WRITING IN ENGLISH AS A SECOND / FOREIGN LANGUAGE: A LONGITUDINAL STUDY FOCUSED ON STUDENTS WITH SPECIFIC LEARNING DISABILITIES OF 5TH AND 6TH ELEMENTARY SCHOOL GRADES: A PRELIMINARY ANALYSIS

Vassiliki Tsitoura
PhD candidate
University of Western Macedonia
vatsitou@sch.gr

Anastasia Alevriadou
Associate Professor
University of Western Macedonia
alevriadou@uowm.gr

Konstantinos Dinas
Professor of Linguistics and Greek Language
Department of Early Childhood Education
University of Western Macedonia
kdinas@uowm.gr

Abstract

The present study is concerned with eliciting information about the errors made and the difficulties encountered as well as the strategies utilized by students with specific learning disabilities while writing in English as a second/foreign language. More specifically, the study aims at:

a. identifying the errors made and the difficulties encountered by the students of the fifth and the sixth grades of primary school when they perform a writing task;

b. recording the range of the cognitive, metacognitive and socioaffective strategies they employ in the writing process and

c. identifying the possible differences between students with and without specific learning disabilities in their using of writing strategies and in their making of errors.

The sample consisted of 88 students with and without specific learning disabilities aged between 11 and 13. The data for the study were selected through the following instruments: (a) a variety of writing activities to be done by the students in order to gather data concerning the detection of errors and difficulties in writing, (b) thinking aloud reports to investigate the students’ writing strategies in the pre-writing, while-writing and post-writing stages and (c) retrospective interviews to understand the students’ writing sub-processes. The data have been collected and we are in the process of analyzing them. Both quantitative and qualitative approaches will be adopted for the analysis of the data. The findings of the study are expected to contribute to the discussion of research on the writing difficulties students with specific learning disabilities meet with.

Keywords: specific learning disabilities, writing, foreign language, longitudinal study

1. Introduction

Researches in the area of second or foreign language learning as well as in the area of bilingualism and multilingualism conducted over the last decades have revealed that second or foreign language learning enriches and enhances the linguistic, cognitive and social development of the learners, thus exerting a positive impact on their personal, academic and professional life (Baker 2001).
As a result, one or more foreign languages were added to the Educational Curricula worldwide in an effort to promote language learning (American Council on the Teaching of Foreign Languages 2011). In the Greek context, English is one of the modern foreign languages added to the mainstream curriculum as a compulsory subject with a view to provide students with linguistic and cultural equipment to communicate successfully both orally and in writing.

During the initial stages of foreign language learning, the focus is on oral language acquisition; writing is not neglected though, as it is one of the basic components of literacy development and a necessary pre-requisite for success in both school and employment setting and in society (Graham & Harris 2004, Graham & Perin 2007).

Writing in English as a foreign language starts to be taught from the third primary grade; yet, there is a great number of students who find it difficult to acquire or fall short in producing texts appropriate to their grade levels according to the teachers’ judgments based on observation and testing. The problem is more intense among students with specific learning disabilities (LD), who experience difficulties in perceiving, processing, remembering and expressing information (Graham & Harris 2004). As a result, they are inhibited to become competent foreign language users; besides, they feel excluded from the foreign language classroom since they cannot cope with the demands of the curriculum.

The term ‘learning disabilities’, as defined by the National Joint Committee on Learning Disabilities (1990), refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. Children with specific learning disabilities may show problems in all these areas or only in one or two.

The disorder of written expression usually appears in conjunction with other reading or language disabilities (Panteliadou & Botsas 2007). It is estimated that writing disabilities affect 10% of the school-age population worldwide (Lyon, Fletcher & Barnes 2003). According to the American Psychiatric Association (2000), the essential feature of disorder of written expression is "writing skills that fall substantially below those expected given the individual's chronological age, measured intelligence, and age-appropriate education". Another criterion is that the disturbance must interfere with academic achievement or daily activities that require writing skills.

Students classified under the specific learning disability category are usually qualified for special education services involving additional support, materials and intervention procedures (Barnes, Fletcher & Lynn 2007); in the Greek context though, students with LD receive special education services only in the Greek language and mathematics. In relation to English as a foreign language (EFL), they attend the regular classes and do not receive additional support by a special education teacher of English.

This situation impedes foreign language acquisition, especially writing acquisition, which is a complex process (Kay 2003). It also creates the need for the state schoolteachers of English to be informed of (a) the difficulties the students with LD encounter in the process of writing and (b) their possible differences in comparison to peers without LD in order to be able to identify them and plan differentiated writing instruction to meet the needs of the students and improve their writing performance (Mulroy & Eddinger 2003).

Studies focused on writing and written expression have revealed that writing is a multifaceted cognitive process. It includes practices that range from the more mechanical or formal aspects of writing down, letter, word formation, sentence or text structure, spelling, punctuation, capitalization, to the more complex act of composing, developing and analyzing ideas (Graham 2010, Hadley 1993).

When composing in their first or second / foreign language students need to

a. plan and generate ideas, being aware of the audience and purpose, searching memory for sociolinguistic information and content knowledge,

b. transform intended meanings into the form of the message by applying language rules,

c. generate language in sentences using
production systems,
   d. revise and check what has been written using metacognitive strategies (Flower & Hayes 2003, Kellogg 1999).

   These stages are done recursively, shifting focus from form to content, from product to process (Tribble 1997). All this implies that when students compose, they need to have various fully-functioning memory (Anderson 1995, Swanson et al. 2004) and cognitive-linguistic processes (O’Shaughnessy & Swanson 1998) in order to retrieve vocabulary, spelling rules, grammar and syntax rules as well as organizational, planning, and sequencing processes in order to produce meaningful written discourse. In addition, the students’ ability to activate and control the neurological functions which manage the muscles that ensure proper pencil grip and hand movement, precise hand-eye coordination, and grapho-motor movements to form letters is crucial (Levine 2002).

   Considering all these assumptions, it is concluded that the demands of writing may be a stressful experience, especially for those who are struggling writers, like most students with learning disabilities, even when composing in their mother tongue (Graham & Harris 2004). The demanding processes of writing, the large percentage of students with writing disabilities and the increasing number of English as a second/foreign language (ESL/EFL) learners worldwide shifted research interest in the study of ESL/EFL writing development.

2. Theoretical framework

2.1. English as a second/foreign language writing development

   The two concepts, ‘second’ and ‘foreign language’, seem identical considering them in terms of sequence of acquisition, since they both start to be taught before or after the acquisition of the mother tongue (Klein 1995). However, a distinction is often made between ‘second’ and ‘foreign language’ in usage (Chambers 2010). The former is a language that becomes another tool of communication alongside the first language and is acquired in a social environment in which it is spoken; the latter is considered a language acquired through instruction in an environment where it is normally not in use (Klein 1995).

   Despite the considerable variation in usage, theories developed to help second language acquisition have formed the basis for the development of approaches to the teaching of foreign languages (Mitchell & Myles 2004). Research into second language acquisition illustrated that cognitive factors - general intelligence and language aptitude-, affective factors -attitude, motivation and egocentric factors-, native language, personal characteristics and instruction affect the mastery of a second language (Russel 2009).

   With reference to the development of ESL writing, studies indicated that language proficiency in L2 is fundamental (Myles 2002). Writers’ positive attitudes, motivation and concrete goals reinforce language proficiency (Brown 2000, Ellis 1997). According to the formalist approach combined with the functionalist approach, language proficiency is defined by the knowledge of the writing conventions of the target language and the communicative application in different contexts (Bialystok 1998). Consequently, knowledge of the socio-cultural conventions of the target language and strategy use to compose a text along with linguistic knowledge are the prerequisites for quality writing (Grabe & Kaplan 1996, Kern 2000). In addition, metacognition -the writers’ capacity to monitor their thinking processes- is prominent in ESL writing (Baker 2002).

   Another factor that affects significantly the process and product of ESL writing is L1 writing competence (Angelova 1999). Writing skills developed in L1 can be transferred in L2 (Cumming 1989). Skilled writers in L1 with a certain proficient level in L2 can adequately transfer skills from L1 to L2. In contrast, poor writers have a small repertoire of strategies in L1 that cannot contribute to their L2 writing development (Sasaki & Hirose 1996); besides, language transfer may be negative transfer and cause of errors at the lexical, structural or phonological level in case the writers lack the necessary linguistic information in L2 and are strongly dependent on their L1 which differs linguistically from L2 (McLaughlin 1988).

   As aforementioned, strategies and language
use are significant factors of ESL/EFL acquisition. Much of the current research has focused on the strategies that the learners use to understand, learn, remember and process new information. “Learning strategies” as Chamot (2004) states “are conscious thoughts and actions that learners take in order to achieve a learning goal”. Studies indicated that strategic learners have metacognitive knowledge, which enables them to activate their planning, monitoring and evaluating strategies to accomplish a task (Israel 2007).

In education, strategic knowledge and metacognition separate successful from less successful learners. (Beare 2000, Victori 1995). Similarly in the area of writing, as research has shown, proficient writers take a greater variety of the appropriate actions to cope with the demands of the writing process related to text structure and self-regulation, and to keep themselves motivated in order to generate quality writing (Khaldieh 2000).

Research on strategies has dealt with issues that can affect second/foreign language like identification procedures of learning strategies, terminology and classification of strategies (Cohen 1998, O’Malley & Chamot 1990), the impact of learners’ characteristics (Wharton 2000) as well as the influence of culture and context on strategy use (Keatley et al. 2004). Other issues stemmed from research concern strategy instruction (Harris 2003), models for instruction (Chamot 2005), transfer of strategies to new tasks (Harris 2004).

Accordingly, the research findings illustrated that self-report is the way to identify learners’ mental processing, which is for the most part unobservable (Chamot 2004). Regarding the issue of terminology and classification of strategies, scholars proposed various classification systems (O’Malley et al. 1985, Oxford 1990, Stern 1992, Wenden & Rubin 1987), which, despite their different standards, include more or less the same sub-categorizations under the headings: cognitive, metacognitive and socio-affective strategies (table 1).

| Table 1: Classification of writing strategies according to Oxford’s (1990) taxonomy |
|-----------------|-----------------|-----------------|
| **DIRECT STRATEGIES** | **INDIRECT STRATEGIES** |
| **Memory** | **Metacognitive** |
| 1. Creating mental linkages | 1. Centering your learning |
| 2. Applying images and sounds | 2. Arranging and planning |
| 3. Reviewing well | 3. Evaluating |
| 4. Employing action | |
| **Cognitive** | **Affective** |
| 1. Practising | 1. Lowering your anxiety |
| 2. Receiving and sending messages | 2. Encouraging yourself |
| 3. Analysing and reasoning | 3. Taking your emotional temperature |
| 4. Creating structure for input and output | |
| **Compensation** | **Social** |
| 1. Guessing intelligently | 1. Asking questions |
| 2. Overcoming limitations in speaking and writing | 2. Cooperating with others |
| | 3. Empathising with others |

Although the findings on other issues have highlighted the usefulness of strategy instruction in ESL/EFL and offered insights into strategy instruction, much still remains to be investigated in this field (Chamot 2004).

2.2. Learning-disabled writers’ characteristics

In relation to learners with learning disabilities, most studies concentrated primarily on writing in the writers’ first language examining areas like:

a. errors concerning the mechanics of writing (Splantidakis 2004)
b. differences in text generation in comparison to peers (Porpodas et al. 2008)
c. use of strategies for problem-solving tasks (Harris 2004) and
d. the effect of motivation on strategy use (Khalidieh, 2000).

Comparative studies between proficient writers and writers with LD revealed deficits for writers with LD in all areas of writing:
a. transcription skills – difficulties with spelling, punctuation, handwriting or keyboarding;
b. language skills – limited size of vocabulary, difficulties in applying grammar rules, difficulties with sentence structure;
c. self regulation - less effective strategies for planning and monitoring the final product;
d. affection area - limited motivation, anxiety, less attention to socio-cultural conventions.

In contrast, proficient writers have more discourse knowledge, transcription skills and self-regulation abilities. As a result, they are more actively and more metacognitively involved in the writing process (O’Malley & Chamot 1990, Stern 1992).

These findings have increased the widespread concern for examining how schools can help learning disabled students improve their performance. As a result, the research indicated that early intervention procedures, effective writing instruction tailored to students’ needs as well as identifying and addressing roadblocks to writing are of great help though not sufficient (Graham, Harris & Larsen 2001). A study tested the effectiveness of extra handwriting and spelling instruction along with planning-strategy instruction for primary grade students and illustrated that handwriting and spelling instruction influenced young struggling writers’ development of content generation and sentence construction; likewise, the planning-strategy instruction enhanced their knowledge of writing, their motivation and the quality of writing across genres (Graham & Harris 2005).

All this strengthens the assumption that learning-disabled students may improve their writing performance in a second/foreign language even when they attend the regular English classes provided that their deficits are identified and adequate instruction is planned for them.

Taking all this into account, it is concluded that there is extensive research in the field of second/foreign language writing (Brown 2000, Ellis 1994, Myles 2009). There are also studies in the area of writing and writing instruction focused on learning disabled students (Graham & Harris 2005, Graves 1985). However, most of them deal with English as the writer’s first language. A smaller but significant body of research concentrates on students with LD and foreign language learning (Schneider & Crombie 2003), and also on L2 writing acquisition (Valdes 1992).

In Greece there are studies dealing with the problems the students with LD face in writing in the first language context (Panteliadou & Botas 2004, Spantidakis 2004), and with the writing instruction for learning disabled students (Nikolaraizi & Panteliadou 2001). There is also a corpus of data concerning writing strategies for bilingual students learning a second language or a third as a foreign language (Griva, Alevriadou & Geladari 2009, Griva, Tsakiridou & Nihoritou 2009); however, there is a deprivation of research data regarding the area of writing in English as a second/foreign language for Greek students with LD.

2.3 The purpose of the study

With a view to add new information and contribute to the discussion of research into the field of writing disabilities, a longitudinal study was conducted to answer the following research questions:

1. What kind of difficulties do the Greek students with and without LD face and what errors concerning the mechanical aspects of the language, spelling, punctuation, grammatical and structural correctness, vocabulary use, content organization do they make when performing a writing task in EFL?
2. What kind of strategies do they employ when composing a text in English?
3. What are the possible differences between students with and without specific learning disabilities in their using
of writing strategies and in their making of errors?

4. How does native language transfer influence errors making and strategy use in L2 writing?

The longitudinal method allows the researcher to study the development of the same group of individuals over an extended period of time, thus excluding time-invariant unobserved individual differences (Bond 2002, Hsiao 2003), and making observing changes more accurate. A drawback of longitudinal studies is that they often have only a small group of subjects, which makes it difficult to apply the results to a larger population. This disadvantage has been addressed in the current study by examining a considerable number of participants.

3. Method

3.1. The participants

The sample consists of a total of eighty-eight fifth and sixth primary school grade students. The average age of the participants is 11.46 (sd=0.499). Forty-four of them are students with learning disabilities that constitute the experimental group. The remaining total of forty-four are students without LD and they constitute the control group. The experimental group is composed of 31 boys and 13 girls, expressed as a percentage of 70.5% and 29.5% respectively; the control group is composed of 18 boys and 26 girls, creating a percentage of 40.9% and 59.1% respectively (table 2). Since more male students are identified as having disabilities than female students, it was easier for the researcher to find more learning-disabled boys than girls (Oswald et al. 2003). In the experimental group the average age of boys and girls is 11.58 (sd=0.497) and 11.23 (sd=0.429) respectively. In the control group the average age of the boys is 11.55 (sd=0.503) and that of the girls is 11.38 (sd=0.491) respectively.

Table 2: Participants’ demographic characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Experimental group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of students</td>
<td>Average age</td>
</tr>
<tr>
<td>Females</td>
<td>13</td>
<td>11.23</td>
</tr>
<tr>
<td>Males</td>
<td>31</td>
<td>11.58</td>
</tr>
</tbody>
</table>

Half of the participants have been learning English as a foreign language at the primary school for two years and the other half for three years (table 3). Most of them attend English as a foreign language classes in private schools. In fact only two of the students without learning disabilities and only six of those with learning disabilities do not attend classes in private schools.
The students in the experimental group were selected from twenty-four classrooms in twelve state primary schools in the Regional Directorate of Primary and Secondary Education of West Macedonia in Greece. They were all assessed as learning disabled by an interdisciplinary team composed of a clinical psychologist, a social worker and a special education teacher who work in the Differential Diagnosis Centers and Support for Special Educational Needs (KEDDY) (Γ6=label 136087/19-12-2002 Ministry of Education). Although their intellectual capabilities were assessed to be within the normal range, the participants were diagnosed with difficulties in writing as they scored deviations below the mean on the norm-referenced writing tests (Flanagan et al. 2006) administered to examine writing disorders. All of them were diagnosed as having dyslexia with disabilities mainly in writing; they were also qualified for special education services (Graham, Harris & Larsen 2001). Nevertheless, all the participants in the experimental group attend the regular classes in English as a foreign language.

In order to select the experimental group the researcher also took into account the state schoolteachers’ evaluation for the participants’ school performance in the English class and the other subjects based on testing and observation. Although the teacher’s evaluation is not based on standardized tests (Stewart & Kaminski 2002), it may give reliable information because evidence on student learning outcomes collected during instruction over an extended period of time is more holistic, authentic, contextualised and closely related to curriculum framework, characteristics which allow valid assessment necessary for effective interventions (Good & Salvia 1988).

The selection of participants in the control group was random. However, it was helped by the teachers’ judgments since an attempt was made to exclude students with very high performance or students with other disabilities.

### 3.2. Instruments and procedure

The study follows a qualitative and quantitative approach of data collection and analysis. In order to gather data concerning the detection of errors and difficulties in writing, a writing test was developed on the basis of the existing literature in the area of writing development (Graham 2010, Hadley 1993). A pilot study was conducted to investigate the validity of the test and made adjustments to match the test items to the test objectives (Brown 1996, Green 1998). Also, experienced teachers of English were asked to make judgments about the degree the test was related to the curriculum frameworks (Linn 1998).

The basic instruments for collecting data concerning the range of the cognitive, metacognitive and socioaffective strategies and behaviors the participants employ in the writing process were the students’ think-aloud reports and retrospective interviews (Cohen 1998). In retrospective interviews, the students are asked to describe their mental processes after they have completed the task. This technique provides insight into the participants’ metacognitive knowledge; however the limitation is that they may forget some of the details of their mental processes (O’Malley & Chamot 1990). In contrast, the main advantage of the think-aloud method is that the reporting is nearly concurrent with the processes being described and reveals the writers’ strategic
processes during the text production (Pressley & Afflerbach 1995). Therefore, we used both techniques to increase the credibility and validity of the results through cross verification.

a. Initially, the students were examined on the writing test composed of three activities (table 4). The first activity required each student to write a four-paragraph story, based on four pictures (appendix 1). The text, each one has composed, is assessed by the presence or absence of some aspects of “writing”, that is accuracy in spelling, punctuation, grammatical correctness, vocabulary use and content organization. In the second writing activity the student had to put the words given in a jumbled order in the right one to construct six sentences (appendix 2). With this activity orthography and structure are evaluated. The third activity demanded the student to put the sentences given in a jumbled order into the right one to construct a correct paragraph for the researcher to assess the sequence of the sentences (appendix 3).

b. Verbal report data were collected from the participants while writing a text. The researcher worked with each student one on one during each data-collection session. Every student was asked to compose a piece of writing under the topic “Write your first e-mail to a pen-friend who lives in Great Britain. Give him/her information about you and your family or your friends, your place, your school, your likes and dislikes”. Students had knowledge of the topic since it was related to the curriculum framework. The think-aloud reports were used in the pre-writing, while-writing and post-writing stages. Each participant was requested to say aloud all the techniques and procedures used while performing the task.

c. The retrospective interviews were held with each participant after the think-aloud sessions. The semi-structured interviews consisted of 15 questions (Griva et al. 2009) that allowed further insight into the participants’ usual approach to writing, the strategies they employed and the perception on their strengths and weaknesses in writing (Chamot 2004) (appendix 4).

d. The same procedure was repeated a year later and the same instruments were used to collect data to make results more reliable as well as to investigate the temporal evolution of the participants’ writing processes (Maxwell 2001). The think-aloud reports and the retrospective interviews were all tape-recorded.

### Table 4: Instruments to detect writing difficulties

<table>
<thead>
<tr>
<th>Activities</th>
<th>Task assignment</th>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>First activity</td>
<td>Students are asked to write a four-paragraph story</td>
<td>Accuracy in spelling, punctuation, grammatical correctness, vocabulary use, content organization.</td>
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<td></td>
<td>based on four pictures.</td>
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<tr>
<td>Second activity</td>
<td>Students are required to re-arrange jumbled words to</td>
<td>Accuracy in orthography and structure.</td>
</tr>
<tr>
<td></td>
<td>make meaningful sentences.</td>
<td></td>
</tr>
<tr>
<td>Third activity</td>
<td>Students are required to re-arrange jumbled sentences</td>
<td>Sentence sequence</td>
</tr>
<tr>
<td></td>
<td>to write a paragraph.</td>
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</tbody>
</table>

Table 4: Instruments to detect writing difficulties
3.3. Data analysis

The verbal data have already been transcribed and are to undergo qualitative analysis starting with data reduction. This procedure involves first and second encoding of the transcribed verbalization, (Ericsson & Simon 1993), which will result into categories, labeled by a specific name. Codes and categories will result from the theories based on literature in the area of writing and Oxford’s (1990) taxonomy of language learning strategies (table 1). Categories will be grouped into theme strands that will enable the researchers to draw inferences.

Moreover, a statistical analysis of the verbal data will be used. In relation to writer’s difficulties while composing, each subcategory will be rated on a scale of ranging from 0 to 2. 0 corresponds to ‘no difficulty’, 1 corresponds to ‘mediocre difficulty’, and 2 corresponds to ‘great difficulty’.

Frequencies and percentages for all categories and subcategories will be obtained. The differences in strategy use and the difficulties encountered between students with LD and students without LD will be assessed by means of the techniques of one-way analysis of variance (ANOVA), t-test and chi-squared test.

*specific learning disabilities, writing, foreign language, longitudinal study* The data analysis of the present study is expected to provide useful information on a field not yet sufficiently been investigated, especially in Greece, the field of writing in EFL for learning disabled students. This information, whether it confirms or supplements or modifies the findings of the previous research, will be used for pedagogical implementation.

More specifically, students’ deficits in strategies and metacognitive knowledge once identified may help the teachers of EFL plan strategic instruction to reinforce the learning-disabled students’ cognitive processes, make them get insight into their writing procedures and improve their metacognitive knowledge. Becoming aware of the possible differences between students with LD and non-disabled students, the teachers of EFL might be able to plan adequate writing instruction and implement differentiated teaching, tailored to the students’ needs.

Additionally, the error analysis of the formal aspects of the language –vocabulary, grammar, sentence structure, spelling, punctuation, capitalization- is expected to illustrate what causes these problems and lead to the development of intervening procedures with a view to enhance quality writing. The improvement of the students’ writing performance might result in raising their self-esteem and, thus, anxiety may be diminished and motivation may increase.

With regard to the previous studies in the area of writing in EFL and writing problems of students with LD, the findings of this study are expected to throw more light into the area of native language transfer. This expectation is based on the fact that the Greek language differs considerably from the English language in morphology, syntax, grammar and phonology. Consequently, there may be differences in language transfer, either positive or negative, which may result in more or fewer difficulties and errors in transcription skills and text structure.

Yet, we should not neglect that this study is not deprived of limitations. The number of eighty-eight participants allows the researchers to draw reliable inferences but impedes generalization of results. Another point worth mentioning is that the writing test administered to elicit data for this study is not a standardized one (Phelps 2007). As mentioned above, its construction was based on the existing literature on writing development, the requirements of the Greek state school curriculum, the knowledge of EFL fifth and sixth primary grade students are expected to have obtained and the teachers’ experiences on the primary students’ evaluation.

Nonetheless, the writing test can be an impetus for further research with a view to develop a valid screening device that will facilitate the identification of errors and difficulties in EFL writing along with the strategy use for the Greek state school students with LD, in order to implement adequate writing instruction and improve their writing skills and processes.

**References**


