



# The Impact of an Explicit Writing Intervention on EFL Students' Short Story Writing

Ioanna K. Tsiriotakis<sup>1\*</sup>, Matthias Grünke<sup>2</sup>, Ioannis Spantidakis<sup>3</sup>, Eleni Vassilaki<sup>3</sup> and Nektarios A. M. Stavrou<sup>4</sup>

<sup>1</sup> Faculty of Education, The University of British Columbia, Vancouver, BC, Canada, <sup>2</sup> Department of Special Education and Rehabilitation, Faculty of Human Sciences, University of Cologne, Cologne, Germany, <sup>3</sup> Department of Primary Education, School of Education, University of Crete, Rethimno, Greece, <sup>4</sup> School of Physical Education and Sport Science, National and Kapodistrian University of Athens, Athens, Greece

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### \*Correspondence:

Ioanna K. Tsiriotakis  
ioannatsiriotakis@gmail.com

### Specialty section:

This article was submitted to  
Special Educational Needs,  
a section of the journal  
Frontiers in Education

**Received:** 24 May 2020

**Accepted:** 07 September 2020

**Published:** 26 October 2020

### Citation:

Tsiriotakis IK, Grünke M,  
Spantidakis I, Vassilaki E and  
Stavrou NAM (2020) The Impact of an  
Explicit Writing Intervention on EFL  
Students' Short Story Writing.  
*Front. Educ.* 5:565213.  
doi: 10.3389/feduc.2020.565213

Educational research has shown that a high ability to use effective strategies, a broad fount of metacognitive knowledge, and fostering of adaptive beliefs about writing lead to better text production performance. Explicit instruction enhances development in each of these areas. The aim of the present study was to examine the effects of a writing intervention program (based on the strategies “POW” and “WWW”) on the quality and length of stories composed by Greek grade 5 and 6 English Foreign Language (EFL) learners. The study was conducted with 177 participants from two Greek elementary schools, who were identified as below average, average, and above average writers, and who were assigned to one of two groups: the experimental group was provided with explicit instruction on narrative writing, the control group received no direct teaching and followed the guidelines outlined by a traditional writing program. It was postulated that explicit instruction would have a positive impact on students' writing skills. Data analysis yielded statistically significant differences between experimental and control conditions. The students in the experimental group outperformed the ones in the control group in all writing assessments (pertaining to text quality and length). They also revealed a significant improvement in their writing quality and length, whereas no meaningful changes appeared in the control group. In addition, the improvement of writing quality was obvious for the below average, as well as, for the average and the above average students, supporting the notion that there was an improvement irrespective of the students' level. These results speak to the practical effectiveness of explicit writing instruction to improve the story composition skills in grade 5 and 6 EFL learners. It is postulated and may be the subject of future research that the positive impact on students' L2 composing skills will be transferable to their L1. Conclusions and pedagogical implications of the findings are discussed.

**Keywords:** strategic behavior, metacognitive knowledge, EFL writing skills, procedural facilitative writing environments, explicit writing instruction

## INTRODUCTION

### Foreign Language English Writing

Over the past thirty-five years, linguists, psychologists, cognitive psychologists, and Second Language (L2) educators have intensely researched foreign writing acquisition. Amongst their basic queries is why some language learners are more successful than others. Their ultimate goal is to improve existing teaching methodology and to more adequately provide support to attend to the needs of students who struggle with L2 acquisition (Saville-Troike, 2006).

Due to the increasing foreign student body and the changes in universal realities, the ability to communicate in English has become especially important in a globalized world. Learning English as a foreign language (EFL) is crucial for children and youth in many non-English speaking societies as they try to make their way to graduation. An inability to compose English texts of sufficient quality will in most cases result in limited opportunities to receive a school diploma and will thus restrict one's career opportunities (Alonso, 2011). However, given the fact that English is omnipresent in so many areas of everyday life (e.g., in music or movies), a lack of sufficient language skills often impedes participating in today's society even beyond school and work (Surkamp and Vierbock, 2018).

Effective instruction in English as L2 plays a key role in elementary and secondary education of almost all developed non-English-speaking nations. Worldwide, and irrespective of academic settings, students' achievement is assessed through English L2 writing. To be able to design and plan effective interventions, it is indispensable to consider various interconnected factors that influence writing proficiency development in English as L2. Some of these deal with the learner's age, gender, learning style, and affective variables. Other key elements that influence writing proficiency development include expertise in first language (L1) writing (Hirose and Sasaki, 1994), and previous writing instruction in school (Liebman-Kline, 1986). The interference of L1 will inevitably determine the way sentences are formed, but also how ideas are presented (i.e., tenses, subject-verb agreement, prepositions, mechanics) (Darus and Ching, 2009). Metacognitive skills are also an affective variable for EFL text production proficiency because writing development is less demanding for learners with sufficient metacognitive competencies. Writers with adequate skills in this area successfully apply composing strategies in both L1 and L2. In contrast, EFL writers who lack metacognitive competencies in L1 face significant challenges during L2 writing and composition as they do not know when, how, or why to apply a given strategy.

Pressley et al. (2007) argued that the scholarly literature provides a rich variety of solid theories and research findings about how to teach students to write by using composition strategies. However, teachers need time to learn how to explain, model, and scaffold these mental steps, and how to adapt them accordingly into their classroom setting (i.e., based on proficiency levels, learning motivation, and social background). Chow (2007) notes that educators' attitude toward teaching writing is a further reason the composition instruction has

remained static. To date, teachers still overly rely on text-form, linguistic accuracy, and mechanics.

Graham et al. (2014) conducted a national survey in the United States that raises concerns about the quality of middle school writing instruction. Amongst the educators that participated in the survey were Language Arts school teachers, who were asked to comment on their preparation for teaching writing. Specifically, they were questioned about (a) their beliefs on the responsibilities involved in teaching writing, (b) their use of evidence-based writing practices, (c) their approaches to assessing writing, (d) their use of technology when teaching writing, and (e) how they attempted to meet the needs of struggling writers. The findings indicated that a significant number of colleges and schools inadequately prepared teachers to support students in their writing. Additionally, the results showed that middle school students were not being taught how to produce a text of acceptable quality and that they engaged in writing without implemented composition strategies. The study further noted that middle school teachers' writing approach did not include evidenced-based practices and that no adjustments whatsoever were made to assist struggling learners. These troubling findings raise concerns over the quality of writing instruction provided to students in middle schools.

### Writing Difficulties in EFL

Such suboptimal writing instruction does not go without consequences. Acquiring the skill of L2 English writing is, without doubt, more difficult than writing in one's native language. Raimes (1985) argued that anyone who has attempted to write something in L2 has realized that the process is astonishingly different from writing in L1. Students themselves find that productive skills, namely speaking and writing, are more difficult than listening and reading (Berman and Cheng, 2010). Writing in L1 is a demanding task that requires the application and continuous interaction of numerous language competencies, as well as general metacognitive abilities. In turn, L2 writing requires the integration and application of multiple sub-skills that operate at different processing levels (Coker, 2007). Writing in L2 is an even more complex task as several of these integral skills may not be adequately developed in one's L1 (Schoonen et al., 2003). Hence, owing to the developing nature of linguistic and metacognitive knowledge, as well as fluency or accessibility to this linguistic knowledge, L2 writing is an even more cognitively demanding task. If students do not receive high-quality L2 instruction, such challenges can easily overburden them, resulting in severe deficits in L2 writing and other aspects of literary language (Schoonen et al., 2003; Ruan, 2005).

Studies have shown that the composing process for EFL learners is relatively slow and laborious in nature. Planning, for example, necessitates more effort than L1 text production, while the material generated is, in effect, less detailed, less developed, and less useful. In turn, transcribing, that is, moving from thought to written form, is also more strenuous in English as L2. Findings have shown that in the reviewing processes, L2 writers tend to focus on the lexical and grammatical features of the text rather than the composition processes of planning, transcribing,

and reviewing (De Larios et al., 2006). Generally, L2 writing tends to be a more effortful process, with attention highly focused on sentence construction rather than generating ideas, developing an outline, and goal setting. EFL texts tend to be shorter and less developed; the paragraphs are less unified and lack cohesion. Essentially, EFL writers lack control over these processes (Wang and Wen, 2002). They encounter cognitive overload, owing to the fact that they have to pay more attention to language issues as they write. Consequently, they are unable to devote sufficient time and mental energy to planning, reviewing, and editing their writing.

Kellogg (2008) noted that learning to become an accomplished writer is parallel to becoming an expert in other complex cognitive domains. The central goal is to gain control over cognitive processes so that one can respond to the needs of the given task. Yet, it is questionable whether this applies to young, novice writers who are learning how to write in EFL if they also possess poor writing skills in L1. Basically, for this novice group of struggling writers, the act of composing in both L1 and L2 is an even more complicated task to master. Fluency in handwriting and spelling, for example, has been shown to be a necessary, acquired skill for self-regulation processes (planning, translating, reviewing). Lack of automaticity for basic mechanical skills further reduces the limited resources of working memory in children, restraining their ability to produce language in a fluent manner. Unfortunately, many young writers have not adequately developed self-regulation, cognition, emotion, behavior, and automaticity for basic writing skills to successfully execute a writing task in their L1. This fact may make EFL writing an even more difficult task to accomplish.

## Working Memory Limitations

Whether a student is able to acquire sufficient EFL writing skills with or without adequate teaching depends heavily on her or his working memory capacity. This cognitive system is responsible for temporary storage and information processing and plays a central role in writing (Vanderberg and Swanson, 2007). In fact, it has been found to highly correlate with composition abilities and to constrain text production development (Kellogg, 2008). Lavelle (2009) noted that text production inflicts tremendous constraints on working memory that deal with various demands. Some of these include writing intention, genre, paragraph, sentence, as well as lexical and grammar aspects. Research has validated that writing instigates great demands on working memory (Arfé et al., 2016). The executive component of this temporary storage system has been found to markedly predict the capacities for planning, editing, and revising, as well as most of the microstructure measures of writing (Vanderberg and Swanson, 2007). Studies have also reported that individuals with greater working memory capacity use different strategies to explore the visual source, to make longer writing pauses, to perform corrections more efficiently, to produce more detailed procedures, and to achieve the communicative goal more efficiently by catering to the reader's needs (Alamargot et al., 2011). Working memory capacity has, hence been shown to affect the number of processes and representations that can be concurrently activated. Students who do not possess sufficient working memory resources will most likely fail in their endeavors

to even acquire basic EFL writing skills if they do not receive well-structured and high-quality teaching. Thus, the current findings on the connections between the active short-term maintenance of information and text production skills should have direct implications for writing instruction. On this basis, acquiring skills in composition, irrespective of language, requires instruction that is formal and methodic (Kellogg, 2008; Graham et al., 2013; Dockrell et al., 2016).

The wide-spread cognitive load theory by Sweller (1999) explains the importance of not overloading working memory capacities while trying to acquire new skills and knowledge. Referring to Baddeley's (1986) model of the functional architecture of human memory, Sweller (1999) acknowledges that information is stored in the long-term memory in the form of schemas. These patterns of thoughts and behaviors need to be organized in the working memory, which is extremely limited in both capacity and duration. Processing information for storage in the long-term memory requires a lot of mental energy. Sweller (1999) distinguishes between three types of cognitive loads: extraneous (generated by the manner in which information is presented), intrinsic (the inherent difficulty level of a given task), and germane (the processing, construction, and automation of schemas). If learners are not sufficiently able to revert to already existing cognitive systems that can be adapted to organize and make sense of new information, they are easily overwhelmed. In this case, they are too much occupied with creating new schemas, which makes it much harder for them to follow the teacher's instruction. These students have a relatively high germane load and need educational approaches that present information in an easy-to-access manner and segment as well as sequence complex material (thus reducing extraneous and intrinsic load). Such requirements are best realized by way of procedural facilitation and explicit cognitive strategy instruction (Graham et al., 2013). Both of them are designed to avoid working memory overload by scaffolding learners through key thinking processes.

## Procedural Facilitation

Procedural facilitation (Bereiter and Scardamalia, 1987) is an effective model of cognitive apprenticeship (Collins et al., 1988). It includes modeling cognitive, metacognitive, and self-regulatory action steps so as to identify and resolve composition problems and text evaluation. This is achieved by the provision of cues (e.g., cue cards) and through deliberate practice. The ultimate goal is to make the procedures for task performance routinized. Procedural facilitation involves guided and scaffolded cooperative learning (Brown and Palincsar, 1989) with gradual turnovers of higher-level aspects of instructional processes to students while incrementally removing supportive prompts.

Bereiter and Scardamalia (1987) claim that by fostering explicit procedural facilitation in the form of prompts, and by providing high level strategies, novice writers can be transformed into expert writers. Cumming and So (1996) conducted a study with adult EFL learners. They examined four one-to-one tutoring of L2 writing sessions by providing error correction or procedural facilitation in the form of five thinking prompts. Their aim was to help EFL students revise their texts. The findings revealed that procedural facilitation decreased the demands of writing for

novice EFL learners and proved to be an efficient structure that guided them through the writing process. In their study, Bereiter and Scardamalia (1987) found that through the use of executive routines, such as sentence-by-sentence evaluation and revision, students reduced their executive control problems, allowing their evaluative language abilities to surface. The findings of the experiment indicated that the subjects performed the self-regulatory function with a reduced amount of cognitive load on their processing capacities. That is, the participants applied their procedural knowledge to monitor their writing and to focus their attention on the demands of the written product (ebd.). Essentially, in the aforementioned studies, learners were provided with supportive procedures so as to reduce the cognitive demands of writing. By the same token, students' self-monitoring skills were enhanced, and the quality of their thinking processes was improved.

## Cognitive Strategies Instruction

Cognitive strategy instruction has been widely researched during the last two decades, as it has been found to enhance the learning and performance of all students (whether gifted, average, experiencing difficulties in schoolwork, or receiving special educational services) (Rogers and Graham, 2008; Datchuk and Kubina, 2013; Cook and Bennett, 2014; Gillespie and Graham, 2014; Gillespie-Rouse and Sandoval, 2018). Specific optional means for acquiring, storing, and retrieving information even aid those students who simply use them to achieve advanced school performance (de Boer et al., 2018). L1 writing research has been the basis of L2 writing research. Its models have highlighted the mental processes through which texts are composed and have drawn attention to the higher mental processes that basically form cognitive research. L1 writing concepts have long discussed the significance of cognitive processes in writing and have determined planning and self-regulation as being central elements of skilled writing (Bereiter and Scardamalia, 1987; Kellogg, 1996; McCutchen, 2006).

The most investigated, and most influential, multi-component cognitive approach model of writing instruction to date is the Self-Regulated Strategy Development (SRSD) model by Graham and Harris (2005). SRSD is a multi-component, multi-characteristic instructional approach that was specifically developed to attend to the needs of both complex learning and complex diverse learners (Harris et al., 2015). It has been designed to improve students' strategic behavior, knowledge, and motivation. SRSD has been largely applied in research to improve the effectiveness of expressive writing skills and self-regulation strategies (Santangelo et al., 2008). It not only aims to instruct students on how to improve their composition skills through the explicit teaching of strategies and self-regulation skills, but it is also designed to boost their positive attitude toward writing.

The implementation of the SRSD framework consists of six flexible, adoptable stages that can be re-ordered, combined, or modified to foster both learners' and educators' needs. They are as follows: (1) develop background knowledge, (2) discuss it, (3) model it, (4) memorize it, (5) support it, and (6) independently perform the task (Graham and Harris, 2005). The self-regulation framework involves six elements: goal setting, self-assessment,

self-instruction, self-reinforcement, imagery, and managing the writing environment (Santangelo et al., 2008).

Studies have consistently shown that SRSD improves the writing performance of students with learning disabilities (LD) (Graham and Harris, 2005), children with attention deficit hyperactivity disorder (ADHD) (Reid and Lienemann, 2006), students with multiple disabilities (Lienemann et al., 2006), struggling writers without an identified disability (Harris et al., 2006; Helsel and Greenberg, 2007), poor writers or low achievers (Saddler et al., 2004), typically achieving writers (De La Paz and Graham, 2002), and proficient writers or gifted students (De La Paz, 1999) from second-grade to tenth-grade (Chalk et al., 2005; Saddler, 2006).

The SRSD model has been used as a framework for teaching a number of strategies geared toward improving text production skills of all of the aforementioned groups of children and adolescents. One promising yet under-utilized approach for composing stories is POW + WWW (Mason et al., 2004). POW and WWW are both acronyms. In the case of POW, the letters stand for (a) Pick my idea (i.e., pick an initial idea), (b) Organize my notes (i.e., organize ideas in a graphic organizer), and (c) Write and say more (i.e., continue to modify and improve the plan). During the second step (organize my notes), writers are supposed to apply the WWW strategy. The acronym stands for (a) Who (who is the main character?), (b) When (when does the story happen?), and (c) Where (where does the story take place?). The combination of these two techniques is often supplemented by the add-on What = 2, How = 2, which stand for (a) What (what does the main character do or want to do; what do other characters do?) (b) What (what happens when the main character tries to do it; what happens with the other characters?) (c) How (how does the story end?), and (d) How (how does the main character feel; how do the other characters feel?).

## Purpose of the Study

Most EFL writing studies, to date, deal with university students. The challenges faced by young grade school foreign language learners have yet to be sufficiently examined, even though these students make up a large part of the L2 population (Manchón et al., 2007). Thus far, EFL learners are taught how to write in a conventional manner. That is, focus is placed on a well-polished, finished product in lieu of the writing process, or cognitive and metacognitive skill development.

The objective of this study was to evaluate the effects of the aforementioned strategy combination on the story writing skills of EFL elementary students from Greece. In Greece, as in many other countries, English is considered an obligatory language for participating in a globalized world. This study aimed to provide a suitable landscape to implement a writing intervention program in foreign language settings so as to best equip young learners with transformative composition skills. Stories are the most basic genre of writing. Thus, it makes sense to focus on this kind of text product when teaching students who have to face particular challenges because of the language barrier. An electronic database search in ERIC, Proquest Dissertations, PsycINFO, Social Sciences Abstracts, and Web of Science, using



the terms “POW” AND “WWW,” revealed that there have not been any systematic studies on the benefits of this approach.

Thus, the aim of this experiment was to evaluate a direct writing intervention using the POW + WWW-strategy and to test its efficacy in the context of EFL education with elementary school children from Greece. We anticipated statistically different performance outcomes in students who received our treatment as opposed to students who did not. Our expectation was that children who were explicitly instructed in the researched strategy would outperform their control counterparts in terms of text quality and productivity.

## METHOD

### Participants and Setting

One hundred and seventy-seven elementary school students (89 girls and 88 boys) volunteered to participate in the study. All of them were of Greek background. Upon the onset of the experiment, approval by the ethics committee of the school district of Chania (Crete) was obtained so that the researchers had access to different elementary schools in the area. A standard consent process was executed prior to data collection. Students were informed about the assessment and the procedure of data collection. They were reassured that their responses would be kept strictly confidential and would be used solely for the purposes of this research. Potential candidates completed a consent form prior to questionnaire completion, and they were tested according to placement in classroom groups.

The students were randomly drawn from a pool of voluntarily participating fifth and sixth graders in two suburban elementary schools in Chania. In Greece, elementary school covers grades 1 through 6 with children entering between 6 and 7 years and graduating between 11 and 12 years. One school was located north of the city, the other one in the west. The subjects ranged in age between 11 to 12 years ( $M = 11.53$  years,  $SD = 0.56$ ). Ninety subjects (50.8%) were enrolled in grade 5, 87 subjects (49.2%) were enrolled in grade 6. The specific age groups were chosen because their writing abilities could be investigated in greater detail compared to younger subjects, and a clearer impression of their writing profiles could be obtained. Grade 5 and grade 6 students are able to adequately comment on their learning strategies.

### Design

A quasi-experimental pre-post-test design (Cook and Campbell, 1979) was used to assess the effects of the intervention. The students from the school in the north of Chania served as the experimental group and the ones from the school in the west of Chania served as the control group. Quasi-experimental designs are often applied when randomly allocating subjects to different treatment conditions appears impractical or unethical. Even though they are considered as less robust and less methodologically rigorous than randomized controlled trials, they are often the only option feasible under real school life circumstances (Thyer, 2012).

## Instruments

A free writing task was administered to all groups as pre- and post-test to evaluate the primary text production abilities of the participants. They were asked to compose a story about a topic of their choice. In case the students were not able to come up with a suitable theme by themselves, they were provided with a prompt in the form of line drawings of children and animals involved in an activity. No time limits were set for finishing the assignment.

Two experienced graduate university students, who were blind to the scope of the study, served as raters. They scored all texts written during pre-test and post-test sessions independently. Prior to scoring, they were trained by the first author on how to conduct the ratings. Instruction was carried out separately for each measure (see below) and concluded when the two raters reached 95% agreement. The score for students' papers was the average score between the two raters. Appraisal of the texts was undertaken upon completion of the study. The appearance of the writing products or surface level features such as handwriting or spelling were not taken into account so as not to influence judgment on writing quality (Graham, 1999).

Papers were scored according to number of words (length). This included all written words, regardless of spelling. Texts were also scored for compositional quality using a traditional holistic rubric (Cooper, 1977) that included the following criteria: organization, cohesion, expansion of ideas, aptness of word choice, originality, expression (sentence variety, active verbs, descriptive sentences), coherence (linking words), grammar, and syntax. Examiners read each paper in order to form an opinion regarding its quality. A Likert-type scale was used with “1” representing the lowest quality of writing and “8” the highest (a copy of the rubric can be obtained from the first author upon request). The raters were given an anchor paper for a high and low-quality score to assist them in evaluation procedures.

Students' writing proficiency level was assessed through their pre-test writing samples. Based on the scores, they were allocated by the raters and all papers were evenly divided into three categories: below average, average, and above average. With schools becoming increasingly more diverse, it appeared expedient to subclassify the sample into different performance groups. Hereby, we were able to get some information on whether the intervention had different effects on students with various skill levels. Assessing writing is often seen as less reliable than assessing other school-related skills. However, on an elementary school level, different quantitative and qualitative measures usually correlate very highly. In addition, the interrater-reliability is typically respectable (Grünke et al., 2015). Thus, dividing up the sample on the basis of the data that we derived from our writing task seemed suitable.

## Procedures

At pre-test, the participants' writing skills for both groups, control and experimental, were assessed for short story writing (see above). Subsequently, the sample was split up into eight groups: two grade-five and two grade-six classrooms received the direct instruction intervention, two grade-five and two grade-six classrooms were taught through traditional teaching.

Everyone attended three 45-min English language learning sessions per week for a total of 15 weeks (which adds up to 45 sessions altogether). All four skills of language learning (writing, listening, reading, and speaking) were practiced in both quasi-experimental conditions.

The experimental group received explicit, structured strategy-based instruction guided by the SRSD writing model (Graham and Harris, 1989; Harris and Graham, 1996). A detailed description of every session would go beyond the scope of this paper. Readers are therefore referred to the first author for an explicit script which can be obtained upon request.

All students in the experimental group were taught how to generate ideas and include basic genre-specific elements. Instruction focused on choosing a topic, considering purpose, identifying audience, gathering ideas, and organizing ideas. It contained procedural facilitation through instruction in the use of the “POW” approach which embedded the strategy “WWW What = 2, How = 2” as described by Mason et al. (2004).

The general lesson plan included strategies on how to apply self-regulation procedures (goal setting, self-monitoring, self-reinforcement, and self-instructions) so as to carry through the writing strategies and tasks, and to obtain solid confirmation of their writing progress. Techniques for strategy-based procedural facilitation involved mnemonic charts, flashcards, graphic organizers, transition words, million-dollar words, transfer-sheets, self-statements, the use of technology, and role-play. All three language skills (reading, speaking, and listening) were incorporated and taught in combination through the use of writing activities. The students practiced and enhanced all three language skills through explicit writing instruction and procedural facilitation on writing production. The communicative approach was fostered as a way to engage participants in meaningful tasks and enhance motivation (McDonough and Shaw, 1993).

The control group received no SRSD instruction and adhered to the traditional English program as outlined by the Greek Ministry of Education. Lessons were guided based on the Pedagogical Institute’s English course books (Efremidou et al., 2009a,b; Kolovou and Kraniotou, 2009a,b). An analogous writing approach was applied for both groups, control and experimental. In particular, the teaching methodology did not include explicit writing instruction or any explicit strategy instruction (i.e., planning, revising) whatsoever, and students were infrequently asked to engage in writing tasks. Emphasis was placed on writing skills (i.e., handwriting, spelling, punctuation, grammar drills, vocabulary, and syntax) through fill-in-the-blank exercises. Interestingly enough, however, educators emphasized the importance of writing as a skill to be acquired for students’ future personal and academic success.

All eight classrooms for both the experimental and the control groups were taught by the researcher (first author). After 15 weeks of intervention, a post-test was administered to the students. The procedure resembled the one described for pre-test conditions above. The researcher used a script to enhance fidelity that included detailed instructions of what to implement in each lesson as well as all the included activities (Tsiriou, 2013, 186–204). A checklist for each lesson was

used to tick off each completed step (Harris et al., 2008, 107). Instruction ended when the checklists showed that all steps in every lesson were completed. A six-page script was provided to the students so as to navigate them through each lesson. It included detailed instructions of what to do during the process and mnemonics in colorful large print. Instruction took place in the students’ regular classrooms. Their first language, Greek, was used as a base for understanding and/or producing the second language. As sessions progressed, the mnemonics and instructions were gradually provided in English as students had become comfortable with the vocabulary. The children were encouraged to ask for a translation when they encountered difficulty with the instructions and for clarifications prior to, or during this process. To give readers an idea of what the process was like, the scripts for the interventionist and the students, as well as the checklist for measuring treatment fidelity can be obtained from the first author upon request. It should be noted that there are two English foreign language educational systems in Greece. That is, compulsory education in a state school or private school, and private English schools that students attend in the afternoon so as to get a head start (Papanikolaou, 2003:16).

In sessions 1–5 (stage 1 and 2 of SRSD) the researcher initially built enthusiasm for the genre by telling students that they were going to learn a “special trick” to produce stories that are fun to write and fun to read. The investigator used a cooperative dialogue through the Socratic method to determine students’ prior knowledge and understanding about the learning process, their motivation and self-esteem levels. Oral questions were used to tap into students’ background knowledge, genre knowledge and to assess the vocabulary needed for students to progress through the next stages of the SRSD. Some of the questions included: What is the purpose of writing stories? Who reads our stories? What content should be included to make our stories more effective? How should the content be expressed so that it could be more effective? Subjects were told that stories should not only be fun to write and fun to read, but also make sense and have all their parts. Strategies were introduced and defined as “special tricks” for learning that can be used in various tasks (vocabulary, grammar, reading comprehension etc.). The researcher then read and discussed exemplary models to find out what the students knew about the organization of the genre and subsequently, introduced the mnemonic for POW + WWW.

Generalization and the concept of transfer was promoted at this point and students were asked to identify elements of writing tasks that were appropriate for using all, or part of, the POW + WWW writing strategy. The concept of transfer was reviewed by the researcher in all succeeding stages of the SRSD. Afterward, the researcher concentrated on students’ mastery of skills. Students worked in groups of two to build collaborative practice and to discuss the benefits of using the strategy. Exemplary, and non-exemplary models were used for mapping on graphic organizers to help students pin down which elements were present or not present in the story and then to make adjustments. The graphic organizers were displayed on power point and also provided as a handout. Students repeated this process until they could see the difference between a complete story containing all its parts and an incomplete story with

missing parts. Setting a goal to include all seven parts and graphing performance was maintained as a process until the final stage of SRSD. At this point the self-regulation skills, self-talk and goal setting were presented. The researcher assisted the students to graph their own progress, produce their own self-talk and goal-setting statements and generalize applying the strategy to other settings and areas of study. Finally, students began recalling, explaining and translating the steps of the SRSD model. The participants repeated this process up until the final lesson (step 6 of the SRSD). To boost instruction the use of flash cards, colorful markers, scratch paper, power point displaying the steps of the POW + WWW mnemonics, role play and mini quizzes in groups of two assisted in the memorization process.

In sessions 6–10 (stage 3 of the SRSD) students continued practicing and reviewing the POW + WWW story parts reminders. At this stage, they were asked to identify the story parts in exemplar narratives, recognize elements that made sense and amend the ones that did not. The researcher then centered on the “I do,” “We do,” “You do” approach. Initially, she modeled planning and writing a story using a graphic organizer, scored the story using a rubric and then set goals based on the results. The researcher thought aloud while planning and writing the story and used self-statements. Students were guided to steadily establish their own self-instructions and develop their own self-statements and gradually accountability was released to them. A rainbow chart was used to color the parts of the story. A reward champion card was given to students who had found all the story parts. At this point, role play was introduced to reinforce understanding, recalling and usage of the WWW story parts. Students then used the WWW mnemonics, a story prompt of their choice and developed short dialogues that they then performed in class. This activity was repeated until the final stage of the SRSD. Through this activity the researcher assessed if students could effectively communicate the genre and the WWW story parts in an authentic situation, outside the ESL classroom setting.

In sessions 11–15 (stage 4 of the SRSD) the researcher focused on ensuring that students had fully internalized the steps in the strategy mnemonic POW and WWW as well as their individual self-statements. The interventionist guided students to work collaboratively so as to reinforce instruction. Procedural facilitation included the use of the WWW reminder chart, a million-dollar word list and a self-statements list while the graphic organizer was on power point display. The instructor and students set a goal to include all seven elements in their story, reviewed their additional goals, and then collaboratively planned and wrote the story. At this point the students directed most of the process and the instructor provided support when needed.

In sessions 16–20 (stage 5 of the SRSD) the instructor centered attention on the gradual release of responsibility to the student. The strategies formerly taught (stages 1–3 of the SRSD) were revisited, reviewed and revised. Students engaged in collaborative writing activities through which they improved their personal self-statements, reviewed their goals, developed

new goals and discussed other opportunities in which they could transfer their strategy or parts of their strategy to another writing task. Procedural facilitation resembled the activities in the previous stages.

At the final stage, being sessions 21–25 (stage 6 of the SRSD) the instructor focused on the gradual reduction of scaffolds and ensured that all students were able to wean off the graphic organizers and their self-instructions plan. At this stage the majority of students had internalized the mnemonics of POW + WWW, what they stood for and their translation. To boost instruction and assist the students who were not able to recall the mnemonics, additional collaborative practice took place. Gradually, the graphic organizers were replaced with plain paper. The students were asked to write the WWW parts on a piece of scratch paper and then to make notes for each part. Participants were encouraged to set a goal to include all seven parts and to verify that each part included the “right words and expressions,” that the story made sense, and that the story was fun to read. Once students completed their story, they graphed their performance and checked to see if they had ticked off all their parts on their scratch paper. At this point most students were able to use POW and the story part reminder to write a story without using any of the props or asking for assistance from the instructor or peers.

## Data Analysis

A 2 (Conditions: experimental, control)  $\times$  2 (Time: PRE, POST) multivariate analysis of variance (RMANOVA) was applied to examine the purposes of the current study. Based on the results of the RMANOVA, four separate univariate analyses were performed on all of the story writing of the English text criteria (content, analytic criteria, holistic criteria, quantitative criteria) examining the differences between experimental and control group, as well as between pre-test – post-test measures. Based on the preliminary analysis, if the assumptions of sphericity were not fulfilled in the within-subjects’ analyses, (Mauchly’s test of sphericity) the F estimation was based on the Green-House Geisser correction and the respective degrees of freedom (Tabachnick and Fidell, 2006; Field, 2009). Any significance difference between and within effects was tested by using independent and pairwise *t*-test comparisons, applying Bonferroni adjustment. The significance level was set at  $p < 0.05$ .

## RESULTS

### Preliminary Analysis

Prior the main analysis, the univariate and multivariate distribution of the examined variables were tested (Tabachnick and Fidell, 2006). Skewness and kurtosis values of the examined story writing of the English text criteria (content, analytic criteria, holistic criteria, quantitative criteria) were acceptable. The assumption of the equality of covariance matrices was violated at the multivariate level (Box’s *M* test), although was acceptable at the univariate level (Levene’s test).



## Main Analysis

### Differences Between Experimental and Control Conditions

The pre-test story writing of the English text criteria (content, analytic criteria, holistic criteria, quantitative criteria) between the experimental and the control group was examined. No significant differences were revealed between the experimental and the control group participants (Pillai's Trace  $V = 0.930$ ,  $F_{1,175} = 3.200$ , ns,  $\eta^2_p = 0.070$ ). A repeated measure multivariate analysis of variance (RMANOVA) was applied to examine the time (pre-post) and condition (control-experimental) effect in the English short story criteria. The results indicated a significant Condition (2) x Time (2) interaction (Pillai's Trace  $V = 0.185$ ,  $F_{1,175} = 186.620$ ,  $p < 0.001$ ,  $\eta^2_p = 0.82$ ). Additionally, significant main effects of Condition (Pillai's Trace  $V = 0.347$ ,  $F_{1,175} = 79.396$ ,  $p < 0.001$ ,  $\eta^2_p = 0.65$ ) and Time, (Pillai's Trace  $V = 0.173$ ,  $F_{1,175} = 202.269$ ,  $p < 0.001$ ,  $\eta^2_p = 0.83$ ) were revealed. The means and the standard deviations of the story writing of the English text criteria are presented in **Table 1**.

The subsequent analysis of variance on the content variable indicated a significant Condition X Time interaction ( $F_{1,175} = 573.63$ ,  $p < 0.001$ ,  $\eta^2_p = 0.77$ ). In the experimental condition, there was a significant increase for the content ( $t_{76} = -24.75$ ,  $p < 0.001$ ). On the other hand, no significant changes over time appeared for the control group students ( $t_{99} = -0.93$ , ns). In the pre-test measure, there were no significant differences between the control and experimental group participants ( $t_{175} = -1.82$ , ns) while in the post-test, the experimental group participants produced significantly higher levels of content compared to those in the control group ( $t_{175} = -20.35$ ,  $p < 0.001$ ).

A significant Condition x Time interaction ( $F_{1,175} = 687.22$ ,  $p < 0.001$ ,  $\eta^2_p = 0.80$ ) was also observed in the case of the analytic criteria. There was a significant increase from pre- to post-test measure in the experimental condition ( $t_{76} = -30.00$ ,  $p < 0.001$ ) while in the control condition no significant difference was observed ( $t_{99} = -0.16$ , ns). Although no significant differences were revealed in the pre-test between the two groups ( $t_{175} = 1.84$ , ns) in the post-measure, the experimental condition students showed significant higher analytic criteria compared to the control group ( $t_{175} = -17.43$ ,  $p < 0.001$ ).

A significant Condition x Time interaction was also observed for the holistic criteria ( $F = 518.57$ ,  $p < 0.001$ ,  $\eta^2_p = 0.75$ ). Although, no significant changes were shown over time in

the control group ( $t_{99} = -1.33$ , ns) a significant change was apparent in the experimental condition ( $t_{76} = -26.48$ ,  $p < 0.001$ ) indicating an increase from pre- to post-test measure in the holistic criteria. No significant independent differences were shown in the pre-test ( $t_{175} = 0.632$ , ns). However, in the post-test, the experimental group participants showed significant higher holistic criteria compared to the ones in the control group ( $t_{175} = -18.40$ ,  $p < 0.001$ ).

Finally, for the quantitative criteria a significant Condition X Time interaction was detected ( $F = 21.74$ ,  $p < 0.001$ ,  $\eta^2_p = 0.11$ ). In the experimental condition there was a significant increase over time (pre-test to post-test) ( $t_{76} = -3.83$ ,  $p < 0.001$ ) for the quantitative criteria. In the case of the control group, the decrease between the pre- and post-measure was non-significant ( $t_{99} = 2.74$ , ns). In the pre-test, no significant differences were detected between control and experimental group participants ( $t_{175} = 0.85$ , ns). However, in the post-test significant differences were observed ( $t_{175} = -5.35$ ,  $p < 0.001$ ); the experimental condition students revealed significant higher quantitative criteria compared to those of the control group.

### Differences Between Participants of Different Writing Quality (Below Average, Average/Above Average) in the Story Writing of the English Text

The results indicated a significant Condition (2: Control - Experimental) x Writing Quality (2: Low - Average/High) interaction (Pillai's Trace  $V = 0.149$ ,  $F_{6,170} = 9.756$ ,  $p < 0.001$ ,  $\eta^2_p = 0.15$ ) on story writing of the English text criteria. Also, significant main effects of Condition (Pillai's Trace  $V = 0.235$ ,  $F_{1,175} = 17.084$ ,  $p < 0.001$ ,  $\eta^2_p = 0.24$ ), and Writing Quality (Pillai's Trace  $V = 0.149$ ,  $F_{1,175} = 9.756$ ,  $p < 0.001$ ,  $\eta^2_p = 0.15$ ), were revealed. The means and the standard deviations of the story writing of the English text criteria across time measures and experimental conditions are presented in **Table 2**.

In the case of below average students, a repeated measure multivariate analysis of variance (RMANOVA) examining the pre-post changes in the story writing of the English text criteria indicated a significant Condition (2) x Time (2) interaction (Pillai's Trace  $V = 0.185$ ,  $F_{1,107} = 113.985$ ,  $p < 0.001$ ,  $\eta^2_p = 0.765$ ). The descriptive statistics of the story writing criteria for the below-average students are presented in **Table 2**.

The analysis of content showed a significant Condition x Time interaction ( $F = 247.26$ ,  $p < 0.001$ ,  $\eta^2_p = 0.698$ ), as well as Time ( $F = 244.699$ ,  $p < 0.001$ ,  $\eta^2_p = 0.698$ ), and Condition ( $F = 51.715$ ,  $p < 0.001$ ,  $\eta^2_p = 0.326$ ) main effects. Compared

**TABLE 1** | Means (M), Standard Deviations (SD) of the Short Story Criteria.

	Experimental Group		Control group	
	Pre-test M (SD)	Post-test M (SD)	Pre-test M(SD)	Post-test M(SD)
Content	1.88 (2.02)	14.25 (4.33)	2.50 (2.41)	2.71 (2.79)
Analytic criteria	2.11 (2.26)	10.86 (3.19)	2.78 (2.78)	2.81 (2.84)
Holistic criteria	1.27 (0.67)	4.79 (1.33)	1.34 (0.95)	1.45 (1.00)
Quantitative criteria	69.92 (42.88)	83.48 (25.40)	67.88 (47.51)	58.65 (36.28)

**TABLE 2** | Means (M), Standard Deviations (SD) of the story writing of the english text criteria for the below average students.

	Experimental group		Control group	
	Pre-test M (SD)	Post-test M (SD)	Pre-test M(SD)	Post-test M(SD)
Content	1.10 (1.15)	9.27 (2.22)	2.20 (1.73)	2.18 (1.81)
Analytic criteria	0.60 (1.04)	7.33 (1.05)	2.40 (2.10)	2.35 (2.18)
Quantitative criteria	34.30 (22.25)	51.60 (11.51)	62.96 (41.21)	54.07 (31.40)



to the pre-measure ( $t = -12.811, p < 0.001$ ), the content values of the experimental participants were higher in post-test. *Post hoc* analysis did not show any significant change for the below average students of the control group ( $t = 0.117, ns$ ). The analytic criteria showed a significant Condition x Time interaction ( $F = 243.66, p < 0.001, \eta^2_p = 0.693$ ), and Time ( $F = 236.296, p < 0.001, \eta^2_p = 0.686$ ), and Condition ( $F = 10.973, p < 0.001, \eta^2_p = 0.092$ ) main effects. The analytic criteria of the experimental group ( $t = -16.123, p < 0.001$ ) changed significantly over time, indicating higher values in post-test than the baseline measure. In the control group, *post hoc* pairwise comparison did not show any significant change across time ( $t = 0.313, ns$ ). A significant Condition x Time interaction ( $F = 8.479, p < 0.001, \eta^2_p = 0.073$ ), but non-significant main effects of Time ( $F = 0.501, ns, \eta^2_p = 0.005$ ), and Condition ( $F = 2.932, ns, \eta^2_p = 0.026$ ) were observed for the qualitative criteria. In the experimental group ( $t = -2.584, p < 0.05$ ) there were significant changes indicating higher values on post-test than the baseline measure in the qualitative criteria. Finally, in the control condition the *post hoc* analysis showed a significant decrease from pre- to post-test for the below average students ( $t = 2.795, p < 0.01$ ).

In order to examine if the average and above average students in the story writing of the English text criteria changed across time (pre – post) in the experimental conditions, a RMANOVA was performed. The results indicated a significant Condition (2) x Time (2) interaction (Pillai's Trace  $V = 0.434, F_{1,63} = 15.575, p < 0.001, \eta^2_p = 0.633$ ) on story writing of the English text criteria. The means and standard deviations of the criteria for the average/above average students of the story writing of the English text criteria are presented in **Table 3**.

The analysis of the content showed a significant Condition x Time interaction ( $F = 28.649, p < 0.001, \eta^2_p = 0.309$ ), as well as a main effect of Time ( $F = 94.110, p < 0.001, \eta^2_p = 0.595$ ), but not for Condition ( $F = 0.800, ns, \eta^2_p = 0.001$ ). Over time, the content values in the experimental condition ( $t = -25.801, p < 0.001$ ) changed significantly the pre-post time period, indicating higher values in the post-test compared to the baseline measure. However, *post hoc* analysis did not show any significant change across time for the average/above average control group participants ( $t = -1.722, ns$ ). A significant Condition x Time interaction ( $F = 47.655, p < 0.001, \eta^2_p = 0.427$ ) was observed in the case of the analytic criteria, as well as significant main effects of Time ( $F = 85.121, p < 0.001, \eta^2_p = 0.571$ ), and Condition ( $F = 4.965, p < 0.05, \eta^2_p = 0.072$ ). The significant

main effects of the analytic criteria of the experimental group participants ( $t = -28.455, p < 0.001$ ) changed significantly over time, indicating higher values in the post-measure compared to the baseline. However, in the control group *post hoc* pairwise comparison did not show any significant change across time ( $t = -0.791, ns$ ). The analysis of the quantitative criteria did not show a significant Condition x Time interaction ( $F = 3.996, ns, \eta^2_p = 0.044$ ), as well as for Time ( $F = 0.011, ns, \eta^2_p = 0.000$ ), although there was a significant main effect for Condition ( $F = 27.334, ns, \eta^2_p = 0.378$ ).

## DISCUSSION

### Main Findings

In response to the aforementioned research question, our intervention did produce significant improvements. The differences between participants in the experimental group and the control group in the initial measurements were not statistically significant. In the post-test, however, the students that had received the explicit strategy instruction outperformed the ones that participated in traditional EFL lessons by a great margin. This fact supports the meaningful impact of our writing intervention. The differences between the two groups are further substantiated by the changes between pre- and post-test measurements. The control group showed no statistically significant differences between the initial and final measurements. What is more, effect sizes for the Condition x Time interactions reached high levels for all four measures of success – content-related criteria ( $\eta^2_p = 0.77$ ), analytic criteria ( $\eta^2_p = 0.80$ ), holistic criteria ( $\eta^2_p = 0.75$ ), and quantitative criteria ( $\eta^2_p = 0.11$ ). These indices speak to the assumption that the training met our expectations.

No statistically significant changes were shown in the initial and final measurement in the control group for below average, average and above average participants. Below average participants in the experimental group showed significant differences between the initial and final measurement for content, analytic, and quantitative factors. Statistically significant changes in the content, the analytic and quantitative factors were found in the case of average participants in the experimental group. The above average participants in the experimental group showed significant changes in the analytic factors, although no change was indicated in the quantitative factors between the two measurements. In essence, a substantial positive impact was noted following the application of the intervention program, irrespective of students' writing ability (below average, average, above average). This factor highlights the value of the specific intervention to participants of diverse writing aptitudes.

The findings showed that SRSD instructed students wrote papers of improved quality. In comparison to the control condition, SRSD instructed students made greater gains in elements of genre, length and quality of writing. The findings support the theoretical background of how SRSD instruction positively affects the writing performance of young struggling writers to produce improved stories. The findings also confirm the results of previous studies showing that genre knowledge

**TABLE 3 |** Means (M), Standard Deviations (SD) of the story writing of the English text criteria for the average and above average students.

	Experimental group		Control group	
	Pre-test M (SD)	Post-test M (SD)	Pre-test M(SD)	Post-test M(SD)
Content	2.08 (2.15)	15.54 (3.77)	7.17 (5.64)	15.54 (3.77)
Analytic criteria	2.50 (2.33)	11.76 (2.98)	8.75 (5.10)	10.08 (1.88)
Quantitative criteria	78.97 (42.22)	91.76 (20.88)	144.83 (74.48)	130.33 (34.15)

plays a principal role in how young inexperienced writers approach the composition process. What is more, SRSD augments the use of this knowledge through its three central elements (genre-specific strategies for planning and composing, genre knowledge acquisition procedures, and self-regulation techniques), a factor that leads to papers of higher quality (Lane et al., 2011). The results of this study confirm previous findings showing that explicit strategy instruction improves writing quality (Graham et al., 2005) and that teaching basic writing processes (planning, drafting, and revising) improves students' writing skills (Graham and Perin, 2007).

It is important to stress that based on the findings, explicit writing strategy instruction catered to the needs of all students, overall, regardless of writing level. This is significant because it confirms that the SRSD multi-component cognitive approach model effectively meets the needs of both complex learning and diverse learners (Harris et al., 2015). The findings validate previous research that has shown that SRSD is an efficient cognitive model embracing students' needs holistically regardless of grade, writing proficiency level, and/or special needs designation (De La Paz, 1999; Graham and Harris, 2005; Lienemann et al., 2006; Reid and Lienemann, 2006; Sandler, 2006; Helsel and Greenberg, 2007). Furthermore, in view of what is already known about the effectiveness of cognitive writing models in the L1, our findings validate their effectiveness in the L2. It is proposed that in light of the findings of this study EFL students are supported through explicit writing instruction and self-regulation strategies so that they improve their composition skills and develop a positive writing attitude.

What is also noteworthy is that strategy instructed students improved their composing skills following the development of metacognitive and self-regulation processes (planning, translating, reviewing). Previous studies have validated the effectiveness of the SRSD on students' expressive writing skills and self-regulation strategies (Santangelo et al., 2008). The results here substantiate previous research that has suggested that self-regulated writing programs and metacognitive knowledge assist writers with the challenges related to L2 writing (Ruan, 2005). The development of self-regulation skills and metacognitive knowledge are a prerequisite for the improvement of composing skills. This further emphasizes the value of a cognitive approach model to support students with their L2 writing composition skills.

The findings of this study highlight the utilization of a cognitive approach model to support novice struggling writers who are at high risk of being excluded members of society. The findings substantiate empirical research that has shown that explicit writing strategy instruction is beneficial to all students but particularly so to novice struggling writers who have not adequately developed their metacognitive and self-regulation skills in the L1 (Schoonen et al., 2003). It can also be argued that based on the results of this study and empirical research, cognitive strategy instruction is a highly recommended approach to support the group of foreign language learners most in need.

Research has shown that L2 writers lack control over cognitive processes (Wang and Wen, 2002) and do not focus on the composition processes of planning, transcribing, and

reviewing (De Larios et al., 2006). This study showed that following the implementation of the SRSD cognitive approach model, strategy instructed students significantly improved their writing quality and length in contrast to the control group that showed no changes. Essentially, strategy instructed students developed metacognitive skills and self-regulation strategies that resulted in improved writing quality. Based on the findings of empirical research and the results of this study there are strong reasons to promote cognitive strategy instruction in foreign language settings as L2 writers face cognitive overload and fail to focus on the composing processes of planning, transcribing and reviewing (Wang and Wen, 2002; De Larios et al., 2006). However, studies have also demonstrated that procedural facilitation and high-level strategies assist novice writers reduce the cognitive demands of writing and ultimately improve their self-monitoring skills and thinking processes (Bereiter and Scardamalia, 1987; Cumming and So, 1996). The results of this study corroborate previous studies that have found that cognitive strategy instruction augments the learning and performance of all students (Rogers and Graham, 2008; Datchuk and Kubina, 2013; Cook and Bennett, 2014; Gillespie and Graham, 2014; Gillespie-Rouse and Sandoval, 2018).

The findings of this study enhance our understanding of cognitive strategy instruction as a constructive instructional approach to support EFL learners with the composing process. It is recommended that foreign language teachers are well informed about how to efficiently adapt composition strategies into a classroom setting (Pressley et al., 2007). Professional development may be an option to ensure that teachers are not only equipped and trained but also supported to implement such demanding multi-component and multi-faceted explicit instructional programs in foreign language settings. It is postulated that teachers' attitudes about writing will change as they witness its effectiveness on students' written products and most importantly students' writing attitudes. This study hopes to lead to further cross-cultural studies toward a more explicit approach of EFL writing for elementary school learners. Even though universal discrepancies in educational systems exist because of the various societal L2 learning contexts, the enhancement of EFL students' writing skills is without doubt a universal objective.

## Limitations

Although this quasi-experiment yielded positive results, limitations should be taken into consideration. The instructor was not blind to the scope of the study but was aware that the objective was to test the effectiveness of the intervention. Therefore, the results of this quasi-experiment might be somewhat biased because of the interventionist's inherent desire of the experimental group to outperform the control group. This factor may have affected the level of engagement and fidelity of instruction for both the control and the experimental group. Nonetheless, the SRSD instructed students' writing quality was substantially improved (in content, analytic criteria, holistic criteria, and quantitative criteria) inferring that it is highly unlikely the difference in performance between the two groups was due to a possible bias. At this point it should be noted

that in school settings, teachers are expected to implement any given teaching method with zeal and passion. Possibly, the control groups results could have been higher without the possible bias, and its difference to the experimental group thus lower. Nonetheless, the statistical differences between the two groups was so marked that possible bias would have been unlikely to have accounted for the results. Student achievement is interconnected with teacher effectiveness (Campbell et al., 2004). Teaching a foreign language requires a high level of skill and subject knowledge. Empirical evidence suggests an impact of individual teachers on student achievement. Hence, raising teacher quality is vital to enhancing student success (Rockoff, 2004).

A further limitation pertains to the fact that the implications about the benefits of the intervention are rationed to the writing genre examined. Thus, conclusions about the benefits of the intervention are restricted to the genre of narratives. In addition, it was not possible to collect follow up data as the sixth grade participants were enrolled in their final year of grade school. Another shortcoming is that all subjects were of Greek background. Thus, caution is required in generalizing the findings from this study to other populations. Additional research as to the effects of the writing intervention examined is necessitated across cultures. Nonetheless, our findings signify an interesting future direction, one that could provide promising future results for the enhancement of young foreign language learners writing skills.

## CONCLUSION

Despite these limitations, the notable improvements that we document speak for the impact that an intervention like this can have on the writing performance of EFL learners. What is remarkable is the fact that the participants in the control group were also instructed in English (for as long and as intensively as the ones in the experimental condition). However, the differences in performance development indicate that it substantially matters how students are taught. The explicit strategy instruction in POW + WWW was time-consuming and laborious. It may have been easier just to follow one of the regular traditional English programs as outlined by the Greek Ministry of Education

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instead of designing especially prepared lessons based on the current state of research in writing instruction. But the effects of our quasi-experiment provide convincing arguments that the additional effort is more than worthwhile. As outlined above, EFL instruction is far too important as to have it play a subordinate role in elementary education. The significance of English as L2 will certainly continue to grow. Being able to produce texts of acceptable quality in this language will open doors and remove barriers to students' success. We hope that interventions such as the one described in our study will receive wide attention in research as well as in practice to enhance the situation of EFL students wherever they are.

## DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Department of Primary Education. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication. IT conceived the original idea, carried out the implementation and took the lead in writing the manuscript. MG provided critical revision for the whole article and contributed in all aspects of the work. IT and MG ensured that questions related to the accuracy or integrity of any part of the work were appropriately investigated and resolved. EV and IS contributed substantially to the conception and design of the study. NS made a substantial contribution to the design of the article and verified the analytical methods. IT and NS analysed and interpreted the data for the article. All authors reviewed the results and approved the final version of the manuscript and any revised version.

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**Conflict of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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