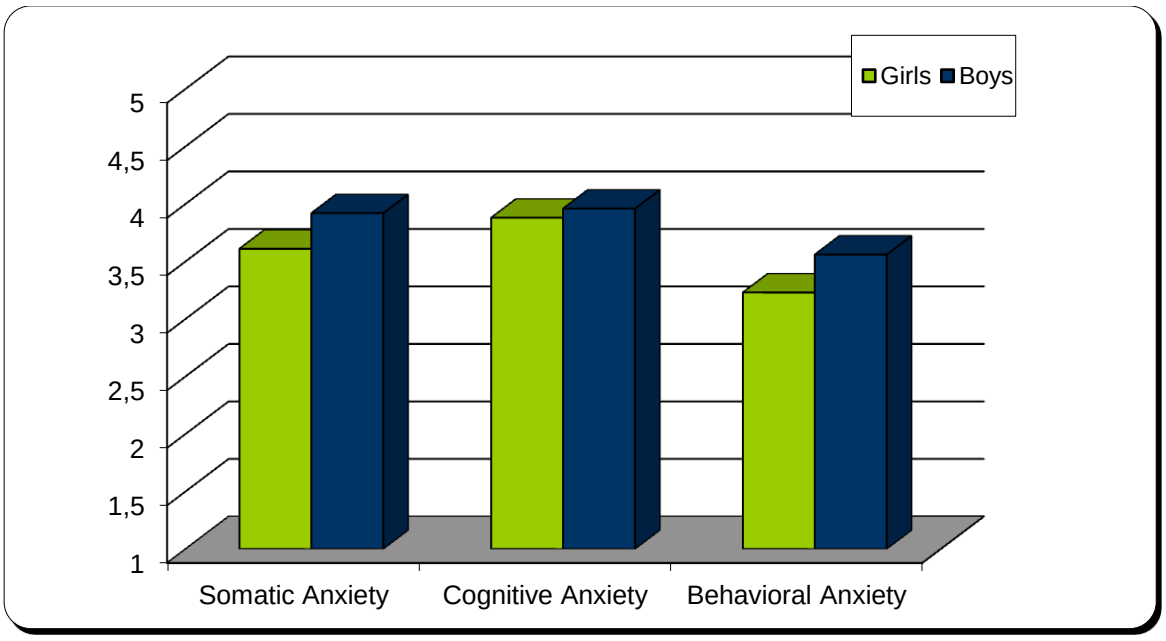


Graph 4.14.9.1. Graph values regarding Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors between boy and girl participants in the control group at the initial measurement

Table presents 4.14.10. below, shows the differences between boy and girl participants of the control group in terms of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) in the final measurement. The results of the multiple analysis of variance indicate, as in the original measurement, the existence of statistically significant differences between boy participants and girl participants in the control group (Wilks' Λ = .884, $F_{1,98}$ = 4.189, p<.01, η^2_p = .116) (Graph 4.14.10.1.). Specifically, the individual variables show statistically significant differences in the factors of somatic anxiety ($F_{1,98}$ = 6.251, p<.05, η^2_p = .060) and behavioral anxiety ($F_{1,98}$ = 6.863, p<.01, η^2_p = .065) with boy participants indicating higher values compared to the girl participants , while the factor of cognitive anxiety ($F_{1,98}$ = .549, *ns*, η^2_p = .006) does not show statistically significant differences.

Table 4.14.10. Mean values (M), standard deviations (SD) of boy and girl participants of the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	3.61 (0.72)	3.92 (0.48)
Cognitive Anxiety	3.88 (0.64)	3.96 (0.43)
Behavioral Anxiety	3.23 (0.70)	3.56 (0.53)

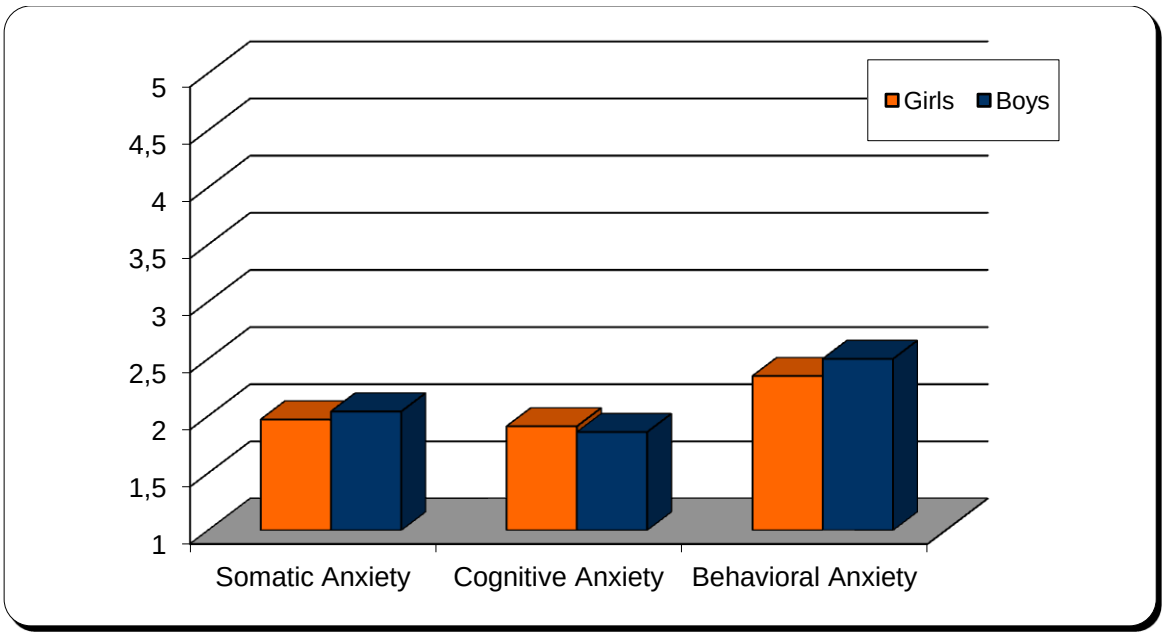


Graph 4.14.10.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boy and girl participants in the control group at the final measurement

Table 4.14.11. that follows shows the differences between the boy participants and the girl participants in the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement. The results of the multiple analysis of variance show no statistically significant differences between boy and girl participants in the experimental group (Wilks' Λ = .924, $F_{1,75}$ = 2.004, *ns*, η^2_p = .076) (Graph 4.14.10.1.).

Table 4.14.11. Mean values (M), standard deviations (SD) of boy and girl participants in the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	1.97 (0.47)	2.04 (0.42)
Cognitive Anxiety	1.91 (0.31)	1.86 (0.32)
Behavioral Anxiety	2.35 (0.36)	2.50 (0.40)



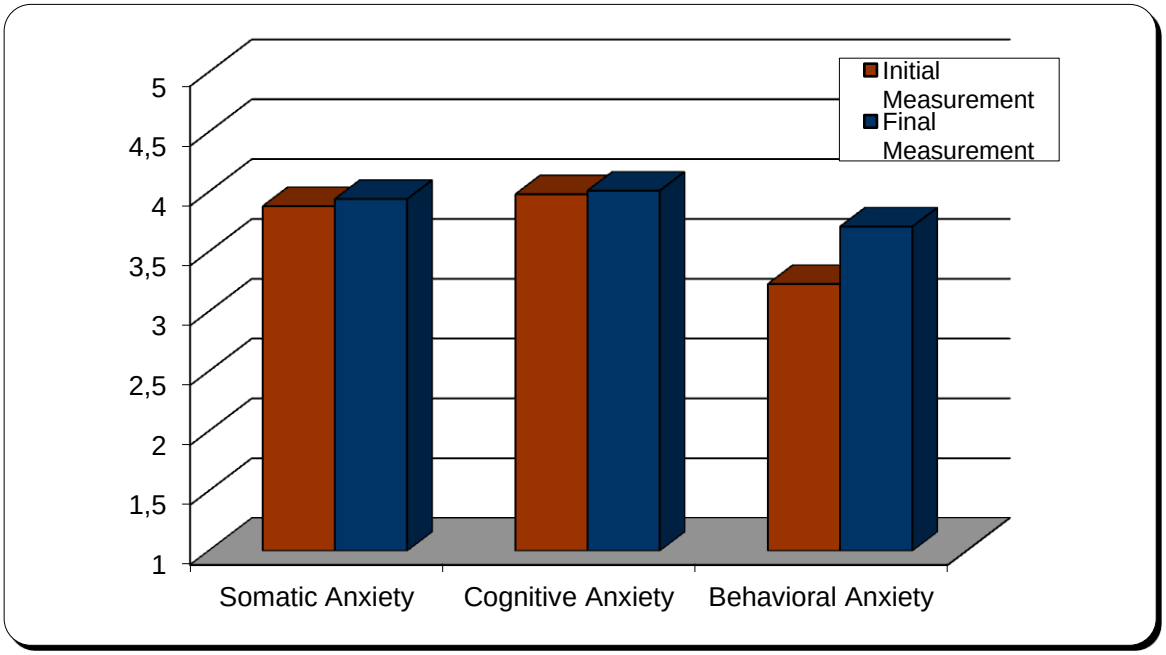
Graph 4.14.11.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boy and girl participants of the experimental group at the initial measurement

Table 4.14.12. shown below presents the differences between the boy and girl participants in the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors at the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between the boy and girl participants in the experimental group (Wilks' Λ = .898, $F_{1,75}$ = 2.763, p<.05, η^2_p = .102) (Graph 4.14.11.1.). Specifically, the individual variables show statistically significant differences regarding the factor of behavioral anxiety ($F_{1,75}$ = 6.863, p<.05, η^2_p = .084) with boy participants indicating higher mean

values compared to the girl participants, while the factors of somatic anxiety (F1, 75 = .179, ns, i2p = .002) and cognitive anxiety ($F_{1,75}$ = .024, *ns*, η^2_p = .000) do not show statistically significant differences between the two genders.

Table 4.14.12. Mean values (M), standard deviations (SD) of boy and girl participants in the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	3.88 (0.63)	3.94 (0.67)
Cognitive Anxiety	3.98 (0.62)	4.01(0.82)
Behavioral Anxiety	3.23 (0.73)	3.71(0.89)



Graph 4.14.12.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors for boy and girl participants in the experimental group at the final measurement

4.15. Grade

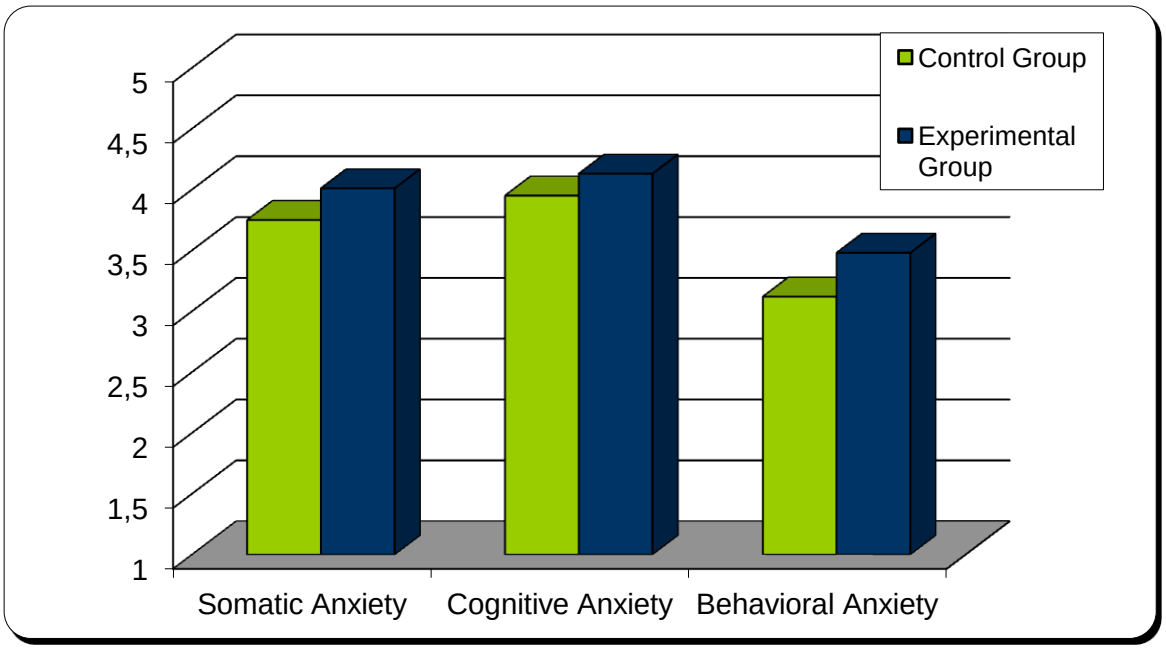
Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004): Differences between the experimental group and the control group in the initial and final measurement for all participants (girls/boys) in the 5th and 6th grade

Tables from 4.15.1. to 4.15.4. present the results of boys/girl participants of the fifth grade of the experimental group and the control group in both the initial and the final measurement, regarding the perceived anxiety, as evaluated, based on Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004).

Specifically, Table shows the differences 4.15.1. of boys/girl participants of the fifth grade of the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) in the initial measurement. The results of the multiple analysis of variance show no statistically significant differences between boys/girl participants in both groups (control - experimental) in the initial measurement (Wilks' Λ = .945, $F_{1,88}$ = 1.669, *ns*, η^2_p = .055) (Graph 4.15.1.1.).

Table 4.15.1. Mean values (M), standard deviations (SD) of boys/girl participants of the fifth grade of the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.75 (0.65)	4.01 (0.63)
Cognitive Anxiety	3.95 (0.63)	4.13 (0.68)
Behavioral Anxiety	3.12 (0.72)	3.48 (0.90)

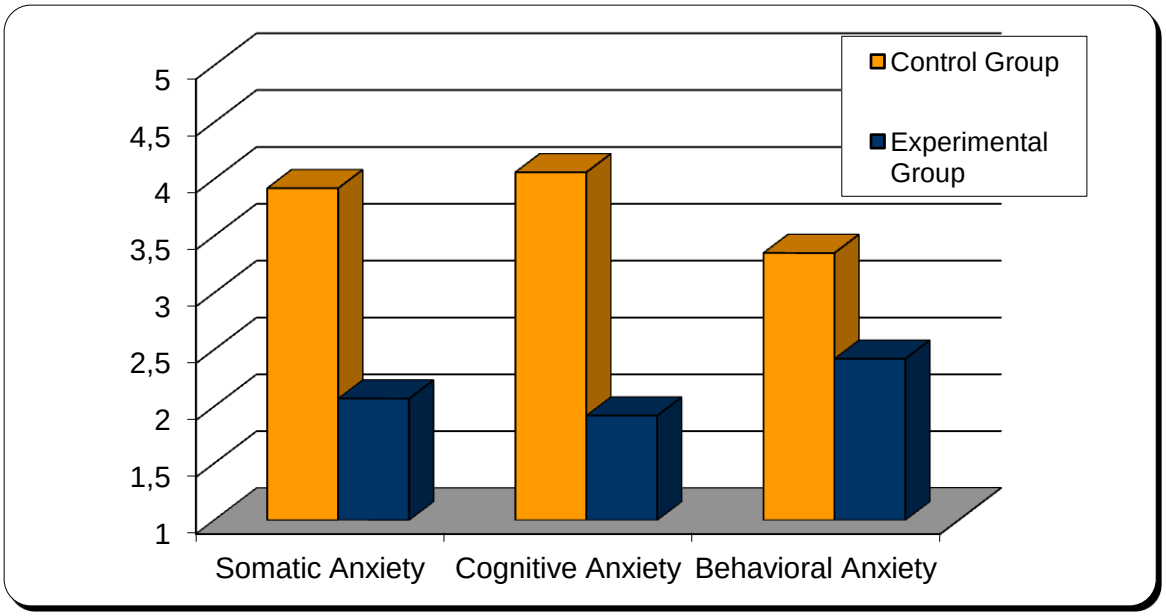


Graph 4.15.1.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys/girl participants in the fifth grade of the experimental group and the control group at the initial measurement

Table 4.15.2. that follows shows the differences between participants boy/girl of the fifth grade in the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between boy/girl participants of the 5th grade of both groups (control - experimental) (Wilks' Λ = .157, $F_{1,88}$ = 153.487, p<.001, η^2_p = .843) (Graph 4.15.2.1.).

Table 4.15.2. Mean values (M), standard deviations (SD) of boys/girl participants of the fifth grade of the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.92 (0.66)	2.07 (0.43)
Cognitive Anxiety	4.06 (0.58)	1.92 (0.29)
Behavioral Anxiety	3.35 (0.64)	2.42 (0.37)



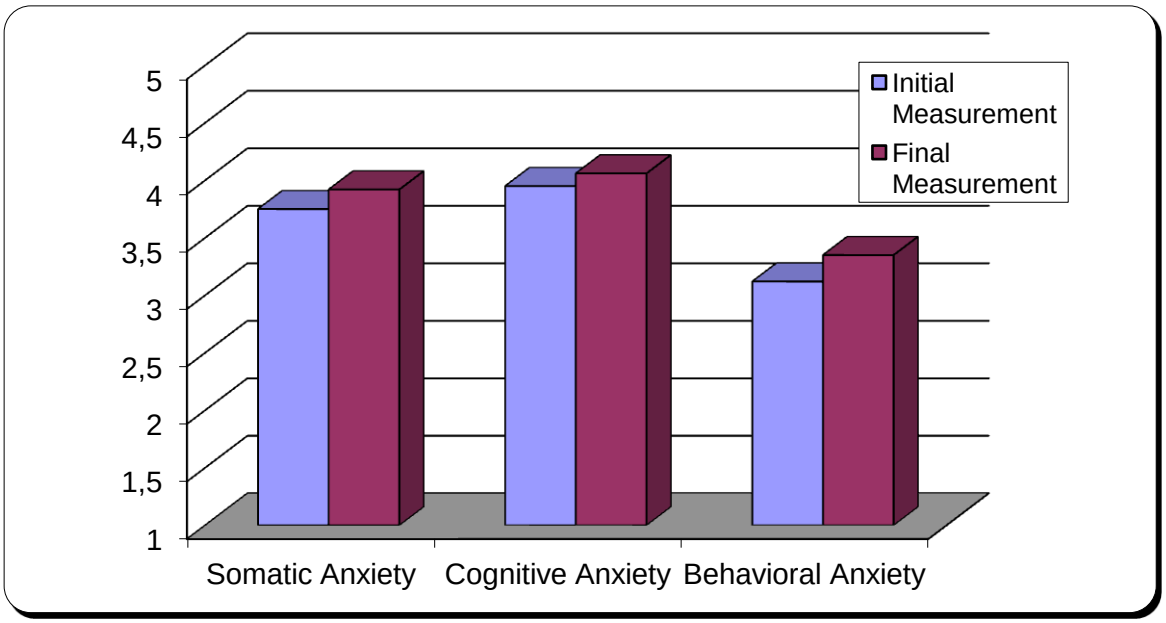
Graph 4.15.2.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys/girl participants of the fifth grade of the experimental group and the control group in the final measurement

Specifically, the individual variables indicate statistically significant differences in the factors of somatic anxiety ($F_{1,88}$ = 237.780, p<.001, η^2_p = .730), cognitive anxiety ($F_{1,88}$ = 461.023, p<.001, η^2_p = .840) and behavioral anxiety ($F_{1,88}$ = 68.576, p<.001, η^2_p = .438) with participants boy/girl of the experimental group indicating lower mean values compared to participants boy/girl of the control group, a factor that indicates that the participants of the experimental group show lower anxiety in all three factors, following the completion of the intervention.

Table 4.15.3. below shows the changes between the initial and final measurement of boys/girl participants of the fifth grade in the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors. The results of the multiple analysis of variance for repeated measures support the existence of statistically significant changes between the initial and final measurement of boys/girl participants in the control group (Wilks' Λ = .833, $F_{1,48}$ = 3.148, p<.05, η^2_p = .167) (Graph 4.15.3.1).

Table 4.15.3. Mean values (M), standard deviations (SD) of boys/girl participants of the fifth grade in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Content	3.75 (0.65)	3.92 (0.66)
Analytical Criteria	3.95 (0.63)	4.06 (0.58)
Quantitative Criteria	3.12 (0.72)	3.35 (0.64)



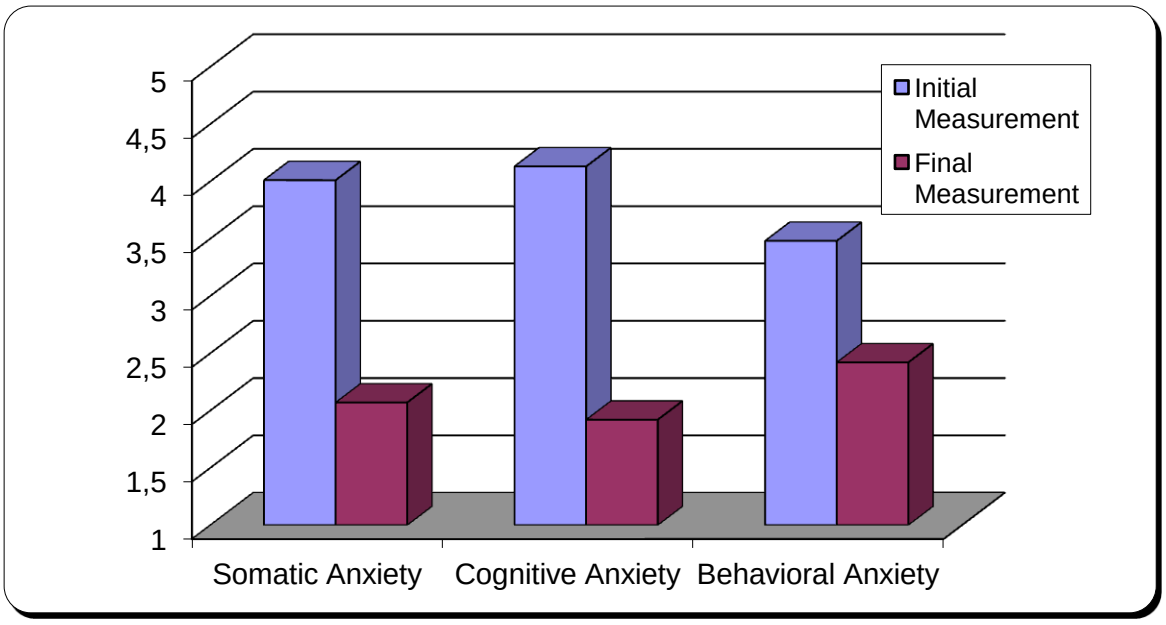
Graph 4.15.3.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys/girl participants of the fifth grade in the control group at the initial and final measurement

More specifically, the individual variables show a statistically significant change between the two measurements (initial - final) regarding the factors of somatic anxiety ($F_{1,48}$ = 5.638, p<.05, η^2_p = .103) and behavioral anxiety ($F_{1,48}$ = 7.731, p<.01, η^2_p = .136) with boys/girl participants indicating a higher value in the final measurement compared to the initial measurement. Finally, the factor of cognitive anxiety ($F_{1,48}$ = 3.627, *ns*, η^2_p = .069) does not show statistically significant changes between the initial and final measurement for the boys/girl participants.

Table 4.15.4. that follows shows the changes between the initial and final measurement of boy/girl participants of the fifth grade in the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors. The results of the multiple analysis of variance for repeated measures validate a statistically significant change between the initial and final measurement of boys/girl participants of the fifth grade of the experimental group (Wilks' Λ = .058, $F_{1,38}$ = 199.401, p<.001, η^2_p = .942) (Graph 4.15.4.1.).

Table 4.15.4. Mean values (M), standard deviations (SD) of boys/girl participants of the fifth grade in the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors for the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	4.01 (0.63)	2.07 (0.43)
Cognitive Anxiety	4.13 (0.68)	1.92 (0.29)
Behavioral Anxiety	3.48 (0.90)	2.42 (0.37)



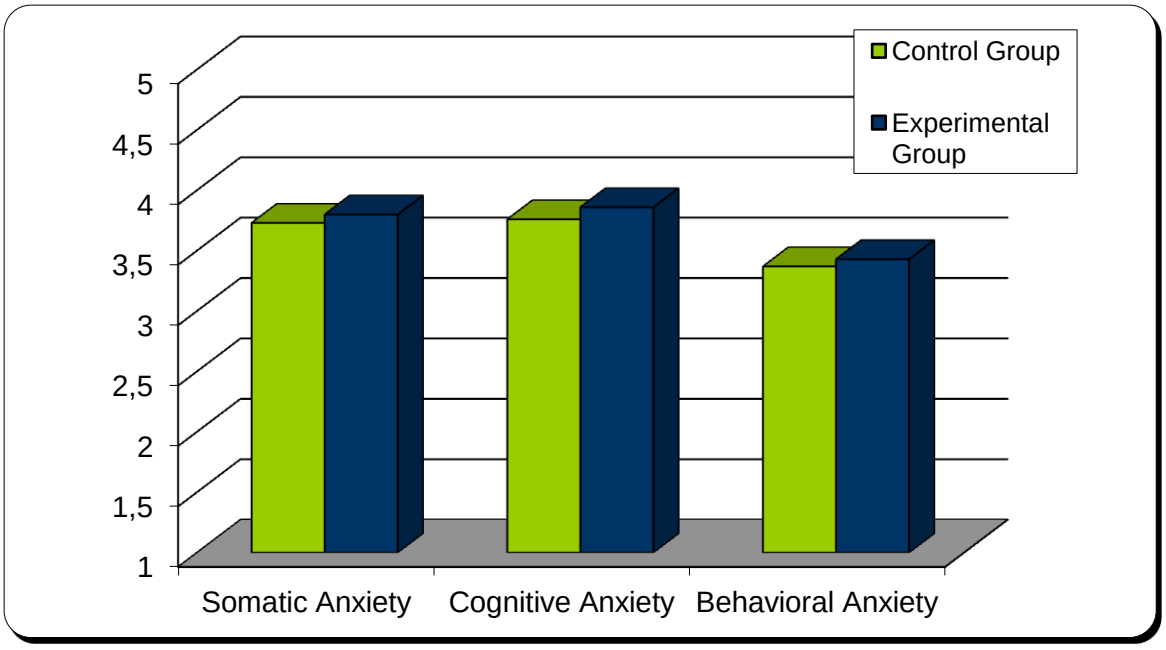
Graph 4.15.4.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys/girl participants of the fifth grade in the experimental group in the initial and final measurement

Specifically, the individual variables show statistically significant changes in the factors of somatic anxiety ($F_{1,38}$ = 455.032, p<.001, η^2_p = .921), cognitive anxiety $F_{1,38}$ = 485.441, p<.001, η^2_p = .926) and behavioral anxiety ($F_{1,38}$ = 62.027, p<.001, η^2_p = .614) with boys/girl participants of the experimental group indicating lower mean values in the final measurement compared to the initial measurement. This result indicates that boys/girl participant of the experimental group show lower anxiety in all three factors, following the completion of the intervention.

Tables 4.15.5. up to 4.15.12. below present the results regarding the perceived anxiety, as assessed by the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) for boys/girl participants of the sixth grade in the experimental group and the control group, in both the initial and the final measurement. Specifically, Table 4.15.5. shows the differences between boy/girl participants of the sixth grade of the experimental group and the control group in regards to the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) in the initial measurement.

Table 4.15.5. Mean values (M), standard deviations (SD) of boy/girl participants of the sixth grade of the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.73 (0.50)	3.80 (0.65)
Cognitive Anxiety	3.76 (0.54)	3.86 (0.73)
Behavioral Anxiety	3.37 (0.77)	3.43 (0.78)



Graph 4.15.5.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boy/girl participants of the sixth grade three of the experimental group and the control group at the initial measurement

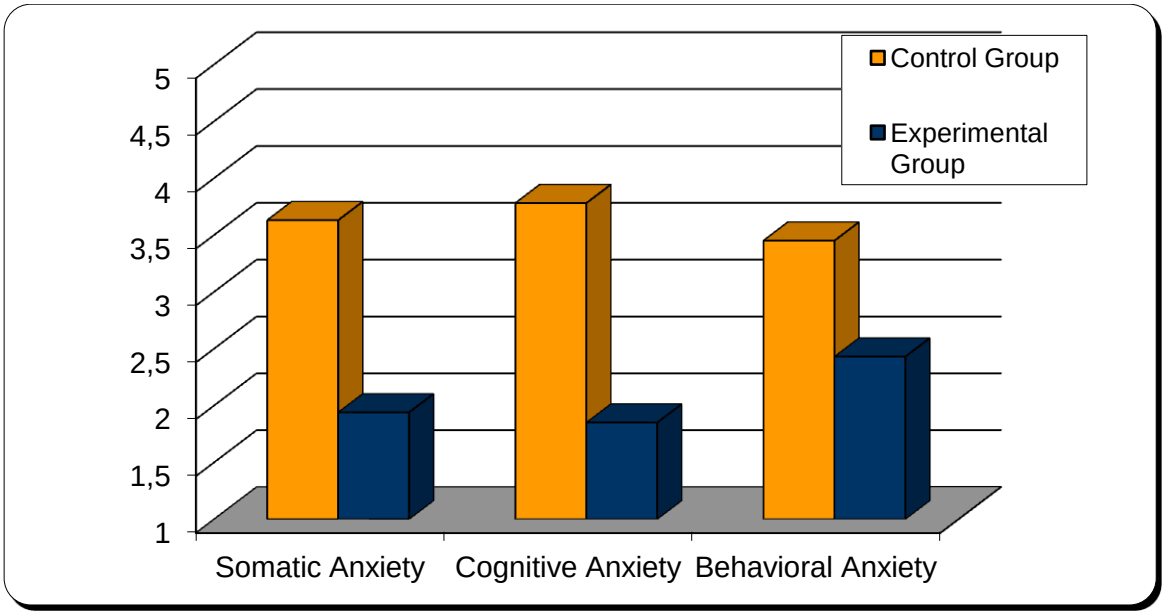
The above results of the multiple analysis of variance show no statistically significant differences between boys/girl participants of both groups (control - experimental) at the initial measurement (Wilks' Λ = .976, $F_{1,87}$ = .697, *ns*, η^2_p = .024) (Graph 4.15.5.1.).

Table 4.15.6. that follows shows the differences between boy/girl participants of the sixth grade of the experimental group and the control group in regards to the Second

Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between boy/girl participants of the sixth grade of both groups (control - experimental) (Wilks' Λ = .151, $F_{1,85}$ = 156.079, p<.001, η^2_p = .849) (Graph 4.15.6.1.).

Table 4.15.6. Mean values (M), standard deviations (SD) of boy/girl participants of the sixth grade of the experimental group and the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement

	Control Group M (SD)	Experimental Group M (SD)
Somatic Anxiety	3.63 (0.55)	1.94 (0.46)
Cognitive Anxiety	3.78 (0.46)	1.85 (0.35)
Behavioral Anxiety	3.45 (0.64)	2.43 (0.41)



Graph 4.15.6.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boy/girl participants of the sixth grade in the experimental group and the control group in the final measurement

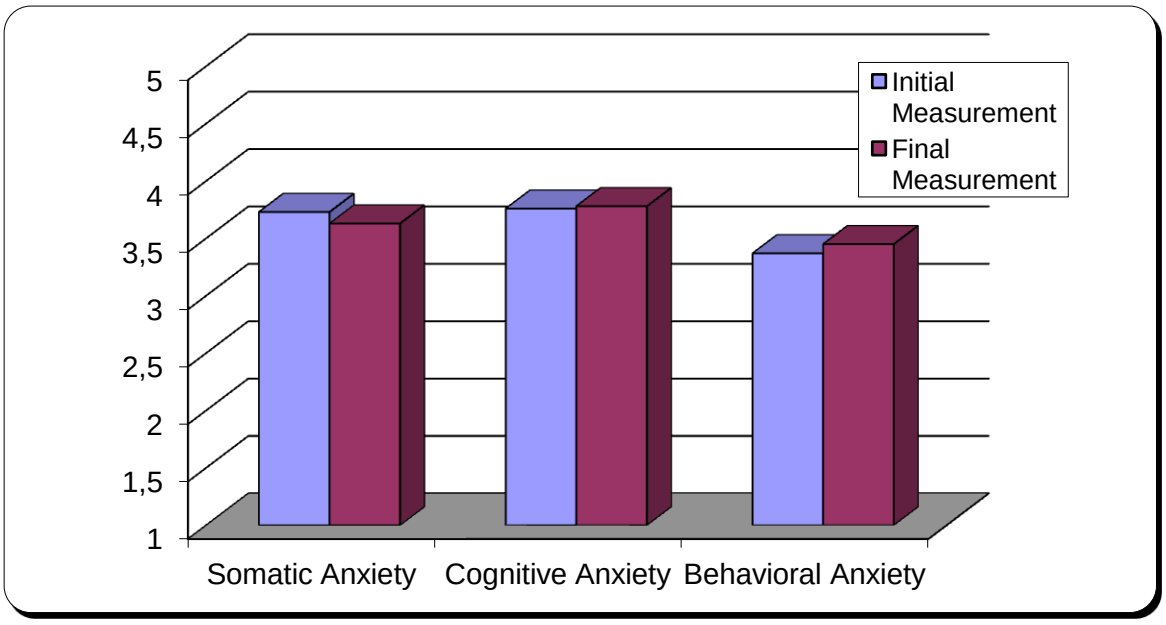
Specifically, the individual variables above show statistically significant differences as regard to the factors of somatic anxiety ($F_{1,85}$ = 227.894, p<.001, η^2_p = .728), cognitive

anxiety ($F_{1,85}$ = 464.669, p<.001, η^2_p = .845) and behavioral anxiety ($F_{1,85}$ = 73.531, p<.001, η^2_p = .464) with boy participants of the experimental group indicating lower mean values compared to those of the control group in the final measurement. This specific result indicates that the participants in the experimental group show lower anxiety in all three factors, following the completion of the intervention.

Table 4.15.7. below shows the changes between the initial and final measurement of boy/girl participants of the sixth grade of the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors. The results of the multiple analysis of variance for repeated measures do not support the existence of statistically significant changes between the initial and final measurement of girl participants in the control group (Wilks' Λ = .914, $F_{1,48}$ = 1.465, *ns*, η^2_p = .236) (Graph 4.15.7.1.).

Table 4.15.7. Mean values (M), standard deviations (SD) of the boy/girl participants of the sixth grade at the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors for the control group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.73 (0.50)	3.63 (0.55)
Cognitive Anxiety	3.76 (0.54)	3.78 (0.46)
Behavioral Anxiety	3.37 (0.77)	3.45 (0.64)

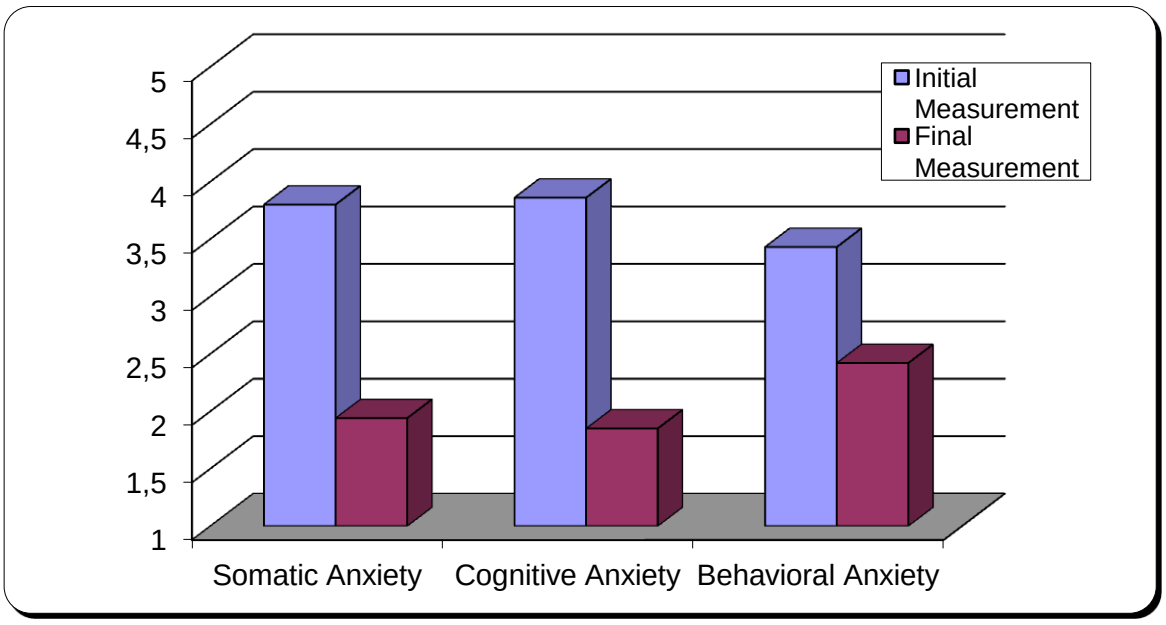


Graph 4.15.7.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of the boy/girl participants of the sixth grade of the control group at the initial and final measurement

Table 4.15.8. below shows the changes between the initial and final measurement of the boy/girl participants of the sixth grade of the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors. The results of the multiple analysis of variance for repeated measures indicate the existence of statistically significant changes between the initial and final measurement of boy/girl participants of the sixth grade in the experimental group (Wilks' Λ = .085, $F_{1,35}$ = 125.613, p<.001, η^2_p = .917) (Graph 4.15.8.1.).

Table 4.15.8. Mean values (M), standard deviations (SD) of boy/girl participants of the sixth grade at the initial and the final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the experimental group

	Initial Measurement M (SD)	Final Measurement M (SD)
Somatic Anxiety	3.80 (0.65)	1.94 (0.46)
Cognitive Anxiety	3.86 (0.73)	1.85 (0.35)
Behavioral Anxiety	3.43 (0.78)	2.42 (0.41)



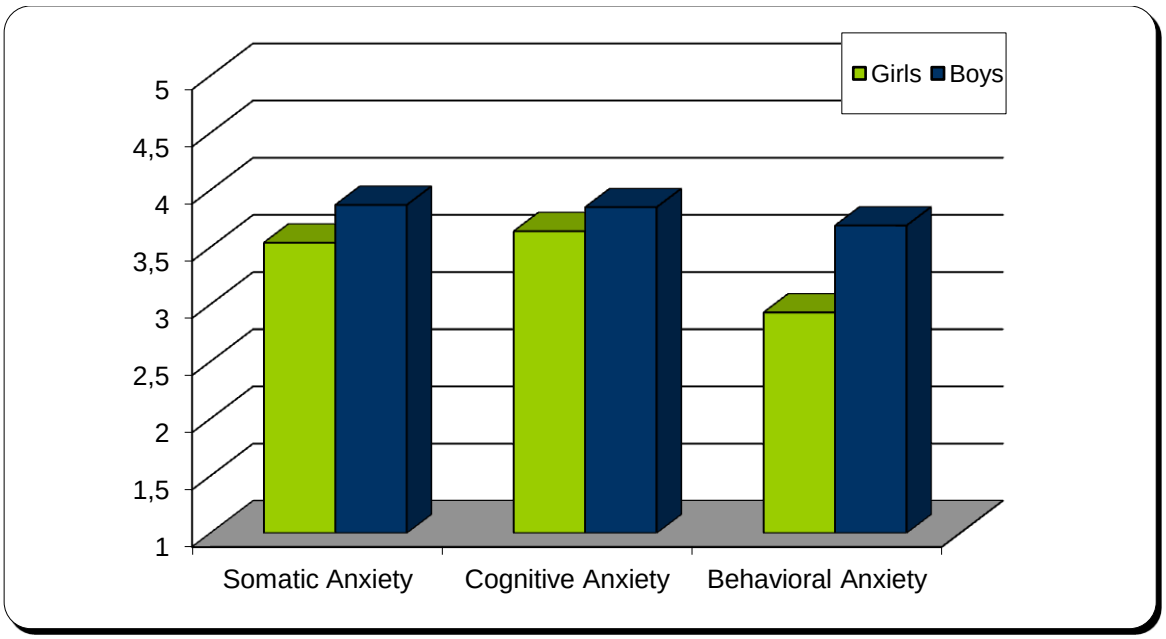
Graph 4.15.8.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of the boy/girl participants of the sixth grade of the experimental group at the initial and final measurement

Specifically, the individual variables show statistically significant changes in the factors of somatic anxiety ($F_{1,35}$ = 299.346, p<.001, η^2_p = .893), cognitive anxiety ($F_{1,35}$ = 264.813, p<.001, η^2_p = .880) and behavioral anxiety ($F_{1,35}$ = 67.323, p<.001, η^2_p = .652) with boy/girl participants of the experimental group indicating lower mean values in the final measurement compared to the initial measurement, a factor that indicates that participants of the experimental group had lower anxiety in all three factors, following the completion of the intervention.

Table 4.15.9 that follows shows the differences between the boy/girl participants of the sixth grade in the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between boys and girls of the sixth grade in the control group (Wilks' Λ = .744, $F_{1,48}$ = 5.271, p<.01, η^2_p = .256) (Graph 4.15.9).

Table 4.15.9 Mean values (M), standard deviations (SD) of sixth grade boy and girls participants regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the control group at the initial measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	3.54 (0.55)	3.87 (0.43)
Cognitive Anxiety	3.64 (0.57)	3.85 (0.50)
Behavioral Anxiety	2.93 (0.68)	3.69 (0.068)



Graph 4.15.9.1 Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys and girls of the sixth grade in the control group at the initial measurement

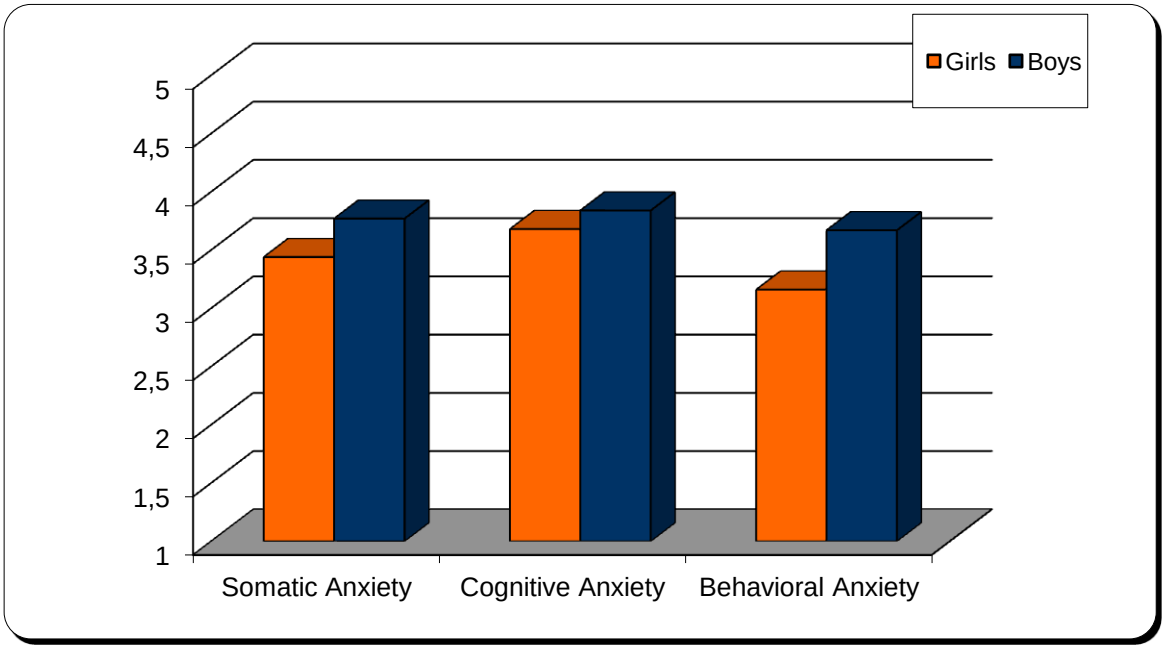
Specifically, the individual variables show statistically significant differences in the factors of somatic anxiety ($F_{1,48}$ = 5.455, p<.05, η^2_p = .102) and behavioral anxiety $F_{1,48}$ = 15.606, p<.001, η^2_p = .245) with boys indicating higher values compared to girls, whereas in the factor of cognitive anxiety no statistically significant changes occurred ($F_{1,48}$ = 1.807, *ns*, η^2_p = .036).

Table 4.15.10. shown below presents the differences between boys and girls of the sixth grade in the control group in regards to the Second Language Writing Anxiety

Inventory (SLWAI), (Cheng, 2004) factors in the final measurement. The results of the multiple analysis of variance show statistically significant differences between participants boy/girl of the sixth grade in the control group (Wilks' Λ = .820, $F_{1,48}$ = 3.355, p<.05, η^2_p = .180) (Graph 4.15.10.1.)

Table 4.15.10. Mean values (M), standard deviations (SD) of boys and girls of the sixth grade of the control group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors at the final measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	3.44 (0.59)	3.77 (0.49)
Cognitive Anxiety	3.68 (0.50)	3.84 (0.42)
Behavioral Anxiety	3.16 (0.70)	3.67 (0.50)



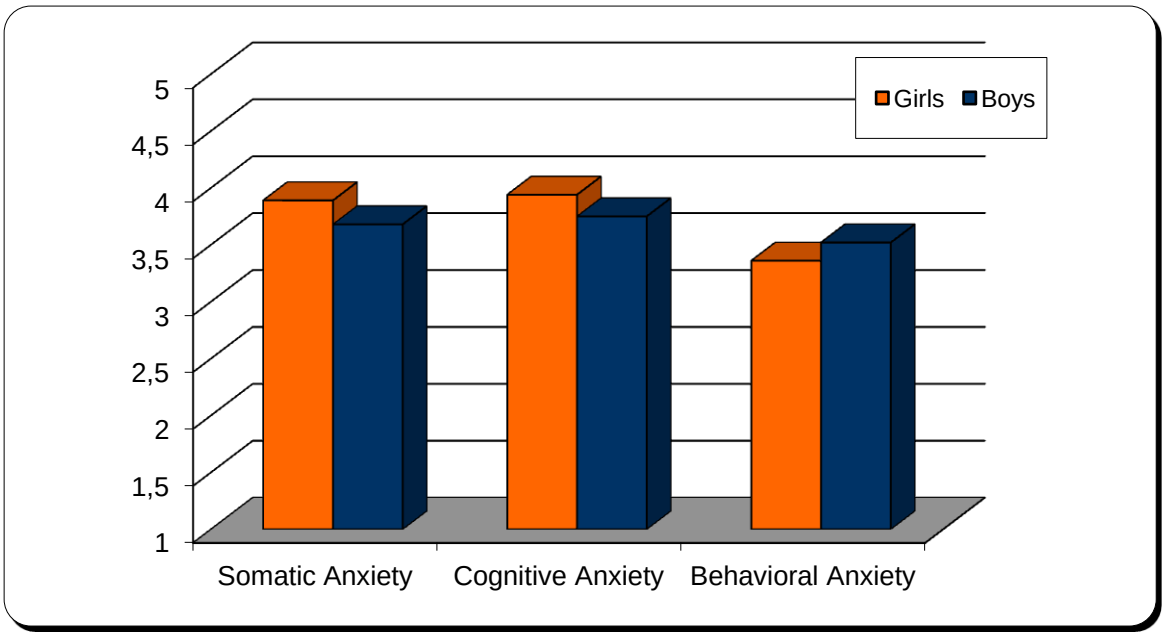
Graph 4.15.10.1. Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys and girls of the sixth grade in the control group at the final measurement

Specifically, the individual variables above indicate the existence of significant differences in the factors of somatic anxiety ($F_{1,48}$ = 4.930, p<.05, η^2_p = .093) and behavioral anxiety ($F_{1,48}$ = 8.988, p<.01, η^2_p = .158) with boys indicating higher values compared to girls, while the factor of cognitive anxiety ($F_{1,48}$ = 1.520, *ns*, η^2_p = .031) does not show statistically significant differences.

Table 4.15.11. as shown below presents the differences between boys and girls of the sixth grade in the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement. The results of the multiple analysis of variance show no statistically significant differences between boys and girls of the experimental group (Wilks' Λ = .941, $F_{1,35}$ = .691, *ns*, η^2_p = .059) (Graph 4.15.11.1.).

Table 4.15.11. Mean values (M), standard deviations (SD) of boys and girls of the sixth grade of the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the initial measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	3.89 (0.62)	3.68 (0.69)
Cognitive Anxiety	3.94 (0.59)	3.75(0.89)
Behavioral Anxiety	3.36 (0.63)	3.52 (0.96)

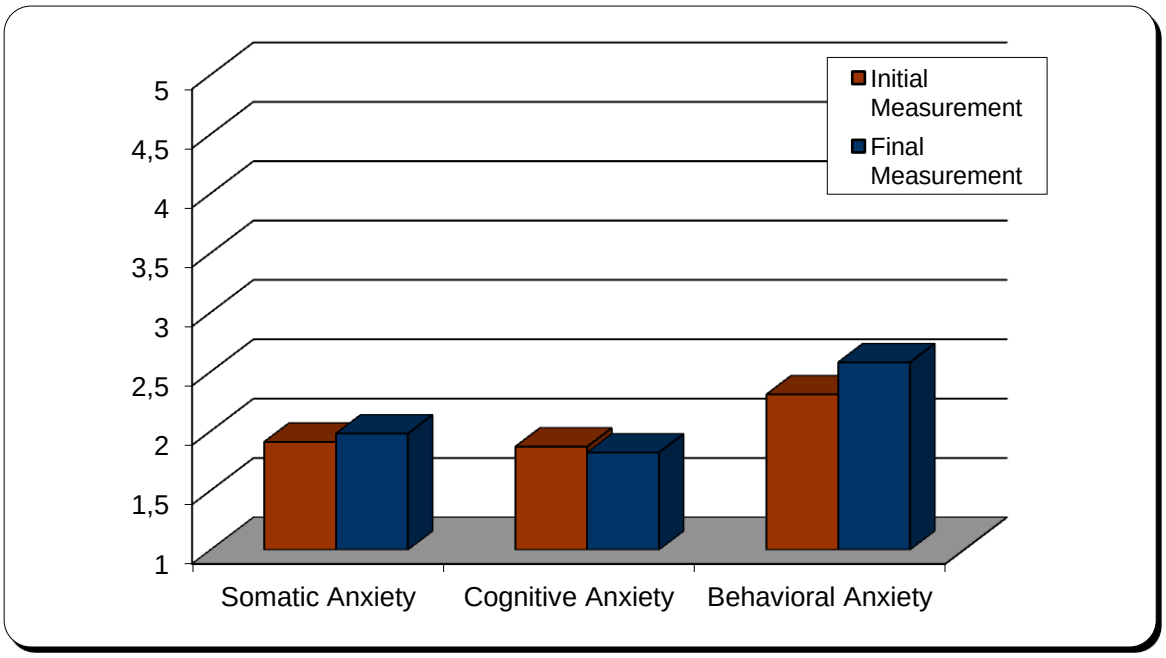


Graph 4.15.11.1 Graph values regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors of boys and girls of the sixth grade of the experimental group at the initial measurement

Table 4.15.12. that follows shows the differences between boys and girls of the sixth grade of the experimental group regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) factors in the final measurement. The results of the multiple analysis of variance support the existence of statistically significant differences between the boys and girls of the sixth grade in the experimental group (Wilks' Λ = .854, $F_{1,35}$ = 1.877, *ns*, η^2_p = .146) (Graph 4.15.12.1.).

Table 4.15.12. Mean values (M), standard deviations (SD) of boys and girls in the sixth grade of the experimental group in regards to the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) at the final measurement

	Girls M (SD)	Boys M (SD)
Somatic Anxiety	1.91 (0.46)	1.98 (0.48)
Cognitive Anxiety	1.87 (0.30)	1.82 (0.40)
Behavioral Anxiety	2.31 (0.34)	2.58 (0.44)



Graph 4.15.12.1. Graph values regarding the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) of boys and girls, in the sixth grade, in the experimental group at the final measurement

4.16. Correlations between the variables of the research

Tables from 4.16.1. to 4.16.12. present the results of the correlations between the factors of (i) the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004), (ii) the argumentative text, (iii) the short story English text and (iv) the short story Greek text in the initial and final measurement for boy/girl participants in the control group and the experimental group. Specifically, Tables from 4.16.1. to 4.16.7. present the results of the correlations of the boy/girl participants in the control group.

Table 4.16.1. that follows presents the results of the correlations between the factors of the (i) Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the (ii) argumentative text in the initial measurement for boy/girl participants in the control group.

Table 4.16.1. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) of the argumentative English text in the initial measurement for boy/girl participants in the control group

	Somatic Anxiety	Cognitive Anxiety	Behavioral Anxiety
Content	-.32***	-.28 **	- .21 *
Analytic Criteria	-.31**	-.32***	-.16
Holistic Criteria	- .22**	- .22**	-.07
Quantitative Criteria	- .41***	- .35***	-.31 ***

* p<.05, ** p<.01, *** p<.001

The results above show the existence of negative correlations between somatic and cognitive anxiety regarding the factors of the argumentative English text, noting that higher values of anxiety are combined with lower values for the factors of the argumentative English text.

Table 4.16.2. below displays the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the argumentative English text in the final measurement for boy/ girl participants in the control group. The results do not show the existence of negative correlations between the factors of anxiety and the factors argumentative English text.

Table 4.16.2. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the argumentative English text in the final measurement for boy/girl participants in the control group

	Somatic Anxiety	Cognitive Anxiety	Behavioral Anxiety
Content	-.18	-.13	-.19
Analytic Criteria	-.19	-.15	-.12
Holistic Criteria	-.19	-.17	-.11
Quantitative Criteria	-.32***	-.37***	-.15

* p<.05, ** p<.01, *** p<.001

Table 4.16.3. that follows shows the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story English text at the initial measurement for boy/ girl participants in the control group. The results show the existence of negative correlations between the factors of anxiety with the analytic and quantitative factors of the short story of the English text, noting that higher values are combined with lower values, regarding the specific features of the short story English text.

Table 4.16.3. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and factors of the short story English text at the initial measurement for boy/girl participants in the control group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.24*	-.20*	-.14
Analytic criteria	-.36***	-.27**	-.22*
Holistic criteria	-.14	-.14	-.00
Quantitative criteria	-.36***	-.27**	-.30**

* p<.05, ** p<.01, *** p<.001

Table 4.16.4. below shows the results of the correlations between the factors Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story English text at the final measurement for participants in the control group.

Table 4.16.4. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story English text in the final measurement for boy/girl participants in the control group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.23*	-.19	-.17
Analytic criteria	-.39**	-.32***	-.24*
Holistic criteria	-.25*	-.18	-.14
Quantitative criteria	-.35***	-.29**	-.41***

* p<.05, ** p<.01, *** p<.001

The results displayed above indicate the existence of negative correlations between the features of anxiety with the analytic and quantitative factors of the short story English text, noting that higher values of anxiety are combined with the lower values, for the specific features of the short story English text, as in initial measurement.

Table 4.16.5. that follows presents the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text at the initial measurement for boy/girls participants in the control group.

Table 4.16.5. Correlations between the factors of Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text at the initial measurement for boy/girl participants in the control group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.32***	-.20*	-.23*
Analytic criteria	-.37***	-.32***	-.33***
Holistic criteria	-.37***	-.32***	-.33***
Quantitative criteria	-.23*	-.10	-.28**

* p<.05, ** p<.01, *** p<.001

The previous results show the existence of negative correlations between the factors of anxiety, factors of the short story Greek text, noting that the higher values of anxiety are combined with lower values in the factors of the short story Greek text.

Table 4.16.6. presents the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text in the final measurement for boy/girl participants in the control group.

Table 4.16.6. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text, in the final measurement for boy/girls participants in the control group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.33***	-.30**	-.29**
Analytic criteria	-.45***	-.34***	-.35***
Holistic criteria	-.45***	-.34***	-.36***
Quantitative criteria	-.39***	-.28**	-.18

* p<.05, ** p<.01, *** p<.001

The results shown above depict the existence of negative correlations between the factors of anxiety and the factors of the short story Greek text, noting that higher values of anxiety are combined with lower values in the factors in the short story Greek text.

Tables from 4.16.7. to 4.16.12. present the results of the correlations between the factors of the (i) Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) the (ii) argumentative English text (iii) the short story English text and (iv) the short story Greek text in their initial and final measurements for boy/girl participants of the experimental group.

Table 4.16.7. below presents the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the argumentative English text in the initial measurement for boy/girl participants in the experimental group.

Table 4.16.7. Correlations between the factors of Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the argumentative English text in the initial measurement for boy/girl participants in the experimental group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.27*	-.27*	-.41***
Analytic criteria	-.29**	-.27*	-.28*
Holistic criteria	-.32**	-.34**	-.40***
Quantitative criteria	-.42***	-.42***	-.46***

* p<.05, ** p<.01, *** p<.001

The results, thus, show the existence of negative correlations between the three types of anxiety with the factors of the argumentative English text, indicating that higher values of anxiety are combined with lower values regarding the factors of the argumentative English text.

Table 4.16.8. that follow present the results of the correlations between the factors Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) ant the factors of the argumentative English text in the final measurement for boy/girl participants in the experimental group.

Table 4.16.8. Correlations between the factors Second of the Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) and the factors of the argumentative English text, in the final measurement for boy/girl participants in the experimental group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.33**	-.32**	-.35**
Analytic criteria	-.33**	-.36***	-.35**
Holistic criteria	-.38***	-.39***	-.36***
Quantitative criteria	-.40***	-.42***	-.40***

* p<.05, ** p<.01, *** p<.001

The above results show the existence of negative correlations between the three types of anxiety and the factors of the argumentative English text, noting that the higher values of anxiety are combined with lower values regarding the factors of the argumentative English text.

Table 4.16.9. presents the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story of the English text in the initial measurement for boy/girl participants in the experimental group.

Table 4.16.9. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story English text at the initial measurement for boy/girl participants in the experimental group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.12	-.22	-.20
Analytic criteria	-.46***	-.44***	-.28***
Holistic criteria	-.27*	-.24*	-.20
Quantitative criteria	-.47***	-.41***	-.36***

* p<.05, ** p<.01, *** p<.001

The results show the existence of negative correlations between the factors of anxiety with the analytic and quantitative factors of the short story of the English text, noting that the higher values of anxiety are combined with comparatively lower values for the specific factors of the argumentative English text.

Table 4.16.10. presents the results of the correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story English text in the final measurement for boy/girl participants in the experimental group.

Table 4.16.10. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) and the factors of the short story English text in the final measurement for boy/girl participants in the experimental group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.34**	-.47***	-.29*
Analytic criteria	-.48***	-.49***	-.39***
Holistic criteria	-.48***	-.57***	-.40***
Quantitative criteria	-.35**	-.43***	-.33**

* p<.05, ** p<.01, *** p<.001

The results show the existence of high negative correlations between the factors of anxiety and all the factors of the short story English text following the implementation of the intervention program. The value increase of negative correlations to some extent probably indicate that the lower values of anxiety are combined with higher values on the specific features of the short story English text.

Table 4.16.11. presents the results of the correlations factors between the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text at the initial measurement for boy/girl participants in the experimental group. The results show the existence of negative correlations mainly behavioral anxiety, and to a lesser extent of somatic anxiety, regarding the content, and the analytic and holistic factors for the short story Greek text.

Table 4.16.11. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text at the initial measurement for boy/girl participants in the experimental group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.31**	-.26*	-.38***
Analytic criteria	-.34*	-.22*	-.37***
Holistic criteria	-.25*	-.18	-.33**
Quantitative criteria	-.06	-.03	-.15

* p<.05, ** p<.01, *** p<.001

Table 4.16.12. presents the results of the correlations between factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text at the initial measurement for boy/girl participants in the experimental group.

Table 4.16.12. Correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) and the factors of the short story Greek text in the final measurement for boy/girl participants in the experimental group

	Somatic anxiety	Cognitive Anxiety	Behavioral anxiety
Content	-.07	-.23*	-.11
Analytic criteria	-.12	-.27*	-.25*
Holistic criteria	-.17	-.19	-.29**
Quantitative criteria	-.10	-.08	-.16

* p<.05, ** p<.01, *** p<.001

The results show the existence of certain negative correlations of anxiety with the factors – factors of the short story Greek text, which varieted at an exceptionally low level, indicating that for the boy/girl participants of the experimental group, the highest anxiety value was not associated with lower values regarding the factors of the short story Greek text.

4.17. Regression Analysis

The Multiple regression analysis with the stepwise method was applied (Cohen et al., 2003 · Tabachnick & Fidell, 2006) to examine the contribution of the evaluated variables in predicting the factors of anxiety and specifically the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004). Tables from 4.17.1. to 4.17.6. present non standard regression indicators (B), the standard regression values (b), t-values and significance level (p) (Cohen et al., 2003; Tabachnick & Fidell, 2006) regarding the regression analysis of boy/girl participants in the control group at the initial and final measurement for the factors of the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) (somatic anxiety, cognitive anxiety, behavioral anxiety).

In regards to the somatic anxiety at the initial measurement of all boy/girl participants in the control group the prediction value (R) was statistically significant ($F_{2,97}$ = 12.411, p <.001), and the values of and adjusted (adjusted) was .204 and .187, respectively as depicted at table 4.17.1. below. In regards to the results of the regression analysis, the quantitative factors of the Argumentative English text and the analytical factors of the short story Greek text are indicated as important predictors.

Table 4.17.1. Multiple regression analysis for the prediction of somatic anxiety at the initial measurement of the boy/girl participants in the control group

Somatic Anxiety - Initial measurement	b	Beta	t-value
Quantitative factors- Argumentative text	.-008	.-295	-2.861**
Analytic factors– Short story Greek text	.-037	.-228	-2.206*

* p<.05, ** p<.01, *** p<.001

In regards to cognitive anxiety at the initial measurement of the all boy/girl participants in the control group the prediction value (R) was statistically significant ($F_{1,98}$ = 13.432, p <.001), and the values of and adjusted (adjusted) was .121 and .112, respectively as presented at table 4.17.2. that follows. Regarding the results of the

regression analysis, only the quantitative factors of the Argumentative English text, is indicated as an important predictor.

Table 4.17.2. Multiple regression analysis for the prediction of cognitive anxiety at the initial measurement of the boy/girl participants in the control group

Cognitive Anxiety - Initial Measurement	B	Beta	t-value
Quantitative Factors- Argumentative Text	-.009	-.347	-3.665***

* p<.05, ** p<.01, *** p<.001

Regarding the behavioral anxiety measurement as presented at table 4.17.3. at the initial measurement of all boy/girl participants in the control group, the predictive value (R) is statistically significant ($F_{1,98}$ = 12.101, p <.001), and the values of and adjusted (adjusted) is .110 and .101, respectively. Regarding the results of the regression analysis, only the quantitative factors for the argumentative English text is indicated as an important predictor.

Table 4.17.3. Multiple regression analysis for the prediction of behavioral anxiety at the initial measurement for the boy/girl participants in the control group

Behavioral Anxiety - Initial Measurement	b	Beta	t-value
Quantitative Factors- Argumentative Text	-.148	-.332	-3.479***

* p<.05, ** p<.01, *** p<.001

Regarding the prediction of somatic anxiety at the final measurement of all boy/girl participants in the control group the prediction value (R) is statistically significant ($F_{3,95}$ = 11.245, p <.001), and the values of and adjusted (adjusted) is .262 and .239, respectively as presented at table 4.17.4. that follows. In regards to the results of the regression analysis, the holistic factors of the short story Greek text, the analytic factors of the short story English text and holistic factors of the argumentative English text are indicated as important predictors.

Table 4.17.4. Multiple regression analysis, for the prediction of somatic anxiety at the final measurement for boy/girl participants in the control group

Somatic Anxiety- Final measurement	b	Beta	t-value
Holistic Factors– Short Story Greek Text	-.126	-.324	-3.312***
Analytic Factors– Short Story English Text	-.105	-.485	-3.109***
Holistic Factors– Argumentative English Text	-.142	-.303	-2.027*

* p<.05, ** p<.01, *** p<.001

Regarding the prediction of cognitive anxiety at the final measurement of all the boy/girl participants in the control group the prediction value (R) was statistically significant ($F_{4,94} = 7.795$, $p < .001$), and the values of and adjusted (adjusted) is .249 and .217, respectively as shown at table 4.17.5. below. In regards to the results of the regression analysis, the quantitative factors of the argumentative English text, the holistic factors of the short story Greek text, the holistic factors of the argumentative English text and the analytic factors of the short story English text are indicated as important predictors.

Table 4.17.5. Multiple regression analysis for the prediction of cognitive anxiety at the final measurement for boy/girl participants of the control group

Cognitive anxiety - Final measurement	b	Beta	t-value
Quantitative factors- Argumentative Text	-.012	-.473	-2.952**
Holistic Factors– Short Story Greek Text	-.056	-.165	-1.576*
Holistic Factors- Argumentative Text	-.223	-.542	-2.959**
Analytic Factors– Short Story English Text	-.0.66	-.349	-2.195*

* p<.05, ** p<.01, *** p<.001

Regarding the prediction of behavioral anxiety in the final measurement of all boy/girl participants in the control group the prediction value (R) is statistically significant ($F_{3,95} = 10.515$, $p<.001$), and the values of and adjusted (adjusted) is .249 and

.226, respectively as displayed at table 4.17.6. Regarding the results of the regression analysis, the quantitative factors of the short story English text, the holistic factors and the content of the argumentative English text are indicated as important predictors.

Table 4.17.6. Multiple regression analysis for the prediction of behavioral anxiety at the final measurement for the boy/girl participants in the control group

Behavioral anxiety – Initial Measurement	b	Beta	t-value
Quantitative factors- Short Story English Text	-.011	-.604	-5.053***
Holistic factors- Argumentative Text	-.306	-.629	-3.139***
Content - Argumentative Text	-.123	-.377	-2.039*

* p<.05, ** p<.01, *** p<.001

Tables from 4.17.7. to 4.17.13. present the non standard regression indicators (B), the standard regression indicators (b), t-values and statistical significance level (p) (Cohen et al., 2003; Tabachnick & Fidell, 2006) of the regression analysis of the boy/girl participants in the experimental group at the initial and final measurement regarding the Second Language Writing Anxiety Inventory (SLWAI), (Cheng, 2004) (somatic anxiety, cognitive anxiety, behavioral anxiety).

Regarding somatic anxiety of the initial measurement of all boy/girl participants in the control group the prediction value (R) is statistically significant ($F_{2,73} = 14.127$, $p < .001$), and the values of and adjusted (adjusted) are .285 and .265, respectively as depicted at table 4.17.7 that follows. Regarding the results of the regression analysis, the quantitative and the analytical factors of the short story English text are indicated as important predictors.

Table 4.17.7. Multiple regression analysis for the prediction of somatic anxiety at the initial measurement for boy/girl participants of the experimental group

Somatic Anxiety - Initial measurement	b	Beta	t-value
Quantitative factors- Short Story English Text	-.005	-.314	-2.373*
Analytic factors– Short Story English Text	-.079	-.272	-2.057*

* p<.05, ** p<.01, *** p<.001

Regarding the cognitive anxiety of the initial measurement of all boy/girl participants in the experimental group the predictive value (R) was statistically significant ($F_{1,72}$ = 17.713, p<.001), and the values of and adjusted (adjusted) are .197 and .186, respectively as displayed at table 4.17.8. below. Regarding the results of the regression analysis, only the analytical factors of the short story English text is indicated as important predictor.

Table 4.17.8. Multiple regression analysis for the prediction of cognitive anxiety at the initial measurement of boy/girl participants in the experimental group

Cognitive Anxiety - Initial Measurement	b	Beta	t-value
Analytic Factors- Short Story English Text	-.142	-.444	-4.209***

* p<.05, ** p<.01, *** p<.001

As far as behavioral anxiety is concerned in the initial measurement of all boy/girl participants in the experimental group, the predictive factor value (R) is statistically significant ($F_{2,71}$ = 15.020, p <.001), and the values of and adjusted (adjusted) are .297 and .278, respectively at shown at table 4.17.9. Regarding the results of the regression analysis, the quantitative factors of the Argumentative English text and the content of short story Greek text are indicated as important predictors.

Table 4.17.9. Multiple regression analysis for predicting behavioral anxiety at the initial measurement for boy/girl participants in the experimental group

Behavioral Anxiety - Initial measurement	b	Beta	t-value
Quantitative Factors- Argumentative Text	-.019	-.405	-3.983***
Content – Short Story Greek Text	-.073	-.291	-2.861**

* p<.05, ** p<.01, *** p<.001

Regarding the prediction of somatic anxiety at the final measurement of all boy/girl participants in the experimental group, the predictive factor (R) is statistically significant ($F_{1,75} = 22.708$, $p < .001$), and the values of and adjusted (adjusted) are .232 and .222, respectively as shown at table 4.17.10. below. Regarding the results of the regression analysis, the holistic factors of the short story English text is indicated as an important predictor.

Table 4.17.10. Multiple regression analysis for the prediction of anxiety in the final measurement for boy/girl participants, in the experimental group

Somatic Anxiety - Final Measurement	b	Beta	t-value
Holistic factors– Short Story English Text	-.161	-.482	-4.765***

* $p<.05$, ** $p<.01$, *** $p<.001$

Regarding the prediction of cognitive anxiety in the final measurement of all boy/girl participants in the experimental group predictive factor (R) is statistically significant ($F_{1,75} = 36.461$, $p<.001$), and the values of and adjusted (adjusted) are .327 and .318, respectively as displayed at table 4.17.11. that follows. Regarding the results of the regression analysis, the holistic factors of the short story English text is indicated as an important predictor.

Table 4.17.11. Multiple regression analysis for the prediction of cognitive anxiety at the final measurement of boy/girl participants in the experimental group

Cognitive Anxiety - Final Measurement	b	Beta	t-value
Holistic factors– Short Story English Text	-.136	-.572	-6.038***

* $p<.05$, ** $p<.01$, *** $p<.001$

The table that follows concerns the multiple regression analysis for the prediction of behavioral anxiety at the final measurement for boy/girl participants in the experimental group.

Table 4.17.12. Multiple regression analysis for the prediction of behavioral anxiety at the final measurement for boy/girl participants in the experimental group

Behavioral Anxiety - Initial Measurement	b	Beta	t-value
Holistic factors– Short Story English Text	-.115	-.400	-3.775***

* $p<.05$, ** $p<.01$, *** $p<.001$

Regarding the prediction of behavioral anxiety in the final measurement of boy/girl participants in the experimental group predictive factor (R) is statistically significant ($F_{1,75} = 14.249$, $p<.001$), and the values of and adjusted (adjusted) are .160 and .148, respectively as depicted at table 4.17.12 below. Regarding the results of the regression analysis, the holistic factors of the short story English text is indicated as an important predictor.

CHAPTER 5: Discussion

Writing in a second language is amongst the four prerequisites of foreign/second language acquisition (reading, writing, listening, and speaking). The skill of writing is without doubt one of the most challenging aspects of second language learning. What is even more noteworthy however, is the fact that even for native English speakers learning how to write in a second language entails extensive and specialized instruction (Richards, 2003:8). What's more, a good command of writing skills, that is, the ability to communicate ideas and information through writing has been acknowledged as a fundamental element so as to adequately deal with the demands of the twenty-first century (Richards, 2003:8). Nonetheless, a basic element that calls upon supplementary research deals with young foreign language learners writing acquisition skills and feelings of anxiety.

The results of previous findings have shown that students require more direct, explicit and structured writing strategy instruction centering on cognitive and metacognitive skills (DeLaPaz and Graham, 2002; Graham and Harris, 2007). Procedural facilitative tools have shown to support cognitive performance so as to assist writers in organizing mental reasoning and making elements of the activity more visible, manageable and achievable (Englert, Mariage, Dunsmore, 2006:211). Through procedural facilitative environments, thus, that foster explicit strategy based instruction, scaffolded learning, provision of various types, sources, methods and amounts of supports to aid learners augment their performance (Puntambekar, and Hubscher, 2005), (i.e. ICT, guided practice, role-play, problem solving exercises, mnemonics, collaboration and group-work, positive feedback) students could gradually enhance their writing skills, and more effortlessly develop from novice writers to expert writers and combat foreign language writing anxiety.

The aim of this study, thus, was to complement existing research findings by investigating whether a procedural facilitative environment, focusing on explicit strategy based writing instruction would enhance young Greek foreign language learners writing skills in terms of two writing genres (short story writing and expository essay) as well as reduce feelings of anxiety. The section that follows deals with a discussion of the findings and provides additional evidence as regards to the positive effects of structured

instruction in writing and self-regulation strategies, guided by strategy-based procedural facilitation in writing. Specifically, the succeeding section provides a discussion as regards to the results of the study that show that young Greek foreign language students' writing quality, metacognitive knowledge, metacognitive skills, and metacognitive behavior improved while their anxiety levels lessened following strategy based instruction through a facilitative writing environment.

5.1. Research Question 1. Will statistical important differences be found amongst EFL participants (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies? Will these statistical important differences be evident on the metacognitive knowledge, metacognitive skills and metacognitive behavior of both short story English writing and argumentative English writing?

Part 1: Participant-Observation

Writing Strategies

An important aspect of this research was the study of the differences in writing production strategies at the initial and final measurement. In particular, among participants in the experimental group and the control group statistically significant differences were not found, except for drafting. In the final measurement, however, between participants (boys/girls) of the experimental and the control group significant differences were found in writing strategies and specifically in planning, drafting, revising and editing, significantly supporting the substantial and positive effects of the intervention program applied to participants of the experimental group. The significant differences in the final measurement are notably supported by the analysis of the changes between the initial and final measurement. Specifically, for participants (boys/girls) in the control group no significant changes between the two measurements appeared, while significant changes appeared for participants (boys/girls) of the experimental group. In particular, in the final measurement participants (boys/girls) of the experimental group showed significantly higher mean values compared to the initial measurement, noting the substantial impact of the intervention program applied to the

experimental group. It is also important to note that the participants (boys/girls) in the experimental group received the highest value in three of the four writing production strategies (drafting, revising, editing), while for planning the increase was particularly significant.

The statistical important differences found amongst EFL participants of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the metacognitive knowledge, metacognitive skills, and metacognitive behavior of both short story English writing and argumentative English writing corroborate previous findings. In particular, the findings of this study confirm findings which have shown that following explicit strategy based instruction, students' processes of composing appeared to entail qualitative changes in the thinking processes or decision-making behaviors used for composing (Cumming, 2006; Englert, 1991; 1992). The findings thus highlight the importance of cognitive strategy instruction (Flower and Hayes, 1981; Bereiter and Scardamalia, 1987), which enhances students' learning and writing performance (Wong, Harris, Graham, Butler, 2003). In essence, the findings of this study support that procedural facilitative environments through which higher order cognitive and metacognitive processes are fostered by explicit strategy instruction, enhances students' composing processes (Graham and Harris, 2003; Lane, Graham, Harris and Weisenbach, Bribdle, Morphy, 2008).

Furthermore, as in previous research studies that have investigated students' strategic behavior, knowledge and motivation (Harris and Graham, 1996; Graham and Harris, 2003; 2005), the study under discussion found that following the intervention program applied the experimental groups strategic behavior resembled that of expert writers who engage in the orchestration of higher order mental activities such as goal setting, planning, memory search, problem solving, evaluation and diagnosis (Bereiter and Scardamalia, 1987; Flower and Hayes, 1980;1981). The findings, thus, sustain conclusions that struggling writers demonstrate less knowledge concerning the processes of writing compared to normally achieving writers (Scardamalia and Bereiter, 1987; Lin, Monroe, and Troia, 2007), that struggling writers ineffectively engage in planning (Graham and Harris, 2000; 2007) revising or other self-regulation strategies (Graham

and Harris, 1997; Zimmerman and Risemberg, 1997;) and underestimate the importance of the writing process (Graham and Harris, 1999).

Additionally, in regards to the results of the experimental group that received the highest value in three of the four writing production strategies (drafting, revising, editing), while for planning the increase was particularly significant, it could be supported that the participants of the experimental group in the final measurement approached writing in a recursive nature. These findings confirm previous conclusions as regards to the framework of recursive writing (planning, transcribing and revising, Hayes and Flower, 1980) or the writing production approach that stresses the recursive nature of writing (Flower and Hayes, 1981; Hayes and Flower, 1986; Kellogg, 1987).

Moreover, the statistical important differences in strategy use between the experimental and control group at the initial and final measurement confirm Victory's (1999) conclusions stating that inexperienced writers possess both less and limited metacognitive knowledge compared to experienced writers. Thus, due to the variation of metacognitive knowledge, both the writing process and the final products of experienced and inexperienced writers differ. In a similar manner, Zamel (1983) has found that experienced writers in comparison to inexperienced writers' writing processes differ, as also evidenced through the statistical significant results found in the study under discussion. The results of this study also sustain previous conclusions (Graham, and Harris, 1997; Zimmerman and Risemberg, 1997), in which less proficient writers failed to adhere to planning, revising or other self-regulation strategies.

Part 2: Interview

Factors of the Interview Assessment

Another part of this study involved the interviews conducted for participants in the experimental and the control group. The results of the comparisons between the two groups (experimental - control) showed significant differences in some of the factors of the assessment of the interview, such as writing motivation and writing difficulties in the foreign and native language at the initial measurement. However, in the final measurement, significant differences were found between the experimental and the

control group, with participants (boys/girls) of the experimental group showing significantly higher and positive direction values between the two groups.

Examining the changes between the initial and final measurements of participants (boys/girls) of the experimental group and the control group the results support the significant effect of the intervention program, which was applied. Specifically, between the initial and final measurement no statistically significant changes appeared for participants in the control group, while in the case of participants of the experimental group there was a significant increase in all factors of the assessment of the interview, further supporting the contribution of the intervention program that was applied.

Another important factor dealt with the examination of the differences between below average, average, and above average participants of the experimental and the control group. The results showed no statistically significant differences among the three groups of participants (below average, average, and above average) in the control group in both the initial and the final measurement. Also, in the initial measurement no significant differences in all three categories of participants in the experimental group were shown, while the final measurement showed significant differences with average and above average participants outweighing below average participants. Finally, examining the changes between the initial and final measurement for below average, average and above average participants in the experimental and the control group, the results support the existence of differentiations. Specifically, no significant changes were shown in the three categories of participants in the control group, while significant changes appeared for the three categories of participants, below average, average and above average participants in the experimental group, explicitly showing that regardless of the level of student, significant changes appeared indicating that the intervention program applied had a positive impact on all categories of participants. It should nevertheless be noted that the changes were greater for below average and average participants, than for above average participants, which may probably be a result of higher mean values.

Furthermore, so as to more carefully examine the results of the study under discussion, at pretest, prior to instruction it was found that the most common response made by all participants of both groups (control-experimental) concerning the description of the attributes of good and poor writing was in terms of production procedures (e.g.,

handwriting, spelling, punctuation, capitalization, and neatness). However, at post test the most common response for explicit writing strategy instructed participants focused on substantive processes such as planning, revising, content generation, text organization making sense and so forth. These findings, thus, corroborate Graham and Harris (1993) in which older struggling writers of the experimental group showed statistically significant changes as regards to the emphasis they placed on substantive processes in opposition to students of the control group, as they were more able to describe good and poor writing in terms of substantive processes (make a list, writing down ideas, webbing, planning, organizing notes etc.) following instruction. These findings also corroborate previous conclusions (Graham et. al., 2005:231; Wong et. al., 1989) in which strategy instructed students were more knowledgeable about the substantive processes of good and poor writing. The statistical important differences found in students' knowledge on substantive processes following instruction also confirms previous conclusions from two other studies (Graham et. al., 1992; MacArthur et. al., 1991), in which the SRSD writing instructional models enhanced both the writing performance and students' knowledge of writing (Graham and Harris, 1993).

By the same token the Sadler and Graham (2007) study has shown that skilled writers were more aware of how writing promoted school success and occupational success and were more knowledgeable about the vital role of substantive processes, along with in the composing process the use of substantive procedures when writing as well as the importance of seeking assistance when experiencing difficulties. Essentially skilled students' knowledge about writing was directly linked to their writing performance. However, the findings do not sustain previous conclusions in which struggling writers were found to overestimate their writing abilities (Graham and Harris, 2005a) as this study found that the three subgroups of students (below average, average, and above average) showed low values as regards to their writing abilities.

However, even though the results of this study as regards to explicit strategy instructed students' writing knowledge of the substantive processes resembled that of the Saddler and Graham (2007) study, the findings as regards to occupational success as well as school success were found to be important elements for all groups of writers in this study. In particular, the present study found that all subgroups of participants, (below average, average and above average), viewed foreign language writing as an

indispensable prerequisite for future success. This factor highlights the importance of foreign language English writing towards future advancement as well as the acknowledgement of the English language as the lingua franca, as all subgroups of participants acknowledged foreign language writing the key for future advancement.

Furthermore, following a closer examination as regards to students' motivation for writing, the results of this study confirm previous conclusions (Harris and Graham, 1996; Graham and Harris, 2003; 2005) from studies that have found that only strategy instructed students had improved their strategic behavior, knowledge and motivation to write. In respect to writing motivation the Zimmerman and Risemberg, (1997) study has found that participants were more driven to write after they had acquired self-regulation skills. Numerous studies have determined that self-regulated writers are motivated to write (Graham, Harris, and Troia, 2000; Harris, Graham, Mason and Saddler, 2002) whilst Pajares and Valiante (2006:163) have concluded that self-efficacy for self-regulation, that is, the confidence to use self-regulated learning strategies is also related to writing competence. The self-efficacy results of the participants in this study corroborate with previous findings in which self-efficacy and effort (Lane, Harris, Graham, Weisenbach, Brindle, Morphy, 2008) were improved following explicit strategy based instruction. Affective or motivational factors have also been found to be predictive of writing performance (Jesus-Nicario, Garcia-Sanchez and Fidalgo-Redondo, 2006). Pajares, (2003) and Linnenbrink and Pintrich, (2003) have argued that self-efficacy is acknowledged as the primary component of academic motivation as the beliefs that students create develop or the way in which they perceive themselves as writers navigates their academic success of failure. Self-regulation has also been found to be closely associated to self-efficacy as it fosters learners' beliefs about their abilities as an autonomous writer while self-efficacy is suggested to have positive causal effects on performance (Bandura and Schunk, 1981). The findings of this study, thus, sustain these previous conclusions (Harris and Graham, 1996; Graham and Harris, 2003; 2005) as the results confirmed that writing motivation increased for strategy instructed participants of the experimental group.

Moreover, as regards to foreign language writing anxiety the results of the study showed that following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies the

experimental groups anxiety levels lessened. These findings sustain previous conclusions (Yan, and Horwitz's, 2008) noting that effective language learning strategies, and informal and anxiety free environments were reported to assist the participant's performance. A more elaborate examination as regards to the association between anxiety and foreign language learning in the context of this study follows in the next section.

Moreover, based on the results as regards to foreign language and native language difficulties, the experimental participants showed to have virtually eliminated following explicit strategy based instruction on the foreign language. These results sustain Cummins (1981) conclusions that general cognitive/academic proficiency exists across languages that enable the transfer of different literacy-related skills across all languages. The results also sustain additional studies that have found that certain writing skills are utilized across languages (Hall, 1990), such as revision strategies (Kuehn, 1990). The study also sustains Wang and Wen, (2002) who have found that ESL/EFL writers utilized their L1 when composing in their L2 but also the proficient L2 writers are able to utilize both L1 and L2 cognitive processing resources when composing.

Additionally, the results could corroborate with the conclusions in regards to learner autonomy that is directly related to self-regulation (Oxford, 2002). The findings may, thus, corroborate with previous findings from think aloud studies (O'Malley and Chamot, 1990) in which language learners were conscious of the strategies they utilized and the reasons they used them and chose strategies that work in a highly orchestrated way (Chamot and Kupper, 1989). What's more, the results of the experimental group sustain studies that have stressed the use of self-regulation skills, as an additional component of metacognition (Efklides, 2001), that contribute towards attitude towards writing and self-efficacy (Boscolo and Hidi, 2007). Seeking help from teacher was shown to statistically significantly lower at the posttest measurement for the strategy instructed students that could sustain the theories of cognitive apprenticeship in writing (Rijlaarsdam, et. al., 2005; Englert, et. al., 2006; Graham and Perrin, 2007).

In reference to the private school's book, the findings of this study highlight language settings, which emphasize overreliance on textbook learning and text-structures rather than meaning. The young foreign language learners of this study at the initial

measurement of both groups (control-experimental) were found to place prominence on "Read the book and do the same" as well as engaging in "Exercises from the private school's book". These findings, thus, further support the findings from other studies across disciplines, in which English language writing instruction focused on the finished product rather than students' cognitive and metacognitive skill development (Nonkukhetkhong, et. al., 2006) for the development of new structures (Weissberg, 2000). Inadequate teaching was found to corroborate with previous findings (Nikolov, 2001; 2009;) in which classroom activities hindered young learners development and negatively impacted their attitudes and motivation.

5.2. Research Question 2. Will statistical important differences be found amongst EFL participants (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the writing quality of short story English writing?

Short-Story Writing of English text

The differences in the evaluation assessment criteria for short story writing English texts were also examined between the experimental group and the control group, as well as the changes between the two measurements (initial-final).

An examination of the differences among participants in the experimental group and the control group showed no statistically significant differences in the initial measurement, while in the final measurement the differences between the two groups was highly significant supporting the substantial impact and contribution of the intervention. These specific differences between the experimental group and the control group are also reinforced through the examination of the changes between the initial and final measurement in both the control group and the experimental group. Regarding the participants in the control group, it was shown that between the initial and final measurement no statistically significant changes in the criteria of short story writing of English texts were shown. On the other hand, in the experimental group, the differences between the two measurements were significantly higher in all the assessment criteria of short story writing of English texts that supported the overall improvement of the text as

all the changes were in a positive direction. Specifically, the content, the analytic criteria, the holistic criteria and the quantitative criteria of participants to whom the intervention program was applied improved.

Apart from the differences in the total number of participants between the experimental group and the control group, the differences and changes based on gender, girls and boys of the assessment criteria of the short story writing of English texts, was also studied. Specifically, in the participating girls the results showed no significant differences in the initial measurement, or in the final measurement. Considering however the changes between the two measurements (initial - final) in both groups (control - experimental) the results showed a statistically significant change. In particular, changes in the control group were due to the significant reduction of quantitative data, while in opposition, in the experimental group there was an increase in analytic and holistic criteria. Observing the changes between the initial and final measurement in the participating boys in the two research groups (control - experimental), the results also showed no statistically significant differences in the initial and final measurement. Observing the changes between the initial and final measurement of boys of each group, the results showed a significant increase in the final measurement, compared with the initial measurement, for boys in the control group, while the increase for boys in the experimental group was indicated in more criteria and specifically, in the analytic, the holistic and the quantitative criteria.

An important part of the study was the differentiations of participants based on the quality of their writing that were differentiated into below average, average, and above average participants.

For below average and average participants in the control group no statistical significant changes were indicated in regards to the initial and final measurement while above average participants were not found in the initial or final measurement. For below average participants in the experimental group the results showed the existence of significant differences between the initial measurement and final measurement in the content, the analytic factors and the quantitative factors.

Discussion

In the case of average participants in the experimental group the results showed statistically significant changes in the content, the analytic factors and the quantitative factors. In regards to above average participants of the experimental group the results indicated statistically significant changes in the content and the analytic factors, whereas no change was indicated in the quantitative factors between the two measurements.

The improvement in regards to the three subgroups of participants in the experimental group in all three criteria (content, analytic, quantitative) shows the substantial and positive impact of the intervention program regardless of the writing ability of the student. Specifically it seems that the intervention program benefited all participants regardless of their writing ability (below average, average and above average) noting that the specific intervention program may benefit participants of different ability.

An examination of the differences among participants in the experimental group and the control group showed no statistically significant differences in the initial measurement, while in the final measurement the differences between the two groups was highly significant, supporting the notable impact and contribution of the intervention.

Through closer examination of the statistical important differences found amongst EFL participants of the experimental group and the control group, at the final measurement, the findings of this study confirm previous findings (Graham et. al., 2005; Zimmerman and Kistantas, 1999) in which following cognitive and metacognitive strategy instruction, the products written quality improved. The findings, thus, confirm findings through which the teaching of the fundamental writing processes, that is, planning, drafting and revising, students' writing skills are enhanced (Graham and Perin, 2007) as this study depicted that the SRSD had a strong and positive effect on the quality of students' writing.

Previous findings have determined that the SRSD improves the writing expression skills and self-regulation strategies to assist struggling writers (Lane, Graham, Harris and Weisenbach, 2006; Santangelo, Harris and Graham, 2008; Lane, Harris, Graham, Weisenbach, Brindle, Morphy, 2008; Harris, Graham, Mason and Sadler, 2002) in their native English language. The present study found that by adapting and modifying the specific writing instructional model, that is, providing strategy based procedural

facilitation in writing in a foreign language context students' short story writing improved. Following, thus, the implementation of the general strategy (POW) and genre-specific strategy for planning and writing stories (WWW), the procedures for regulating the use of these strategies, the basic purpose and characteristics of good stories, SRSD instructed students wrote stories that were longer, schematically stronger and qualitatively improved corroborating with previous findings (Graham, Harris and Mason, 2004; Lange, Harris, Graham, Weisenback, Brindle, and Morphy, 2010; Saddler, 2006; Tracy, Reid and Graham, 2009).

Following a closer examination as regards to the differentiation of gender it is important to note that the findings of this study corroborate previous findings as girl participants showed to improve in all factors of the short story English text. Existent research examining students' gender differences as regards to the composing process has shown that girls outweigh boys as regards to both their written products and their writing processes (planning, revising, editing). By the same token girls have been shown to perceive themselves as more self-competent writers in opposition to boys (Peterson, 2006). Gambell and Hunter (2000) found that girls showed greater self-confidence as writers than did boys. Girls adopted a more formal approach to writing (pre-planning, revising and editing and using dictionaries than did boys. Graves (1973, 1975) research on students' writing processes in four primary classrooms found that boys failed to use problem solving strategies and rarely reviewed their writing and that their revising was at the word level.

Finally, as regards to the differentiation of participants based on the quality of their writing, who were differentiated into below average, average, and above average participants, the findings corroborated with previous findings noting that following cognitive strategy instruction, poor writers, average writers and good writers have been enhanced (Graham and Harris, 2005), struggling writers (Harris, Graham and Mason, 2006), as well as poor writers or low achievers (De La Paz, 2001; Harris et. al., 2002; Saddler, Moran, Graham and Harris, 2004), regularly achieving writers (De La Paz and Graham, 2002; De La Paz 1999; Danoff, Harris and Graham, 1993), and proficient writers or gifted students (De La Paz, 1999).

5.3. Research Question 3: Will statistical important differences be found amongst EFL participants (below average, average, above average) of the experimental group and the control group, following the provision of procedural facilitation through guided, explicit and structured strategy-based instruction in writing and self-regulation strategies, on the writing quality of argumentative English writing?

Argumentative English Writing

The present study also examined the differences in the criteria for English argumentative texts between the experimental group and the control group, and the changes between the two measurements (initial measurement - final measurement).

The examination of differences in the total number of participants between the experimental group and the control group showed no significant differences (η^2_p) at the initial measurement, while at the final measurement the differences between the two groups was highly significant, supporting to a significant degree the influence and the contribution of the intervention program. The specific differences between the experimental group and the control group are also supported by the examination of the changes between the initial and final measurement, in both the control group and the experimental group. Regarding the participants in the control group, it was shown that between the two measurements (initial - final) the content and analytical criteria improved while the quantitative criteria decreased. On the other hand, in the experimental group, the differentiation between the two measurements were significantly higher in all assessment criteria for English argumentative texts, which supports the overall improvement of the text since all the changes were of a positive direction, and as the content, the analytic criteria, the holistic criteria and the quantitative criteria improved.

Apart from the differences in the total number of participants, boys and girls, between the experimental group and the control group, the differences and changes in the participating participants were also studied separately for boys and girls. Specifically, the results, for the participating girls, did not show significant differences (η^2_p) in the initial measurement, other than the analytic and holistic criteria, while in the final

measurement the differences between the two groups was highly significant which supports to a notable degree the influence and the contribution of the intervention program on girls of the experimental group. In particular, the girls of the experimental group compared to the control group, showed higher mean values in all assessment criteria of the argumentative English text (content, analytical criteria, holistic criteria, quantitative criteria). The specific differences between the experimental group and the control group in the participating girls are reinforced by the examination of the changes between the initial and final measurement in both the control group and the experimental group. Regarding the boys in the control group, it was shown that between the two measurements (initial - final) the content and analytical criteria improved while the quantitative criteria lessened, without supporting the existence of an explicit tendency between the two measurements. On the other hand, for girls in the experimental group, the differentiation between the two measurements were significantly higher in all assessment criteria for argumentative English texts, which supported the overall improvement of the text as all the changes were in a positive direction, and the content, the analytic criteria, the holistic criteria and the quantitative criteria improved.

In a similar manner with the differences and variations in the participating girls ranged for the participating boys with respect to the assessment criteria for the argumentative English text (content, analytic criteria, holistic criteria, quantitative criteria). In particular, for the participating boys the results showed no significant differences (η^2_p) in the initial measurement, other than analytic and holistic criteria, while the final measurement differences between the two groups were highly significant, supporting to a notable degree the influence and contribution of the intervention program for boys in the experimental group. Specifically, the boys of the experimental group compared to the control group, showed higher values in all assessment criteria for the argumentative English text (content, analytic criteria, holistic criteria, quantitative criteria). These differences between the experimental group and the control group, for the participant boys are reinforced by the examination of the changes between the initial and final measurement in both the control group and the experimental group. In regards to boys of the control group, it was shown that between the two measurements (initial - final) the content and analytical criteria improved, while the quantitative criteria lessened without supporting the existence of an explicit tendency between the two measurements. On the other hand, for participants in the experimental group, the differentiation between the

two measurements was significantly higher in all assessment criteria for the English argumentative texts, which supports the overall improvement of the text as all the changes were in a positive direction, and the content, the analytic criteria, the holistic criteria and the quantitative criteria improved.

An important part of the study was the differentiation of participants based on the quality of their writing, which was differentiated into below average, average, and above average participants.

For below average participants in the control group, the results showed the existence of significant differences in the initial measurement, where, however, the results were conflicting. Specifically, while the content and analytical criteria improved, the quantitative criteria showed to limit. However, the specific improvement could be attributed to the fact that for below average participants it is possible that they were more likely to show improvement due to the limitations and weaknesses that they displayed through the typical educational teaching program, but it seemed that this change was not explicit and in some instances had a negative direction. In the case of average participants of the control group the changes between the initial and final measurement showed to limit as regards to the analytic criteria, while no significant changes were evident in the other assessment criteria for the argumentative English text.

On the other hand, in the case of below average, average and above average participants of the experimental group statistically significant changes appeared between the initial and final measurement in the assessment criteria for the argumentative English text. Specifically for the three subgroups of participants, significant changes were shown between the two measurements, where significant improvement occurred in all three criteria (content, analytic criteria, quantitative criteria) showing clearly the substantial**,** positive impact of the intervention program regardless of the writing ability of the student. In other words, it seems that the intervention program applied did not benefit a category of participants, as all participants regardless of their ability (below average, average and above average) improved as a result of the intervention program that can be applied to participants of different ability.

A closer examination as regards to the results of the argumentative English text shows that as in all three factors (content, analytic, quantitative criteria) of the short story English text the participants of the experimental group outperformed the participants of the control group. The findings, thus, confirm previous results (Graham, Harris, Mason, 2005) in which the SRSD instructed students in the two groups outperformed the students in the comparison condition as regards to length, quality and writing knowledge for persuasive essays. The findings also sustain previous studies that focused on planning, writing stories, and persuasive essays in addition to a peer support, showing positive effects on struggling second grade students' writing performance in the two instructed genres (personal narrative and persuasive writing) as well as enhanced writing knowledge (Harris, Graham, Mason, 2006).

By the same token the results of the present study corroborated the Mason and Shriner's (2008) study that investigated the persuasive writing performance of 2nd through 5th grade students and showed that following self-regulation strategy development instruction for writing an opinion essay, students were able to independently apply the five parts of the persuasive essay. In a similar manner, the findings also resemble the Sadler and Graham (2007) study that examined the relationship between writing knowledge in writing performance among more and less skilled fourth grade writers. The study examined whether writing knowledge was connected to the length and quality of students' stories. Results confirmed that less skilled writers are less knowledgeable on writing than skilled-writers and that writing performance between more and less skilled writers differed.

Finally, following a closer examination as regards to differentiation amongst gender (boys and girls), similar results were found as in the short story English text. That is, the girl participants were shown to outperform the boy participants in all three factors (content, analytic, quantitative criteria). In a similar manner to the short story factors of the English text, it was shown that the quality of writing for the participants of the experimental group, improved, regardless of ability, following the intervention program which was applied.

5.4. Research Question 4: Will statistical important differences be found amongst EFL participants (below average, average, above average) in the native language story writing quality of the experimental group, following the provision of procedural facilitation through guided, explicit, and structured strategy-based instruction in writing and self-regulation strategies, on short story writing of the Greek text?

Short Story Writing of Greek text

The present study also examined the differences in the evaluation assessment criteria of short story writing of the Greek text between the experimental group and the control group, as well as the changes between the two measurements (initial measurement - final measurement).

An examination of the differences in the total number of participants girls and boys of the experimental group and the control group did not support the existence of significant differences in the initial measurement, while in the final measurement the differences between the two groups was highly significant and specifically in the analytic and holistic criteria significantly supporting significantly the impact and contribution of the intervention program which was applied. These differences between the experimental group and the control group are reinforced by the examination of the changes between the initial and final measurement in both the control group and the experimental group. The specific differences between groups at the final measurement are also reinforced by the examination of the changes between the two measurements in each group (experimental - control). More specifically, for participants in the control group, the change between the two measurements is indicated in the reduction of quantitative data, while for participants in the experimental group, there was a significant increase in the analytic and the holistic criteria, noting the significant and positive effect of the intervention program in the improvement of the characteristics of participants in the experimental group.

Apart from the differences and changes in the total number of participants in the experimental group and the control group, the differences and changes of participants based on gender, was also studied. Specifically, in the sample of girls, the differences

between the two groups (experimental - control), the results showed no significant differences in either the initial measurement or the final measurement. By examining the changes between measurements the girls in the control group showed a significant reduction of the quantitative criteria in the final measurement, while in the case of girls in the experimental group there was a significant increase in analytic and holistic criteria, noting to some extent the positive effect of the intervention program of girls in the experimental group. In the case of boys, similar results were shown to those of the participating girls. Specifically, no differences were shown between boys in the experimental group and the control group in the initial and final measurement. Examining, however, the changes in each group between the two measurements, the participating boys in the control group showed a significant reduction in quantitative criteria, while in the case of boys in the experimental group there was a significant increase of the analytic, the holistic and quantitative criteria between the two measurements, supporting the overall improvement of the text, as a result of the intervention program which applied.

The importance of the writing processes has been confirmed as invaluable in both first and second language (Zamel, 1983; Raimes, 1985; Jones and Tetroe, 1987). Approaches to writing thus, have been viewed as appropriate for both second and native language education (Scardamalia and Bereiter, 1986; 1987). Difficulties that writers face in a second/foreign language have been noted to occur in the same way in the native language (Bereiter and Scardamalia, 1987). Whereas expert writers might not require instruction in writing in their second language and may benefit more from writing practice and other uses of their second language, this study found that below average and average writers as well as boys and girls respectively, showed to improve by explicit writing strategy instruction. Based on previous conclusions, thus, below average or average writers, have appeared to require procedural facilitative writing environments in a foreign language, in part due to the deficits they face with the language itself, but also due to lack of strategies acquired in the native language (Applebee, 1984; Hillocks, 1986; Scardamalia and Bereiter, 1986). Explicit strategy instruction on problem-solving strategies will enable this group of writers to deal with the given task at hand, evaluate their writing effectively while they are composing and be attentive to the interactions of the various aspects of writing (Cummins, 2006). The findings of this study thus, corroborate Jackobs (1982) conclusions that showed that the complexity of a given task

and the skills students utilized or the way in which they approach a complex task may essentially be related to the issue of composing difficulties rather than linguistic accuracy. The findings of this study also corroborates previous studies in which Zamel (1983) found that for the six ESL learners under study, attention to language use was relatively unproblematic and infrequent within their overall processes of writing in a second language.

The findings of this study could also corroborate Cummings (2006:126) hypothesis that suggests that writing expertise is as easily attained in a first or second language, a point worthy of study in future research. Participants in the present study had developed their writing expertise in their native language, to a certain level, however, based on Cummings (2006) hypothesis, their development of writing expertise could, otherwise, have occurred in their second language. However, it should be stressed that future research also needs to address the extent to which cognitive characteristics of writing expertise are teachable or how they arise developmentally (Bereiter and Scardamalia, 1987).

Empirical findings have determined that writing strategies acquired from an L2 writing environment transfer to L2 writing contexts (Jones and Tetroe, 1987; Leki, 1999; Sasaki, 2000; Hyland, 2002). Cumming (2006) has also found that as people gain proficiency in their second language their second language writing performance improves. That is, they produce more effective texts and attend more fully to writing aspects. However, dissimilar to writing expertise, enhanced second language proficiency did not appear to entail qualitative changes in the thinking processes or decision-making behaviors used for composing. Specifically, the Cummings (2006) study did not find second language writing composing processes to be affected by second-language proficiency.

5.5. Research Question 5: Will statistical important differences be found amongst EFL participants of the experimental group and the control group, between writing anxiety levels and writing performance?

5.6. Research Question 6: Will statistical important differences be found amongst EFL participants of the experimental group, on anxiety levels and writing performance,

following the provision of procedural facilitation through guided, explicit, and structured strategy-based instruction in writing and self-regulation strategies, on both short story English writing and argumentative English writing.

Anxiety

An important part of this research was to investigate the differences among participants in the experimental group and the control group in the initial and final measurement regarding the factors that deal with the Second Language Writing Anxiety Inventory (SLWAI, Cheng, 2004) (somatic anxiety, cognitive anxiety, and behavioral anxiety). The Second Language Writing Anxiety Inventory (Cheng, 2004) results showed no statistically significant differences between the two groups at the initial measurement, suggesting that participants in both groups expressed the same levels of emotional state. However, in the final measurement statistically significant differences appeared, where participants in the experimental group showed significantly lower mean values of the three factors of anxiety (somatic, cognitive, and behavioral), a factor that supports that participants in the experimental group showed lower anxiety in the three dimensions of the final measurement compared with participants in the control group. These results are further supported by the fact that, while no change occurred on anxiety levels between the initial and final measurement in the control group, the experimental group showed a significant reduction in anxiety between the two measurements. Specifically, in the final measurement participants in the experimental group showed lower levels of anxiety compared to the initial measurement, a factor that largely can be attributed to the content of the intervention program applied to this specific group.

To be more specific as regards to the results of the study, in the initial measurement all three subscales of anxiety measured: somatic anxiety, cognitive anxiety, and behavioral anxiety, were found to characterize both groups (control and experimental) of foreign language writers. However, cognitive anxiety, which deals with negative expectation, fear or worry of negative evaluation and tests, was found to be the most common type of ESL writing anxiety experienced by young Greek foreign language writers. These findings corroborate Cheng's conclusion (2004:331) that cognitive anxiety is closely related to test anxiety or negative evaluation and could have a great influence on L2

writing performance. Students with test or negative evaluation fear, experience cognitive anxiety interference and have difficulties focusing on the writing task at hand. As regards to learners' behavior, or behavioral anxiety, in the initial measurement, both groups of participants also reported experiencing avoidance behavior for writing English or avoiding situations that require writing in English. Avoidance behavior, a negative consequence of ESL writing anxiety, thus, would result in hindering L2 writing improvement. ESL writing anxiety was also shown to have negative effects and trigger physical symptoms such as accelerated heartbeat, perspiration or even blushing that are the negative effects of behavioral anxiety, and further impede the writing progress.

Numerous previous studies as regards to FLA/SLA have indicated that high levels of anxiety could have negative effects on both students' language performance overall as well as for specific language skills (Cheng, et. al., 1999; Cheng, 2004; Hassan, 2001; Horwitz et. al., 1986; MacIntyre and Gardner, 1991). The study under discussion is, thus, consistent with and supports these previous conclusions highlighting the negative affective variable of ESL writing anxiety on young Greek ESL learners. Hence, the findings of the study do not support previous conclusions stating that language anxiety facilitates learning (Albert and Haber, cited in Aida, 1994) nor that language anxiety does not affect learning performance and second/foreign language achievement (Bexkman, 1976 as cited in Aida, 1994). By the same token, these findings do not support previous studies arguing that L2 achievement is dependent solely on the learner's capabilities and cognitive abilities (Sparks and Ganschow, 1991) as the findings of this study showed that affective variables such as anxiety, and specifically somatic anxiety, cognitive anxiety, and behavioral anxiety affected both groups (control and experimental) of foreign language learners.

In opposition, the findings of this study support the debilitating effects of anxiety on language learning (Cheng, Horwitz, and Schallert, 1999; Krashen, 1982; Horwitz, 2000), and specifically Horwitz's (2000, 2001) depiction of foreign language anxiety as a negative emotional reaction to language learning. The findings also confirm previous research conducted that has determined anxiety to be an affective variable, which inhibits the learning and/or the production of a second or foreign language (Horwitz, Tallon and Luo, 2010).

Furthermore, so as to be more specific as regards to the post test measurements of both the experimental and the control group, the findings of this study showed that fostering a procedural facilitative environment through which explicit and strategy based writing instruction is offered the experimental groups' anxiety levels decreased while writing performance improved. The results, thus, confirm previous findings such as those by Spantidakis, and Vassilaki (2007) in which 6th grade primary school participants with developed metacognitive skills showed lower anxiety levels following the intervention program applied to participants of the experimental group,

The findings of the study also confirm Yan, and Horwitz's (2008) study, which examined foreign language anxiety from the learner's perspective, through adopting the Foreign Language Classroom Anxiety Scale (FLCAS) and interview protocols, focusing on how students' anxiety works together with other variables in influencing language learning. Amongst the findings of the study was that many participants expressed concern over their inability to find effective language learning strategies whilst some participants stated that they could not apply their preferred learning strategies due to curricular constraints. Many participants in the study reported that failure to find effective learning strategies to approach a specific learning task resulted in anxious feelings, frustration and lack of confidence for language learning. The students also reported that their motivation was hindered by their feelings of anxiety. That is, less interest and lower motivation to proceed in task completion would result in greater success in the foreign language.

Moreover, the experimental groups results, following the implementation of a procedural facilitative environment through explicit strategy based writing instruction, showed that the relationship between achievement, and foreign language anxiety was closely related. The findings of this study, thus, have confirmed the negative impact of anxiety on language learning achievement corroborating previous findings (Aida, 1994; Horwitz et al., 1986; MacIntyre and Gardner, 1989; 1991a; 1991b). In particular, following the writing intervention program, which was applied, the experimental groups anxiety levels especially as regards to cognitive anxiety lessened. The findings, thus, sustain previous conclusions stating that anxiety has negative effects on working memory capacity imposing a direct threat to performance (Eysenck, Derakshan, Santos and Calvo, 2007; Eysenck and Calvo, 1992).

The study also sustains previous conclusions stating that writing anxiety negatively affects writing quality (Veit, 1980; Aitman, 1985). Programs that emphasize pre-writing activities lower students' writing anxiety. In particular, organizational skills are improved when focus is placed on the prewriting, writing, revising, editing, and publishing stages. Schweiker-Marra and Marra (2000) have found that instruction on pre-writing activities improved written expression and lessened writing anxiety. Specifically, effective language learning strategies (Horwitz, et. al., 1986) are in parallel with the process-oriented approach to foreign language writing, one that focuses on "meaning". That is, the writing processes that a writer engages in while composing rather than the final product.

English foreign language writing is both a cognitive and emotional process. The affective components of writing guide the phases of the writing process (Erkan and Saban, 2011). Cheng (2002) has found that perceived writing competence predicts writing anxiety more so than L2 achievement. That is, even students characterized by high L2 competence may not necessarily perceive themselves as competent language learners and face anxiety during L2 acquisition. In a similar manner Erkan and Saban (2011) found that writing apprehension and attitudes towards writing were positively correlated. In particular that students' writing attitudes influenced writing achievement in foreign language settings. In essence, the causes and affects of foreign language anxiety should be taken into consideration so as to more successfully facilitate ESL learners and reduce ESL writing anxiety.

The findings support the conclusions made by Oxford, (2001) Hyland, (2003) who have stated that by changing the context of learning, second language anxiety can be reduced, which will in turn, succeed to improved performance. In particular, in a similar manner to the findings of this study, by fostering metacognitive and cognitive strategy and affective strategy instruction on ESL writing tasks to facilitate learning development second language anxiety will also reduce. Finally, the results of the factors of the interview assessment confirm previous interview findings in which the participants commented on how anxiety kept them from achieving (Yan, and Horwitz's, 2008).

Examining differences based on gender (boys, girls) and grades (5th grade, 6th grade) similar differences also appeared between the groups in the two measurements. Specifically, the participating girls did not show significant differences in the initial measurement between the two groups, while in the final measurement the girls of the experimental group indicated significantly lower mean values in all factors of anxiety. The differentiation between the two groups in the final measurement is further enhanced by the fact that there was no significant change between the initial and final measurement in the control group, whereas girls in the experimental group showed a statistically significant reduction of anxiety in the final measurement, compared with the initial measurement. In the same direction, differences and changes appeared for the boy participants of the experimental group and the control group, indicating that regardless of gender, the same level and same direction of differentiation between groups (experimental, control) and measurements (initial and final) were revealed. It is also important to note that the greatest differentiations were shown for somatic and cognitive anxiety and to a lesser extent for behavioral anxiety indicating that possibly the intervention program influenced to a greater extent these first two types of anxiety, while behavioral anxiety seemed to be influenced and changed to a lesser extent.

Following the examination of participants based on gender (boys, girls) the results showed that both girls and boys of the experimental group showed significantly lower mean values in all anxiety factors following the intervention program, which was applied. Thus, this study showed that the intervention program, which was applied, respectively, positively affected boys and girls. In addition a closer examination of the results, shows that the boy participants of the control group at both the initial and final measurement showed higher levels of somatic, cognitive, and behavioral anxiety than the girls. The findings thus do not corroborate previous conclusions such those by Cheng, Y-S (2002) who found that the female subjects of her study had higher levels of English writing anxiety than the males. However, these findings could be rationalized through Yan, and Horwitz's, (2008) conclusions that males and females use different language learning strategies. Specifically Yan, and Horwitz's, (2008) study found that female students cared more about tests and therefore, might have developed better ways to deal with test-related tasks. Females thus, were reported to be better in language learning which could rationalize their lower anxiety levels. What's more, Clark, and Trafford (1996) have found that the girl participants of their study viewed learning a

foreign language as more essential than boys. In a similar line of thought to that of the Yan, and Horwitz's (2008) study the lower anxiety levels that were shown for girl participants in this study could be rationalized by the more effective ways they had developed to approach foreign language writing tasks.

In this study, based on participants' grade level (5th grade, 6th grade) similar differences occurred between groups (experimental, control), as well as significant changes between the two measurements. Specifically, the participants in the 5th grade, did not show significant differences in the initial measurement, between the experimental group and the control group, while in the final measurement the participants, girls and boys, of the experimental group showed significantly lower values in all factors of anxiety. The differentiation between the two groups of 5th grade participants in the final measurement is further supported by the fact that there was no significant change between the initial and final measurement in the control group, while the participants, boys and girls in the 5th grade of the experimental group showed a statistically significant reduction of anxiety in the final measurement, compared with the initial measurement. The differences and changes in the participating participants in the experimental group and the control group appeared in the same direction, indicating that regardless of grade level the same level and same direction of differentiations between groups (experimental, control) and measurements (initial and final) was revealed. It is also important to note that for participants (girls and boys) of the 5th and 6th grade, the largest differentiations occurred in somatic and cognitive anxiety and to a lesser degree in behavioral anxiety indicating that perhaps the intervention program affected to a greater extent the first two types of anxiety, while behavioral anxiety seemed to be influenced and changed to a lesser extent, as demonstrated based on gender for the participating boys and girls.

Limited research has been brought forward as regards to foreign language writing anxiety and grade level. Cheng, Y-S (2002) found no differences among freshmen, sophomores and junior students in English writing anxiety, although L2 writing anxiety showed to increase with increased time of study as freshmen reported the lowest level of English writing anxiety and the junior the highest level.

5.7. Research Question 7: Will important correlations be found between the writing quality of story writing and expository essay, metacognitive knowledge, metacognitive skills or strategies, metacognitive behavior and anxiety levels?

Correlations-Regression

Examining the correlations between variables, the results showed the existence of statistically significant correlations. The results showed the existence of statistically significant negative correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI, Cheng, 2004) and the factors of the argumentative English text. Specifically, the results showed that the reduction of Second Language writing anxiety led to the improvement of the content, the analytic, the holistic and the quantitative criteria. Furthermore, differentiations between the experimental group and the control group appeared, regarding the correlations of second language writing anxiety and the argumentative English text's factors. In particular, participants of the experimental group showed higher negative correlations of the factors of anxiety in terms of the content, the analytic, the holistic and the quantitative criteria, while in the case of participants in the control group, the level of correlations was lower, possibly indicating that the reduction of anxiety for participants in the experimental group resulted in a higher increase of quality of the argumentative English text factors but also for the short story English text. It should also be noted that between the initial and final measurement for participants in the experimental group the correlations, between factors of short story writing, and the argumentative English text, were higher in the final measurement, noting, to a greater degree, that the reduction of anxiety for the experimental group participants was linked to the improvement of the factors of the short story English text and the argumentative English text. Finally, it should also be noted that cognitive anxiety showed higher negative correlations with the factors of the argumentative text and the short story English text, compared to the somatic and behavioral anxiety.

The findings of the correlations-regression sustain conclusions stating that students require more direct, explicit and structured writing strategy instruction centering on cognitive and metacognitive skills (DeLaPaz and Graham, 2002; Graham and Harris,

2007). The findings also corroborate conclusions as regards to the use of procedural facilitative tools that support cognitive performance so as to assist writers organize mental reasoning and make the activity more visible, manageable and achievable (Englert, Mariage, Dunsmore, 2006:211). The study, hence, sustains previous conclusions stating that writing anxiety negatively affects writing quality (Veit, 1980; Aitman, 1985) and primarily that organizational skills are improved when programs directly focus on the prewriting, writing, revising, editing, and publishing stages. In a similar study Schweiker-Marra and Marra (2000) found that instruction on pre-writing activities improved written expression and lessened writing anxiety. Moreover, the existence of statistically significant correlations between the factors of the Second Language Writing Anxiety Inventory (SLWAI, Cheng, 2004) and the factors of the argumentative English text further support the existence of foreign language writing anxiety as an additional affective variable that debilitates the learning and/or the production foreign language performance (Horwitz, Tallon and Luo, 2010; Yan, and Horwitz's, 2008).

Moreover, the experimental groups results, following the implementation of a procedural facilitative environment through explicit strategy based writing instruction, showed that the relationship between achievement, and foreign language anxiety was closely related. The findings of this study, thus, have confirmed the negative impact of anxiety on language learning achievement corroborating previous findings (Aida, 1994; Horwitz et al., 1986; MacIntyre and Gardner, 1989; 1991a; 1991b). In particular, following the writing intervention program, which was applied, the experimental groups anxiety levels especially as regards to cognitive anxiety lessened. The findings, thus, sustain previous conclusions stating that anxiety has negative effects on working memory capacity imposing a direct threat to performance (Eysenck, Derakshan, Santos and Calvo, 2007; Eysenck and Calvo, 1992).

The study also sustains previous conclusions stating that writing anxiety negatively affects writing quality (Veit, 1980; Aitman, 1985). Programs that emphasize pre-writing activities lower students' writing anxiety. In particular, organizational skills are improved when focus is placed on the prewriting, writing, revising, editing, and publishing stages. Schweiker-Marra and Marra (2000) have found that instruction on pre-writing activities improved written expression and lessened writing anxiety.

Specifically, effective language learning strategies (Horwitz, et. al., 1986) are in parallel with the process-oriented approach to foreign language writing, one that focuses on "meaning". That is, the writing processes that a writer engages in while composing rather than the final product.

English foreign language writing is both a cognitive and emotional process. The affective components of writing guide the phases of the writing process (Erkan and Saban, 2011). Cheng (2002) has found that perceived writing competence predicts writing anxiety more so than L2 achievement. That is, even students characterized by high L2 competence may not necessarily perceive themselves as competent language learners and face anxiety during L2 acquisition. In a similar manner Erkan and Saban (2011) found that writing apprehension and attitudes towards writing were positively correlated. In particular that students' writing attitudes influenced writing achievement in foreign language settings. In essence, the causes and affects of foreign language anxiety should be taken into consideration so as to more successfully facilitate ESL learners and reduce ESL writing anxiety.

The findings support the conclusions made by Oxford, (2001) Hyland, (2003) who have stated that by changing the context of learning, second language anxiety can be reduced, which will in turn, succeed to improved performance. In particular, in a similar manner to the findings of this study, by fostering metacognitive and cognitive strategy and affective strategy instruction on ESL writing tasks to facilitate learning development second language anxiety will also reduce. Finally, the results of the factors of the interview assessment confirm previous interview findings in which the participants commented on how anxiety kept them from achieving (Yan, and Horwitz's, 2008).

5.8. Final Conclusions

The writing strategies utilized by young Greek foreign language writers following the implementation of the writing instructional model, showed that procedural facilitating environments that foster cognitive apprenticeship enhance writing quality (Graham and Perrin, 2007; Zimmerman and Kitsantas, 2002; Rijlaarsdam et. al., 2005) and assist

develop writing expertise in knowledge tellers so that they could gradually become knowledge transformers (Bereiter and Scardamalia, 1987).

The results of the study hope to provide inference for both theory and pedagogy in terms of the significance of explicit writing strategy training, guided by procedural facilitation in writing, for English foreign language (EFL) Greek primary school writers and beyond. By grasping students' perceptions regarding foreign language writing, through personal interviews and anxiety questionnaires, this study has attempted to provide new dimensions concerning young foreign language learners writing experiences. In essence, a new approach towards explicit writing strategy instruction, guided by procedural facilitation, that promotes cognitive apprenticeship is proposed for implementation by foreign language educators so that grade school language learners can be offered effective, enjoyable, less anxious language learning experiences and be equipped to successfully cope with the demands of foreign language writing.

It is recommended that educators become pro-active so as to successfully cater the needs of students who may experience English foreign language writing difficulties. Additionally, it is important that educators become aware of the existence of foreign language writing anxiety as a language-specific type of anxiety so as to foster more meaningful and less stressful writing environments. Moreover, it is suggested that the Ministry of Education in Greece, as well as other settings in which English is taught as a foreign language, teacher training-courses are provided that center upon explicit, strategy-based writing instruction and cognitive apprenticeship training environments.

What's more, the adaptation of writing settings in which all language skills are integrated, are meaningful and promote communicative competence showed to augment students' self-efficacy and motivation. Even though the communicative approach has been criticized for lack of a more "direct instruction" to language teaching such as grammatical, lexical and socio-pragmatic features (Spada, 2007), a communicative approach to writing, one that fosters priority to the semantic of content language learning, that is, meaning, enables learners to also acquire the grammatical form. Essentially, monitoring foreign language use by applying grammar rules, spelling, and punctuation is a vital aspect to be attended to, however, not at the expense of attention spent on composing and intended meaning as this would appear to be a misdirected

strategy for regulating one's writing performance (Jones, 1985). Specifically, the goal of writing instruction cannot solely focus on training in explicitness and accuracy, as written texts are always a response to a particular communicative setting (Hyland, 2003:5). The present study has highlighted how essential it is to transform students into active entities, who are in control of their own learning processes, embrace dynamic problem solving skills, and have developed true expertise so as to make their journey throughout the learning process both visible and meaningful (Collins, et. al., 1991).

Fundamentally, the innovative aspects of this research study were that it highlighted the development of metacognitive skills for young EFL learners, stressed the writing production process as a meaning making activity, provided an environment that gradually offers learning control to young EFL learners, recommended a coherent way to offer explicit strategy-based instruction through a procedural facilitative environment in which the educator aims to create a scaffolding environment leading to learner autonomy, through the development of metacognitive skills and lessen EFL learners' writing anxiety levels.

5.9. Recommendations for Future Research

In this specific study the Self-regulated strategy development writing instructional model was adopted and modified in an attempt to assist foreign language learners through writing and allow them to be able to deal with the creative nature of writing more effortlessly. Accordingly, other writing instructional models could be implemented, ones that fundamentally foster (i) special supportive procedures that provide cues or routines for switching into and out of new regulatory mechanisms while keeping the executive procedure as a whole intact and (ii) minimize the resource demands of the newly added self-regulatory mechanisms (Bereiter and Scardamalia, 1987) and foster cognitive apprenticeship (Collins et. al., 1991) so as to assist foreign language writers during the arduous process of foreign language writing.

Furthermore, cognitive apprenticeship methods have shown to be effective in the teaching of writing as well as other subject areas. Future research is recommended

examining environments that gradually offer learning control to young English foreign language writers by offering explicit strategy-based instruction, through procedural facilitation, in which the educator aims to create a scaffolding environment so as to foster learner autonomy, through cognitive and metacognitive skill development. Additionally, as this study and previous studies support the existence of foreign language writing anxiety as an additional affective variable that debilitates the learning and/or the production foreign language performance (Horwitz, Tallon and Luo, 2010; Yan, and Horwitz's, 2008) it would be interested and beneficial to conduct future studies that focus on writing training programs as they have shown to augment writing performance and in turn, lessen writing anxiety levels.

An additional suggestion for future research would be to replicate this study in another region of Greece so as to verify the findings. This study could also be replicated in another country in which English is being taught as a foreign language so to determine whether the findings are peculiar to Greece. Finally, reading along with other uses of second language has been acknowledged to facilitate the development of efficient writing performance (Cumming, 2006). The examination, thus, of procedural facilitative environments and scaffolded instruction in other skill areas such as foreign language reading, a prerequisite for the development of foreign language writing, is also recommended for future research.

5.10. Limitations of the Study

This study has certain limitations:

- Initially, a first limitation of the study concerns the examination of a follow-up measurement that was not conducted.
- An additional limitation deals with the lack of a qualitative analysis as regards to the interview evaluation factors of the study.

5.11. BIBLIOGRAPHY

1. Abu-Rabia, S. (2004). Teachers' Role, Learners' Gender Differences, and FL Anxiety Among Seventh-Grade Students Studying English as a FL. *Educational Psychology, 24*(5), 711-721.

2. Abu, Shawish, J. I., Abdelraheem, A. (2010). *An Investigation of Palestinian EFL Majors' Writing Apprehension Causes and Remedies*. Retrieved from: http://www.qou.edu/english/conferences/firstNationalConference/pdfFiles/drJaberDrMohammad.pdf

3. Adams, M. J., Treiman, R., & Pressley, M. (2000). Reading, writing, and literacy. In I. E. Sigel., & K.A. Renninger (Eds.), *Handbook of child psychology, 4* (pp.275-355). Child psychology in practice New York: Wiley.

4. Agate, L. (2005). *Investigation of primary grade writing instruction*. Doctoral Dissertation, University of Maryland, College Park, MD.

5. Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's Construct of Foreign Language Anxiety: The Case of Students of Japanese. *The Modern Language Journal, 78*(4), 155-168.

6. Aitman, C. (1985). *Writing anxiety-barrier to success.* Indiana, US.

7. Albert, R., & Habert, R. (1960). Anxiety in academic achievement situations. Journal of Abnormal and Social Psychology. Vol. 61. 207-215. In Scovel, T. (1978), The Effect of Affect on Foreign Language Learning: A Review of the Anxiety Research. *Language Learning, 28*(1), 128-142.

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

9. Alhosani, M. N. (2008). Utilizing the writing process approach with English as second language writers: A case study of five fifth grade ESL Arab students. Retrieved from ProQuest Digital Dissertations, Dissertations and Theses database. (UMI No. 3339004).

10. Allen, B. A., & Armour-Thomas, E. (1993). Construct Validation of Metacognition. *The Journal of Psychology, 127*(2), 203-211.

11. Alloway, T. P., Gathercole, S. E., Willis, C., & Adams, A. M. (2004). A structural analysis of working memory and related cognitive skills in young children. *Experimental Child Psychology, 87,* 85-106.

12. Allwright, D. (1990). Autonomy in Language Pedagogy. CRILE Working Paper 6. Centre for Research in Education, University of Lancaster, U.K.

13. Alvermann, D. E. (2002). Effective literacy instruction for adolescents. *Journal of Literacy Research, 34,* 189-208.

14. Alvermann, D., & Phelps, S. (1983). Elementary readers' strategic activity in processing story-length material. In J. Niles (Ed.), *Searches for Reading/Language Processing and Instruction: Thirty-Second Yearbook of the National reading Conference (pp.182-186)* Rochester, NY: National Reading Conference.

15. Anderson, J. R. (1983). *The architecture of cognition.* Cambridge, MA: Harvard University Press.

16. Anderson, J. R. (1996). Implicit memory and metacognition: Why is the glass half full? In L.M. Reder (Ed.), *Implicit Memory and Metacognition* (pp.123-135). Mahwah, N. J: Erlbaum.

17. Anderson, N. J. (2002). The role of metacognition in second language teaching and learning, *ERIC Digest*, (pp. 3-4) Education resources information center.

18. Anderson, N. J. (2002). The Role of Metacognition in Second Language Teaching and Learning Washington, DC: ERIC Clearinghouse on Languages and Linguistics, Center for Applied Linguistics. Retrieved from http://www.cal.org/resources/digest/0110anderson. html.

19. Applebee, A. (1984). Writing and reasoning. *Review of Educational Research, 54,* 577-596.

20. Arnold, J., & Brown, D. (1999). A map of the terrain. In Arnold, J. (Ed.), *Affect in Language Learning*, (pp. 1-24). Cambridge: Cambridge University Press.

21. Aro, M., & Wimmer, H. (2003). Learning to read: English in comparison to six more regular orthographies. *Applied Psycholinguistics, 24*, 621-635.

22. Assessment of Performance Unit (APU), (1986). *Mathematical Development. Secondary Survey Report No. 1.* London: Assessment of Performance Unit, Department of Education and Science. Foreign Language Performance in Schools.

23. Atay, D., & Kurt, G. (2006). Perspective Teachers and L2 Writing Anxiety. *The Asian EFL Journal Quarterly, 8*(4), 100-118.

24. Atkinson, D. (2002). Toward a Sociocognitive Approach to Second Language Acquisition. *The Modern Language Journal, 86* (4), 525-545.

25. Avdela, E. (2000). The teaching of History in Greece. *Journal of Modern Greek Studies, 18*(2), 239-253.

26. Backman, N., (1976). Two Measures of Affective Factors as They Relate to Progress in Adult Second Language Learning. Working Papers in Bilingualism. Vol. 10, (pp. 100-122) as Cited In Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's Construct of Foreign Language Anxiety: The Case of Students of Japanese. *The Modern Language Journal, 78*(2).

27. Bacon, S., M. (1992). The Relationship between Gender, Comprehension, Processing Strategies, and Cognitive and Affective Response in Foreign Language Listening. *The Modern Language Journal, 76*(2), 160-178.

28. Baddeley, A. (1986). *Working memory.* Oxford: Clarendon Press.

29. Baddeley, A. (1992). Working Memory. *American Association of the Advancement of Science, 225* (5044): 556-559.

30. Baddeley, A. D. (2001). Is Working Memory? *American Psychologist, 56*(11), 851-864.

31. Baddeley, A. (2003). Working Memory and Language: an overview. *Journal of Communication Disorders, 36,* 189-208.

32. Baddeley, A. D., & Graham, J. H. (2003). Developments in the Concept of Working Memory. *American Psychological Association, Inc, 8(*4), 485-493.

33. Baddeley, A. D., & Logie, R. H. (1999). Working memory: The multiple-component model. In Miyake, A., & Shah, P. (Eds.), *Models of Working Memory* (pp. 28-61). New York: Cambridge University Press.

34. Baker, S., & MacIntyre, P., D. (2000). The role of gender and immersion in communication and second language orientations. *Language Learning, 50*(2), 311-341.

35. Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37,* 122-147.

36. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.

37. Bandura, A. (1997). Self-*Efficacy: The exercise of control.* New York: Freeman and Company.

38. Bandura, A., & Schunk, D. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology, 41,* 586-598.

39. Bangert-Drowns, R. L., Hurley, M. M., & Wilkinson, B. (2004). The effects of school-based writing-to-learn interventions on academic achievement: A meta-analysis. *Review of Educational Research, 74,* 29-58.

40. Barbe, W., Wasylyk, T. M., Hackeney, C., & Braun, L. (1984). *Zaner-Brosercrative growth in handwriting (Grades K-8).* Columbus, OH: Zaner-Bloser.

41. Baruch, Y. (2006). Role-play teaching: Acting in the Classroom. *Sage Publications, 37,* 43, 43-61.

42. Baumeister, R. F., Heatherton, T., F. & Tice, D. M. (1994). Losing control: How and Why people fail at self-regulation. San Diego, CA: Academic Press.

43. Bella, S. (2007). *The second language. Achievement and Teaching.* Ellinika Grammata. (In Greek)

44. Benedetti, R. Y. (1999). *The Actor in You*. Needham Heights, MA: Allyn and Bacon.

45. Benson, B., Deming, M., Denzer, D., & Valeri-Gold, M, (1992). A combined basic writing English as a second language class: Melting pot of mishmash? *Journal of Basic Writing, 11,* 58-70.

46. Bereiter, C., & Scardamalia, M. (1987). *The Psychology of Written Composition Ontario Institute of Studies In Education.* Lawrence Erlbaum Associates, Inc.

47. Berninger, V., & Fuller, F. (1992). Gender differences in orthographic, verbal and compositional fluency: implications for assessing writing disabilities in primary grade children. *Journal of School Psychology, 30,* 363-382.

48. Boscolo, P., & Hidi, S. (2006). Multiple Meanings of Motivations to Write. In P. Boscolo., & S. Hidi, *(*pp. 1-16). Elsevier Ltd.

49. Brown, A. L. (1978). Knowing when, where, and how to remember: A problem of metacognition. *Advances Instructional Psychology, 1,* 77-165.

50. Brown, A. L. (1985). Metacognition: the development of selective attention strategies for learning from texts. In H. Singer., & R. B. Ruddell (Eds.), *Theoretical models and processes of reading 3rd ed.* (pp. 501-526). Newark, DE: International Reading Association.

51. Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. Weinert., & R. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 65-116). New Jersey: Lawrence Erlbaum.

52. Brown, A. L., & DeLoache, J. S. (1978). Skills, plans, and self-regulation. In R.S. Siegel (Ed.), *Children's thinking: What develops?* (pp. 3-35) Hillsdale, N. J.: Erlbaum.

53. Brown, A. L., Bransford, J. D., Ferrara, R. A., & Campione, J. C. (1983). Learning, remembering, and understanding. In J.H. Flavell., & M. Mark-man (Eds.), *Carmichael's manual of child psychology***,** *Vol. 3,* **(**pp. 77-166). New York: Wiley.

54. Brown, A. L., Campione, J. C., &Day, J. D. (1981). Learning to Learn: On Training Students to Learn from Texts. *Educational Researcher, 10*(2), 14-21.

55. Brown, H. D. (1994). *Principles of language learning and teaching.*3rd Edition. Prentice Hall. Englewood Cliffs, NJ.

56. Burtis, P. J., Bereiter, C., Scardamalia, M., & Tetroe, J. (1983). The development of planning in writing. In C.G.Wells., & B. Kroll (Eds.), *Exploration of children's development in writing*. Chichester. England: John Wiley.

57. Byrne, B., & Fielding-Barnsley, R. (1991). Evaluation of a Program to teach phonemic awareness to young children. *Journal of Educational Psychology, 83,* 451-455.

58. Byrne, B., & Fielding-Barnsley, R. (1993). Evaluation of a program to teach phonemic awareness to young children: A 1-year follow-up. *Journal of Educational Psychology, 85,* 104-111.

59. Canale, M, Swain, M. (1980). Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing. *Applied Linguistics*, *1(*1), 1-47.

60. Caravolas, M (2007**)**. The Nature and Causes of Dyslexia in Different Languages. In Snowling, M., & Hulme, C. (Eds), *The Science of Reading* (pp. 336-355). Blackwell Publishing.

61. Carrell, P. L., Prince, M. S., & Astika, G., G. (1996). Personality Types and Language Learning in an EFL Context. *Language Learning, 46*(1), 75-99.

62. Carson, J. E., Carrell, P. L., Silberstein, S., Kroll, B., & Kuehn, P, A. (1990). Reading-Writing Relationships in First and Second Language. *TESOL Quarterly, 24(*2), 246-266.

63. **C**arson, J. E. (2001). Second Language writing and Second Language Acquisition. In T. Silva., & P.C. Matsuda (Eds), *On Second Language Writing*, (pp. 191-201). Lawrence, Erlbaum Associates, London.

64. Cassady, J. C., & Johnson, R. E. (2002). Cognitive Anxiety and Academic Performance. *Contemporary Educational Psychology, 27*(2), 270-295.

65. Chalk, J. C., Hagan-Burke, S., & Burke, M. D. (2005). The effects of self-regulated strategy development on the writing process of high school students with learning disabilities. *Learning Disability Quarterly, 28,* 75-87.

66. Chamot, A., U. (2004). Issues in Language Learning Strategy Research and Teaching. *Electronic Journal of Foreign Language Teaching, 1*(1), 14-26.

67. Chamot, A. U., & Kupper. L. (1989). Learning Strategies in Foreign Language Instruction. *Foreign Language Annals, 22,* 13-24.

68. Chamot, A. U., & O'Malley, J. M. (1994). Language learner and learning strategies. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 371-392). New York: Academic.

69. Chamot, A. U., & O'Malley, J. M. (1996). The Cognitive Academic Language Learning Approach: A Model for Linguistically Diverse Classrooms. *The Elementary School Journal, 96*(3), 259-273.

70. Chamot, A.U., Barnhardt, S., El-Dinary, P.B., & Rubbins, J. (1999). *The learning strategies handbook.* Ney York: Longman.

71. Chandler, P., & Sweller, J., (1991). Cognitive Load Theory and the Format of Instruction. *Cognition and Instruction, 8,* 293-332.

72. Chanquoy, L., & Alamargot, D. (2002). Working memory and writing: Evolution of models and assessment of research. *Annee Psychologique, 102*(2), 363-398.

73. Chapell, M. S., Blanding, Z., B., Silverstein, M., E., Takahashi, M., Newman, B., Gubi, A., & McCann (2005). Test Anxiety and Academic Performance in Undergraduate and Graduate Students. *Journal of Educational Psychology, 97*(2), 268-274.

74. Cheng, Y. S. (2002). Factors associated with foreign language writing anxiety. *Foreign Language Annals, 35,* 647-656.

75. Cheng, Y. S. (2004). A measure of second language writing anxiety: Scale development and preliminary validation. *Journal of Second Language Writing, 13,* 313-335.

76. Cheng, Yuh-show., Horwitz, E. K., & Schallert, D. L. (1999). Language Anxiety: Differentiating Writing and Speaking Components. *Language Leaning, 49*(3), 417-446.

77. Chenoweth, N. A., & Hayes, J. R. (2001). Fluency in writing: Generating text in L2 and L2. *Written Communication, 18,* 80-98.

78. Chenoweth, N. A., & Hayes, J. R. (2003). The Inner Voice in Writing. *Written Communication, 20(*1), 99-118.

79. Chesterfield, R., & Chesterfield, K. B. (1985). Natural order in children's second language leaning strategies. *Applied Linguistics 6(*1), 45-59.

80. Chitiri, H. F., & Willows, D. M. (1994). Word recognition in two languages and orthographies: English and Greek. *Memory & Cognition, 22,* 313-325.

81. Chomsky, N. (2006). *Language and Mind.* Cambridge University Press.

82. Chomsky, N., & Halle, M. (1968). *The sound pattern of English.* N.Y: Harper & Row.

83. Clark, R. C., Nguyen, F., & Sweller, J. (2006). *Efficiency in Learning Evidence-Based Guidelines to Manage Cognitive Load.* Library of Congress Cataloguing-in-Publication Data.

84. Clark, A., & Trafford, J. (1996). Return to gender: boys' and girls' attitudes and achievements. *The Language Learning Journal, 14*(1), 40-49.

85. Cleo, K. E., & Kraniotis, A. (2009). *Grade Five English.* Ministry of National Education and Religious Affairs. Pedagogical Institute. Institute for Educational Books. ATHENS. Patakis. (In Greek)

86. Cohen, A. D. (1996). *Second Language Learning and Use Strategies: Clarifying the Issues.* Center for Advanced Research on Language Acquisition. University of Minnesota, Minneapolis. Revised Version.

87. Cohen, A. D. (1998). *Strategies in Learning and Using Second Language.* London: Longman.

88. Cohen, A. D., & Macaro, E. (2010). *Language Learner Strategies.* Oxford University Press.

89. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum.

90. Cohen, J., Cohen, P., West, S.G., & Aiken, .L.S. (2003). *Applied multiple regression/ correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Earlbaum.

91. Coker, D. (2007). Writing instruction for young children: Methods Targeting the Multiple Demands That Writers Face. In S. Graham., C.A. MacArthur., & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp.101-141). New York, NY: The Guilford Press.

92. Coker, D. (2007). Writing Instruction for Young Children: Methods Targeting the Multiple Demands That Writers Face. In S. Graham., C.A. MacArthur., & J. Fitzgerald (Eds.), *Best Practices in Writing Instruction. Solving Problems in the Teaching of Literacy* (pp. 101-118). New York, NY: The Guildford Press.

93. Collins A., Brown, J., Holum, A (1991). Cognitive Apprenticeship: making thinking visible. American Educator: The professional of the American federation of teachers, 15 (3), 38-46.

94. Cossu, G., Gugliotta, M., & Marshall, J. (1995). Acquisition of reading and written spelling in a transparent orthography: Two non-parallel processes? Reading and Writing. *An Interdisciplinary Journal, 7,* 9-22.

95. Crookall, D., & Oxford R. (1991). *Dealing with anxiety: Some practical activities for language learners and teacher trainees.* Englewood Cliffs, NJ: Prentice Hall.

96. Csizer, K., & Kormos, J. (2009). An Investigation into the Relationship of L2 Motivation and Cross-cultural Contact Among Elementary School Students. In M. Nikolov (Eds), *Early Learning of Modern Foreign Language. Processes and Outcomes.* (pp. 62-75). Library of Congress Cataloguing in Publication Data

97. Cumming, A. (1986). *International learning as a principle in ESL writing instruction: A case study.* In P. Lightbown., & S. Firth (Eds.), *TSEL Canada Journal, Special Issue, 1*,69-83.

98. Cumming, A. (1990a). Expertise in evaluating second language compositions. *Language Testing, 7,* 31-51.

99. Cumming, A. (1990b). Metalinguistic and ideational thinking in second language composing. *Written Communication, 7,* 482-511.

100. Cumming, A. (1998). Theoretical perspectives on writing. *Annual Review of Applied Linguistics, 18,* 61-78.

101. Cumming, A. (2001). Learning to write in a second language: Two decades of research. *International Journal of English Studies, 1,* 1-23.

102. Cumming, A. (2006). Writing Expertise and Second-Language Proficiency. *Language Learning, 39*(1), 81-141.

103. Cumming, A., & Riazi, A. (2000). Building models of second-language writing instruction and achievement. *Learning and Instruction, 10,* 55-71.

104. Cumming, A., & So, S. (1996). Tutoring Second Language Text Revision: Does the Approach to Instruction or the Language of Communication Make a Difference? *Journal of Second Language Writing, 5*(3), 197-226.

105. Cumming, A., & So, S. (1996). Language Proficiency and academic achievement. In E. Bialystok (Ed.), *Bilingualism in Education: Aspects of theory, research and practice* (pp. 138-161). New York: Longman.

106. Cummins, J. (1980). The construct of language proficiency in bilingual education. In J. E. Alatis (Ed.), *Georgetown University Round Table on Language.* Washington, DC: Georgetown University Press.

107. Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education, *Schooling and language minority students: A theoretical framework* (pp. 3-49). Los Angeles: Evaluation, Dissemination and Assessment Center,.

108. Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy.* Clevedon, Avon: Multilingual Matters.

109. Cummins, J. (1989). A Theoretical Framework for Bilingual Special Education. *Exceptional Children, 56*(2), 111-119.

110. Cummins, J., Brown, K., & Sayers, D. (2007). *Literacy, Technology, and Diversity.* Pearson Education Inc.

111. Curran, C. A. (1976). *Counseling-Learning in Second Languages.* Apple River Press.

112. Daly, J., A. (1977). The effects of writing apprehension on message encoding. *Journalism Quarterly, 55*(3), 566-572.

113. Daly, J. A., & Miller, M., D. (1975a). The Empirical Development of an Instrument to Measure Writing Apprehension. *Research in the Teaching of English, 9*(3), 242-249.

114. Daly, J. A., & Miller, M., D. (1975b). Apprehension of Writing As A Predictor of Message Intensity. *The Journal of Psychology, 89,*175-177.

115. Danoff, B., Harris, K. R., & Graham, S. (1993). Incorporating strategy instruction within the writing process in the regular classroom: Effects on the writing of students with and without learning disabilities. *Journal of Reading Behavior, 25,* 295-319.

116. Dansereau, D. F. (1985) Learning strategy research. In J.W. Segal., S.F. Chipman., & Glaser, R (Eds.), *Thinking and learning skills, 1,* (pp. 209-39). Hillsdale, N.J.: Erlbaum.

117. De La Paz, S. (1999). Self-regulated strategy instruction in regular education settings: Improving outcomes for students with and without learning disabilities. *Learning Disabilities Research & Practice, 14,* 92-106.

118. De la Paz, S. (1999). Teaching writing strategies and self-regulation procedures to middle school students with learning disabilities. *Focus on Exceptional Children, 31*(5), 1-16.

119. De La Paz, S. (2001). Teaching writing to students with attention deficit disorders and specific language impairments. *Journal of Educational Research, 95,* 37-47.

120. De La Paz S., & Graham, S. (2002). Explicitly Teaching Strategies, Skills, and knowledge: Writing instruction in Middle School Classrooms. *Journal of Educational Psychology, 94*(4), 687-698.

121. De Larios, J. R., Murphy, L., & Marin, J. (2002). *A Critical Examination of L2 Writing Process* Research. In G. Rijlaardam (Series ed.)., & S. Ransdell., & M. L. Barbier (Volume eds.), Studies in Writing, Volume 11: New Directions for Research in L2 Writing, (pp.11- 47). Kluwer Academic Publishers. Printed in the Netherlands.

122. Deborah, Tannen, (1983). *Cross Cultural Communication.* Catesol, Occasional Papers, 10,116.

123. Derakshan, N., & Eysenck, M., W. (2009). Anxiety, Processing Efficiency, and Cognitive Performance. New Developments from Attentional Control Theory. *European Psychologist, 14*(2), 169-176.

124. Deshler, D. D., Alley, G. R., Warner, M. M., &Schumaker, J. B., (1981). Instructional Practices for Promoting Skill Acquisition and Generalization. *Learning Disability Quarterly, 4*(4), 415-421.

125. Devine, J. (1993). The role of metacognition in second language reading and writing. In J. G. Carson., & I. Leki (Eds), *Reading in the composition classroom: Second language Perspectives* (pp. 105-127). Boston MA: Heinle & Heinle.

126. Diamond, J. (1999). Self-regulated strategy instruction in regular education settings: Improving outcomes for students with and without learning disabilities. *Learning Disabilities Research and Practice, 14*, 92-106.

127. Dickinson, L. (1987). *Self-instruction in language learning.* Cambridge: Cambridge University Press.

128. Dornyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition.* Mahwah, NJ: Erlbaum.

129. Dornyei, Z., & Malderez, A. (1997). Group Dynamics and foreign language teaching. *System, 25*(1), 65-81.

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

131. Duncan, L. G., Seymour, P. H. K., & Hill, S. (2000). A small-to-large- unit progression in metaphonological awareness and reading? *Quarterly Journal of Experimental Psychology-A, 53*, 1081-1104.

132. Dunn, R., &Griggs, S. A. (1988). *Learning Styles: Quiet revolution in American secondary schools.* Reston, VA: National Association of Secondary School Principals.

133. Efklides, A. (2001). Metacognitive experiences in problem solving: Metacognition, motivation, and self-regulation. In A. Efklide., J. Kuhl., & R.M. Sorrentino (Eds.), *Trends and prospects in motivation research* (pp. 297–323). Dordrecht, The Netherlands: Kluwer.

134. Efraimidou, E., Frouzaki, F. & Reppa, E. Z. (2009). *Grade Six English.* Ministry of National Education and Religious Affairs. Pedagogical Institute. Institute for Educational Books. ATHENS. Patakis. (In Greek)

135. Ehri, L. C. (1992). Reconceptualizing the development of sight word reading and its relationship to recoding In P.B. Gough., L.C. Ehri., & R. Treiman (Eds), *Reading acquisition* (pp. 107-143). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

136. Ehri, L. C. (1999). Phases of development in learning to read words. In J. Oakhill., & R. Beard (Eds), *Reading development and the teaching of reading* (pp. 79-108). Oxford, UK: Blackwell.

137. Ehrman, M. & Oxford, R. (1989). Effects of sex differences, career choice, and psychological type on adults' language learning strategies. *Modern Language Journal, 73*(1), 1-13.

138. Ehrman, M. & Oxford, R. (1990). Adult language learning styles and strategies in an intensive training setting. *Modern Language Journal, 74,* 311-326.

139. Ehrman, M., E., & Oxford, R., L., (1995). Cognition Plus: Correlates of Language Learning Success. *The Modern Language Journal, 79*(1), 67-89.

140. Ehrman, M., E, Leaver, B., L., & Oxford, R. L. (2003). A brief overview of individual differences in second language learning. *System, 31*(3), 313-330.

141. Elley, W. B. (1994). Acquiring literacy in a second language: The effect of book-based programs. In A. Cumming (Ed.), *Bilingual performance in reading and writing* (pp.331-366). Amsterdam: John Benjamins.

142. Ellis, R. (1993). Second language acquisition research: How does it help teachers? An interview with Rod Ellis. *ELT Journal 47,* 4-11.

143. Ellis, R. (1994). *The Study of Second Language Acquisition.* Oxford: Oxford University Press.

144. Ellis, N. C., & Hooper, A. M. (2001). *Why learning to read in easier in Welsh than in English: Orthographic transparency effects evidenced with frequency-matched tests*. *Applied Psycholinguistics , 22*(4), 571-599.

145. Ellis, N. C., Natsume, M., Stavropoulou, K., Hoxhallari, L., Van Daal, V. H. P., Polyzoe, N., Tsipa, M. L., & Petalas, M. (2004). The effects of orthographic depth on learning to read alphabetic, syllabic, and logographic scripts. *Reading Research Quarterly, 39*(4), 438-468.

146. Emig, J. (1971). *The composing processes of twelfth graders.* Urbana, IL: National Council of Teachers of English.

147. Emig, J. (1997). Writing as mode of learning. In V. Villanueva (Ed.), *Cross-talk in composition theory* (pp. 7-71). Urban, IL: National Council of Teachers of English.

148. Emig, J. (1977). Writing as a Mode for learning. *College Composition and Communication, 28*(2), 122-128.

149. Enever, J. (2009). Can Today's Early Language Learners in England Become Tomorrow's Plurilingual European Citizens? In M. Nikolov (Ed.), *Early Learning of Modern Foreign Languages, Processes and Outcomes*. (pp. 15-30). Library of Congress in Publication Data.

150. Englert, C. S., & Mariage, T. V. (2003). The Sociocultural model in special education interventions: Apprenticing students in higher-order thinking. In H.L. Swanson., K.R. Harris., & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 450-470). New York: Guildford Press.

151. Englert, C. S., & Thomas, C. C. (1987). Sensitivity to text structure in reading and writing: A comparison of learning disabled and non-handicapped students. *Learning Disability Quarterly, 10,* 93-105.

152. Englert, C. S., Mariage, T. V, & Dunsmore, K. (2006). Tenets of Sociocultural Theory in Writing Instruction Research. In C.A. MacArthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 208-221). New York: The Guildford Press.

153. Englert, C. S., Raphael, T. E., Anderson, L., Anthony, H., Stevens, D., & Fear, K. (1991). Making writing strategies and self-talk visible: Cognitive strategy instruction in writing in regular and special education classrooms. *American Educational Research Journal, 28,* 337-373.

154. Englert, C. S., Raphael, T. E., Anderson, L., M. (1992). Socially mediated instruction: Improving students' knowledge and talk about writing. *Elementary School Journal, 92,* 411-449.

155. Englert, C. S., Raphael, T. E., Anderson, L. M., Gregg, S. L., & Anthony, H. M. (1989). Exposition: Reading, writing, and the metacognitive knowledge of learning disabled students. *Learning Disabilities Research, 5,* 5-24**.**

156. Englert, C. S., Raphael, T. E., Fear, K. L., & Anderson, L., M. (1988). Students' Metacognitive Knowledge About How to Write Informational Texts. *Learning Disability Quarterly 11*(1), 18-46.

157. Ericsson K. A., & Kintsch K. (1995). Long term memory. *Psychological Review, 102*(2), 211-245.

158. Erkan, Y. D., &mSaban, I., A. (2011). Writing Performance Relative to Writing Apprehension, Self-Efficacy in Writing, and Attitudes towards Writing: A Correctional Study in Turkish Tertiary-Level EFL. *The Asian EFL Journal Quartetly, 13*(1), 163-191.

159. Eysenck, M. W. (1985). Anxiety and Cognitive-Task Performance. *Personality and Individual Differences, 6*(5), 579-586.

160. Eysenck, M. W. (1988). Anxiety and Attention. *Anxiety Research, 1*, 9-15.

161. Eysenck, M. W., & Calvo, M., G. (1992). Anxiety and Performance: The Processing Efficiency Theory. *Cognition and Emotion, 6*(6), 409-434.

162. Eysenck, M. W., Deraksjan, N., Santos, R., & Calvo, M., G. (2007). Anxiety and Cognitive Performance: *Attentional Control Theory. Emotion, 7*(2), 336-353.

163. Eysenck, M. W., MacLeod, C., & Mathews, A. (1987). Congitive functioning and anxiety. *Psychological Research, 49,* 189-195.

164. Fashola, O. S., Drum, P. A., Mayer, R. E., & Kang, S. (1996). A cognitive theory of orthographic transitions: Predictable errors in how Spanish-speaking children spell English words. *American Educational Research Journal, 33*(4), 825-844.

165. Ferris, D. (1995). Student reactions to teacher response in multiple-draft composition classrooms. *TESOL Quarterly, 29,* 33-53.

166. Ferris, D. (2002). *Treatment of error in second language student writing.* Ann Arbor: University of Michigan Press.

167. Ferris, D. (2003). *Response to student writing: Implications for second language students*. Mahwah, NJ: Erlbaum.

168. Fidalgo, R., Torrance, M., & Garcia, J. N. (2008). The long-term effects of strategy-focused writing instruction for grade six students. *Contemporary Educational Psychology, 33,* 672-693.

169. Fitzgerald, J., & Shanaham, T. (2000). Reading and writing relations and their development. *Educational Psychologist, 35,* 39-50.

170. Flavell, J. H. (1976). Metacognitive aspects of problem solving. In L. Resnick (Ed.) *The Nature of Intelligence* (pp. 231-236) *Hillsdale*. NJ: Lawrence Erlbaum Associates.

171. Flavell, J. H. (1978). Speculations about the nature and development of metacognition. In F.E. Weinert., & R.H. Kluwe (Eds.), *Metacognition, Motivation, and Understanding* (pp. 21-29). Hillside, NJ: Erlbaum.

172. Flavell, J. H. (1979). Metacognition and cognitive monitoring. *American Psychologist, 34*, 906-911.

173. Flavell, J. H. (1981). Cognitive monitoring. In W.P. Dickson (Ed.), *Children's oral communication skills* (pp. 35-60). NY: Academic Press.

174. Flavell, J. H. (1985). *Cognitive Development.* Englewood Cliffs, NJ: Prentice Hall.

175. Flavell, J. H. (1987). Speculations about the nature and development of metacognition. In F.E. Weinert., & R.H. Kluwe (Eds), *Metacognition, Motivation, and Understanding* (pp. 21-29). New Jersey: Lawrence Erlbaum.

176. Flower, L. (1993). *Problem solving strategies for writing.* USA: Harcourt Brace Jovanovich College Publishers.

177. Flower, L. (1994). *The Construction of Negotiated Meaning: A Social Cognitive Theory of Writing.* SIU Press.

178. Flower, L. & Hayes, J. R. (1980). The dynamics of composing: Making plans and juggling constraints. In Gregg, L. W., & Steinberg, E. R. (Eds.), *Cognitive processes in writing* (pp. 31-50). Hillsdale, NJ: Erlbaum.

179. Flower, L., & Hayes, J. R. (1980). The cognition of discovery: Defining a rhetorical problem. *College Composition and Communication, 31,* 21-32.

180. Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication, Vol. 32,* 365-387.

181. Flower, L., & Hayes, J. R. (1981). The pregnant pause: An inquiry into the nature of planning. *Research in the Teaching of English, 15*, 229-244.

182. Flower, L. S., & Hayes, J. R., (1984). Images, plans and prose: The representation of meaning in writing. *Written Communication, 1*, 120-160.

183. Frith, U. (1985). Beneath the surface of developmental dyslexia. In K. Patterson., M. Coltheart., & J. Marshall (Eds.), *Surface dyslexia: Neuropsychological and cognitive studies of phonological reading* (pp. 301-330). London: Erlbaum.

184. Frith, U. Wimmer, H, & Landerl, K. (1998). Differences in phonological recoding in German and English-speaking children. *Journal of the Society for the Scientific Study of Reading, 2*, 31-54.

185. Frodesen, J. (1991). Aspects of coherence in a writing assessment context: Linguistic and rhetorical features of native and non-native English essays. Dissertation Abstracts International, 52(1), 150A.

186. Frost, R. (2007). Orthographic Systems and Skilled Word Recognition. Processes in Reading. In M.J. Snowling., & C. Hulme (Eds), *Handbook of Developmental Psychology*The Science of Reading (pp. 272-295). Blackwell Publishing.

187. Frost, R., Katz, L., & Bentin, S. (1987). Strategies for visual word recognition and orthographic depth: A multilingual comparison. *Journal of Experimental Psychology: Human Perception and Performance, 13*, 104-115.

188. Fu, D. (1995). My Trouble is My English: Asian Students and the American Dream. Portsmouth, NH: Heinemann-Boyton/Cook Publishers.

189. Fu, D. (2009). Writing Between Languages. How English Language Learners Make the Transition to Fluency. Heinemann.

190. Fuchs, T., & Woessmann, L. (2004). *Computers and student learning: Bivariate and multivariate evidence on the availability and use of computers at home and at school*. CESIFO Working Paper, No. 1321, 1-20.

191. Galbraith, D. (1999). Writing as a knowledge-constituting process. In M. Torrance., & D. Galbraith (Eds.), *Knowing what to write: Conceptual processes in text production* (pp. 139-160). Amsterdam: Amsterdam University Press.

192. Galbraith, D., Ford, S., Walker, G., & Ford, J. (2005). The Contribution of Different Components of Working Memory to Knowledge Transformation During Writing. *L1 Educational Studies in Language and Literature, 5*(2), 113-145.

193. Gambell, T., & Hunter, D. (2000). Surveying gender differences in Canadian school literacy. *Journal of Curriculum Studies, 32*(5), 689-719.

194. Garcia-Sanchez, J. N., & Arias-Gundin, O. (2004). Intervention in writing composition strategies. *Psicothema, 16*(2), 194-202.

195. Garcia-Sanchez, J. N., & Fidalgo-Rodendo, R. (2006). Effects of two types of self-regulatory instruction programs on students with learning disabilities in writing products, processes, and self-efficacy. *Learning Disability Quarterly*,*29*(3), 181-211.

196. Gass, S. M., & Selinker, L. (2008). *Second Language Acquisition An Introductory Course*. Routledge Publications.

197. Gathercole, S. E., & Baddeley, A. (1993). *Working memory and language*. Hillsdale, NJ: Lawrence Erlbaum Associates.

198. Gersten, R., & Baker, S. (2005). English-Language Learners with Learning Disabilities. In H.L. Swanson., K.R. Harris., & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 323-344). New York: Guilford.

199. Ghonsooly, B., & Ghanizadeh, A. (2011). Self-Efficacy and self-regulation and their relationship: a study of Iranian EFL teachers. *The Language Learning Journal,* 1, 1-17.

200. Giamouridis, A., & Bagley, C. (2006). Policy, Politics, and Social Inequality in the Educational System of Greece. *Journal of Modern Greek Studies, 24*(1), 1-21.

201. Glushko, R. J. (1979). The organization and activation of orthographic knowledge in reading aloud. *Journal of Experimental Psychology: Human Perception and Performance, 5*, 674-691.

202. Goldstein, L. (2001). For Kyla: What does the research say about responding to ESL writers. In T. Silva., & P. Matsuda (Eds.), *On second language writing* (pp. 73-89). Lawrence Erlbaum Associates.

203. Goldstein, L. (2005). *Teacher written commentary in second language writing classrooms.* Ann Arbor: University of Michigan Press.

204. Goldstein, A. A., & Carr, P. G. (1996). *Can Students Benefit from Process Writing?* National Center of Education Statistics (ED), Washington DC.

205. Goswami, U., & Bryant, P. (1990). *Phonological skills and learning to read.* Hove, UK: Lawrence Erlbaum Associates.

206. Goswami, U. Gombert, J. E., & de Barrera, L. F. (1998). Children's orthographic representation and linguistic transparency: Nonsense word reading in English, French and Spanish. *Applied Psycholinguistics, 19,* 19-52.

207. Goswami, U., Porpodas, C., & Wheelwright, S. (1997). Children's orthographic representations in English and Greek. *European Journal of Psychology of Education, 12*, 273-292.

208. Gough, P. B., & Hillinger, M. L. (1980). Learning to read: An unnatural act. *Bulletin of the Orton Society, 20,* 180-196.

209. Grabe, W. (1991). Current Developments in Second Language Reading Research. Teachers of English to Speakers of Other Languages, Inc. *TESOL, 25*(3), 375-406.

210. Grabe, W. (2001). Notes Toward a Theory of Second Language Writing. In T. Sylva., & P.K. Matsuda (Eds.), *On Second Language Writing* (pp. 39-57) Lawrence, Erlbaum, Associates.

211. Grabe, W., & Kaplan, R. B. (1996). Theory and practice of writing research: Making sense of it all with the Wrath of Khan. *Learning Disabilities Research & Practice, 24* (2), 58-68.

212. Grabe, W., & Kaplan, R. B. (1996). *Theory and practice of writing; An applied linguistic perspective.* New York, NY: Addison Wesley Longman.

213. Graddol, D. (2006). *English Next.* London: British Council

214. Graham, S. (1990). The role of production factors in learning disabled students' compositions. *Journal of Educational Psychology, 82,* 781-791.

215. Graham, S. (1997). *Effective language learning.* Clevedon, England: Multilingual Matters.

216. Graham, S. (2006). Strategy Instruction and the teaching of writing: A meta-analysis. In C.A. MacArthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 187-207). New York: Guildford Press.

217. Graham, S. (2006). Writing. In Alexander, P., & Winne, P. (Eds.), *Handbook of educational psychology* (2nd ed., pp. 457-478). Mahwah, NJ: Lawrence Erbaum.

218. Graham, S., & Harris, K. R. (1989). Components Analysis of Cognitive Strategy Instruction: Effects on Learning Disabled Students' Composition and Self-Efficacy. *Journal of Educational Psychology, 81*(3), 353-361.

219. Graham, S., & Harris, K. R. (1991). Self-instructional strategy development: Programmatic research in writing. In B.Y.L. Wong (Ed.), *Contemporary intervention research in learning disabilities. An international perspective* (pp. 47-64). New York: Springer-Verlag.

220. Graham, S., & Harris, K. R. (1993). Self-regulated strategy development: Helping student with learning problems develop as writers. *Elementary School Journal, 94,* 169-181.

221. Graham, S., & Harris, K. R. (1994). The role and development of self-regulation in the writing process. In D.H. Schunk., & B.J. Zimmerman (Eds.), *Self-regulation of learning and performance: Issues and educational applications* (pp. 203-228). Hillsdale, NY: Erlbaum.

222. Graham, S., & Harris, K. R. (1996). Self-regulation and strategy instruction for children who find writing and learning challenging. In M. Levy., & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences and applications* 347-360. Mahwah, NJ: Erlbaum.

223. Graham, S., & Harris, K. R. (1997). It can be taught, but it does not develop naturally: Myths and realities in writing instruction. *School Psychology Review, 26,* 414-424.

224. Graham, S., & Harris, K. R. (1997). Self-Regulation and Writing: Where Do We Go from Here? *Contemporary Educational Psychology, 22,* 102-114.

225. Graham, S., & Harris, K. R. (1999). Assessment and intervention in overcoming writing difficulties: An illustration from the self-regulated strategy development model. *Language, Speech, and Hearing Services in Schools, 30,* 255-264.

226. Graham, S., & Harris, K. R. (2000). The role of self-regulation and transcription skills in writing and writing development. *Educational Psychology, 35,* 3-12.

227. Graham, S., & Harris, K. R. (2002). Prevention and intervention for struggling writers. In M. Shinn., H. Walker., & G. Stone (Eds.), *Interventions for academic and behavior problems II: Preventive and remedial approaches* (pp.589-610). Bethesda, MD: NASP publishers.

228. Graham, S., & Harris, K. R. (2003). Students with learning disabilities and the process of writing: A meta-analysis of SRSD studies. In H.L. Swanson., K. Harris., & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 323-344). New York: Guilford Press.

229. Graham, S., & Harris, K. R. (2005). *Writing better: Effective strategies for teaching students with learning difficulties.* Baltimore, MD: Brookes Publishing Company.

230. Graham, S., & Harris, K. R. (2007). Best practices in teaching planning. In S. Graham., C.A. MacArthur., & J. Fitzerald (Eds.), *Best practices in writing instruction* (pp.119-120). NY: The Guilford Press.

231. Graham, S., & Harris, K. R. (2009). Almost 30 years of writing research: Making sense of it all with the Wrath of Khan. *Learning Disabilities Research & Practice, 24*(2), 58-68.

232. Graham, S, & Perrin, D. (2006). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools.* Washington, DC: Alliance for Excellence in Education.

233. Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology, 99*(3), 445-476.

234. Graham, S., Berninger, V., & Fan, W. (2007). The structural relationship between writing attitude and writing achievement in first and third grade students. *Contemporary Educational Psychology, 32*(3), 516-536.

235. Graham, S., Berninger, V. W., Abbott, S. P., & Whitaker, D. (1997). The role of mechanics in composing of elementary school students: A new methodological approach. *Journal of Educational Psychology, 89*, 170-182.

236. Graham, S., Harris, K. R., & Larsen., L. (2001). Prevention and Intervention of Writing Difficulties for Students with Learning Disabilities. *Learning Disabilities Research & Practice, 16*(2), 74-84.

237. Graham, S., Harris, K., R., & Mason, L. (2005). Improving the writing performance, knowledge and self-efficacy of struggling young writers: The effects of self-regulated strategy development. *Contemporary Educational Psychology, 30*, 207-241.

238. Graham, S., Harris, K. R., & Troia, G. A. (2000). Self-Regulated Strategy Development Revisited: Teaching writing strategies to struggling writers. *Topics in Language Disorder, 20*(4), 1-14.

239. Graham, S., Harris, K. R., MacArthur, C.A., & Fink-Chorzempa, B. (2003). Primary Grade Teachers' Instructional Adaptations for Struggling Writers: A National Survey. *Journal of Educational Psychology, 95*(2), 279-292.

240. Graham, S., Harris, K. R., MacArthur, C. A., & Schwartz, S. S. (1991). Writing and writing instruction with students with learning disabilities: A review of a program of research. *Learning Disability Quarterly, 14,* 89-114.

241. Graham, S., MacArthure, C., Schwartz, S., & Page-Voth, V. (1992). Improving the compositions of students with learning disabilities using a strategy involving product and process goal setting. *Exceptional Children, 58,* 322-334.

242. Graham, S., Schwartz, S. S., & MacArthur, C. A. (1993). Knowledge of Writing and the Composing Process, Attitude Toward Writing, and Self-Efficacy for Students With and Without Learning Disabilities. *Journal of Learning Disabilities, 26*(4), 237-249.

243. Grant, L., & Ginther, L. (2000). Using computer-tagged linguistic features to describe L2 writing differences. *Journal of Second Language Writing, 9,* 123-145.

244. Graves, D. H. (1973). Sex differences in children's writing. *Elementary English, 50*(7), 1101-1106.

245. Graves, D. H. (1975). An examination of the writing processes of seven year old children. *Research in the Teaching of English, 9*(3), 227-241.

246. Graves, D. H. (1983). *Writing: Teachers and children at work.* Exeter, NH: Heinemann Educational Books.

247. Graves, D. H. (1994). *A fresh look at writing.* Postmouth, NH: Heineman.

248. Green, J. M., & Oxford, R. (1995). A Closer look at Learning Strategies, L2 Proficiency, and Gender. *TESOL QUARTERLY, 29*(2), 261-297.

249. Griffiths, C., Parr, J., M. (2001). Language-learning strategies: theory and perception. *ELT Journal, 55*(3), 47-254.

250. Griva, E., Tsakiridou, H., &Nihoritou, I. (2009). A Study of FL Composing Process and Writing Strategies Employed by Young Learners. In Nikolov, M. (Eds). *Early Learning of Modern Foreign Languages, Processes and Outcomes.* Library of Congress in Publication Data.

251. Hall, C. (1990). Managing the complexity of revising across languages. *TESOL Quarterly, 24* (1), 43-60.

252. Hambleton, R. K., Merenda, P. F., &Spielberger, C. D. (2005). *Adapting Educational and Psychological Tests for Cross-Cultural Assessment.* Lawrence Erlbaum Associates, Inc.

253. Harris, K. R. (1982). Cognitive behavior modification: Application with exceptional students. *Focus on Exceptional Children, 15,* 1-16.

254. Harris, K. R. (1986). The effects of cognitive-behavior modification on private speech and task performance during problem solving among learning disabled and normally achieving children. *Journal of Abnormal Child Psychology, 14,* 63-76.

255. Harris, K. R., & Alexander, P. A. (1998). Self-regulated strategy development: A part of the writing process. In M. Pressley., K.E. Harris., & J.T. Guthrie (Eds.), *Promoting academic competence and literacy in school* (pp. 277-309). New York: Academic Press.

256. Harris, M., & Giannouli, V. (1999). Learning to read and spell in Greek. In M. Harris., & G. Hatano (Eds.), *Learning to read and write: A cross-linguistic perspective* (pp.51-70). Cambridge, UK: Cambridge University Press.

257. Harris, K. R., & Graham, S. (1985). Improving learning disabled students' composition skills: Self-control strategy training. *Learning Disability Quarterly, 8,* 27-36.

258. Harris, K. R., & Graham, S. (1992). Self-Regulated strategy development: A part of the writing process. In M. Pressley., K.E. Harris., & J.T. Guthrie (Eds.), *Promoting academic competence and literacy in school* (pp. 277-309). New York: Academic Press.

259. Harris, K. R., & Graham S. (1994). Constructivism: Principles, paradigms, and integration. *Journal of Special Education, 28,* 223-247.

260. Harris, K. R., & Graham, S. (1996). *Making the writing process work: Strategies for composition and self-regulation.* Cambridge, MA: Brookline Books.

261. Harris, R., & Graham, S. (1999). Programmatic Intervention Research: Illustrations from the Evolution of Self-Regulated Strategy Development. *Learning Disability Quarterly, 22*(4), 251-262.

262. Harris, K. R., Graham, S., & Mason, L. H. (2003). Self-Regulated Strategy Development in the Classroom: Part of a Balanced Approach to Writing Instruction for Students With Writing Disabilities. *Focus on Exceptional Children, 35*(7), 1-16.

263. Harris, K. R., Graham, S., & Mason, L, H. (2006). Improving the Writing, Knowledge, and Motivation of Struggling Young Writers: Effects of Self-Regulated Strategy Development With and Without Peer Support. *American Educational Research Journal, 43*(2), 295-340.

264. Harris, K. R., Graham, S., Mason, L. H., & Friedlander, B.(2008). *Powerful Writing Strategies For All Students.* Library of Congress Cataloging-in Publication Data.

265. Harris, K., R. Graham, S., Mason, L. H., & Saddler, B. (2002). Developing Self-Regulated Writers. *Theory into Practice, 41*(2), 110-115.

266. Hassan, B. A. (2001). *The relationship of writing apprehension on self-esteem to the writing quality and quantity of EFL University students*. Mansoura Faculty of Education Journal, [Online] Available at: http://eric.ed.gov/PDFS/ED459671.pdf.

267. Hayes, J. R. (1996). A new framework for understanding cognition and affect n writing. In C.M. Levy., & S.E. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences and application* (pp.1-27). Mahwah, NJ: Erlbaum.

268. Hayes, J. R. (2006). New Directions in Writing Theory. In C.A. Macarthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp. 28-40) New York: Guilford.

269. Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing processes. In L. Gregg., & E. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Erlbaum.

270. Hayes, J. R., & Flower, L. S. (1983). Uncovering cognitive processes in writing: An introduction to protocol analysis. In P. Mosenthal., L. Tamar., & S.A. Walmsley (Eds.), *Research on Writing* (pp. 206-220). New York, Longman, Inc.

271. Hayes, J. R., & Flower, L. S. (1986). Writing research and the writer. *American Psychologist, 41*, 1106-1113.

272. Hayes, J. R., & Flower, L. S. (1987). On the structure of the writing process. *Topics in Language Disorders, 7*, 19-30.

273. Hayes, J. R., & Nash, J. (1996). On the nature of planning in writing. In M. Levy., & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 29-55). Mahwah, NJ: Erlbaum.

274. Hedgcock, J., & Lefkowitz, N. (1992). Collaborative Oral/Aural Revision in Foreign Language Writing Instruction. *Journal of Second Language Writing, 1*(3), 255-276.

275. Helsel, L., & Greenberg, D. (2007). Helping struggling writers succeed: A self-regulated strategy instruction program. *International Reading Association, 60*(8), 752-760.

276. Hinkel, E. (2011a). What research on second language writing tells us and what it doesn't. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* Vol. 2 (pp. 523-538). New York, NY: Routledge, Taylor & Francis.

277. Hirose, K., & Sasaki, M., (1994). Exploratory variables for Japanese students' expository writing in English: An exploratory study. *Journal of Second Language Writing, 3*(3), 203-229.

278. Holec, H. (1981). *Autonomy and foreign language learning.* Oxford: Pergamon Press.

279. Holliway, D. R., & McCutchen, D. (2004). Audience perspective in young writers' composing and revising. In L. Allal., L. Chanquoy., & P. Largy (Eds.), *Revision of written language: Cognitive and instructional processes* (pp. 87-101). Boston/Dordrecht, Netherlands/New York: Kluwer.

280. Holmes, V. L., & Moulton, M. (1995). A Contrarian view of dialogue journals: The case of a reluctant participant. *Journal of Second Language Writing, 4*(3), 223-251.

281. Hongxia, Yu., & Zhibo, He. (2010). A Review of the Empirical Research on Metacognition in ESL/EFL Writing. *International Forum of Teaching and Studies, 6,* (2), 34-40.

282. Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly, 20*(3), 559-562.

283. Horwitz, E. K. (1995). Student affective reactions and the teaching and learning of foreign languages. *International Journal of Educational Research, 23*(7), 573-579.

284. Horwitz, E. K. (1996). Even teachers get the blues: Recognizing and alleviating non-native teachers' feeling of foreign language anxiety. *Foreign Language Annals, 29,* 365-372.

285. Horwitz, E. K. (2000). ItAin'tOver'til It's Over: On Foreign Language Anxiety, First Language Deficits, and the Confounding of Variables. *The Modern Language Journal, 84*(2), 256-259.

286. Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics, 21,* 112-126.

287. Horwitz, E. K., & Young, D.J. (1991). Preface. In E.K. Horwitz., & D.J. Young (Eds.), *Language anxiety: From theory and research to classroom implications* (pp. xii-xiv). Englewood Cliffs, NJ: Prentice Hall.

288. Horwitz, E., Horwitz, B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal, 70,* 125-132.

289. Horwitz, E. K., Tallon, M., & Luo, H. (2010). Foreign Language Anxiety. In J.C. Cassady (Eds.), *Anxiety in schools: The causes, consequences and solutions for academic anxieties*. NY: Peter Lang.

290. Hsiao, Tsung-Yuan, & Oxford, R. (2002). Comparing theories of Language Learning Strategies: A Confirmatory Factor Analysis. *The Modern Language Journal, 86*(3), 368-383.

291. Huszti, I., Fabian, M., & Komari, E. B. (2009). Differences Between Processes and Outcomes in Third Graders' Learning of English and Ukrainian in Hungarian Schools in Beregszasz. In M. Nikolov (Eds), *Early Learning of Modern Foreign Languages. Processes and Outcomes*. (pp. 166-180) Library of Congress Cataloguing in Publication Data.

292. Hyland, F. (1998). The impact of teacher written feedback on individual writers. *Journal of Second Language Writing, 6*, 255-286.

293. Hyland, K. (2002). *Teaching and Researching Writing.* Longman, London.

294. Hyland, K. (2003). *Second Language Writing.* New York: Cambridge University Press.

295. Jacobs, J., & Paris, S. (1987). Children's metacognition about reading: Issues in definition, measurement and instruction. *Educational Psychologist, 22,* 255-278.

296. Jacobs, S. E. (1982). Composing and coherence. *Linguistics and Literacy Series 3.* Washington, D. C.: Center for Applied Linguistics.

297. Janopoulos, M. (1992). University faculty tolerance of NS and NNS writing errors: A comparison. *Journal of Second Language Writing, 4*, 43-50.

298. Jesus-Nicasio, Garcia-Sanchez, & Fidalgo-Redondo, R., (2006). Effects of Two Types of Self-Regulatory Instruction Programs on Students with Learning Disabilities in Writing Products, Processes, and Self-Efficacy. *Learning Disability Quarterly, 29*(3), 181-211.

299. Jones, C. S. & Tetroe, J. (1987). Composing in a second language. In A. Matsuhashi (Ed.), *Writing in real time: Modeling the production process*, (pp. 34-57). Norwood, New Jersey.

300. Just, M. A., & Carpenter, P. A. (1992). A capacity theory of comprehension: Individual differences in working memory. *Psychological Review, 99,* 122-149.

301. Kaiser, J. M. (1974). An index of factorial simplicity. *Psychometrika, 39,* 31-36.

302. Kalamboukis, T. Z. (2007). Suffix stripping with Modern Greek Emerald Backfiles. *Program, 29*(3), 313-321**.**

303. Kaplan, R. (1966). Cultural thought patterns in intercultural education. *Language Learning, 16,* 10-16.

304. Kathleen Lynne Lane, Karen R. Harris, Steve Graham Jessica L. Weisenbach, Mary Brindle, & Paul Morphy (2008). The Effects of Self-Regulated Strategy Development on the Writing Performance of Second-Grade Students With Behavioral and Writing Difficulties. *The Journal of Special Education, 41*(4), 234-253.

305. Katz, L., & Feldman, L. B. (1981). Linguistic coding in word recognition. In A.M. Lesgold., & C.A. Perfetti (Eds.), *Interactive processes in reading* (pp. 85-105). Hillsdale, NJ: Erlbaum.

306. Katz, L., & Frost, R. (1992). Reading in different orthographies: the Orthographic Depth Hypothesis. In R. Frost., & L. Katz (Eds.), *Orthography, phonology, morphology, and meaning* (pp. 67-84). Advances in Psychology. Amsterdam: New Holland.

307. Kellerman, D. F. (1972). *Living Webster Encyclopedic Dictionary of the English Language English-Language*. Institute of America Inc., Copyright, Published in the United States of America and Canada by North American Educational Guild, Ltd., Winnipeg, Manitoba. Library of Congress Catalog Card Number: 76-146839; International Standard Book Number: 0-8326-0006-7

308. Kellogg, R. (1986). Designing idea processors for document composition. *Behavior Research Methods, Instruments, and Computers, 18,* 18-128.

309. Kellogg, R. (1987). Effects of topic knowledge on the allocation of processing time and cognitive effort to writing processes. *Memory & Cognition, 15,* 256-266.

310. Kellogg, R. (1993). Observations in the psychology of thinking and writing. *Composition Studies, 21,* 3-41.

311. Kellogg, R. (1994). *The psychology of writing.* New York: Oxford University Press.

312. Kellogg, R. (1996). A model of working memory in writing. In C.M. Levy., & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 57-71). Mahwah, NJ: Lawrence Erlbaum Associates.

313. Kellogg, R. (1999). Components of working memory in text production. In M. Torrance., & G. Jeffery (Eds.), *Studies in Writing: The Cognitive demands of writing: processing coapacity and working memory effects in text production*. Vol. 3. (pp. 43-61). Amsterdam: Amsterdam University Press.

314. Kellogg, R. T. (2008). Training Writing skills: A cognitive developmental perspective. *Journal of writing research, 1*(1), pp. 1-26.

315. Kellogg, R. T., Olive, T., & Piolat, A. (2007). Verbal, visual and spatial working memory in written language production. *Acta Psychologica, 124,* 382-397.

316. Kelly, P. (1986). How do ESL writers' compose? *Australian Review of Applied Linguistics, 9,* (pp. 94-119).

317. Kline, P. (1994). *An easy guide to factor analysis*. New York: Routledge.

318. Knudson, R. (1993). Effects of ethnicity in attitudes toward writing. *Psychological Reports, 72,* 39-45.

319. Koch, A. S., & Terrell, T. D. (1991). Affective Reactions of Foreign Language Students to Natural Approach Activities and Teaching Techniques. In E.K. Horwitz., & D.J. Young (Eds.), *Language Anxiety: From theory and research to classroom implications* (pp. 109-126). Eaglewood Cliffs, NJ: Prentice Hall.

320. Krashen, S. D. (1982). *Principles and Practice in Second Language Acquisition.* University of Southern California. Pergamon Press Inc.

321. Krashen, S. D. (1985). *The input hypothesis: Issues and Implications.* New York: Longman.

322. Krashen, S. D. (1998). Comprehensible output? *System, 26,* 175-182.

323. Krashen, S. D. (2009). *Principles and Practice in Second Language Acquisition*. First printed edition 1982, Pergamon Press Inc. First Internet edition July 2009. http://www.sdkrashen.com/Principles_and_Practice/Principles_and_Practice.pdf.

324. Kroll, B. (2003). *Exploring the Dynamics of Second Language Writing.* Cambridge Applied Linguistics.

325. Kurt, G., & Atay, D. (2007). The effects of peer feedback on the writing anxiety of perspective Turkish teachers of EFL. *Journal of Theory and Practice in Education, 3*(1), 12-23.

326. Landerl, K. (2006). Reading acquisition in different orthographies: Evidence from direct comparisons. In R.M. Joshi., & P.G. Aaron (Eds.), Handbook *of orthography and literacy* (pp. 513-530). Mahwah, NJ: Erlbaum.

327. Landerl, K., Wimmer, H., & Frith, U. (1997). The impact of orthographic consistency on dyslexia: A German-English comparison. *Cognition, 63,* 315-334.

328. Lane, K. L., Graham, S., Harris, K. R., &Weisenbach, J. L. (2006). Teaching Writing Strategies to Young Students Struggling With Writing and At Risk for Behavioral Disorders: Self-Regulated Strategy Development. *Teaching Exceptional Children, 39*(1), 60-64.

329. Lane, K. L., Graham, S., Harris, K. R., Little, M. A., Sandmel, K., & Brindle, M. (2010). Story Writing. The Effects of Self-Regulated Strategy Development for Second-Grade Students With Writing and Behavioral Difficulties. *The Journal of Special Education, 44*(2), 107-128.

330. Lane, K. L., Harris, K. R., Graham, S., Weisenbach J. L., Brindle, M., &Morphy, P., (2008). The effects of Self- Regulated Strategy Development on the Writing Performance of Second-Grade Students With Behavioral and Writing Difficulties. *The Journal of Special Education, 41*(4), 234-253.

331. Larsen-Freeman, D., & Long, M. H., (1991). *An Introduction to Second Language Acquisition Research.* NY: Longman Inc.

332. Lea, J., & Levy, C. M. (1999). Working Memory as a Resource in the Writing Process. *Amsterdam University Press, 3,* 63-82.

333. Leki, I. (1991). Twenty-Five Years of Contrastive Rhetoric: Text Analysis and Writing Pedagogies. *TESOL Quarterly, 25*(1), 123-143.

334. Leki, I. (2001). Hearing voices: L2 students' Experiences in Writing Courses. In T. Silva., & P.K. Matsuda (Eds), *On Second Language Writing* (pp. 17-28). Laurence Erlbaum Associates, Inc.

335. Leki, I., Cumming, A., & Silva, T. (2008). *A Synthesis of Research On Second Language Writing In English.* Routledge. New York.

336. LeLoup, J. W., & Ponterio, R. (2003). *Second language acquisition and technology: A review of the research.* CAL Digest. Washington. DC: Center for Applied Linguistics.

337. Liebman-Kline, J. (1986). *Toward a contrastive rhetoric: a rhetoric of process.* Paper presented at the annual meeting of Teachers of English to speakers of other languages, Anaheim, CA. (ERIC Document Reproduction Service No. ED 271 963.

338. Lienemann, T. O., Graham, S., Leader-Janssen, B., & Reid, R. (2006). Improving the writing performance of struggling writers in second grade. *Journal of Special Education, 40,* 66-78.

339. Lin., S. C., Monroe, B. W., & Troia, G. A. (2007). Development of writing knowledge in grades 2-8: A comparison of typically developing writers and their struggling peers. *Reading & Writing Quarterly, 23,* 207-230.

340. Lin, X., Schwartz, D., & Hatano, G. (2005). Towards teachers' adaptive metacognition. *Educational Psychologist, 40*(4), 245-255.

341. Linnenbrink, E. A., & Pintrick, P. R. (2003). The role of self-efficacy beliefs in student engagement and learning in the classroom. *Reading & Writing Quarterly, 19,* 119-137.

342. Little, D. (1991). *Learner autonomy 1: Definitions, issues, and problems*. Dublin: Authentik.

343. Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System, 23*(2), 175-181.

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

345. Loizou, M., & Stuart, M. (2003). Phonological awareness in monolingual and bilingual English and Greek five-year-olds. *Journal of Research in Reading, 26*(1), 3-18.

346. MacArthur, C.A., & Graham, S. (1987). Learning disabled students' composing with three methods: Handwriting, dictation, and word processing. *Journal of Special Education, 21*(3), 22-42.

347. MacArthur, C. A., Graham, S., & Fitzgerald, J. (2006). *Handbook of Writing Research.* The Guilford Press. A Division of Guilford Publications, Inc.

348. MacArthur, C., Graham, S., & Schwartz, S. (1991). Knowledge of the revision and revising behavior among students with learning disabilities. *Learning Disability Quarterly, 14*, 61-74.

349. MacArthur, C., Graham, S., Schwartz, S., & Shafer, W. (1995). Evaluation of a writing instruction model that integrated a process approach, strategy instruction, and word processing. *Learning Disability Quarterly, 18*, 278-291.

350. MacArthur, C. A., Schwartz, S. S., Graham, S., Molloy, D., & Harris, K. (1996). Integration of strategy instruction into a whole language classroom: A case study. *Learning Disabilities Research and Practice, 11*, 168-176.

351. MacIntyre, P. D. (1995). How does Anxiety Affect Second Language Learning? A Reply to Second Language Learning. *The Modern Language Journal, 79*(1), 90-91.

352. MacIntyre, P. D. (1999). Language anxiety: A review of the research for language teachers. In Young, D. J. (Ed.), *Affect in foreign language and second language learning* (pp. 24-45). Boston: McGraw-Hill.

353. MacIntyre, P., D., & Gardner, R. C. (1989). Anxiety and second language learning: Toward a theoretical clarification. *Language Learning, 39*, 251-275.

354. MacIntyre, P. D., & Gardner, R. C. (1991). Language anxiety: Its relation to other anxieties and to processing in native and second languages. *Language Learning, 41*, 513-534.

355. MacIntyre, P. D., & Gardner, R. C. (1991). Methods and results in the study of foreign language anxiety: A review of the literature. *Language Learning, 41,* 25-57.

356. MacIntyre P. D., & Gardner, R. C. (1991b). Methods and results in the study of anxiety in language learning: A review of literature. *Language Learning, 41,* 85-117.

357. MacIntyre, P. D., & Gardner, R. C. (1994a). The effects of induced anxiety on three stages of cognitive processing in computerized vocabulary learning. *Studies in Second Language Acquisition, 16,* 1-17.

358. MacIntyre, P. D., & Gardner, R. C. (1994b). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning, 44*(2), 282-305.

359. MacIntyre, P. D., Noels, K. A., & Clement, R. (1997). Biases in self-rating of second language proficiency: The role of language anxiety. *Language Learning, 47*(2), 265-287.

360. Mackey, A., Philip, J., Egi, T., Fujii, A., & Tatsumi, T. (2002). Individual differences in working memory, noticing of interactional feedback and L2 development. In Robinson, P. (Ed.), *Individual differences and instructed language learning* (pp. 181-209). Philadelphia: Benjamins.

361. Madigan, R., Linton, P., & Johnson, S. (1996). The paradox of writing apprehension. In L.W. Gregg., & E.R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 295-307). Hillsdale. NJ: Lawrence Erlbaum.

362. Magoulas, G. (1979). *Introduction to Modern Greek phonology.* Athens, Greece: University of Athens Press.

363. Malicka, A. (1996). Tasks, interaction, affect, and the writer's development: A descriptive study on ESL composition class. *Dissertation Abstracts International, 57*(3), 1061A.

364. Manchon, R. M., De Larios, J. R., & Murphy, L. (2010). A review of writing strategies: focus on conceptualizations and impact of first language. In A.D. Cohen., & E. Macaro (Eds.*), Language Learner Strategies: Thirty years of research and practice.* (pp. 229-250), Oxford University Press.

365. Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika*, *57,* 519-530.

366. Marsh, G., Friedman, M. P., Welch, V., &Desberg, P. (1981). A cognitive-developmental theory of reading acquisition. In T.G. Waller., & G.E. MacKinnon (Eds.), *Reading research: Advances in theory and practice* Vol. 3, (pp. 201-215). New York: Academic Press.

367. Martinez, M. E. (2006). What is metacognition? *Phi Delta Kappan, 87,* (9), 696-699.

368. Maskhao, P. (2002). A case study of English as a foreign language (EFL) acquisition in a postgraduate diploma course. Thesis (Ph.D.), University of Queensland, 2002., St. Lucia, Qld.

369. Mason, L. H., & Shriner, J. G. (2008). Self-regulated strategy development instruction for writing and opinion essay: Effects of six students with emotional/behavioral disorders. *Read Writ, 21,* 71-93.

370. Mason, L. H., Harris, K. R. & Graham, S. (2002). Every child has a story to tell: Self-regulated strategy development for story writing. *Education and Treatment of Children, 25*(4), 496-506.

371. Matsuda, P. K. (2001). Reexamining audiolingualism: On the genesis of reading and writing in L2 studies. In D. Belcher., & A. Hirvela (Eds.), *Linking literacies: Perspectives on L2 reading/writing connections* (pp. 84-105). Ann Arbor: University of Michigan Press.

372. Matsuda, P. K. (2003). Second language writing in the twentieth century: A situated historical perspective. In B. Kroll (Eds.), *Exploring the Dynamics of Second Language Writing.* (pp. 15-34) Cambridge Applied Linguistics.

373. Mattheoudakis, M, Alexiou, T. (2009). Foreign Language Instruction In Greece: Socioeconomic factors and their effect on young learners' language development. In M. Nikolov (Eds.), *The Age Factor and Early Language Learning. Studies on Language Acquisition* (pp. 227-252). Walter de Gruyter.

374. Mattingly, I. G. (1972). Reading, the linguistic process, and linguistic awareness. In J.F. Kavanagh., & I.G. Mattingly (Eds.), *Language by ear and by eye: The relationship between speech and reading* (pp.133-147). Cambridge, MA: MIT Press.

375. Mayer, R. E. (2001). What good is educational psychology? The case of cognition and instruction. *Educational Psychologist, 36*(2), 83-88.

376. McCormick, C. B. (2003). Metacognition and Learning. In W.M. Reynolds., & G. E. Miller (Eds.), *Handbook of Psychology Vol 7,* (pp. 79-102). New York: Wiley New York : Wiley.

377. McCutchen, D. (1994). The magical number three, plus or minus two: Working memory in writing. In J.S. Carlson (series ed.)., & E.C. Butterfield (Vol. Ed.), *Advances in Cognition and Educational Practice, Vol. 2: Children's Writing: Toward a Process Theory of the Development of Skilled Writing.* (pp. 1-30). JAIPress. Greenwich, CT.

378. McCutchen, D. (1996). A Capacity Theory of writing: Working memory in composition. *Educational Psychologist, 8*(3), 299-325.

379. McCutchen, D. (2000). Knowledge, processing, and working memory: Implications for a theory of writing. *Educational Psychologist, 35*(1), 13-23.

380. McCutchen, D. (2006). Cognitive factors in the development of children's writing. In C.A. MacArthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 115-130). New York: Guilford.

381. McDonough, J., & Shaw, C. (1993). *Materials and Methods in ELT.* Applied Language Studies. Blackwell Publishers.

382. McGuinness, D. (1981). Auditory and motor aspects of language development in males and females. In A. Ansara., N. Geschwind., A. Galaburda., M. Albert., & N. Gartrell (Eds.), *Sex differences in dyslexia* (pp.55-72). Baltimore: The Orton Dyslexia Society.

383. McGuinness, D. (1998). *Why Children Can't Read: and What We Can Do about It.* London: Penguin.

384. McGuinness, D., McGuinness C., & Donohue, J., (1995). Phonological training and the alphabet principle: Evidence for reciprocal causality. *Reading Research Quarterly, 30*(4), 830-852.

385. McKain, T. L. (1991). *Cognitive, affective and behavioral factors in writing anxiety.* Catholic University of America.

386. McLeod, S. (1987). Some thoughts about feelings: The affective domain and the writing process. *College Composition and Communication, 38*(4), 426-434.

387. McMillan, K., & Honey, M. (1993). *Year one of project pulse: Pupils using laptops in science and English.* New York: Center for Technology in Education.

388. Mercer, C. D., & Mercer, A. R. (1998). *Teaching students with learning problems* (5th edition). Englewood Cliffs, NJ: Prentice Hall.

389. Meskill, C., & Mossop, J. (2000). Electronic Texts in ESOL classrooms. *TESOL Quarterly, 34*, 585-592.

390. Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review, 80,* 252-283.

391. Mousavi, S., Y., Low, R., & Sweller, J. (1995). Reducing Cognitive Load by Mixing Auditory and Visual Presentation Modes. *Journal of Educational Psychology, 87*(2), 319-334.

392. Murray, E., J., & Segal, D., L., (1994). Emotional Processing in Vocal and Written Expression of Feelings About Traumatic Experiences. *Journal of Traumatic Stress, 7*(3), 391-405.

393. Myhill, D., & Jones, S. (2007). More than just error correction. *Written Communication, 24*, 323-343.

394. Nagy, K. (2009). What Primary School Pupils Think About Learning English as Foreign Language. In Nikolov, M. (Eds.), *Early Learning of Modern Foreign Languages, Processes and Outcomes.* (pp. 229-242). Library of Congress in Publication Data.

395. Naiman, N., Frohlich, M., & Todesco, A. (1975). The good second language learner. *TESL Talk, 6*, 58-75.

396. Naiman, N., Frohlich, M., Stern, H. H., & Todesco, A. (1976). The good language learner. Research in Education Series No. 7. Toronto: The Ontario Institute for Studies in Education.

397. Naiman, N., Frohlich, M., Stern, H., & Todesco, A. (1978). The Good Language Learner: Toronto: Ontario Institute for Studies in Education.

398. Naiman, N., Frohlich, M., Stern, H. H., & Todesco, A. (1996). *The Good Language Learner*. Clevedon: Multilingual Matters.

399. Van Merrienboer, J. J. G., & Sweller, J. (2005). Cognitive Load Theory and Complex Learning: Recent Development and Future Directions. *Educational Psychology Review, 17*(2), 147-177.

400. Neuner, G., Parmenter, L. Starkey, H. (2003). *Intercultural Competence.* Language Policy Division, Council of Europe, Strasbourg.

401. Newell, A., & Simon, H., A. (1972). *Human problem solving.* Englewwod Cliffs, NJ: Prentice Hall.

402. Nikolov, M. (1999). "Why do you learn English?" "Because the teacher is short." A study of Hungarian children's foreign language motivation. *Language Teaching Research 3*, 33-56.

403. Nikolov, M. (2001). A study of unsuccessful learners. In Z. Dornyei., & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 147-172). Honolulu: University of Hawaii Press.

404. Nikolov, M. (2009). *Early Learning of Modern Foreign Languages. Processes and Outcomes.* Library of Congress Cataloging in Publication Data.

405. Nikolov, M., & Djigunovic, J., M. (2006). Recent Research on Age, Second Language Acquisition, And Early Foreign Language Learning. *Applied Linguistics 26*, 234-260.

406. Nonkukhetkhong, N., Baldauf, R., B. & Moni, K. (2006). Learner-Centeredness In Teaching English As A Foreign Language. Paper Presented at 26 Thai TESOL International Conference, Chiang Mai, Thailand, 19-21, January 2006, 1-9.

407. Nunnally, J. C., & Bernstein, I. C. H. (1994). *Psychometric theory* (3rd ed). New York: McGraw-Hill.

408. Nystand, M. (1982). *What writers know: The language, process, and structure of written discourse.* New York: Academic Press.

409. Nystrand. N. (2006). The Social and Historical Context for Writing Research. In C.A. MacArthur., S. Graham., J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp. 11-27). The Guilford Press. A Division of Guilford Publications, Inc.

410. O'Malley, J. M., Chamot, A. U. (1990). *Learning Strategies in Second Language Acquisition.* Cambridge University Press, Library of Congress Cataloguing-in-Publication Data.

411. O'Malley, J. M., & Chamot, A. U., (1995). *Learning Strategies in Second Language Acquisition.* Cambridge University Press.

412. O'Malley, J. M., & Chamot, A. U. (1996). *Learning Strategies in Second Language Acquisition.* Cambridge Applied Linguistics.

413. O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Kupper, L., & Russo, R. P. (1985a). Learning strategies used by beginning and intermediate ESL students. *Language Learning, 35*(1), 21-46.

414. O'Malley, J. M., Chamot, A.U., Stewner-Manzanares, G., Russo, R. P., & Kupper, L. (1985b). Language strategy application with students of English as a second language. *TESOL Quarterly, 19*(13), 557-584.

415. Olive, T., & Kellogg, R. T. (2002). Concurrent activation of high-and low-level production processes in written composition. *Memory & Cognition, 30,* 594-600.

416. Oney, B., & Durgunoglu, A. Y. (1997). Beginning to read in Turkish: A phonologically transparent orthography. *Applied Psycholinguistics, 18,* 1-15**.**

417. Oney, B., & Goldman, S. R. (1984). Decoding and comprehension skills in Turkish and English: effects of the regularity of grapheme-phoneme correspondences. *Journal of Educational Psychology, 7*(4), 557-568.

418. Oxford, R. L. (1990). *Language learning strategies: What teacher should know.* New York: Newbury House.

419. Oxford, R. L. (1990). Looking at language learning strategies. In Language Learning Strategies: *What Every Teacher Should Know* (pp. 1-37). New York: Heinle & Heinle Publishers.

420. Oxford, R. L. (1994). *Language Learning Strategies: An Update.* University of Alabama.

421. Oxford, R. L. (1996b). Preface: Why is culture important for language learning strategies? In Oxford, R. L. (Ed.), *Language learning strategies around the world: Cross-cultural perspectives* (pp. ix-xv). Honolulu: University of Hawaii Press.

422. Oxford, R. L. (1999a). Anxiety and the language learner: Insights. In J. Arnold (Ed.), *Affect in language learning* (pp. 58-67). Cambridge University Press.

423. Oxford, R. L. (1996b). *Language learning strategies around the world: Cross-cultural perspectives.* Manoa, Hawaii: University of Hawaii Press.

424. Oxford, R. L. (1997). Constructivism: Shape-Shifting, Substance, and Teacher Education Applications. *Peabody Journal of Education, 72*(1), 35-66.

425. Oxford, R. L. (2001). Language learning strategies. In R. Carter., & D. Nunan (Ed.), *The Cambridge guide to teaching English to speakers of other language* (pp. 166-172). Cambridge University Press.

426. Oxford, R. L. (2003). *Language Learning Styles and Strategies. An Overview. Learning Styles and Strategies.* Oxford, GALA. (1-25).

427. Oxford, R. L., & Anderson, N. (1995). State of the art: A cross-cultural view of language learning styles. *Language Teaching, 28,* 201-215.

428. Oxford, R. L., & Cohen, A. (1992). Language learning strategies: Critical issues in concept and definition. *Applied Language Learning, 3*(1-2), 1-35.

429. Oxford, R., & Crookall, D. (1989). Research on Language Learning Strategies: Methods, Findings, and Instructional Issues. *The Modern Language Journal, 73*(4), 404-419.

430. Oxford, R. L., & Leaver, B. L. (1996). A Synthesis of Strategy Instruction for Language Learners. In R. Oxford (Ed.), *Language Learning Strategies Around the World: Cross-cultural Perspectives* (pp. 227-246). University of Hawaii Press.

431. Oxford, R. L. & Schramm, K. (2010). Bridging the gap between psychological and sociocultural perspectives on L2 learner strategies. In A.D. Cohen., & E. Macaro (Eds.), *Language Learner Strategies* (pp. 47-68) Oxford. Oxford University Press.

432. Oxford, R. L., Lavine, R. Z., & Crookall, D. (1989). Language Learning Strategies, the Communicative Approach, and their Classroom Implications. *Foreign Language Annals, 22*(1), 29-39.

433. Oxford, R. L., Park-Oh, Y., Ito, S., & Sumrall, M. (1993). Learning Japanese by satellite: What influences student achievement*? System, 21,* 31-48.

434. Ozturk, H., Cecen, S. (2007). The Effects of Portfolio Keeping on Writing Anxiety of EFL Students. *Journal of Language and Linguistic Studies, 3*(2).

435. Paas, F., Renkl, A., Sweller, J., (2003) Cognitive Load Theory and Instructional Design: Recent Developments. *Educational Psychologist, 38*(1)**,** 1-4.

436. Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading & Writing Quarterly, 19,* 159-172.

437. Pajares, F., & Valiante, G. (2006). Self-Efficacy Beliefs and Motivation in Writing Development. In C.A. MacArthur, S. Graham., & J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp. 158-170). Guildford Press.

438. Papadaki, M. (2009). *Metacognitive skills and writing anxiety in Greek as a native language and English as a foreign language for grade 8 students.* Masters Thesis, University of Crete, Rethymnon, Greece.

439. Papaefthymiou-Lytra, S. C. (1987). Greek Speakers. In M. Swan., & B. Smith, (Eds.), *Learner English. A teacher's guide to interference and other problems* (pp. 129-144). Cambridge University Press.

440. Papanikolaou, E. (2003). *Dictionary Use in a Reading Task among Greek Junior Secondary School Students of English: A Multi-method approach.* The University of Exeter.

441. Pass, F., Tuovinen, J., E., Tabbers, H., & Van Gerven, P., W., M., (2003). Cognitive Lead Measurement as a Means to Advance Cognitive Load Theory. *Educational Psychologist, 38*(1), 63-71.

442. Patterson, K., & Coltheart, V. (1987). Phonological processing in reading: A tutorial review. In Coltheart M. (Ed.), *Attention and* Performance VOL. XII (pp. 421-447). Hillsdale, NJ: Erlbaum.

443. Paul, K. M., & Silva, T., (2001). *On Second Language Writing.* Lawrence Erlbaum Associated, Inc.

444. Pei, M. (1972). *The Living Webster Encyclopedic Dictionary of the English Language* The English-Language Institute of America, Inc. Chicago.

445. Perry, N., & Drummond, L. (2002). Helping young students become self-regulated researchers and writers. *The Reading Teacher, 56*, 298-310.

446. Peterson, S. (2006). Influence of Gender on Writing Development. In C.A. MacArthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp.311-323). Guildford Press.

447. Petzel, T. P., & Wenzel, M. U. (1993). *Development and initial evaluation of a measure of writing anxiety.* Paper presented at the American Psychological Association Convention in Toronto, Canada.

448. Petzold, R., & Berns, M. (2000). Catching up with Europe: Speakers and functions of English in Hungary. *World Englishes 19,* 113-124.

449. Philippaki-Warbuton (1985). Word Order in Modern Greek *Transactions of the Philological Society, 113-143.*

450. Philips, E. M. (1992). The Effects of Language Anxiety on Students' Oral Test Proficiency. *The Modern Language Journal, 76*.

451. Piaget J. (1964). Cognitive Development in Children: Piaget. Development and learning. Center for Genetic Epistemology, Geneva, Switzerland. *Journal of Research in Science Teaching*,*2*, 176-186.

452. Piaget. J. (1980). The psychosynthesis of knowledge and its epistemological significance. In M. Piattelli-Palmarini (Eds.), *Language and Learning: The debate between Jean Piaget and Noam Chomsky*. Cambridge, MA: Harvard University Press.

453. Pintrich, P., R. (1999). The role of motivation in promoting and sustain self-regulated learning. *International Journal of Educational Research, 31*, 459-470.

454. Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*, 33-40.

455. Pintrich, P. R., & Garcia, T. (1991). Student goal orientation and self-regulation in the college classroom. In M.L. Maehr., & P.R. Pintrich, (Eds.), *Advances in motivation and achievement: Goals and self-regulatory*. Vol. 7 pp. 371-402.

456. Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom tasks. In D. Schunk., & J. Meece (Eds.), *Student perceptions in the classroom: Causes and consequences* (pp. 149-183). Hillsdale, NJ: Erlbaum.

457. Plass, J., L., Moreno, R., Brunken, R. (2010). *Cognitive Load Theory*. New York: Cambridge University Press

458. Porpodas, C. D. (1991). The relation between phonemic awareness and reading and spelling of Greek words in the first school years. In M. Carretero., & M.L. Pope (Eds), *Learning and instruction: European research in an international context. Vol. 3* (pp. 203-217). Oxford, UK: Pergamon Press.

459. Porpodas, C. D. (1999). Patterns of phonological and memory processing in beginning readers and spellers of Greek. *Journal of Learning Disabilities, 32*, 406-416.

460. Porpodas, C. D. (2002). Reading. Patras Aftoekdosi. Copyright: Konstantinos D. Porpodas. Evaimonos 13 Ampelokipi, 264-43 Patras. (In Greek)

461. Pressley, (1998). *Reading instruction that works: The case for balanced teaching.* New York: Guilford Press.

462. Pressley, M. (1990). *Cognitive strategy instruction that really improves children's academic performance.* Cambridge, MA: Brookline Books.

463. Pressley, M., & Harris, K. R. (2001). Cognitive strategies instruction. In A.L. Costa (Ed.), *Developing minds: A resource book for teaching thinking*3rd ed. **(**pp. 466-471). Alexandra, VA: Association for Supervision and Curriculum Development.

464. Pressley, M., & McCormick, C. B., (1995). *Advanced Educational Psychology for Educators, Researchers, and Policymakers.* New York: HarperCollins.

465. Pressley, M., Harris, K. R. & Marks, M. (1992). But good strategy instructors are constructivists! *Educational Psychology Review, 4*, 3-31.

466. Pressley, M., Woloshyn, V., Lysynchuk, L. M., Martin, V., Wood, E., & Willoughby, T. (1990). A Primer of Research on Cognitive Strategy Instruction: The Important Issues and How To Address Them. *Educational Psychology Review, 2*(1), 1-58.

467. Price, M. L. (1991). The subjective experience of foreign language anxiety: Interviews with highly anxious students. In E.K. Horwitz., & D.J. Young (Eds.), *Language anxiety: From theory and research to classroom applications* (pp. 101-108). Prentice Hall.

468. Prior, P. (2006). Sociocultural Theory of Writing. In C.A. MacArthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp. 54-66). The Guilford Press. A Division of Guilford Publications, Inc.

469. Protopaps, A. (2010) The Transparency of the Greek Spelling System. In A. Mouzaki., & A. Protopapas (Eds), *Orthography. Learning and Disorders* (pp. 67-91). Gutenburg. (In Greek)

470. Puntambekar, S., & Hübscher, R. (2005). Tools for scaffolding students in complex learning environment: What have we gained and what have we missed? *Educational Psychologist, 40*(1), 1-12.

471. Raimes, A. (1985). What unskilled ESL students do as they write: A Classroom study of composing. *TESON Quarterly, 19*(2), 30-59.

472. Raimes, A. (1987). Language proficiency, writing ability and composing strategies: A study of ESL college student writers. *Language Learning, 37*, 439-468.

473. Raimes, A. (1991). Out of the Woods: Emerging traditions in the teaching of writing. *TESOL Quarterly, 25*(3), 40-63.

474. Ransdell, S. E., Arecco, M. R., & Levy, C. M. (2001). Bilingual long-term working memory: The effects of working memory loads on writing quality and fluency. *Applied Psycholinguistics, 22*, 117-132.

475. Ransdell, S., & Barbier, M., L. Studies in Writing. *Educational Psychology, 11*, 49-80**.** Kluwer Academic Publishers. Printed in the Netherlands.

476. Ransdell, S., & Barbier, M., L. (Ed.). (2002). *New Directions For Research In L2 Writing.* (Vol. 11). Springer.

477. Read, C., Yun-Fie, Z., Hong-Yin, N. & Bao-Qing, D. (1986). The ability to manipulate speech sounds depends on knowing alphabetic writing. *Cognition, 24,* 31-44.

478. Reber A., & Scarborough, D. (1977). *Toward a psychology of reading.* Hillsdale, N.J.: Erlbaum.

479. Reid J. (1987). The learning style preferences of ESL students. *TESOL Quarterly, 21,* 87-111.

480. Reid, J. (1995). *Learning Styles in the ESL/EFL Classroom.* Boston: Heinle & Heinle.

481. Reid, R., & Lienemann, T. O. (2006). Self-regulated strategy development for written expression with students with attention deficit hyperactivity disorder. *Exceptional Children, 73,* 1-16.

482. Reimes, A. (1985). What Unskilled ESL Students Do as They Write: A Classroom Study of Composing. *TESOL Quarterly*, *19*(2), 229-258.

483. Reimes, A. (1991). Out of the woods: Emerging traditions in the teaching of writing. *TESOL Quarterly*, *25*(3), 40-63.

484. Reisman, J. (1991). Poor handwriting: Who is referred? *American Journal of Occupational Therapy*, *45*(9), 849-852.

485. Reiss, M. A. (1981). "Helping the unsuccessful language learner". *Modern Language Journal 65,* 121-128.

486. Richards, R. G. (1998). *The writing dilemma: Understanding dysgraphia.* CA: Center Press.

487. Richards, J. C. (2003). *Second Language Writing. Cambridge Language Education.* Cambridge University Press.

488. Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T. Kieft, M. Broekkamp, H., & Van den Bergh, H. (2005). *Psychology and the teaching of writing in 8000 and some words. Pedagogy-Learning for teaching, BJIP Monograph Series II, 3,* 127-153.

489. Robert Half. (n.d.). BrainyQuote.com. Retrieved April 29, 2012, from BrainyQuote.com Web site: http://www.brainyquote.com/quotes/quotes/r/roberthalf163596.html

490. Roca de Larios, J., & Murphy, L., (2001). Some steps towards a socio-cognitive interpretation of second language composition processes. *International Journal of English Studies, 1,* 25-45.

491. Roca De Larios, J., Manchon, R., M., & Murphy, L. (2006). Generating Text in Native and Foreign Language Writing: A Temporal Analysis of Problem-Solving Formulation Processes. *The Modern Language Journal, 90,* 100-114.

492. Roca de Larios, J., Murphy, L., & Marin, J. (2002). A critical examination of L2 writing process research. In S. Ransdell., & M.L. Barbier (Eds.), *New directions for research in L2 writing* (pp. 11-47). Dordrecht, The Netherlands: Kluwer.

493. Rogers, L., A. & Graham, S. (2008). A Meta-Analysis of Single Subject Design Writing Intervention Research. *Journal of Educational Psychology, 100*(4), 879-906.

494. Roggoff, B. (2008). Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship. In A. Alvarez., R.D. Rio., & J.V. Wertsch (Eds.), *Sociocultural studies of mind* (pp.). Cambridge, UK: Cambridge University Press, 113-144.

495. Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal, 59*(1), 23-30.

496. Rose, M. (1981). Sophisticated, ineffective books-The dismantling of process in composition texts. *College composition and Communication, 32,* 65-74.

497. Rossi-Le, L. (1989). *Perceptual learning style differences and their relationship to language learning strategies in adult students of English as a second language*. Published Doctoral Dissertation. Drake University, Des Moines, IA.

498. Ross, W. M. (Ed.). (1998). *Designing communities.* Boston Kluwer.

499. Ruan, J. (2004). *Bilingual Chinese/ English first-graders developing metacognition about writing. Bilingual Chinese/English developing metacognition.* Blackwell Publishing (106-112).

500. Ruan, Z. (2005). A metacognitive perspective on the growth of self-regulated EFL student writers. *Reading Working Papers in Linguistics, 8,* 175-202.

501. Rubin, J. (1975). What can we learn from the good language learner? *Canadian Modern Journal Review, 31,* 301- 318.

502. Rubin, J. (1975). What the good language learner can teach us. *TESOL Quarterly, 9,* 41-51.

503. Rubin, J. (1981). Study of cognitive processes in second language learning. *Applied Linguistics, 2,* 110-131.

504. Ruiz, N. T. (1995). The Social Construction of Ability and Disability: I. Profile Types of Latino Children Identified As Language Learning Disabled. *Journal of Learning Disabilities, 28*(8), 476-490.

505. Rumsey, I., & Ballard, K. D. (1985). Teaching self-management strategies for independent story writing to children with classroom behavioral difficulties. *Educational Psychology, 5,* 147-157.

506. Saddler, B. (2006). Increasing story-writing ability through self-regulated strategy development: Effects on young writers with learning disabilities. *Learning Disability Quarterly, 29,* 291-305.

507. Saddler, B., & Graham, S., (2007). The Relationship Between Writing Knowledge and Writing Performance Among More and Less Skilled Writers. *Reading & Writing Quarterly, 23,* 231-247.

508. Saddler, B., Moran, S., Graham, S., & Harris, K. R. (2002). Preventing writing difficulties: Strategy instruction for young struggling writers. Unpublished raw data. In H.L. Swanson., K.R. Harris, K., & S. Graham (Eds.), *Handbook of Learning Disabilities* (pp. 323-345). The Guilford Press.

509. Saddler, B., Moran, S., Graham. S. & Harris, K. R. (2004). Preventing writing difficulties: The effects of planning strategy instruction on the writing performance of struggling writers. *Exceptionality, 12,* 3-18.

510. Salame, P., & Baddeley, A. (1982). Disruption of short-term memory by Unattended Speech: Implications for the structure of working memory. *Journal of Verbal Learning and Verbal Behavior, 21,* 150-164.

511. Santangelo, T., Harris, K., R., & Graham, S. (2008). Using Self-Regulated Strategy Development to Support Students Who Have "TrubolGitingThangs Into Werds". *Remedial and Special Education, 29*(2), 78-89.

512. Santos, T. (1992). Ideology in Composition: L1 and ESL. Journal *of Second Language Writing, 1,* 1-15.

513. Sarig, G. (1984). High-level reading in the first and in the foreign languages: some comparative data. In J. Devine., P.L. Carrel., & D.E. Eskey (Eds.), *Research in reading in English as a second language* (pp. 105-120). Washington D. C.: Teachers of English of Speakers of Other Languages.

514. Sasaki, M. (2000). Toward and Empirical Model of EFL writing processes: *An Exploratory Study, 9*(3), 259-291.

515. Sasaki, M. (2002). *Building an Empirically-Based Model of EFL Learners' Writing Processes.* In G. Rijlaarsdam (Series ed.)., S. Ransdell., & M. Barbier (Vol. Eds.), Studies in Writing, Volume 11: *New Directions for Research in L2 Writing,* (pp.49-80). Kluwer Academic Publishers.

516. Sasaki, M., & Hirose, K. (1996). Explanatory variables for EFL students' expository writing. *Language Learning, 46,* 137-174.

517. Saville-Troike, M. (1984). What really matters in second language learning for academic achievements? *TESOL Quarterly, 18,* 199-219.

518. Saville-Troike, M. (2006*). Introducing Second Language Acquisition.* Cambridge: University Press.

519. Sawyer, R. J., Graham, S., & Harris, K. R. (1992). Direct Teaching Strategy Instruction With Explicit Self-Regulation: Effects on the Composition Skills and Self-Efficacy of Students With Learning Disabilities. *Journal of Educational Psychology, 84*(3), 340-352.

520. Scarcella, R., & Oxford, R. (1992). *The tapestry of Language Learning: The individual in the Communicative Classroom.* Boston: Heinle & Heinle.

521. Scardamalia, M., & Bereiter, C. (1986). Written Composition. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 778-803). New York: MacMillan.

522. Scheerer, E. (1986). Orthographic and lexical access. In G. August (Ed.), *New trends in graphemics and orthography* (pp. 262-286). Berlin: De Gruyter.

523. Schmitt, N. (2002). Focus on the language learner: motivation, styles and strategies. In N. Smith (Eds.), *An introduction to applied linguistics* (pp. 170-181). New York: Hodder Arnold.

524. Schnee, A. K. (2010). *Student Writing Performance: Identifying the Effects when Combining Planning and Revising Instructional Strategies.* Thesis Dissertation. Open Access Theses and Dissertation from the College of Education and Human Sciences. University of Nebraska-Lincoln.

525. Schoonen, R., Gelderen, A. V., Glopper, K. D., Hulstijn, J., Simis, A., Snellings, P., & Stevenson, M. (2003). First Language and Second Language Writing: The Role of Linguistic Knowledge, Speed of Processing, and Metacognitive Knowledge. *Language Learning, 53*(1), 165-203.

526. Schunk, D. H. (2005), Commentary on self-regulation in school contexts. *Learning and Instruction, 15,* 173-177.

527. Schunk, D. H., & Zimmerman, B., J. (1994). Social Origins of Self-Regulated Competence. *Educational Psychologist, 32*(4) 195-208.

528. Schunk, D., H., & Zimmerman, B., J. (1998). *Self-regulated learning: From teaching to self-reflective practice.* New York: Guilford.

529. Schunk, D., H., & Zimmerman, B., J. (2003). Self-Regulation and Learning. In W.M. Reynolds., & G.E. Miller (Eds.)., *Handbook of Psychology: Educational Psychology*. Vol. 7, (pp. 59-78) Hoboken, New Jersey: Wiley.

530. Schweiker-Marra, K. E., &Marra, W.T. (2000). Investigating the Effects of Prewriting Activities on Writing Performance and Anxiety of At-Risk Students. *Reading Psychology, 21 ,* 99-114.

531. Scovel, T. (1978). The Effect of Affect on Foreign Language Learning: A Review of the Anxiety Research. *Language Learning, 28*(1), 128-142.

532. Scruggs, T., & Mastropieri, M. A., (2001). How to summarize single-participant research: Ideas and applications. *Exceptionality, 9,* 227-244.

533. Scruggs, T. E., Mastropieri, M. A., & Castro, G. (1987). The qualitative synthesis of single-subject research. *Remedial and Special Education, 8*(2), 24-33.

534. Segal, J. W., Chipman, S. F., & Glaser, R. (1985). *Thinking and learning skills: relating instruction to research (Vol. 1).* Hillsdale, N.J.: Erlbaum.

535. Seliger, H. (1984). Processing universals in second language acquisition. In F. Eckman., L. Bell., & D. Nelson (Eds.), *Universals of second language acquisition* (pp. 36-47). Rowley, MA: Newbury House.

536. Sengupta, S. (2000). An Investigation into the effects of revision strategy instruction on L2 secondary school learners. *System, 28,* 97-113.

537. Sexton, R., J., Harris, K. R., & Graham, S. (1998). The effects of the self-regulated strategy development on essay writing and attributions of students with learning disabilities in a process writing setting. *Exceptional Children, 64,* 295-311.

538. Seymor, P. H. K. (2007). Early Reading Development in European Orthographies. In M.J. Snowling., & C. Hulme (Eds.), *Handbook of Developmental Psychology* (pp. 296-315). Blackwell Publishing.

539. Seymore, P. H. K., Aro, M., & Erskine, J. M. (2003). Foundation literacy acquisition in European orthographies. *British Journal of Psychology, 94,* 143-174.

540. Shavelson, R. J., Hubner, J. J. & Stanton, G. C. (1976). Validation of constructs interpretations. *Review of Educational Research, 46,* 407-441.

541. Share, D. L. (1995). Phonological recoding and self-teaching: Sine qua non of reading acquisition. *Cognition, 55,* 151-218.

542. Shaughnessy, M., P. (1977). *Errors and Expectations: A Guide for the teacher of Basic Writing.* United States of America. Library of Congress Cataloguing in Publication Data.

543. Sheen, Y. (2008). Recasts, Language Anxiety, Modified Output, and L2 Learning, American University, *Language Learning, 58*(4), 835-874.

544. Shell, D. F., Murphy, C., C., & Bruning, R., H., (1989). Self-Efficacy and Outcome Expectancy Mechanisms in Reading and Writing Achievement. *Journal of Educational Psychology, 81*(1), 91-100.

545. Shuel, T. J. (1986). Cognitive Conceptions of Learning. *Review of Educational Research, 56*(4), 411-436.

546. Sifianou, M., (1992). The use of diminutives in expressing politeness: Modern Greek versus English. *Journal of Pragmatics 17,* 155-173.

547. Silva, T. (1990). Second language composition instruction: Developments, issues, and directions in ESL. In B. Kroll (Ed), *Second language writing: Research insights for the classroom* (pp. 11-23). New York: Cambridge University Press.

548. Silva, T. (1992). L1 vs. L2 writing: ESL graduate students' perceptions. *TESL Canada Journal, 10*(1), 27-47.

549. Silva, T. (1993). Toward an understanding of the distinct nature of L2 writing: The ESL research and its implications. *TESOL Quarterly, 24*(4), 657-677.

550. Silva, T. (1997). A critical examination of L2 writing process research. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 11-21). United Kingdom, UK: Cambridge University Press.

551. Silva, T., & Brice, C. (2004). Research In Teaching Writing. *Annual Review of Applied Linguistics, 24*, 70-106.

552. Silva, T., & Matsuda, P. K. (2001). *On Second Language Writing.* Lawrence Erlbaum Associates.

553. Silva, T., Reichelt, M., Chikuma, Y., Duval-Couetil, N., Mo, R.P., J., Velez-Rendon, G., & Wood, S. (2003). Second language writing up close and personal: Some success stories. In B. Kroll (Eds.), *Exploring the Dynamics of Second Language Writing* (pp.93-114). Cambridge Applied Linguistics.

554. Sisaki, M., & Hirose, K. (1996). Explanatory variables in EFL students' expository writing. *Language Learning, 46*, 137-174.

555. Skourtou, E. (1997). *Issues of bilingualism and education.* Athens. Nissos. (In Greek)

556. Smith, R. E., Sarason, I, G., and Sarason, B. R. (1982). *Psychology: The frontiers of behavior*. New York: Harper and Row.

557. Smyth, J. (1998). Written emotional expression: Effect sizes, out-come types, and moderating variables. *Journal of Consulting and Clinical Psychology, 66*, 174-184.

558. Sommers, N. (1980). Revision strategies of student writers and experienced writers. *College Composition and Communication, 31*, 378-387.

559. Spada, N. (2007). Communicative Language Teaching. International Handbook of Language Teaching. *Springer International Handbook of Education, 15*(2), 271-288.

560. Spantidakis, I. (2004). *Writing production Difficulites of School Aged Children-Diagnosis, Assessment, Treatment.* Athens: Ellinika Grammata. (In Greek)

561. Spantidakis, I. (2010). *Writing Production Socio-Cognitive Multimedia Learning Environments.* Athens: Gutenberg. (In Greek)

562. Spantidakis, I., & Vassilaki, E., (2006). *The Production of Writing, Metacognitive Skills and Anxiety Levels of the 6th Grade Primary School Students.* In P. Roussi., E. Vassilaki., K. Kaniasty., & J.D. Barker (Eds.), (pp. 40-50). 27th Stress and Anxiety Research Society Conference Proceedings, Rethymno, Crete, 13-15 July 2006.

563. Sparks, R., & Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? *The Modern Language Journal, 71(*1), 3-16.

564. Sparks, R., & Ganschow, L. (1993). Searching for the cognitive locus of foreign language learning difficulties: Linking first and second language learning. *The Modern Language Journal, 77*(3), 289-302.

565. Sparks, R., Ganschow, L., & Javorsky, J. (2000). Déjà vu all over again: A response to Saito, Horwitz, and Garza. *The Modern Language Journal, 84(*2), 251-255.

566. Spencer, K. (1999). Predicting word-spelling difficulty in 7-to 11-year-olds. *Journal of Research in Reading, 22*(3), 283-292.

567. Spencer, K. (2000). *Is English a Dyslexic Language? Dyslexia 6:*2, (152:162).

568. Spencer, K. (2001). Differential Effects of Orthographic Transparency on Dyslexia: Word reading difficulty for common English words. Dyslexia 7: 217-228.

569. Spencer, K. (2010). Predicting children's word- reading accuracy for common English words: The effect of word transparency and complexity. *British Journal of Psychology, 101*, 519-543.

570. Spencer, K. A. (2009). Feedforward,- backward, and neutral transparency measures for British English. *Behavior Research Methods, 41*(1), 220-227.

571. Spencer, L. H., & Hanley, J. R. (2003). Effects of orthographic transparency on reading and phoneme awareness in children learning to read in Wales. *British Journal of Psychology, 94*, 1-28.

572. Spencer, L. H., & Hanley, J. R. (2004). Learning a transparent orthography at five years old: reading development of children during their first year of formal reading instruction in Wales. *Journal of Research in Reading, 27*(1), 1-14.

573. Spielberger, C. D. (1983). *Consulting Psychologists Press, Inc. 2. Palo, Alto. (CA).*

574. Spielberger, C. D., & Gorsuch, R. L. (1983). *Manual for State-Trait Anxiety Inventory (Form Y.)* Palo Alto, CA: Consulting Psychologists Press.

575. Spielberger, C. D., Vagg, P. R., & McKeachie, W. J. (1995). Test anxiety: A transactional process model. In C. Spielberger., & P. Vagg (Eds.), *Test Anxiety Theory, Assessment, and Treatment (pp. 3-14). Washington, DC:* Taylor & Francis.

576. Spielmann, G., & Radnofsky, M. L. (2001). Learning Language under tension: New directions from a qualitative study. *The Modern Language Journal, 85*(22), 259-278.

577. Stallard, C., (1976). Composing: A Cognitive Process Theory. *College Composition and Communication, 27*(2), 181-184. National Council of Teachers of English.

578. Steinberg, F. S., & Horwitz, E. K., (1986). The Effects of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech. TE*SOL Quarterly, 20*(1), 131-136.

579. Steinger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioural Research, 25*, 173-180.

580. Stern, H. H. (1975). "What can we learn from the good language learner?" *Canadian Modern Language Review 31,* 304-318.

581. Stern, H. H. (1983). *Fundamental concepts of language teaching.* Oxford University Press.

582. Stern, H. H. (1992). Issues *and Options in Language Teaching.* Oxford University Press.

583. Suprapti, S. (2009). Learners' Problems With the Textuality of their Written Discourse. *Journal of Language and Literature, 4*(1), 1-10.

584. Swanson, H. L., & Berninger, V. (1995). The Role of Working Memory in Skilled and Less Skilled Readers' Comprehension. *Intelligence, 21,* 83-108.

585. Sweller, J. (1988). Cognitive Load During Problem Solving: Effects on Learning. *Cognitive Science 12*, 257-285.

586. Sweller, J. (1994). Cognitive Load Theory, Learning Difficulty, and Instructional Design *Learning and Instruction, 4*, 295-312.

587. Tabachnick, B. G., & Fidell, L. S. (2006). *Using multivariate statistics.* New York: Harper Collins.

588. Terrell, T.D. (1982). The Natural Approach to Language Teaching: An Update. *Modern Language Journal, 66,* 121-132.

589. Thompson, I., & Rubin, J. (1993). *Improving listening comprehension in Russian.* Washington, DC: Department of Education, International Research and Studies Program.

590. Thompson, M. O. (1981). *A workshop: Coping with writing anxiety.* Paper presented at a Post-Conference Workshop at the National Council of Teachers of English, Minneapolis, MN.

591. Thorson, H. (2000). Using the computer to compare foreign and native language writing processes: A statistical and case study approach. *Modern Language Journal, 84*, 155-170.

592. Thorstad, G. (1991). The effect of orthography on the acquisition of literacy skills. *British Journal of Psychology, 82,* 527-537.

593. Tierney, R. J., & Shanaham, T. (1991). Research on the reading-writing relationship: Interactions transactions, and outcomes. In R. Barr., M.L. Kamil., P. Mosenthal., & P.D. Pearson (Eds.), *The Handbook of Reading Research,* Vol. 12. (pp. 246-280). NY: Longman.

594. Tinsley, H. E. A., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Consulting Psychology, 27*, 561-570.

595. Topping, K. J. (2000). *Peer assisted learning: A practical guide for teachers.* Cambridge, MA: Brookline Books.

596. Torrance, M., & David Galbraith (2006). The Processing Demands of Writing. In C.A. MacArthur., S. Graham., & J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp. 67-80). The Guilford Press. A Division of Guilford Publications, Inc.

597. Tracy, B., Reid, R., & Graham, S. (2009). *Teaching Young Students Strategies for Planning and Drafting Stories: The Impact of Self-Regulated Strategy Development.* Heldref Publications.

598. Trantaphyllidis, M, (1980). *Modern Greek grammar*. Athens, Greece: Estia.

599. Triarchi, B. (2000). *Bilingualism in Childhood.* Hernman. (In Greek)

600. Troia, G. A., & Graham, S. (2002). The effectiveness of a highly explicit, teacher-directed strategy instruction routine: Challenging the writing performance of students with learning disabilities. *Journal of Learning Disabilities, 35,* 290-305.

601. Troia, G. A., Graham, S., & Harris, K. R. (1999). Teaching students with learning disabilities to mindfully plan when writing. *Exceptional Children, 65,* 215-252.

602. Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46,* 327-369.

603. Trylong, V., L. (1987). *Aptitude, Attitudes, and Anxiety: A Study of Their Relationships to Achievement in The Foreign Language Classroom.* A Thesis Submitted to the Faculty of Purdue University.

604. Van Merrienboer , J. J. G., Schuurman, J. G., De Croock, M. B. M., & Pass, F. G. W. C. (2002). Redirecting learners' attention during training: effects on cognitive load, transfer test performance and training efficiency. *Learning and Instruction 12,* 11-37.

605. Van Merrienboer, J. J. G., & Sweller, J. (2005). Cognitive Load Theory and Complex Learning: Recent Developments and Future Directions. *Educational Psychologist Review, 17*(2).

606. Vanderberg, R., & Swanson, H. L. (2007). Which components of working memory are important in the writing process? *Reading and Writing, 20,* 721-752.

607. Vasilaki, E., & Vamvoukas, M. (1997). Test anxiety and coping strategies employed by school children aged 11 - 12 years old. *Pedagogical Inspection, 25,* 1-17. (In Greek)

608. Veenman, M. V. J., & Elshout, J. (1999). Changes in the Relation between Cognitive and Metacognitive Skills during the Acquisition of Expertise. *European Journal of Psychology of Education, 14,* 509-523.

609. Veenman, M., V., J., Kerseboom, L., & Imthorn, C. (2000). Test Anxiety and Metacognitive Skillfulness: Availability Versus Production Deficiencies. *Anxiety, Stress & Coping, 13,* 391-412.

610. Veenman, M. V. J., Van Hout-Wolters, B.H.A.M., & Afflerbach, P. (2006). Metacognition and learning: Conceptual and methodological considerations. *Metacognition Learning, 1,* 3-14.

611. Veit, R. (1980). *Reducing anxiety in writing instruction.* Paper presented at the Annual Meeting of the NATIONAL Council of Teachers of English, Cincinnati, OH.

612. Venezky, R., L., (1965). English orthography: its graphical structure and its relation to sound Reading. *Research Quarterly, 2*(3), 75-105.

613. Vohs, K. D. and Heatherton, T. F. (2000). Self-regulatory failure: A resource-depletion approach. *Psychological Science, 11*(3), 249-254.

614. Vygotsky, L. S. (1978). *Mind in society.* Cambridge, MA: Harvard University Press.

615. Vygotsky, L. S. (1987). *Mind in society: The development of higher phychological processes.* Cambridge: Harvard University Press.

616. Wagner, R. K. (1988). Causal relations between the development of phonological processing abilities and the acquisition of reading skills: A meta-analysis. *Merrill-Palmer Quarterly, 34,* 261-279.

617. Wagner, R. K., & Torgesen, J. K. (1987). The nature of phonological processing and its causal role in the acquisition of reading skill. *Psychological Bulletin, 101,* 192-212.

618. Walberg, H., & Ethington, C. (1991). Correlates of writing performance and interest: a U.S. National Assessment Study. *Journal of Educational Research, 84,* 198-203.

619. Wang, W., & Wen, Q. (2002). L1 use in the L2 composing process: An exploratory study of sixteen Chinese EFL writers. *Journal of Second Language Writing, 11,* 225-246.

620. Wang, M. C.,Haertel, G. D. and Walberg, H. J. (1990). What influences learning? A content analysis of review literature. *Journal of Educational Research, 84,* 30-43.

621. Wang, W., Wen, Q. (2002). L1 use in the L2 composing process: An exploratory study of 16 Chinese EFL writers. *Journal of Second Language Writing, 11,* 225-246.

622. Wason, P. C. (1980). Specific thoughts on the writing process. In L.W. Gregg., & E.R. Steinberg (Eds.), *Cognitive processes in writing*. Hillsdale, NJ: Erlbaum.

623. Wechsler, D. (1981). The Psychometric Tradition: Developing the Wechsler Adult Intelligence Scale. *Contemporary Educational Psychology, 6*, 82-85.

624. Weinstein, C. E., & Mayer, R. E. (1986). The teaching of learning strategies. In M.C. Wittrock (Ed.), *Handbook of Research on Teaching* (pp. 315-27). New York: Macmillan.

625. Weinstein, C. E., Goetz, E.T., & Alexander, P.A. (1988). *Learning and Study Strategies: Issues in assessment, instruction, and evaluation.* (pp. 63-76) San Diego: Academic Press.

626. Weissberg, B. (2000). Developmental relationships in the acquisition of English syntax: writing vs. speech. *Learning and Instruction, 10,* 37-53.

627. Wenden, A. (1998). Metacognitive knowledge and language learning. *Applied Linguistics, 19* (4), 515-537.

628. Wenden, A, & Rubin, J. (1987). Learning Strategies In Language Learning. New Jersey, Prentice Hall.

629. Williams, J. (1991). Rhetoric and informal reasoning; Disentangling some confounded effects in good reasoning and good writing. In J. Voss., D. Perkins., & J. Segal (Eds.), *Informal reasoning and education* (pp. 225-246). Hillsdale, NJ: Erlbaum.

630. Williams, J. (2005). *Teaching Writing In Second And Foreign Language Classrooms.* Boston: The McGraw Hill.

631. Wimmer, H., & Hummer, P. (1990). How German-speaking first graders read and spell: Doubts on the importance of the logographic stage. *Applied Psycholinguistics 11*, 349-368.

632. Wimmer, H., & Goswami, U. (1994). The Influence of orthographic consistency on reading development: Word recognition in English and German children. *Cognition, 51*, 91-103.

633. Wolters, C., & Pintrich, P. R. (1998). Contextual differences in student motivation and self-regulated learning in mathematics, English, and social studies classroom. *Instructional Science, 26,* 27-47.

634. Wolters, C., Yu, S., L., & Pintrich, (1996). The relation between goal orientation and students' motivational beliefs and self-regulated learning. *Learning and Individual Differences. 8(*3), 233-238.

635. Wolters, C., Yu, S., & Pintrich, P. R. (1996). The relation between goal orientation and students' motivational beliefs and self-regulated learning. *Learning and Individual Differences, 8*, 211-238.

636. Wong, B. Y. L., & Wilson, M. (1984). Investigating awareness of and teaching passage organization in learning disabled children. *Journal of Learning Disabilities, 17*, 477-482.

637. Wong, B. Y. L., Harris, K. R., Graham, S., & Butler, D. L. (2003). Cognitive strategies instruction research in learning disabilities. In H.L. Swanson., K.R. Harris., & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 323-345). New York: Guildford Press.

638. Wong, B., Wong, R., & Blenkinsop, J. (1989). Cognitive and metacognitive aspects of learning disabled adolescents' composing problems. *Learning Disability Quarterly, 12*, 310-323.

639. Woodrow, L. (2006). Anxiety and Speaking English as a Foreign Language. *Sage Publications, 37*(3), (308-328).

640. Woodwall, B, R. (2002). Language-switching: Using the first language while writing in a second language. *Journal of Second Language Writing, 11*(1), 7-28.

641. Worde, R. (1998). *An investigation of students' perspectives on foreign language anxiety*. ERIC Document Reproduction Service No. ED 479986.

642. Worde, R. (2003). Students' perspectives on foreign language anxiety. *Inquiry, 8*(1), 21-40.

643. Xiao, Y. (2007). Applying metacognition in EFL writing instruction in China. *Reflections on English Language Teaching, 6*(1), 19-33.

644. Yan, J., X., & Horwitz, E., K. (2008). Learners' Perceptions of How Anxiety Interacts With Personal and Instructional Factors to Influence Their Achievement in English: A Qualitative Analysis of EFL Learners in China. *Language Learning, 58*(1), 151-183.

645. Yeh, S-W., Lo, J-J., & Huang, J-J. (2011). Scaffolding collaborative technical writing with procedural facilitation and synchronous discussion. *International Journal of Computer-Supported Collaborative Learning, 6*(3), 397-419.

646. Young, D.J. (1986). The relationship between anxiety and foreign language oral proficiency ratings. *Foreign Language Annals, 19*, 439- 445.

647. Young, D. J. (2008). An investigation of students' perspectives on anxiety and speaking. *Foreign Language Annals, 23*(6), 539-553.

648. Young, D. J (1991). Creating a Low-Anxiety Classroom Environment: What Does Language Anxiety Research Suggest? *The Modern Language Journal, 75*(4), 426-439.

649. Young, D. J. (1994). New directions in language anxiety research. In C.A. Klee (Ed.), *Faces in a crowd: The Individual learner multisection courses* (pp. 3-46). Boston: Heinle & Heinle.

650. Young, D. J. (Ed.). (1999). *Affect in foreign language and second language learning.* Boston: McGraw-Hill.

651. Zambeta, E. (2000). The lack of Modernity and Educational Transitions. In D. Coulby., R. Cowen., & C. Jones (Eds.), *Education in Times of Transition, World Yearbook of Education*, (pp.63-75). London.

652. Zamel, V. (1976). Teaching Composition in the ESL Classroom: What We Can Learn from Research in the Teaching of English. *TESOL Quarterly, 10*(1), 67-76.

653. Zamel, V. (1982). Writing: the process of discovering meaning. *TESOL Quarterly, 16*(2), 195-187.

654. Zamel, V. (1983). The Composing Processes of Advanced ESL Students: Six Case Studies. *TESOL Quarterly*, *17*(2), 165-187.

655. Zheng, Y. (2008). Anxiety and Second/ Foreign Language. *Learning Revisited Vol. 1*. Issue 1.

656. Ziegler, J. C., Perry, C., Ma-Wyatt, A., Ladner, D., & Schulte-Korne G. (2003). Developmental Dyslexia in Different Languages: Language-specific or universal? *Experimental Child Psychology, 86,* 169-193.

657. Ziegler, J. C., Stone, G. O., & Jacobs, A. M. (1997). What's the pronunciation for OUGH and the spelling for /u/**?** A database for computing feedforward and feedback inconsistency in English. *Behavior Research Methods, Instruments, & Computers, 29*, 600–618.

658. Zimmerman, B. J. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal, 23,* 614-628.

659. Zimmerman, B. J. (1989). A social cognitive view of self-regulated learning. *Journal of Educational Psychology, 82,* 297-306.

660. Zimmerman, B., J. (1990). Self-Regulated Learning and Academic Achievement: An Overview. *Educational Psychologist, 15(*1), 3-17.

661. Zimmerman, B., J. (1995). Self-Regulation Involves More than Metacognition: A Social Cognitive Perspective, *Educational Psychologist, 30*(4), 217-221.

662. Zimmerman, B. J. (1998). Academic studying and the development of personal skill: A self-regulatory perspective. *Educational Psychologist, 33,* 73-86.

663. Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts., P.R. Pintrich., & M. Zeidner (Eds.), *Handbook of Self-regulation* (pp. 13-35). San Diego, California: Academic.

664. Zimmerman, B. J. (2008). Investigating Self-Regulation and Motivation: Historical

Background, Methodological Development, and Future Prospects. *American Educational Research Journal, 45*(1), 166-183.

665. Zimmerman, B. J., & Bandura, A. (1994). Impact of self-regulatory influence on writing course attainment. *American Educational Research Journal, 31*, 845-862.

666. Zimmerman, B. J., & Kitsantas, A. (1999). Acquiring writing revision skill: shifting from process to outcome self-regulatory goals. *Journal of Educational Psychology, 91*(2), 241-250.

667. Zimmerman, B. J. & Kitsantas, A. (2002). Acquiring Writing Revision and Self-Regulatory Skill Through Observation and Emulation. *Journal of Educational Psychology, 94*(4), 660-668.

668. Zimmerman, B.J., & Risemberg, R. (1997). Becoming a proficient writer: A self-regulatory perspective. *Contemporary Educational Psychology, 22*, 72-101.

669. Zimmerman, B. J., & Risemberg, R. (1997). Becoming a self-regulated writer: A social cognitive perspective. *Contemporary Educational Psychology, 22*, 73-101.

670. Zimmerman, B. J., & Risemberg, R. (1997). Self-regulatory dimensions of academic learning and motivation. In G.D. Phye (Ed.), *Handbook of academic learning* (pp.105-125). San Diego: Academic Press.

671. Zimmermnan, R. (2000). L2 writing: sub processes, a model of formulating and empirical finding. *Learning and Instruction. 10*(1), 73-99.

672. Zuckerman, M. (1977). Development of a situation-specific trait-state test for the prediction and measurement of affective responses. *Journal of Consulting and Clinical Psychology, 45*(4), 513-523.

Appendices

Appendix 1: Second Language Writing Anxiety Inventory (SLWAI) (Cheng, 2004) (English and Greek version)

SECOND LANGUAGE WRITING ANXIETY INVENTORY

(SLWAI) (Cheng, 2004)

1. While writing in English, I'm not nervous at all.

2. I feel my heart pounding when I write English compositions under time constraint.

3. While writing English compositions, I feel worried and uneasy if I know they will be evaluated.

4. I often choose to write down my thoughts in English.

5. I usually do my best to avoid writing English compositions.

6. My mind often goes blank when I start to work on an English composition.

7. I don't worry that my English compositions are a lot worse than others'.

8. I tremble or perspire when I write English compositions under time pressure.

9. If my English composition is to be evaluated, I would worry about getting a very poor grade.

10. I do my best to avoid situations in which I have to write in English.

11. My thoughts become jumbled when I write English compositions under time constraint.

12. Unless I have no choice, I would not use English to write compositions

13. I often feel panic when I write English compositions under time constraint.

14. I am afraid that the other students would deride my English composition if they read it.

15. I freeze up when unexpectedly asked to write English compositions.

16. I would do my best to excuse myself if asked to write English compositions.

17. I don’t worry at all about what other people would think of my English compositions.

18. I usually seek every possible chance to write English compositions outside of class.

19. I usually feel my whole body rigid and tense when I write English compositions.

20. I am afraid of my English composition being chosen as a sample for discussion in class.

21. I’m not afraid at all that my English compositions would be rated as very poor.

22. Whenever possible, I would use English to write compositions.

ΑΓΧΟΣ ΓΙΑ ΤΟ ΓΡΑΠΤΟ ΛΟΓΟ ΣΤΗ ΞΕΝΗ ΓΛΩΣΣΑ

ΟΔΗΓΙΕΣ: Διαβάστε προσεκτικά τις παρακάτω προτάσεις και απαντήστε βάζοντας σε **κύκλο έναν από τους αριθμούς 1 έως 5.** Δεν υπάρχουν σωστές ή λάθος απαντήσεις. Προσπαθήστε να δώσετε όσο το δυνατόν πιο ειλικρινείς απαντήσεις σε **όλες** τις προτάσεις.

(1=διαφωνώ απόλυτα, 2=διαφωνώ, 3=ούτε συμφωνώ ούτε διαφωνώ, 4=συμφωνώ, 5=συμφωνώ απόλυτα)

1. Όταν γράφω στα αγγλικά δεν αισθάνομαι καθόλου άγχος.

1 2 3 4 5

2. Όταν γράφω εκθέσεις στα αγγλικά με χρονικό περιορισμό νιώθω την καρδιά μου να χτυπάει.

1 2 3 4 5

3. Όταν γράφω εκθέσεις στα αγγλικά νιώθω ανησυχία και αμηχανία εάν γνωρίζω ότι θα βαθμολογηθούν.

1 2 3 4 5

4. Συχνά επιλέγω να γράψω τις σκέψεις μου στα αγγλικά.

1 2 3 4 5

5. Συνήθως κάνω ότι περνά από το χέρι μου για να αποφύγω να γράψω εκθέσεις στα αγγλικά.

1 2 3 4 5

6. Το μυαλό μου συχνά σταματάει να λειτουργεί όταν ξεκινάω να γράψω μια έκθεση στα αγγλικά.

1 2 3 4 5

7. Δεν ανησυχώ ότι οι εκθέσεις μου στα αγγλικά είναι πολύ χειρότερες από των άλλων.

1 2 3 4 5

8. Τρέμω ή ιδρώνω όταν γράφω εκθέσεις στα αγγλικά κάτω από την πίεση χρόνου.

1 2 3 4 5

9. Αν υπήρχε περίπτωση να αξιολογηθεί η έκθεσή μου στα αγγλικά, θα ανησυχούσα μήπως πάρω χαμηλό βαθμό.

1 2 3 4 5

10. Κάνω ότι μπορώ για να αποφύγω περιστάσεις στις οποίες πρέπει να γράψω στα αγγλικά.

1 2 3 4 5

11. Οι ιδέες μου μπερδεύονται όταν γράφω εκθέσεις στα αγγλικά με χρονικό περιορισμό.

1 2 3 4 5

12. Εάν είχα επιλογή, δεν θα έγραφα εκθέσεις στην αγγλική γλώσσα.

1 2 3 4 5

13. Συχνά νιώθω πανικό όταν γράφω εκθέσεις στα αγγλικά με χρονικό περιορισμό.

1 2 3 4 5

14. Φοβάμαι ότι αν οι συμμαθητές μου διάβαζαν την έκθεσή μου στα αγγλικά, θα γελούσαν.

1 2 3 4 5

15. Παγώνω όταν μου ζητείται να γράψω έκθεση στα αγγλικά χωρίς προειδοποίηση.

1 2 3 4 5

16. Θα έκανα ότι μπορούσα για να αποφύγω να γράψω έκθεση στα αγγλικά, αν μου το ζητούσαν.

1 2 3 4 5

17. Δεν ανησυχώ καθόλου για τη γνώμη που θα είχαν οι άλλοι για τις εκθέσεις μου στα αγγλικά.

1 2 3 4 5

18. Συνήθως αναζητώ κάθε δυνατό τρόπο για να γράψω εκθέσεις στα αγγλικά εκτός τάξης.

1 2 3 4 5

19. Συνήθως νιώθω ότι δεν μπορώ να λυγίσω το σώμα μου και αισθάνομαι υπερένταση όταν γράφω εκθέσεις στα αγγλικά.

1 2 3 4 5

20. Φοβάμαι την πιθανότητα επιλογής της έκθεσής μου στα αγγλικά ως δείγμα για συζήτηση στην τάξη.

1 2 3 4 5

21. Δεν φοβάμαι καθόλου αν οι εκθέσεις μου στα αγγλικά θα έπαιρναν χαμηλό βαθμό.

1 2 3 4 5

22. Σε κάθε δυνατή περίπτωση θα χρησιμοποιούσα τα αγγλικά για να γράψω εκθέσεις.

1 2 3 4 5

Appendix 2: Interview Questions (English and Greek Version), (Schoonen, and De Glopper, 1996)

Let's assume that you have a friend that wants to write a story or an expository essay.

1. What advice would you give your friend to write a good paper (short story – argumentative essay)? Why?
2. Do you thing that writing is an important subject? Why?
3. When you do not do well in writing what do you think the reason is and why?
4. What do you think a student needs to do to be good in writing?
5. What do you think you need to do to become better in writing?

Ας υποθέσουμε ότι έχεις ένα φίλο που θέλει να γράψει μια έκθεση.

1. Τι συμβουλές θα έδινες στο φίλο σου για να γράψει μια καλή έκθεση. Γιατί;
2. Πιστεύεις ότι η έκθεση είναι σημαντικό μάθημα. Γιατί;
3. Όταν δεν τα πας καλά στην έκθεση τι νομίζεις ότι φταίει. Γιατί;
4. Τι νομίζεις ότι χρειάζεται ένας μαθητής να κάνει για να είναι καλός στην έκθεση. Γιατί;
5. Τι πρέπει να κάνεις για να γίνεις καλύτερος από ότι είσαι τώρα στην έκθεση. Γιατί;

Appendix 3: Evaluation Criteria for English short story writing (English and Greek Version)

EVALUATION CRITERIA FOR SHORT STORY WRITING WWW (English version)

Student Number	
School	
Ranking	
Assessor	
Date	

STRUCTURE - CONTENT-FORMATION OF IDEAS

Who	
Where	
When	
What	
What	
How	
How	

RANKING: Presence of Element: 1
Absence of Element: 0

ANALYTIC CRITERIA

Organization (Introduction-Main Body-Conclusion)	
Sequence	
Expansion of Ideas	
Selection of Vocabulary	
Originality	
Verbal expressiveness (direct speech, a variety of proposals, active verbs, descriptive sentences)	
Cohesion / Binders words	
Grammar	
Syntax	

RANKING

Scale: 1 2 3

HOLISTIC CRITERIA

VERY LOW QUALITY OF WRITING	1
LOW QUALITY OF WRITING	2
BASELINE LOW QUALITY OF WRITING	3
AVERAGE QUALITY WRITTING	4
BASELINE AVERAGE QUALITY OF WRITING	5
GOOD QUALITY OF WRITTING	6
HIGH QUALITY OF WRITING	7
EXCELLENT QUALITY OF WRITTING	8

Number of Words Written ….

ΚΡΙΤΗΡΙΑ ΑΞΙΟΛΟΓΗΣΗΣ ΙΣΤΟΡΙΑΣ WWW

Αριθμός Μαθητή	
Σχολείο	
Βαθμός	
Βαθμολογητής	
Ημερ.	

ΔΟΜΗ – ΠΕΡΙΕΧΟΜΕΝΟ-ΣΧΗΜΑΤΙΣΜΟΣ ΙΔΕΩΝ

Ποιος	
Που	
Πότε	
Τι	
Τι	
Πως	
Πως	

ΒΑΘΜΟΛΟΓΙΑ:….

Παρουσία Στοιχείου: 1
Απουσία Στοιχείου: 0

ΑΝΑΛΥΤΙΚΑ ΚΡΙΤΗΡΙΑ

Οργάνωση (Αρχή-Μέση-Τέλος)	
Αλληλουχία	
Επέκταση Ιδεών	
Επιλογή Λεξιλογίου	
Πρωτοτυπία	
Λεκτική εκφραστικότητα (ευθύς λόγος, ποικιλία προτάσεων, ενεργητικά ρήματα, περιγραφικές προτάσεις)	
Συνοχή / Συνδετικές Λέξεις	
Γραμματική	
Σύνταξη	

ΒΑΘΜΟΛΟΓΙΑ:

Κλίμακα: 1 2 3

ΟΛΙΣΤΙΚΑ ΚΡΙΤΗΡΙΑ

ΠΟΛΥ ΧΑΜΗΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	1
ΧΑΜΗΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	2
ΟΡΙΑΚΗ ΧΑΜΗΛΗ ΓΡΑΠΤΟΥ	3
ΜΕΣΑΙΑ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	4
ΟΡΙΑΚΗ ΜΕΣΑΙΑ ΓΡΑΠΤΟΥ	5
ΚΑΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	6
ΥΨΗΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	7
ΑΡΙΣΤΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	8

ΑΡΙΘΜΟΣ ΛΕΞΕΩΝ…….

Appendix 4: Evaluation Criteria for Argumentative essays (English and Greek Version)

EVALUATION CRITERIA FOR THE ARGUMENTATIVE TEXT TREE

Student Number	
School	
Ranking	
Assessor	
Date	

STRUCTURE - CONTENT-FORMATION OF IDEAS

Topic Sentence	
1st Point	
2nd Point	
3rd Point	
Conclusion	

Ranking: 1 2 3

ANALYTIC CRITERIA

Organization (Introduction-Main Body-Conclusion, Sequence, paragraphs)	
Vocabulary Selection	
Grammar	
Syntax	
Verbal Expressiveness	
Connecting Words / Consistency	
1st	
2nd	
3rd	

Ranking: 1 2 3

HOLISTIC CRITERIA

VERY LOW QUALITY OF WRITING	1
LOW QUALITY OF WRITING	2
BASELINE LOW QUALITY OF WRITING	3
AVERAGE QUALITY OF WRITING	4
BASELINE AVERAGE QUALITY OF WRITING	5
GOOD QUALITY OF WRITTING	6
HIGH QUALITY OF WRITING	7
EXCELLENT QUALITY OF WRITTING	8

NUMBER OF WORDS…....

ΚΡΙΤΗΡΙΑ ΑΞΙΟΛΟΓΗΣΗΣ ΕΠΙΧΕΙΡΗΜΑΤΟΛΟΓΙΚΟΥ ΚΕΙΜΕΝΟΥ

Αριθμός Μαθητή	
Σχολείο	
Βαθμός	
Βαθμολογητής	
Ημερ.	

ΔΟΜΗ – ΠΕΡΙΕΧΟΜΕΝΟ-ΣΧΗΜΑΤΙΣΜΟΣ ΙΔΕΩΝ

Θεματική Πρόταση	
1^{ο} Επιχείρημα	
2^{ο} Επιχείρημα	
3^{ο} Επιχείρημα	
Επίλογος	

ΒΑΘΜΟΛΟΓΙΑ: 1 2 3

ΑΝΑΛΥΤΙΚΑ ΚΡΙΤΗΡΙΑ

Οργάνωση (Αρχή-Μέση-Τέλος, Αλληλουχία, Παράγραφοι)	
Επιλογή Λεξιλογίου	
Γραμματική	
Σύνταξη	
Λεκτική εκφραστικότητα	
Συνδετικές Λέξεις/Συνοχή 1^{η}	
2^{η}	
3^{η}	

ΒΑΘΜΟΛΟΓΙΑ: 1 2 3

ΟΛΙΣΤΙΚΑ ΚΡΙΤΗΡΙΑ

ΠΟΛΥ ΧΑΜΗΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	1
ΧΑΜΗΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	2
ΟΡΙΑΚΗ ΧΑΜΗΛΗ ΓΡΑΠΤΟΥ	3
ΜΕΣΑΙΑ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	4
ΟΡΙΑΚΗ ΜΕΣΑΙΑ ΓΡΑΠΤΟΥ	5
ΚΑΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	6
ΥΨΗΛΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	7
ΑΡΙΣΤΗ ΠΟΙΟΤΗΤΑ ΓΡΑΠΤΟΥ	8

ΑΡΙΘΜΟΣ ΛΕΞΕΩΝ…….

Appendix 5: Writing Production Participant Observation Scale (English Version and Greek Version)

Writing Production Participant Observation Scale

Student Name	A1	A2	B	C	C1	C2	C3	D	E	Comments
1)										
2)										
3)										
4)										
5)										
6)										
7)										
8)										
9)										
10)										

A1 = Planning, writes ideas before starting to write / makes a plan, A2 = starts writing and makes the plan along the way B = writes without hesitation, is focused on the text, C = periodically reviews. C1= the word, C2= the sentence, C3= the paragraph D = reviews at the end, E = makes corrections

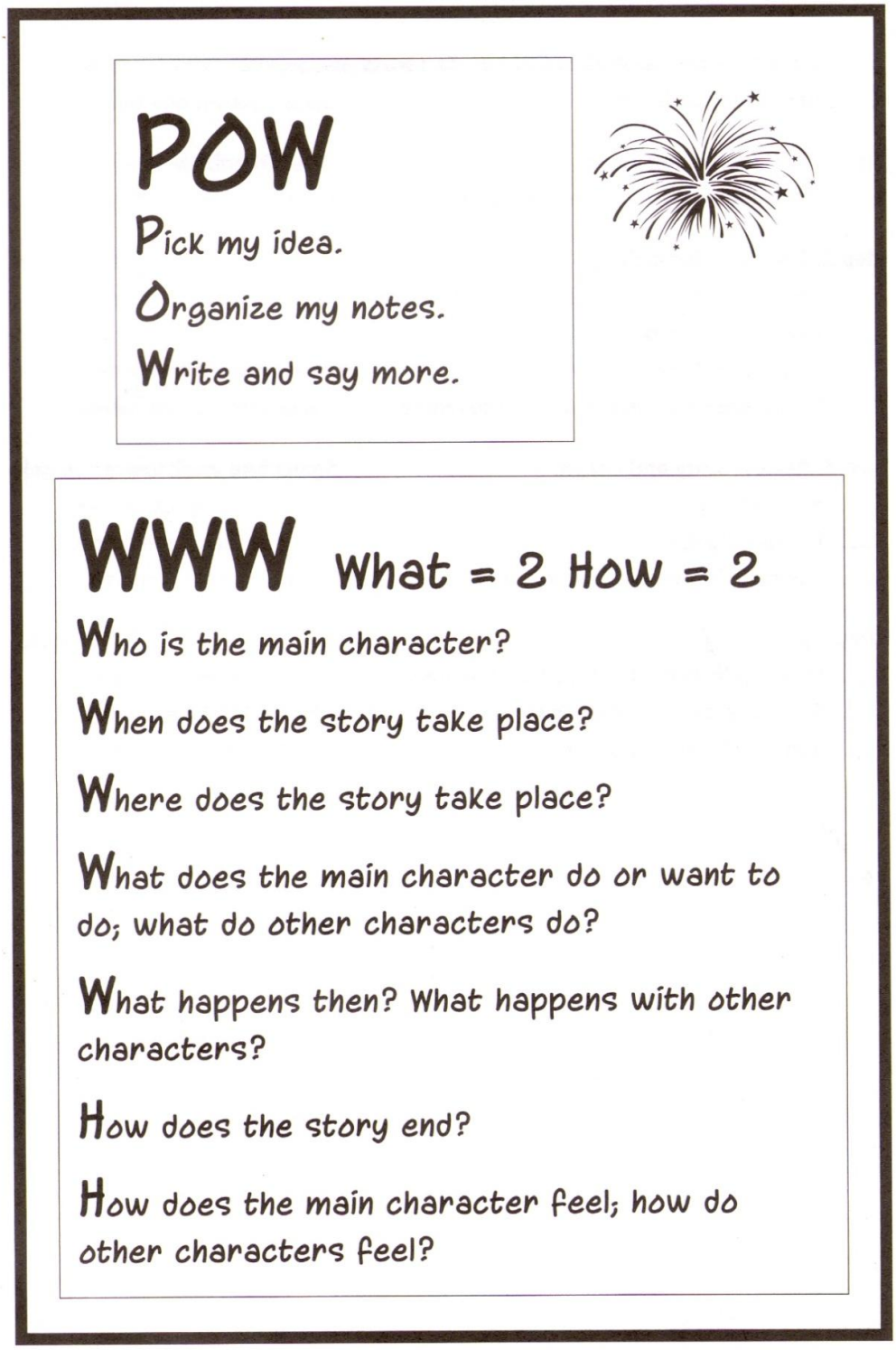
ΚΛΕΙΔΑ ΠΑΡΑΤΗΡΗΣΗΣ ΔΙΑΔΙΚΑΣΙΑΣ ΠΑΡΑΓΩΓΗΣ ΓΡΑΠΤΟΥ ΛΟΓΟΥ

Ονοματεπώνυμο	Α1	Α2	Β	Γ	Γ1	Γ2	Γ3	Δ	Ε	ΠΑΡΑΤΗΡΗΣΕΙΣ
1)										
2)										
3)										
4)										
5)										
6)										
7)										
8)										
9)										
10)										

Α1= Σχεδιασμός, πριν ξεκινήσει γράφει τις ιδέες του / κάνει σχεδιάγραμμα, Α2= επισχεδιασμός,Β= γράφει χωρίς να διστάζει, είναι συγκεντρωμένος στο γραπτό, Γ= ανά διαστήματα Επανεξετάζει,Γ1= την λέξη, Γ2= την πρόταση, Γ3= την παράγραφο, Δ= στο τέλος επανεξετάζει, Ε= κάνει διορθώσεις

Appendix 6: Procedural Facilitative Writing Production Tools for Short Story Writing (WWW) and Argumentative Essays (TREE).

PROCEDURAL FACILITATIVE WRITING PRODUCTION TOOLS FOR SHORT STORY WRITING (WWW) AND ARGUMENTATIVE ESSAYS (TREE) (Harris, K. R., Graham, S., Mason, L. H. Friedlander, B. 2008)



Cue Cards with Pictures

Who
is the main character?

When
does the story happen?

Where
does the story happen?

What
does the main character do?

What
happens then?

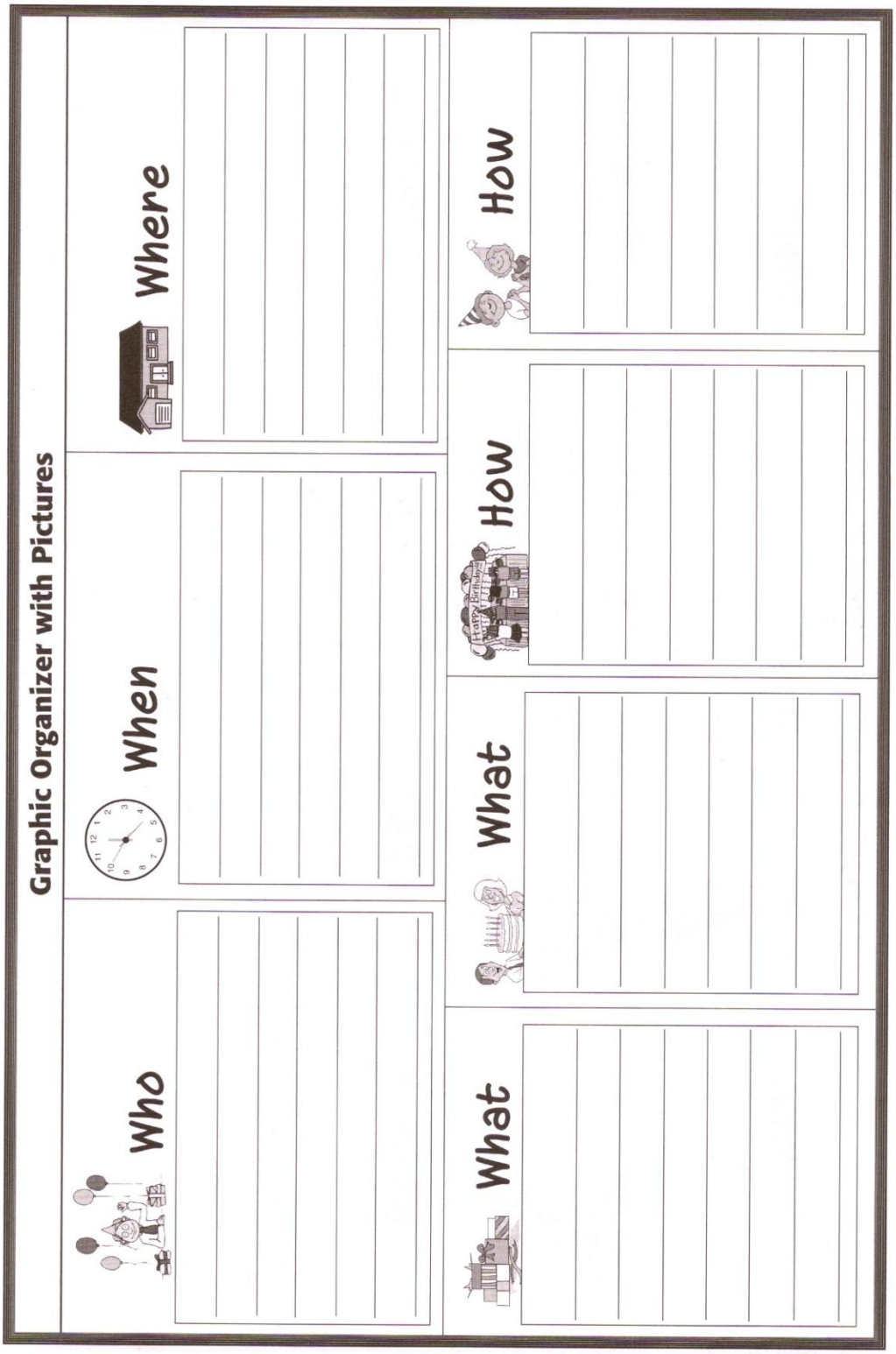
How
does the story end?

How
does the main character feel?

Cue Cards without Pictures

Who is the main character?	**When** does the story happen?	**Where** does the story happen?
What does the main character do?	**What** happens then?	**How** does the story end?
		How does the main character feel?

118


Graphic Organizer with Pictures
Who
When
Where
What
How
What
How

Graphic Organizer without Pictures
Who
When
Where
What
How
What
How
How

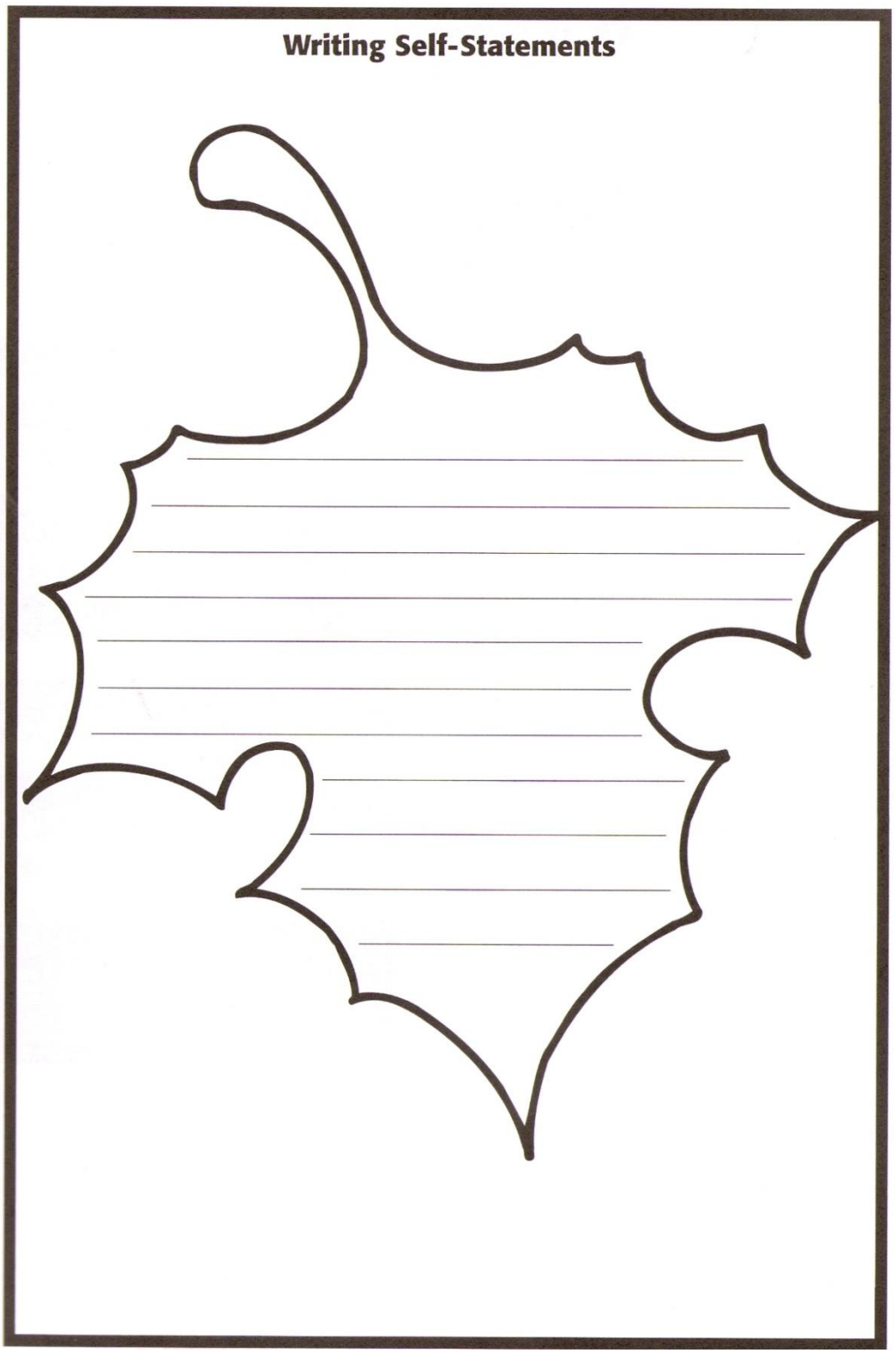
My Self-Statements

To think of good ideas:

While I work:

To check my work:

I Transferred My Strategy	I Helped My Partner


Writing Self-Statements

Vocabulary Strategy: Action Words

Strategy Steps:

1. Look at the picture and write down good action words.
2. Think of a good story idea for my words.
3. Write my story. Make sense and use good action words.
4. Read my story and ask myself, "Did I write a good story? Did I use good action words?"
5. Fix my story. Can I use more good action words?

Vocabulary Strategy: Action Helpers

Strategy Steps:

1. Look at the picture and write down good helper words.
2. Think of a good story idea for my words.
3. Write my story. Make sense and use good helper words.
4. Read my story and ask myself, "Did I write a good story? Did I use good helper words?"
5. Fix my story. Can I use more good helper words?

Vocabulary Strategy: Describing Words

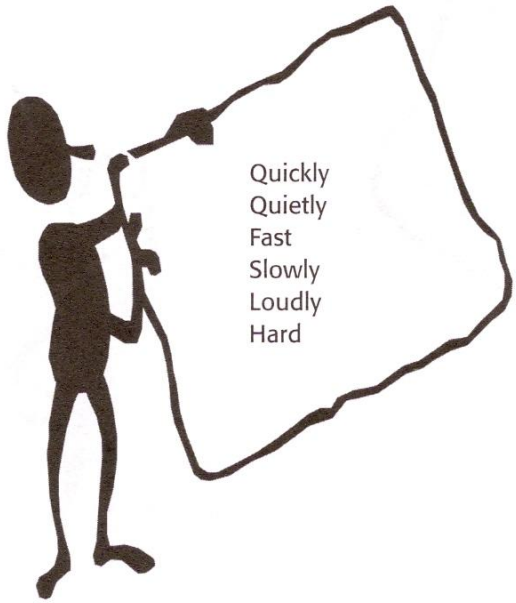
Strategy Steps:

1. Look at the picture and write down good describing words.
2. Think of a good story idea for my words.
3. Write my story. Make sense and use good describing words.
4. Read my story and ask myself, "Did I write a good story? Did I use good describing words?"
5. Fix my story. Can I use more good describing words?

USE ACTION HELPERS!

Action Helpers are words that go along with action words. They help tell more about the action by telling how the action is done.

- The dog ran **QUICKLY.**
- The book fell **QUIETLY.**
- The boy ran **FAST.**
- The taxi drove **SLOWLY.**
- The man laughed **LOUDLY.**
- The woman pounded the nail **HARD.**



Although many action helpers end in **LY**, thre are also many that do not!

USE DESCRIBING WORDS!

Describing words tell more about people, animals, places, or things. They help to paint a picture. Describing words may tell about color, shape, number, size, feeling, smell, sound, taste, and so forth.

- The **SICK** girl went home.
- There were **FIVE** boxes.
- The **PRETTY** leaf was **RED.**
- The **ROUGH** wood hurt her **SORE** feet.
- The city was **DIRTY.**
- The **BIG, ROUND** box is mine.

My Self-Statements

Things to say when I'm getting started:

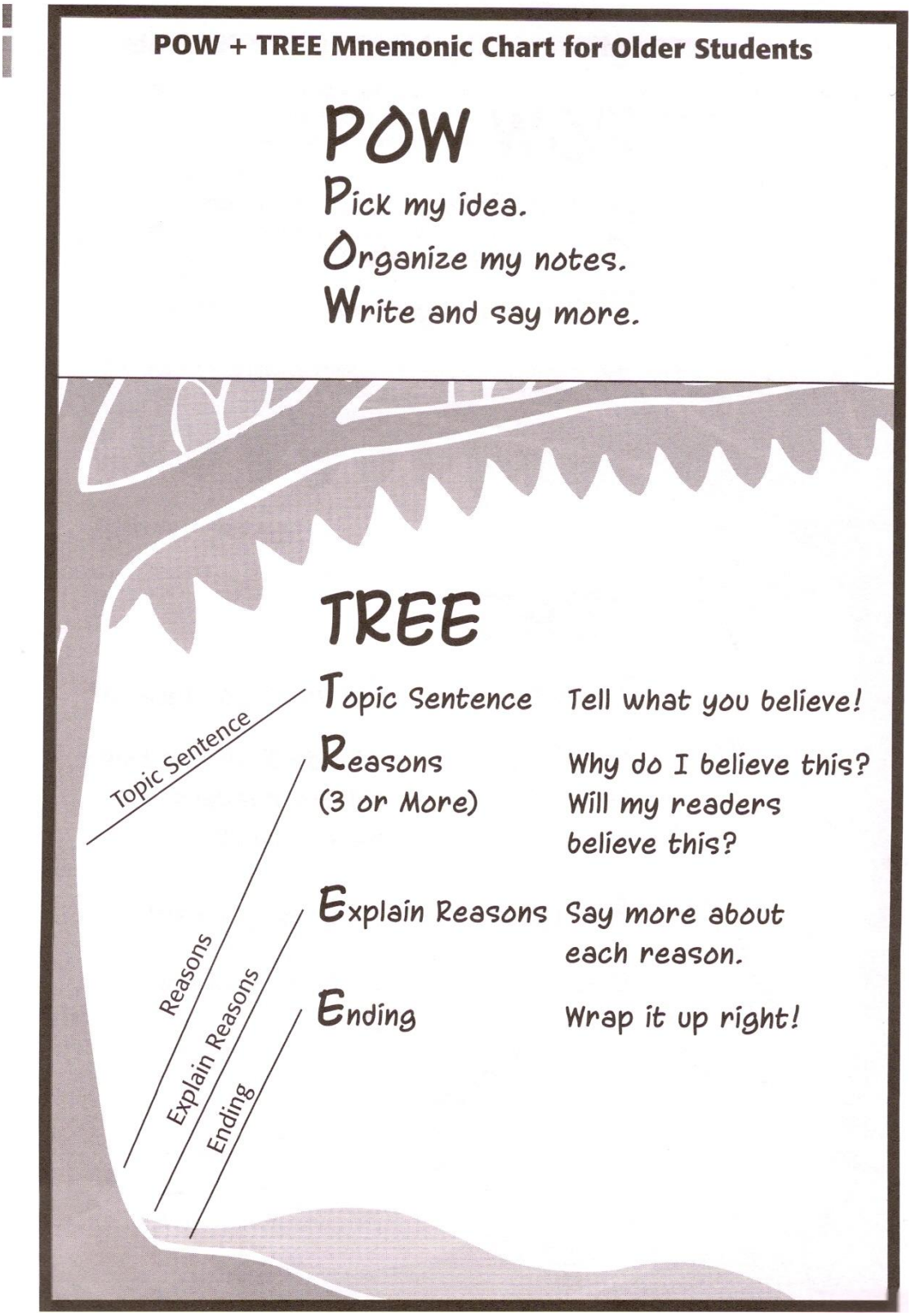
Things to say while I work:

Things to say when I'm finished:

Story Questionnaire

Please answer each question below. Circle your answer.
When you wrote your story:

1.	Did you look at the picture and write down good action words?	YES	NO
2.	Did you let your mind think free?	YES	NO
3.	Did you like the words you thought of?	YES	NO
4.	Did you remember your goal—to use more good action words than last time?	YES	NO
5.	Did you think of a good story idea?	YES	NO
6.	Did your story make sense and use good action words?	YES	NO
7.	Did you read your story and then fix it?	YES	NO
8.	Did you take your time?	YES	NO
9.	Did you remember to use everything you know about writing stories to help you while you wrote?	YES	NO
10.	Did you tell yourself that you did a good job?	YES	NO


POW + TREE Mnemonic Chart for Older Students
POW
Pick my idea.
Organize my notes.
Write and say more.
TREE
Topic Sentence
Tell what you believe!
Reasons
(3 or More)
Why do I believe this?
Will my readers
believe this?
Explain Reasons
Say more about
each reason.
Ending
Wrap it up right!
Topic Sentence
Reasons
Explain Reasons
Ending

Graphic Organizer for Older Students

Note Topic Sentence

Tell what I believe!

Note Reasons-3 or More

Why do I believe this? Will my readers believe this?

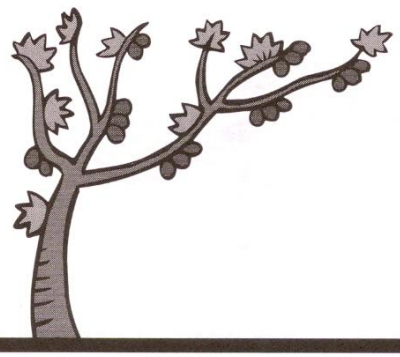
Explain Reasons

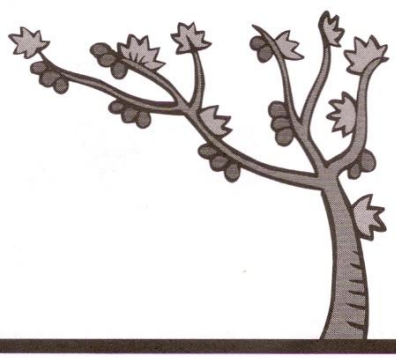
Say more about each reason.

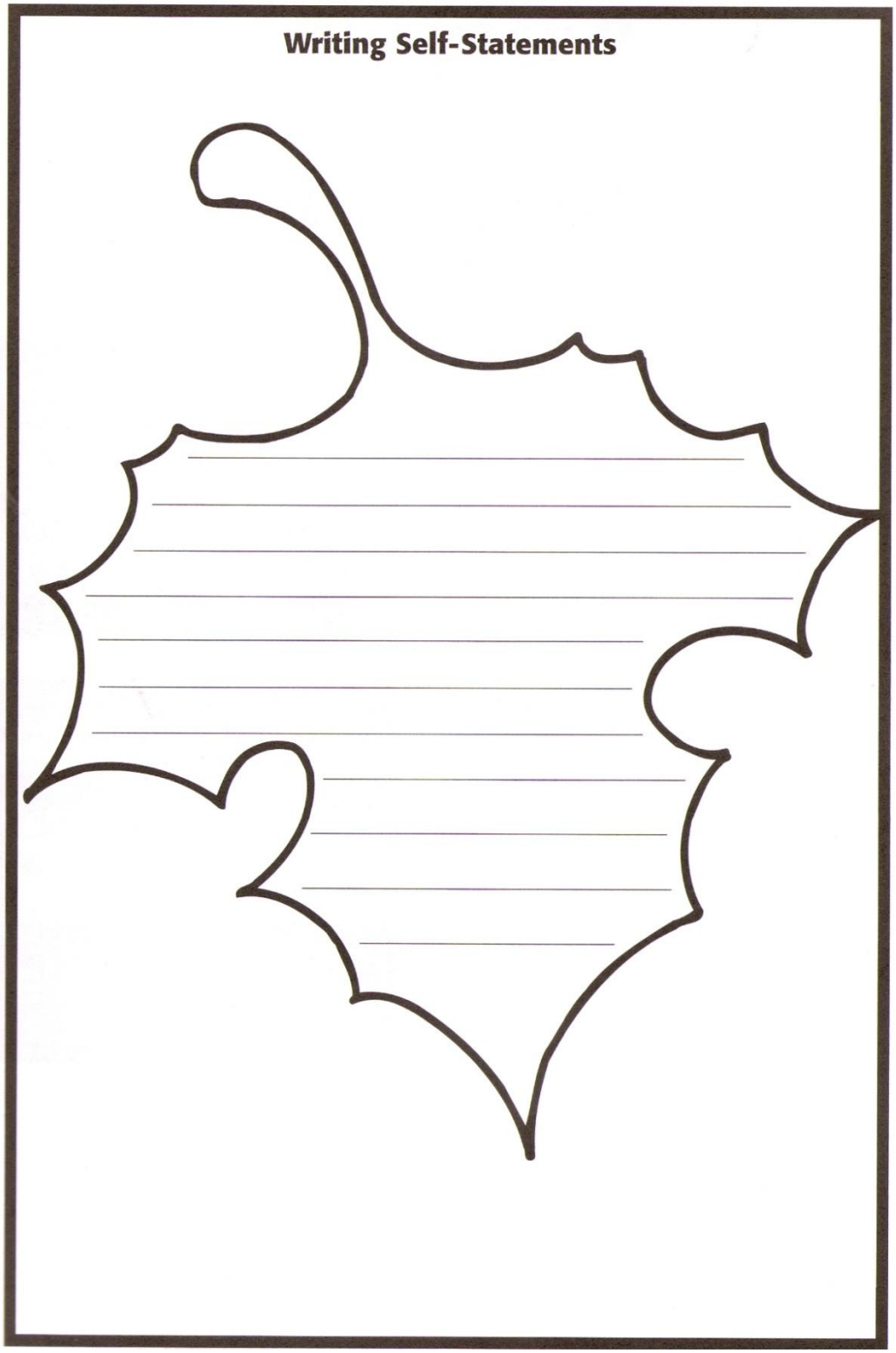
Note Ending

Wrap it up right!

I Transferred My Strategy	I Helped My Partner



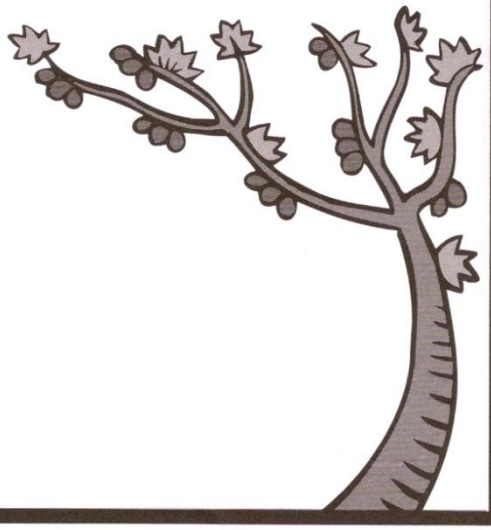



Writing Self-Statements

Transition Words

First
Second
Third
Fourth
Fifth

Another
Also
A different
One more
Next
My final
Finally



Cue Cards for Older Students

Topic Sentence Tell what you believe!	**Reasons–3 or More** Why do I believe this? Will my readers believe this?
Explain Reasons Say more about each reason.	**Ending** Wrap it up right!

Six Steps Cards with Prompts

First, Read your essay.	Second, Find the sentence that tells what you believe. Is it clear?	Third, Add two reasons why you believe it.
Fourth, SCAN each sentence.	Fifth, Make changes.	Sixth, Reread your essay and make final changes.

Six Steps Cards without Prompts

Read your essay.	Find the sentence that tells what you believe. Is it clear?
SCAN each sentence.	Make changes.
Add two reasons why you believe it.	Reread your essay and make final changes.

The Peer Revising Strategy Checklist

Part 1. Revising	Notes	Part 2. Proofreading
Listen and READ. _____		CHECK your paper and correct errors. _____
TELL what the paper is about. _____		EXCHANGE papers and check for errors in:
TELL what you liked best. _____		SENTENCES _____
READ and make NOTES _____		CAPITALS _____
Is everything CLEAR? _____		PUNCTUATION _____
Can any details be added? _____		SPELLING _____
DISCUSS your suggestions with the writer. _____		DISCUSS corrections.

Ask Your Partner

PARTS?	Does it have a good beginning, middle, and ending?
ORDER?	Does the paper follow a logical sequence?
DETAILS?	Where can more details be added?
CLARITY?	Is there any part that is hard to understand?

Proofreading Checklist

Sentences
Read each sentence. Is it complete?

Capital Letters
Is the first letter of each sentence capitalized?
Are proper nouns capitalized?

Punctuation
Is proper punctuation at the end of each sentence?

Spelling
Circle words you are not sure of.
Check spelling with your word list, spelling checker or dictionary.

Grammar
Did you check your grammar? Did you use the correct tenses?
Review your book if you are not sure.

Different Kinds of Sentences

A. Simple sentences
   1. The boy ran to the store.
   2. The boy and girl ran in a relay race.
   3. Kevin went to a party and had fun.
   4. Sharee and Kiara are friends and work at the same place.

B. Compound sentences
   1. The boy ran to the store, and he bought some apples.
   2. Taneesha loves to swim laps; her brother likes to dive.
   3. Kevin went to a party, and he got home late.
   4. The meeting was over; it was already midnight.
   5. We did not see Marshaun at the movie, nor did we see him at the restaurant.
   6. You will have to finish the project, or your group will get a failing grade.

C. Complex sentences
   1. I like Colleen because she is funny.
   2. Trina will be late for dinner because her ride home from work didn't come.
   3. The game will end when one team breaks the tie.
   4. When I get to California, you will be sleeping.
   5. The players went out for a pizza after they practiced.
   6. Lucas decided to clean up the house; however, he was not sure if his friends could come over later that night.

Exciting, Interesting Million-Dollar Words

Answer:	reply, respond, acknowledge
Begin:	start, initiate, originate
Decide:	determine, choose, resolve
Sure:	certain, positive, definite
Do:	execute, finish, accomplish
Explain:	elaborate, clarify, define, justify
Idea:	thought, concept, belief, view, opinion
Important:	necessary, vital, critical, essential
Interesting:	fascinating, intriguing, absorbing
Make:	create, invent, construct, execute
New:	fresh, unique, original, unusual
Part:	portion, piece, section, fraction
Plan:	scheme, procedure, method, way
Think:	judge, believe, consider, reflect

My Favorite Holidy

My favorite holiday would be Halloween because you get to decorate your house as cool as you want it to be, you get to dress up real scary, and you get a lot of candy.

First of all, Halloween is so fun because you can decorate your house as cool as you choose. Every Halloween my family makes my house real scary looking, inside and out. We put a black light bulb on the porch and play a tape with scary sounds on it. We also make the inside cool too, by putting spider-webs on the corners and picture frames.

Secondly, I like Halloween the best because you get to choose an outfit of your choice. You could choose one from totally wicked-looking to fun and exciting. I have one from this Halloween, I was a big ol' cow. I painted my face with black and white paint. I looked really funny!

Thirdly, I like Halloween because you get a lot of candy. sometimes if you walk around a long time, you can get enough candy to last you to Christmas, that's a long time! Sometimes if you eat too much candy, you will get sick. Also, you have to watch out what you eat, because people will poison them, how sick.

So in conclusion, Halloween is my all time favorite holiday. I enjoy turning my ordinary house into a scary trick-or-treat house. I also like to dress up and have fun. Lastly I love getting the candy.

My Ideal Saturday

My ideal way to spend a Saturday would be to go to the mall. I also would go to a friend's house. I would go to a movie. That is where I would go or do.

First of all I would go to the mall. I would go to the mall to meet friends and hang out. I also would go to the mall to eat at the food court. I would go to the mall and play video games at the Cyber Station. I also would go to the mall and buy clothes.

Secondly, I would go to a friend's house. I would go to my friend's house play the computer or go out front and play basketball. Also me and my friend would listen to the stereo. I also would go to my friend's house to watch a movie. That's why I would go to my friend's house.

Thirdly, I would go to the movies. I would go to the movies to see a movie that I haven't seen. I would go to the movies to take my girlfriend out. I also would go to the movies when my family goes. I also would go to the movies just so I could do something.

In conclusion, I would go to the mall to meet friends. I would go to my friend's house to play basketball. I would go to the movies to see a movie that I haven't seen. I guess all of these things are fun to me. That is what I would do on a Saturday.

Appendix

ESSAY PROMPTS

1. Is it better to live in the city or the country?
2. Should students your age have to do chores at home?
4. Should children your age have a facebook account?
5. Should children be allowed to sleep over at a friends house?
6. Most people have at least one facorite holiday. Write an essay about your favorite holiday and give reasons why you enjoy it so much.
7. Do you think parents should decide who their children's friends should be?
8. Should children be allowed to choose which television shows they can watch?
9. Is it better to be an only child ot to have brothers and sisters?
10. Do you think children should be allowed to eat whatever they want?
11. Do you think children should be requied to clean their rooms?
13. Should all children learn how to use a computer?

SHORT STORY PROMPTS

1. Felix is a big, happy dog. Her fur is black but she has white paws and a big white spot on her back. Write a short story about Felix the dog.
2. Write a short story about a rock with this message on it "Rub me and see what happens.
3. Write a short story starting with the following phrase "George couldn't resist showing his joy!"
4. Write a short story ending with the following phrase "It was the happiest day of my life".
5. Write a short story ending with the following phrase "and then I realized that it was all nothing but a bad dream".

6. **The two goats**

Over a river there was a very narrow bridge. One day a goat was crossing this bridge. Just at the middle of the bridge he met another goat. There was not room for them to pass. "Go back", said one goat to the other, "there is no room for both of us".

"Why should I go back?", said the other goat. "Why should not you go back?"

"You must go back", said the first goat, "because I am stronger than you."

"You are not stronger than I", said the second goat.

"We will see about that", said the first goat, and he put down his horns to fight.

"Stop!", said the second goat. "If we fight, we shall both fall into the river and be downed. Instead I have a plan- I shall lie down, and you may walk over me."

Then the wise goat lay down on the bridge, and the other goat walked lightly over him. So they passed each other, and went on their ways.

7. **Sand and Stone**

A story tells that two friends were walking through the desert. During some point of the journey they had an argument, and one friend slapped the other one in the face. The one who got slapped was hurt, but without saying anything, wrote in the sand: "Today my best friend slapped me in the face." They kept walking until they found an oasis, where they decided to take a bath. The one, who had been slapped, got stuck in the mire and started drowning, but the friend saved him. After the friend recovered from the near drowning, he wrote on a stone: "Today my best friend saved my life."

The friend who had slapped and saved his best friend asked him, " After I hurt you, you wrote in the sand and now, you write on a stone, why?"

The other friend replied: "When someone hurts us, we should write it down in sand where winds of forgiveness can erase it away. But, when someone does something good for us, we must engrave it in stone where no wind can ever erase it."

8. **The Fox who got caught in the tree trunk**

Once upon a time, there was a hungry fox that was looking for something to eat. He was very hungry. No matter how hard he tried, the fox could not find food. Finally he went to the edge of the forest and searched there for food. Suddenly he caught sight of a big tree with a hole in it.

Inside the hole was a package. The hungry fox immediately thought that there might be food in it, and he became very happy. He jumped into the hole and when he opened the package, he say there were a lot of food, bread, meat and fruit in it!

An old woodcutter had placed the food in the tree trunk while he cut down trees in the forest. He was going to eat it for his lunch.

The fox happily began to eat. After the fox had finished eating, he felt thirsty and decided to leave the trunk and drink some water from a nearby spring. However no matter haw hard he tried, he could not get out of the hole. Do you know why? Yes, the fox had eaten so much food that he became too big to fit through the hole.

The fox was very sad and upset. He told himself, “I wish that I had though a little before jumping into the hole.”

This is the result of doing something without thinking about it first.

http://www.kidsgen.com/short_stories/two_goats.htm#bhfXTAcmI950kpRJ.99

9. **Freddie the Fish**

Freddie the Fish

Last summer, Freddie, a big fish with black and white stripes, lived in a big pond just outside of town. One day, Freddie was happily swimming around the pond when he saw a big, juicy worm floating in the water. Freddie was hungry and decided that the worm would be a nice snack. He swam silently over to the worm and bit into it. Suddenly, he felt himself being pulled through the water and into a boat! Oh, no! He had been caught by a fisherman! Freddie felt sad and wished he had been more careful.

(Adapted from a folktale)

10. **The Sly Fox**

The Sly Fox

Once upon a time, a sly fox lived in a den in the forest. Every day the fox looked for food. He often wished for something different to eat. He thought of the rats and bugs he usually ate. Somewhere in the forest there had to be something more interesting to eat.

Suddenly, the fox saw a robin up in a tree eating just what he wanted—a piece of cheese. The fox began to climb the tree. Just as he was getting close, the bird flew to another tree. The fox's mouth was watering as he stared up at the cheese. He did not want to eat a rat when he could have cheese. "That bird will fly away again if I try climbing the tree!" he thought, "But I have to have that cheese."

Then the fox decided to try to trick the robin into giving up the cheese. "Mrs. Robin," says the fox, "I have heard that your voice is the best in the forest. I would love to hear one of your songs for myself." The proud robin lifted her head to sing, but when she opened her mouth the piece of cheese fell to the ground. The fox laughed as he looked up at the bird. He was glad that it had been so easy to fool the robin.

So the fox ate the cheese, while the robin went hungry. Then the fox went on his way looking for dessert. He was proud of himself for being smarter than the robin.

(Adapted from a folktale)

11. **Look at the picture and write your own short story.**

12. **The Tiger's Whiskers**

The Tiger's Whiskers

A long time ago, there was a woman who lived with her son in the forest. One day, her son got very sick. The woman was very sad and wanted her son to get well. She tried everything she could think of, but nothing worked. At last she remembered that medicine made from a tiger's whisker would help him get well. So the woman set out to get a tiger's whisker. She went to a tiger's cave and put food in front of the cave and sang soft music. The tiger came out, ate the food, and thanked the woman for the music and the food. The woman quickly cut off one of his whiskers and ran home. The woman's son got well and the woman was very happy.

(Adapted from a folktale)