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WRITING STRATEGIES IN TURKISH- ENGLISH BILINGUAL CONTEXT: A CASE STUDY

A MASTER'S THESIS

BY

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THE PROGRAM OF CURRICULUM AND INSTRUCTION
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WRITING STRATEGIES IN TURKISH- ENGLISH BILINGUAL CONTEXT: A CASE STUDY

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by

Fatma Er

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İHSAN DOĞRAMACI BILKENT UNIVERSITY

GRADUATE SCHOOL OF EDUCATION

Writing Strategies in Turkish- English Bilingual Context: A Case Study

Fatma Er

June 2018

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

Asst. Prof. Dr. Tijen Akşit (Supervisor)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

Asst. Prof. Dr. İlker Kalender (Examining Committee Member)

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ABSTRACT

WRITING STRATEGIES IN TURKISH- ENGLISH BILINGUAL CONTEXT: A CASE STUDY

Fatma Er

M.A., Program of Curriculum and Instruction
Supervisor: Asst. Prof. Dr. Tijen Akşit

June 2018

The aim of this study is to examine the writing strategies which were conducted on 164 high school students in Turkish- English bilingual context, for determining the mostly used writing strategies and whether there are any differences in writing strategies with respect to grade level, gender, types of written texts, the number of books read, like writing or not. The data was gathered via The Inventory of Learning Strategies at an international high school providing bilingual diplomas. In order to analyze data inferential and descriptive statistics were used. In the findings of the study, meta-cognitive strategies are the most preferred strategies and affective strategies are the least. The use of writing strategies varies relying on types of text written, the grade level, gender, the number of books read and whether they like writing or not. Also, it was found that bilingual high school students, who are female and at higher grade levels, who never read book, and who like writing a lot have a tendency to use writing strategies more. Furthermore, results showed that essay is the most preferable text by all students.

Key words: Bilingual education, Turkish-English bilingual education, language learning strategies, writing strategies, direct strategies, indirect strategies

ÖZET

TÜRKÇE- İNGİLİZCE İKİ DİLLİ BİR ORTAMDA KULLANILAN YAZMA STRATEJİLERİ: BİR DURUM ÇALIŞMASI

Fatma Er

Yüksek Lisans, Eğitim Programları ve Öğretim
Tez Yöneticisi: Dr. Öğr. Üyesi Tijen Akşit

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Bu çalışmanın amacı Türkçe- İngilizce iki dilli eğitim alan 164 lise öğrencisinin yazma stratejilerini incelemek ve bu öğrencilerin yaygın olarak kullandıkları yazma stratejileri ve bu stratejilerin sınıf düzeyi, cinsiyet, yazılan metnin türü, okunan kitap sayısı, yazı yazmaktan hoşlanıp hoşlanmama durumuna göre değişkenlik gösterip göstermediğini tespit etmektir. Çalışmada kullanılacak olan veri iki dilli diploma veren bir uluslararası liseden, Dil Öğrenme Stratejileri Envanteri aracılığıyla elde edilmiştir. Çalışmanın sonuçları bilişüstü stratejilerin en fazla, duyuşsal stratejilerin en az kullanıldığını ve yazma stratejileri kullanımının sınıf düzeyi, cinsiyet, okunan kitap sayısı, yazı yazmaktan hoşlanıp hoşlanmama durumuna göre değişkenlik göstermiştir. Bu çalışmanın sonuçları, Türkçe- İngilizce iki dilli eğitim alan lise öğrencileri içinde sınıf düzeyi daha büyük, cinsiyeti kadın, hiç kitap okumamış ve yazmayı çok seven öğrencilerin yazma stratejilerini kullanmaya daha fazla eğilimli olduğunu da göstermiştir. Ayrıca çalışmalar, yazı türü olarak denemenin tüm öğrenciler tarafından en çok tercih edilen tür olduğunu göstermiştir.

Anahtar Kelimeler: İki dilli eğitim, Türkçe- İngilizce iki dilli eğitim, dil öğrenme stratejileri, yazma stratejileri, doğrudan stratejiler, dolaylı stratejiler

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CHAPTER 1: INTRODUCTION

Introduction

This chapter begins with the background information about bilingual education, writing strategies, language learning strategies in a bilingual context. The chapter is pursued by the research questions, the significance of the research, purpose of the study, and definitions of key terms.

Background

Bilingual education

In developing countries, bilingual education is getting more and more recognition. These countries have begun to dwell on the concept of bilingualism and this term is becoming more crucial in language learning (Oruç, 2016). Turkey, as one of the example of such countries, has realized the importance of bilingualism, so studies on the subject of bilingualism have increased (Oruç, 2016).

All definitions of bilingualism are about having a command of two languages and using both of them simultaneously (Anderson & Boyer, 1970; Weinrich, 1968; Yazıcı, 2007). According to Grosjean (1982), bilingualism is ability to form meaningful words and possessing advanced level comprehension in at least one language skill such as reading, writing, speaking and listening in two languages. Bilingual learners having a brilliant understanding of vocabulary and its meaning in both the first and second language express themselves more comfortably and comprehend

what people talk about in their education lives. In most of the studies, there is a significant positive relationship between the levels of students' academic achievement in the native and the second languages (Cummins, 2003).

There are some classifications in the literature regarding bilingualism. Several researchers use various classification criteria depending on the aims of bilingual education such as specific linguistic goals, educational aims and outcomes, teaching styles of the two languages, age and language proficiency levels (Ferguson, Houghton & Wells, 1977). In the models of *transition and maintenance*, students are educated in their first language and they transfer their skills and knowledge to the second language easily thanks to having good command of first language (L1) (Robert, 1995). Through *enrichment model*, non-native English speakers and native speakers are taught content classes in both languages simultaneously. In this sense, this model is similar to *immersion model* in terms of the number of students who have minority and majority languages in the class. *Heritage bilingual education* aims to conserve the ethnic identity, culture and the language of minority group by educating content subjects in their native language (May, 2008). Finally, *Mainstream Bilingual Education* is aimed to expand the effectiveness in language achievement and learning (Marsh, Oksman-Rinkinen, & Takala, 1996). Baker (2011) describes *Mainstream Bilingual Education* as the use of students' majority languages with the ultimate purpose of bilingualism throughout the curriculum. Therefore, the schools providing international curricula such as the International Baccalaureate (IB) or the International General Certificate of Secondary Education (IGCSE) technically offer mainstream bilingual education (Baker, 2007; TEL2L, 2017).

International Baccalaureate offers programs such as the Primary Years Program (PYP), the Middle Years Program (MYP), the Diploma Program (DP) and the Career-related program (CP). The PYP is for students at the ages of 3 to 12, the MYP is for students at the ages of 11 to 16, the DP is for students at the ages of 16 to 19, the last one is, the CP, for 16 to 19-year-olds. All of them have the same purpose of improving students in every aspect in a bilingual context. The IGCSE program is the most popular program in the world for 14 to 16 years old students. These programs provide the improvement of students' skills academically and linguistically. In the context of the IB and the IGCSE programs, content subjects are instructed in the second language, as English, not including first language and literature.

The learners who are component in using their first language at a certain level are more successful in acquiring the second language (Yayla, Kozikoğlu, & Çelik, 2016). In this sense, most of the studies in the literature find that monolingual students use the language learning strategies less effectively than bilingual students (Hong-Nam, & Leavell, 2007; Quasimnejad, & Hemmati, 2014; Thomas, 1988; Wharton, 2000).

Language learning strategies

Cognitive learning theories emphasize the need for the learners to participate in the learning activity and to have the responsibility of learning. Therefore, studies in this field have focused on learning strategies in recent years (Subaşı, 2000). Learning strategies enable learners to assess their own learning, strengthen their memory, enhance the level of learning, know how to learn, develop their own learning process and assume greater responsibility in their own learning (Rubin, 1975).

Learning strategies appropriately has a significant positive effect on the achievement of language learning and the language proficiency. In the early studies conducted in this field, researchers are mostly concerned with identifying learning strategies used by successful students during the learning process (Cohen, & Aphek, 1981; Rubin, 1975). Next, language learning strategies are categorized by different researchers in a different way. To illustrate, learning strategies are divided into three major groups by Rubin (1987). They are named as social, learning and communication strategies which affect directly and indirectly the learning process. O'Malley, Chamot, Manzanares, Russo and Kupper (1985) classify learning strategies as meta-cognitive cognitive and socio-affective strategies. Later, comprehensive categorizations of learning strategies are introduced by Oxford (1990) using Rubin's (1987) model as direct and indirect strategies. These main groups are divided into three sub-categories. Direct strategies are categorized into cognitive, memory and compensation strategies, while indirect strategies are classified as affective, meta-cognitive, and social strategies.

Learning strategies research considers learning as an inner process and believes that students obtain information in their own way (Ün, 2004). It is not about absence or presence of strategies but about how they are used (Rubin, 2008). In this sense, the writing process is handled as a cognitive process depending on mental abilities therefore this writing approach is closely relevant to the study of writing strategies (Flower & Hayes, 1981). Also, writing strategies which are usually considered in language learning strategies can be identified as cognitive or meta-cognitive processes that produce a text (Oxford, 1990). According to Torrance et al. (2000), writing strategy contains cognitive processes such as planning, composing and

revising, and other writing activities. This study in hand explores the function of cognition in the writing process in the view of the research covered above.

Writing strategies

The interest in writing strategies is based on the exploration of the characteristics of the composition in the first language to figure out the efficient methods in writing and how expert writers are more successful than novice writers (Bereiter & Scardamalia, 1987). Different writing theories and models have been developed in the field of L1 and L2 since L2 classifications involve all features of L1 writing and L1 writers' behavior. Hence, the studies indicate that there is a close relationship between the first language and the second language strategies (Alhaisoni, 2012; Whalen & Menard, 1995). The teaching of writing strategies in the first language has an influence on transferring these skills to the second language.

Many researchers have used many classifications about writing strategies. Cognitive model of writing is categorized into three main components by Flower and Hayes (1981). These are writers' long-term memory of writers, the task environment and the writing processes. Furthermore, the writing is classified into two major groups as a knowledge-telling model and a knowledge-transforming model by Bereiter and Scardamaila (1987). According to them, more successful writers prepare plans before writing, make changes on the text, and revise their first drafts of text. Flower and Hayes' (1981) model was reproduced by Hayes (1996) as a new model of writing. This model includes that the most evident difference from the previous model is the addition of the working memory which transfers the information to the long-term memory.

In addition to all these, one of the classifications of writing strategies belongs to Peñuelas. She (2012) improves the taxonomy of writing strategies developed from Oxford's (1990) model which is categorized into two major groups as direct and indirect writing strategies. Memory, compensation and cognitive writing strategies are in the direct writing strategies, whereas affective, meta-cognitive, and social writing strategies are in the indirect writing strategies. These writing strategies comprise six sub-categories in total to examine how and when the learners plan, write and revise in the process of writing. In the students' cognitive level, these strategies can be taught to the students to monitor their own writing process and to make them more successful writers.

Problem

The improvement of teaching mother language and language skills is an increasingly concerned issue in bilingual education. In recent years, many studies have emphasized this point by triggering new developments in the field of reading, writing and oral language skills, so teaching native language is becoming a more crucial issue particularly in terms of bilingual education (Polloway & Smith, 1992, p.7). Because of the fact that learners who have sufficient command of their first language behave more consciously while acquiring a second language and learning in their other lessons.

In the field of teaching first language, there are different approaches to the attainment of language. Especially student-centered approaches are very effective in learning regarding these approaches (Erden & Demirel, 1993). In recent years, some international research has indicated that learning strategies are utilized to develop the

skills of reading comprehension and writing, which is one of the most common problems in language teaching (Belet & Yaşar, 2007). In order to be able to compose efficient written texts, it is necessary for students to learn how to write. Writing strategies, in this sense, help students write more effectively. In other words, students need to know various writing strategies so that they can decide which writing strategies should be used in different situations. Teaching writing strategies is also necessary in that they activate the use of cognitive skills. The purpose of teaching writing strategies to students is to assist students in monitoring their own learning and to choose and use appropriate learning strategies in accordance with their own cognitive process (Chamot, 1999).

While Ayyıldız and Bozkurt (2006) mention writing problems in high school, they states that teachers do not give any information about the strategies of writing even though they give many writing assignments to the students. Students who do not have any idea about how to write struggle with this problem throughout their education lives. As a result of this, teaching writing strategies is crucial for effective teaching and learning.

In spite of the several studies in foreign literature in great numbers, there are no studies conducted on writing strategies within the context of bilingual education in Turkey. Therefore, this study will be an exemplary for researchers who are interested in teaching writing strategies in the context of bilingual education in Turkey to carry out further studies on the subject.

Purpose

The purpose of this study is to examine the strategies in writing that are used by high school students in Turkish- English bilingual context. The researcher first identifies the most frequently used writing strategies by bilingual high school students. It is investigated whether there are any differences in writing strategies with respect to: grade level, gender, types of written texts, the number of books read, like writing or not.

Research questions

This study intends to respond the following research questions:

1. What writing strategies do high school students in a bilingual context use most frequently?
2. Does the use of writing strategies differ according to the following variables?
    a. grade level
    b. gender
    c. types of texts written
    d. the number of books read
    e. whether they like writing or not

Significance

It is stated that the major goal of bilingual education is to improve cognitive and affective skills of students in both first and second languages (Blanco, 1977). Therefore, bilingual students become more successful in terms of implementation of memory, cognitive and affective skills in all subject areas. Learning in bilingual context and the use of learning strategies have a close relationship with one another

because bilingual students have a tendency to use more compensation, meta-cognitive and cognitive strategies (Hong- Nam & Leavell, 2007). In this concept, this study examines the use of writing strategies in an international school where bilingual education is conducted. At the end of the study, the stakeholders could realize the factors affecting the writing strategies of language learners.

When the problems of acquiring writing skills that affect students' success in all disciplinary fields are examined, particularly in the context of teaching Turkish as the mother tongue, new research is needed in the development of writing skills. It is possible for students to become more conscious about their learning styles by applying writing strategies, and then they can learn by themselves intentionally and independently in the development of writing skill. Furthermore, teachers should be knowledgeable and aware of the writing strategies their students tend to use. In this way, educators and curriculum designers would have a chance to take measures in time and guide students for the suitable strategies in the writing process.

This study has another importance in order to determine the frequency of writing strategies used by students in the improvement of their writing skills within the framework of writing strategies. It might also serve as a useful tool not only for teachers, but also for policy makers and curriculum designers while they make decisions during their program development in the context of improvement of students' skills. By this way, they can have an opportunity to form their plans accordingly. Moreover, this study could also serve as a model for researchers to carry out further studies on writing strategies.

Definition of key terms

Bilingual education: It is the use of two languages as first and second languages in school curriculum. It is stated as "Bilingual education is instruction in two languages and the use of those two languages as mediums of instruction for any part, or all, of the school curriculum." (Anderson & Boyer, 1970, p. 12).

Turkish- English bilingual education: It means the acquisition of two languages as Turkish and English languages in school curriculum (Bialystok & Hakuta, 1994).

Language learning strategy: It is the techniques to facilitate cognitive processes regarding the basis of processing and encoding. Oxford (1990) defines as the steps to make easier the acquisition of knowledge and the behaviors to succeed students' learning.

Writing strategy: Writing strategy is defined as "the sequence in which a writer engages in planning, composing, revising and other writing related activities" (Torrance et al., 2000, p.182).

Direct strategies: Strategies discussed in this group are one of two major groups in the classification of language learning strategy (Oxford, 1990). These strategies make contribution to the learning directly throughout the learning process. Direct strategies are categorized into three groups as cognitive, memory and compensatory strategies.

Indirect strategies: It is another main group in Oxford's classification. Unlike direct strategies, these strategies are indirectly pertinent to the learning. It is categorized into three groups as affective, social strategies and meta-cognitive.

CHAPTER 2: REVIEW OF RELATED LITERATURE

Introduction

This chapter firstly starts with the concept of bilingual education, and it is followed by the types of bilingual education models and then importance given to it related to language learning strategies (LLS). The chapter continues with meaning of the terms related to the theory of language learning strategy and the categorizations of LLS in the field. It proceeds with the theoretical framework of writing approaches and then the writing strategy classifications in the literature. Finally, the chapter gives research studies conducted within the framework of writing strategies in Turkey and abroad.

Bilingual education

Bilingual education has a significant role in the rapidly developing and changing world. In this sense, before explaining the characteristics and types of bilingual education, it might be a good idea to clarify what '*bilingualism*' is. There has been a wide range of definitions about the term bilingualism. Bloomfield (as cited in Akkaya & İşçi, 2015, p. 305) describes bilingualism as having a command of two languages close to the mother language, whereas Diebold (as cited in Akkaya & İşçi, p. 305) offers it as the ability to understand the written language or explain what you read in both native and second language. Weinrich (1968), who was the founder of studies on bilingualism and also one of the bilingual people, defines bilingualism as the use of both languages practically in an alternative way.

According to linguists, bilingualism can be defined in two different ways. While the concept of bilingualism is considered by some linguists as children or adults having the ability of good comprehension in both languages as the means of reading, writing, speaking and understanding, others advocate that it is adequate if people have sufficient comprehension in both languages (Yazıcı, 2007).

In this concept, bilingual education is described by Anderson and Boyer (1970, p.12) as "the instruction in two languages and the use of those two languages as mediums of instruction for any part, or all, of the school curriculum."

Types of bilingual education

Researchers have classified the types of bilingual education depending upon many factors such as specific linguistic goals, educational aims and outcomes, the teachers and the students, teaching styles of the two languages, and the motivation of teaching.

Transitional bilingual education

Unlike the expectation of developmental bilingual education, the learners are educated the subjects in their native language while they are instructed in English as a second language at the same time in transitional bilingual education model. Students take non-academic subjects such as physical education, art and music in English because students do not need to have academic English proficiency for these subject areas. In the form of transitional bilingual education, the classes are taught in the native language and then students transfer their academic knowledge to the second language. This model is named after its context because it functions as a

bridge between students transferring their skills and knowledge easily from their first language to the second language (Baker, 2007; May, 2008; Robert, 1995). Bilingual education is divided into three main categories as *transitional models, enrichment models*, and *maintenance models* (Roberts, 1995). The main aim, in transitional bilingual education models, is to teach students English as their second language while supporting the content area in their first language. Music, art and similar classes may be instructed in English to the students. This model is named after its context because it functions as a bridge between students transferring their skills and knowledge easily from their first language to the second language.

Maintenance models are similar to transitional models in terms of transferring knowledge to the second language. Unlike the transitional models, language art classes are instructed in the first language, and content area classes are maintained in the first language while students learn English. Thus, the students become more knowledgeable in both languages. The distinction is that these models are accomplished in long-term so maintenance models are also named as developmental models.

Enrichment models are unique because they both compose of non-native English speakers and native speakers. In such models, cross cultural understanding is implemented to the students studying content classes in both languages simultaneously. Enrichment models include two-way or dual language models and instruction is done in two languages.

Brisk's models

Brisk (1998) divides bilingual education program into two main types (as cited in Močinić, 2011, p. 180). The first one is named as *Monolingual Instruction Models,* in which students' native language is neglected. In this model, English is taught as a second language. The second type is named as *Bilingual Education Models* and it depends on the usage of two languages and implementation of affective bilingual education in dual language schools. Such kinds of schools are international schools including the school in which this research is conducted.

Baker's model

Unlike Brisk's (1998) categorization, Baker (2007) divides bilingual education program into three main groups called as *monolingual forms of education, strong forms of bilingual education, and weak forms of bilingual education* regarding the linguistic goals (as cited in Močinić, 2011, p. 177). The first type, monolingual forms of education, is named as mainstreaming/ submersion education, mainstreaming with pull-out classes and segregationist classes. In the first form, the minority language students are assimilated under the majority language, so native language is neglected in this education program. Mainstreaming with pull-out classes involves putting native speaker students into second language classes in subject area courses. In the last form, minority and majority language students are separated into different schools where the curriculum is taught in their own languages.

Weak forms of bilingual education, the second type, consist of three subcategories, which are mainstream education, separatist education and transitional bilingual education. In the form of transitional bilingual education, the classes are taught in the

native language and then students transfer their academic knowledge to the second language. In the second model, foreign language lessons are integrated into the curriculum as subject classes. In the separatist education model, the schools have a tendency to separate minority and majority languages from each other because of the political, religious and cultural reasons.

Strong forms of bilingual education is the third type including four types as heritage language bilingual education, dual language bilingual education, immersion bilingual education and bilingual education in majority languages. In dual language bilingual education, the number of students who have minority and majority languages is the same amount in the class and both languages are taught throughout the lesson. The second one, heritage language bilingual education model provides the main subjects in their first language to the minority. The third form is immersion bilingual education which offers the curriculum in the second language in order to create the efficient bilingual atmosphere. The last form of education consists of teaching two majority languages at the same time. One of the examples of this education type is international schools where students learn two or more different languages.

The importance of bilingual education

When instruction takes place in two languages simultaneously, it is called bilingual education. In other words, students convey the information they have learned in their first language to a second language. Having a good command of native language improves students' mental skills as well as their language skills so that they can use the second language appropriately. For instance, using language strategies to make inferences in a text in a native language increases the ability of these strategies in the

second language, as well (Çakır, Aksan, Alıcı, & Dönük, 2008). Also, Baker (1996) claims that the improvement of second language depends on how better students use first language. Thus, a bilingual student, who is aware of the importance of vocabulary and how the words form the meaning relationship both in his native and second languages, expresses himself more comfortably in both languages. In other words, if there is more improvement in the native tongue, the development will be easier in the second language. As a result of these, bilingual students become more successful in their academic lives because bilingual education provides a variety of opportunities to bilinguals such as the improvement of language- cognitive abilities and expanding their horizon (Bialystok, Peets, & Moreno, 2014). Moreover, bilingual students develop not only cognitive and meta-cognitive skills but also working memory, abstract and symbolic representation skills in the research conducted by Adesope, Thompson, Tracy and Ungerleider (2010) (as cited in İlhan & Aydın, 2015).

There is a significant correlation between the bilingual learning context and the use of language learning strategies. Bilingual Korean- Chinese students tend to implement more learning strategies than monolingual Korean students (Hong- Nam & Leavell, 2007). Such bilingual students have a high tendency to use meta-cognitive, compensation and cognitive strategies. Furthermore, Yayla, Kozikoglu and Celik's (2016) study shows that bilinguals have a tendency to use LLSs more than monolinguals. As previous studies have maintained, good language learners are conscious of the significance of learning strategies and they apply them with the greatest frequency (Rubin, 1975; Stern, 1975).

International Curriculum

International General Certificate of Secondary Education (IGCSE)

Cambridge International Examinations (CIE) offers the international programs for students who are 5-19 years old. Cambridge IGCSE is one of the most popular and well-known international programs in the world. It is a two-year international program recognized by schools over 100 countries worldwide for 14-16 years old students. 9^{th} and 10^{th} grade level students follow curriculum, including the core subject areas such as languages (English and first language of the country), mathematics, sciences (physics, biology, chemistry), humanities, social sciences (geography and history) and business. It also composes over 70 subject areas depending the schools implementing the IGCSE, including 30 languages. All subject areas are taught in English, except the first language classes. In this sense, it can be seen that the IGCSE is designed as an education program offering multilingual and bilingual education. It provides the development of students' skills as creative thinking, inquiry and problem solving (CIE, 2017). The IGCSE prepares the students for the International Baccalaureate Diploma Program giving higher level courses.

International Baccalaureate (IB)

The International Baccalaureate (IB) is a non-profit educational foundation which is founded in 1968, Geneva. It purposes to "develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" (The International Baccalaureate, 2017). This foundation offers three programs as the Primary Years Program (PYP), the Middle Years Program (MYP) and the Diploma Program (DP) for the young people at the ages of 3 to 19. The first one, the PYP, is for pupils at the ages of 3 to 12, the

second one, the MYP is for students at the ages of 11 to 16, the last one is, the DP, is for students at the ages of 16 to 19. All of them have the same aim as the development of students in every aspect in a bilingual area.

This study focuses on the students studying in a school implementing the IB Diploma Program (IBDP). Hence, analyzing of IBDP is important in detail. The IBDP offers a diploma having an international validity. Although there is no impact to enter state universities in Turkey, some private universities offer scholarship to IB students at various rates. The IBDP consists of six subjects group, extended essay which is related with one of these six subjects, theory of knowledge (TOK), creativity, activity, service (CAS). The six subject groups, presented as hexagon are studies in language and literature, individuals and societies, language acquisition, mathematics, sciences, and the arts. Each student takes at least three subjects, including 240 teaching hours at high level (HL), the rest of them, including 150 teaching hours are taken in standard level (SL).

As part of the Diploma Program (DP), students have to take language and literature studies as the first subject group to get a bilingual diploma. This course, which students usually take in their native language, is named as “Language A1”. The aims of this course are to improve the skills of students as the expression of their feelings and thoughts, to acquire artistic pleasure in the field of literature and to use the scientific methods by analyzing literary works. In accordance with these purposes, students analyze and compare literary works produced both in their own culture and different cultures so they develop a positive viewpoint towards the different and get a universal perspective. At the end of the Diploma Program, students read and analyze

15 literary works and comment them verbally and in writing during two years (The International Baccalaureate, 2017).

Language learning strategy background

Definitions of language learning strategy

The interest in learning strategies has emerged out of an orientation from behavioral approaches toward cognitive approach. While the behavioral approach focuses on how presentation of the materials affects learning, cognitive approach relies on how the information is stored and structured in memory (Demirel, 1993; Özden, 2003). In other words, learning strategies have emerged as devices and techniques to facilitate or activate the cognitive processes based on the principles of information processing and encoding (Özer, 2002; Somuncuoğlu & Yıldırım, 1998).

Learning strategies are the behaviors or ideas which influence the processes in which the learners acquire knowledge, store it in memory and retrieve it when it is needed (Weinstein & Mayer (1986). The aim of learning strategies is to develop the learners' affective behaviors or to make the selection, acquisition, construction, and integration of new knowledge more easily (Weinstein & Mayer, 1986). The common features of learning strategies focus on how the process of the information is worked in learning (Tay, 2002, p. 15). Learning strategies are the ways to facilitate the transformation of the information from sensory memory to short-term memory, to efficiently process knowledge in short-term memory, the transformation of knowledge from short-term memory to long-term memory and to retrieve it.

In this sense, the concept of strategy, a product of cognitive psychology, is generally used to describe a person's attitude towards a task and how s/he independently resolves an academic or social problem (Lenz, 1992). Within this context, the learning strategies are often called as cognitive strategies in literature. Language is symbolized as a cognitive ability in this concept.

In the 1970s, the first research studies on language learning strategies started by exploring the characteristics of good language learners (Rubin & Stern, 1975). These studies include high level language proficiency, ability and motivation, and the use of language learning strategies in active and creative ways which have an important role on the achievement of good language learners. In the first studies on this field, many researchers focus on to determine such strategies that are used by good language learners (Chamot & Kupper, 1989; Rubin, 1975). There are also some studies conducted to classify these strategies used by good language learners.

The categorization of language learning strategies

Cohen and Aphek's categorization

Cohen and Aphek (1981) mention the personality and attitude of learner and cognitive stage for the learning of second language. Hence, they subsume the language learning strategies under categories of good, bad, and neutral communicative strategies depending on individual and socio-cultural factors.

O' Malley's categorization

Learning strategies are divided by O'Malley et al. (1985) into three major groups as, cognitive, meta-cognitive, and social strategies by improving the communicative

approach of Cohen and Aphek (1981). According to this categorization, meta-cognitive strategies control and regulate all processes based on the acquisition of knowledge, storing it in the long-term memory and recall it when it is needed. Cognitive strategies are directly related to how students learn knowledge. The addition of social strategies is essential in terms of the communication and social interaction in language learning.

Rubin's categorization

Rubin (1975) especially emphasizes the features of good language learners and their learning style. In this respect, Rubin (1987) classified language learning strategies under three main categories as learning, social and communication strategies which have an effect on language learning directly and indirectly.

Oxford's categorization

Oxford (1990) carries the process of categorization a step forward. Oxford reproduced taxonomy by using Rubin's (1987) classification. Oxford states that all language learning strategies rely on the aim of communication competency, so the language learning strategies are categorized into two major headings as direct strategies and indirect strategies. Direct and indirect strategies divide the sub-categorizations in the taxonomy and each of the strategy implements some mental functions.

Direct strategies are directly pertinent to learning and categorized into three groups as cognitive, memory and compensatory strategies. First of all, memory strategies are used to store knowledge in the memory and clustered under four groups based upon

Oxford's classification as "*creating mental linkages*, *applying images and sounds*, *reviewing well* and *employing action"* (Bekleyen, 2005, p.114). Another direct strategy is cognitive strategies which are used to drive meaning from learning through mental processing and are classified as "*practicing, receiving and sending messages*, *analyzing and reasoning*, and *creating structure for input and output."* The third one, compensatory strategies help overcome possible challenges which may prevent performing the language and are divided as "*guessing intelligently* and *overcoming limitations in speaking and writing."*

On the other hand, indirect strategies are not directly related to learning but help students to attain their goals by arranging the learning process, controlling their emotions and communicating with others. Indirect strategies are composed of three sub-categorizations of affective, meta-cognitive and social strategies. Meta-cognitive strategies help students monitor learners' own learning process and they are clustered as "*centering learning*, *arranging and planning learning* and *evaluating learning."* Affective strategies are about self-regulation principles and are divided as "*lowering anxiety*, *encouraging oneself* and *taking emotional temperature*." Social strategies, in the indirect strategies, motive learners to use the target language in communication and its clusters are as "*asking questions*, *cooperating with others* and *empathizing with others*."

The importance of language learning strategies

Students plan and develop their learning with the help of learning strategies so that their learning will actualize easily and permanently (Özer, 2002, p.19). Learning strategies help individuals become educated, productive and individual thinkers for a

lifetime. In addition to this, learning strategies contribute to students in that trusting their own ideas, knowing there are multiple ways for doing a task, realizing own mistakes and self-correcting them, evaluating own learning processes and behaviors, strengthening their memories, enhancing learning levels, learning how to learn, developing own learning processes and taking on more responsibilities in their own learning processes (Beckman, 2002).

Learning strategies, which help learners realize their own learning processes, enhance the efficiency of learning process (Belet, 2005). Teaching of learning strategies that ensure the flow and control of knowledge may be efficient when they are instructed to identify which strategies learners can use and when and how these strategies can be useful. In this way, effectiveness of students' learning may be enhanced.

The writing approach framework

Of the four basic language skills, writing is the last stage of language learning. While TDK Turkish dictionary describes writing as "identifying ideas with specific signs", Güneş (2013, p. 161) defines it as "tool which helps to consider at the top level, thinking through thinking". Writing which requires many kinds of sub-skills is a complex and versatile process (Evans, 2001, p.1). The reason of having difficulty in writing is that a composition is composed by taking into consideration text structure, a target audience, and why it is written in addition to cognitive and linguistic processes. Raimes (1983) states writing skill as a difficult process because it contains its own cognitive processes and a variety of writing elements such as content, planning, audience, purpose, writing process, genre, wording, and sentence structure.

As a consequence of this, the improvement of writing skills might not be easy and might take time.

In recent years, implementations for the development of writing skills have been carried out within various writing approaches. Two different writing approaches have come into prominence in the field of writing education as '*product based writing*' and '*process based writing'.*

Product based writing approach

Product based writing approach was spread throughout the United States from the beginning of the 20th century until 1960s (Ülper, 2008, p.38). According to Hairston (1982), this approach is derived from classical rhetoric. In other words, product-based writing approach is not a teaching writing approach based on research and experiments. Rather, in this approach, the purpose is to help learners write about their thoughts on the subject they are knowledgeable about. Thus, the essential information is gathered before the beginning of the writing process. Then, this information is transferred to the writing by cause and effect relationship, making comparisons and proving the thesis (Oral, 2002, p.24). Thus, the roles of students and teachers depend on producing the text. Students are not active; they are passive during the process. Hence, students view the writing task as a copy of the writing teachers want to see (Badger & White, 2000). In this approach, the texts are evaluated instead of focusing on the writing process (Babin & Harrison, 1999, 189). Product based approach seems to be inadequate to improve writing skills because of accepting all students' feature as the same, ignoring the differences of individuals, adopting teacher centered education, giving importance to the formal items and

considering product rather than process (Tabak & Göçer, 2013, p.149). Therefore, this approach has been criticized by researchers due to these features. Researchers who observe that students do not improve their writing skills by evaluating only written texts tend to study on students' behaviors during the writing process. As a result of new findings, there is a new approach called process-based approach.

Process based writing approach

Writing is evaluated as a process, not a product within the process-based writing approach. In other words, this approach emphasizes the process responding to the question 'how', instead of product answering the question 'what' (Ülper, 2008, p. 41). Tomkins (2004, p. 9) defines the writing process as a route map in which students' ideas and behaviors can be observed from the beginning of the writing to the end of the composition. Students learn how to write the composition thanks to the map.

The researches on the writing process focus on not only the features of writing process, but also the stages of individuals' minds (Zamel, 1987, p. 698). Researchers suggest that the writing process includes three stages. These stages are restructured as linear process. Yet, the linear process does not reflect the functions of the mind. Therefore, process-based approach is divided into two approaches as linear writing process and cognitive process.

Linear writing process

In the linear process, the writing process progresses in a linear way and is divided into concrete stages. Rohman (1965) categorizes the linear process writing as three

stages, which are pre-writing, writing and re-writing, whereas Britton (1978) classifies it as conception, incubation and production. On the other hand, according to Hiemstra and Brier (1994), it consists of four major stages as pre-writing, text development, revising and editing. In these linear stages, it is obvious that writer knows what to do in each stage and has to progress in this line.

This model has been criticized because the stages that represent the development process of the text progress always as a linear way and it is not possible to go back to the text. Brand (1989) mentions that the stages are inadequate in this model. Researchers have a tendency to seek the new methods of teaching writing due to the failure of these models, so they produce a new idea as a cognitive writing process.

Cognitive writing process

In 1964, Emig, who is the first researcher to make an objection to the linear writing process approach, makes her first studies about how the writer's mind works during the writing process. Emig (1971) observed that the composition does not progress as an interrupted activity from left to right while she was studying the writing processes of high school students. Subsequent researchers of writing have emphasized the argument related to Emig's cognitive process theory of writing. Their investigation has indicated that the composition is described as a process progressing recursively; it is not merely linear (Flower & Hayes, 1981; Faigley, 1986; Pennington & So, 1993; Abdul-Rahman, 2011). Following the Emig's study, researchers focus on what the writer think during the writing process (Ruth & Murphy, 1988).

In the cognitive writing process, there are a variety of subjects related to the construction of knowledge, how it is acquired, comprehended, recalled, and used to solve problems. In this sense, learning is perceived as an inner process and students are active agents who get information in their own way (Ün, 2004, 82-83).

Writing strategy

Process writing approach, particularly cognitive writing process, is related to the study of strategies because it focuses on the mental processes while writers take part in writing. Also, writing strategies are generally discussed in language learning strategies (Oxford, 1990). Writing strategies can be defined as cognitive and meta-cognitive processes that produce a text and solve any problems. Writing strategies are described as the type of activities which writers employ while creating a composition. Moreover, writing strategy is identified by Torrance et al. (2000, p. 182) as "the sequence in which a writer engages in planning, composing, revising and other writing related activities". Recently, the use of writing strategy is described as the manner which writer attempts to arrange cognitive processes such as formulating, planning, and reviewing (Kieft et al., 2006). Taking into consideration these aspects, the writing strategy model used for this study is provided in terms of cognitive writing process.

The interest in writing strategies has come from the first language literature, attempting to comprehend the efficient ways of writing and to comprehend how experienced writers are more successful than novice writers. Many writing theories and models have been developed in the first language and the second language fields of the writing strategy because L2 categorizations consist of all features and

behaviors of writers, repeating, editing and the use of L1. Researches demonstrate that there is a close relationship between the first language and the second language writing strategies (Alhaisoni, 2012; Whalen & Menard, 1995). According to Sasaki and Hirose (1996), if the students have a good understanding of L1 writing, their command of L2 writing can be easy. Therefore, teaching of L1 writing strategies plays an important role on the transferring of these abilities to second language.

Writing strategy classifications

Flower and Hayes' classification

The cognitive model of Flower and Hayes (1981) in writing includes three main components. These are the task environment, writers' long-term memory, and the writing processes. The task environment contains everything outside the writer, beginning with the text itself and the rhetorical problem. The second component, the long term memory of writers has the knowledge of these writers about audience, writing tasks, topic and plans. The third component involves the writing processes such as translating, planning, and reviewing.

Planning has sub-categorizations as organizing, generating and goal setting. In this process, the writer generates ideas from the memory, groups these ideas and sets and develops the goals during writing. Translating, the second sub-categorization of writing process, requires the writer to study on the text in spite of all constraints. Reviewing, the last sub-categorization of cognitive writing process, consists of evaluating and revising. Revising has an effect on both ideas and text. It can also interrupt generating and translating. The earliest model developed by Flower and Hayes (1980) contains two different reviewing processes named as editing and

reviewing. While editing can interrupt the other processes, reviewing happens at the end of translation process.

Bereiter and Scardamalia's classification

Bereiter and Scardamaila (1987) categorize the writing on the basis of experts and novices as a knowledge-telling model of writing and a knowledge-transforming model of writing. In this model, the improvement of thoughts throughout the writing is based on the retrieval of context to supply rhetorical goals. Novice writers generally use their knowledge telling strategy by retrieving knowledge from long term memory and stating it directly into their composition. However, more expert writers apply the knowledge transforming strategy, including a component of reflection that gathers knowledge retrieval from memory. According to Bereiter and Scardamaila' (1987) research, more expert writers prepare plans before writing in detail, make modifications on the writing, and revise their first drafts of text.

Hayes' classification

Hayes (1996) develops a new model of writing by revising of Flower and Hayes' (1981) model. In his model, addition of working memory is the most obvious distinction when it is compared to the previous model. Working memory is storage which transfers information in the long-term memory after being active. After the transformation of information, consideration and making changes on the information occur in this memory. Another significant difference is that the components of cognitive processes and the regularization of components are structured in a different way. Other important features are the emphasis on the motivation of students and the affective characteristics in the writing process.

Lavelle and Bushrow's classification

Lavelle and Bushrow (2007) identify a seven-factor structure that deals with the connection between writers' ideas on writing and strategies. The first factor, elaborative, defines individual interest on writing, recognizes writing as a tool for learning. The second factor is low self-efficacy which represents a writing approach depending on confidence in skill toward writing. Third factor, no revision, defines a deep writing approach depended on revision as a context and process. Intuitive, the fourth factor, describes a visualization of the scene and imaginations about what writers hear during writing. Factor five, scientist, identifies well-organized plan for writing with explicit ideas. The sixth factor, task-oriented, is based on the rules and allows writers a little chance to express their ideas, whereas for factor seven, sculptor, writers have a tendency to conclude the composition as a draft and then get back and reorganize it.

Peñuelas' classification

Peñuelas (2012) develops the taxonomy of writing strategies based on Oxford's (1990) model. This model is divided into two main headings as direct and indirect writing strategies. In direct writing strategies, there are three subclasses as cognitive, memory and compensation writing strategies. Affective, meta-cognitive, and social writing strategies are included in indirect writing strategies. Oxford's model is based on the L2 strategy because of the fact that there is a close relationship between the first language and the second language in terms of the knowledge transformation and utilization of each language (McDonough, 2001, p. 326). Hsao and Oxford (2002) also suggest that strategy constitutes learning and writing strategies.

The questionnaire which is developed by Peñuelas (2012) and used in this study consists of 47 written statements based on six subcategories of writing strategies to explore how and when learners plan, write and revise during writing process. Memory strategies (Part A) include four items in order to measure whether students can retrieve knowledge from the memory or not. Cognitive strategies (Part B) consist of 13 items to measure the mental processes of learners. Compensation strategies (Part C) involve six items measuring the compensation of the deficient information. Meta-cognitive strategies (Part D) compose of 14 items about managing own learning process. Affective strategies (Part E) involve six items about controlling motivation and emotion. Finally, social strategies (Part F) involve four items about communicating with others to develop the writing. This model is basically related to the model of Oxford (1990) and it benefits from the cognitive models of Bereiter and Scardamalia's (1987) and Flower and Hayes' (1980). Moreover, it can be said that the structure of this questionnaire depends on Flower and Hayes' (1980) cognitive model of the native language writing process in terms of the recursiveness of the writing process as planning, transcribing and reviewing.

Studies on writing strategies

Writing strategies are especially covered in the context of language learning strategies and researches on writing strategies are not sufficient in the field of foreign literature, in Turkey.

Sommers (1980) conducted a study with the aim to assess the use of revising strategies between expert and novice students during the writing process. In this study, the participants were 20 expert students and 20 novice students. They wrote

the composition in three different genres and rewrote each of them as a draft and then and edited all of them. In this way, the researcher determined the use of revising strategies by analyzing the changes participants made. As a result, novice writers perceived the concept of revising as a rewriting of synonyms. According to these students, revising meant the correction of misspelled words; meaning was not important. On the other hand, expert writers considered the concept of revising related to the structure of composition. Such writers stated the weaknesses between the main ideas and supporting ones in the second draft.

According to a study conducted by Applebee, Langer and Mullis (1986) examining the number of essays reports students had written over six weeks, while 18.6% of the fourth graders wrote these types of texts, only 7.8% of the 11th graders wrote such texts. On the other hand, among 11th graders 17.4% said that they kept diaries, 37.3% wrote letters to friends and 74.8% sent messages and took notes in a week. This study shows that a few students keep writing outside of the school.

Perl (1988) conducted a research study with the purpose to identify which basic patterns occurs during writing by recording reports of students' thinking aloud. Perl stated that writing has a recursive structure based on data getting from students and teachers. According to her, one of the important recursive features was rereading. The second one was the use of key words related to the topic because writers went back to the composition during writing process in order to keep topic in their mind. To illustrate, writers went back and reread about the topic, meanwhile they made some changes to establish connection between topic and composition.

In the study of Krashen (1993), it is emphasized that reading and writing have a strong correlation. He states that writing success is based on the number of books read because writing comes from reading. Students can develop writing styles by reading. In writing classes, there is a considerable amount of reading before the beginning of writing.

The research of Petric and Czarl (2003) was conducted to validate a writing strategy inventory. Qualitative and quantitative data were used to evaluate items. They stated that most of the participants were unfamiliar with the concept of creative writing when the participants preferred one of the options. Many students did not choose the option of notes which were assumed as short informal letters or messages. Moreover, the participants perceived essays, articles, reports and research papers as the same terms.

In the study of Lipstein and Renninger (2007), the link between the students' interest in writing and the goals and strategies are investigated. Also, the connection between the students' interest for writing and their perception of their effort was explored. They found that the learners' interest can be affected by conditions surrounding the writing experience. Findings also showed that such impact comes from writers' experiences with creating text, cooperating with their friends, the assignments, and the feedback of teachers. Moreover, this investigation indicated that teachers' feedback has an important role in the development of writers' approach to writing.

Ülper (2011) developed an inventory of writing strategy to determine which writing strategies are used by trainee teachers. Regarding the results of the study, while

trainee teachers used the strategy of revising and generating ideas at a low level, they used the strategy of determining audience and the aim of text at a high level. In the writing process, trainee teachers gave more importance to spelling and punctuation; however, they used the content and revising strategies less. In the post-writing stage, revising strategies were mostly used in terms of spelling and punctuation. Furthermore, in the writing, pre-writing and post-writing stages, female students used writing strategies more than males.

Peñuelas (2012) reproduced the inventory of learning strategies questionnaire from Oxford's (1990) model to find out the use of writing strategy among 231 American students. This study indicates expert and novice writers who preferred to use many kinds of writing strategies. Yet, proficient writers preferred the use of cognitive, meta-cognitive and compensation writing strategies respectively, pursued by affective, memory and social writing strategies. In addition to this result, females favored the use of strategies more than males.

Esen and Yiğit (2013) conducted a research study on the 5^{th}, 6^{th}, 7^{th} and 8^{th} grade level students to determine the use of reading and writing strategies in science and technology lessons in Giresun, Turkey. The outcomes of study indicated that female students use reading and writing strategies more than males in general. The results of the study suggest that 58.1% of the students had planned before the beginning of writing, 76.3% of them had observed and revised, 79.8% of them had understood the content after writing and 67.9% of them had been more active with reading and writing activities in science lessons. Moreover, 53.8% of them sometimes preferred to apply related resources to get information during writing and 48.3% of them used

the strategy of providing the composition with visual materials. Finally, 62% of students stated that they had never shared or sometimes shared with someone their compositions.

More recently, a study conducted by Elshawish (2014) investigating the Libyan learners of English as L2 to see the differences between proficient and less proficient writers during writing process. The results of the study reveal that the writers who are good at writing used clearer outlining and planning than writers who are weak in writing. Thus, the good writers were more interested in dealing with planning, drafting and text reviewing during the writing processes. Moreover, the findings indicate that good writers enhanced their knowledge and expressions through reading and were aware of the audience.

CHAPTER 3: METHOD

Introduction

In this chapter, the information is given about the research design, followed by context, instrumentation, participants, data collection, and the method of data analysis.

Research design

Case study design is a research method that focuses on a single situation and it is bases on the analysis of strategies in specific boundaries (Yin, 2003). Because of the fact that this study was carried out only in one high school offering bilingual degrees, namely the IGCSE and the IB, the researcher used the case study method. In line with Baxter and Jack's conception (2008), the researcher used the case study approach to explore and explain the writing strategy use within the context of a school offering bilingual education. This case study was carried on an international high school. The researcher collected concerning mostly used writing strategies by participants.

The first research question looked into on what strategies were most frequently used by participants. The second question examined if writing strategy use differs with respect to grade level, gender, types of texts written, the number of books read and whether they like writing or not.

Context

The school where the research was conducted is an international high school, which implements bilingual education. It offers both the IB and IGCSE curricula to award bilingual degrees. In 1993, the school was established as Preparatory school. It was created to advance academic, social and physical development of its students. The school fosters students to have critical- thinking and creativity. These students in the school are prepared for top universities all over the world. In 1996, the school was officially authorized by the International Baccalaureate Organization to offer the IB Diploma Program.

Since the school provides pre-school, primary, middle and high school education for its students under one roof, students who attend this school have the opportunity to climb these different steps in a familiar environment. The PYP, the IGCSE, and the IB Diploma Program have the same purpose of improving students in every aspect in a bilingual context.

The school is one of the leading diverse communities in Turkey in that a good deal of students and teachers who have different nationalities. The fact that education language is English makes the school inviting to not only international students, but also national students who aim for the better for themselves. In the context of the IB and the IGCSE programs, subject area courses are taught in English except for the Turkish language and literature courses, which are the focus of this study. Turkish language and literature courses are offered as Language B of the IB curriculum. Owing to the fact that both the IB and the IGCSE programs have mandatory writing tasks that are necessary for the accomplishment of all the programs, this study was

performed in this school. In the IB Diploma Program, accomplishment of the extended essay and theory of knowledge (TOK) are the obligatory for all students. The extended essay is a research paper which is composed of 4,000 word and students write it independently. Furthermore, students have a chance to choose a topic for an essay on what they are interested among their DP subjects. Through the writing process, students can improve their knowledge with discussion. Theory of knowledge (TOK) composes of 1.600 word essay paper. Students reflect on their knowledge with real- life situations and think about the cultures throughout the world. By this way, students can easily reflect their ideas on their essay paper with higher awareness. Thanks to the writing processes, students can develop their skills in every aspect.

Participants

This study was conducted in the 2016-2017 academic year with the participation of 9^{th} (n:48), 10^{th} (n:48), 11^{th} (n:34) and 12^{th} (n:34) grade native Turkish speaker high school students in the laboratory school. Students who take Turkish classes only were eligible to participate in the research. Out of 169 high school students, 164 high school students participated in the study. All of them completed all parts of the instrument. Of all the participants, 86 students who took the survey were female, whereas 78 of them were male.

Instrumentation

This study uses a tool which composes of two sections. The first section includes background questionnaire (see Appendix A) to collect demographic information which is modified by the researcher. The background questionnaire composes of five

multiple-choice questions about students' grade level, types of text written, gender, the number of books read, and students' attitudes towards writing.

In the second section, this study uses Penuelas' (2012), '*The Inventory of Learning Strategies'* , which is consisted of direct and indirect strategies. It is adapted from Oxford's (1990) *The Strategy Inventory for Language Learning* (SILL). The survey tool consists of 47 Likert-type written statements, each of them focus on writing strategies to explore how students organized their writing texts in terms of when and how to plan, write and revise. 47 Likert-type items (see Appendix B) are categorized into direct and indirect strategies. Also, each of them is subdivided into three major groups (Penuelas, 2012):

Direct strategies

In Part A, the first four statements are designed to determine memory strategy use. In Part B, the next 13 statements are to discover cognitive strategy use. Also, in Part C, the six statements are to identify compensatory strategy use.

Indirect strategies

In Part D, the 14 statements are used to ascertain meta-cognitive strategy use. Part E includes six statements to determine affective strategy use. In Part F, the remaining four statements are explored for social strategies. Likert- rating scale was used from 1 to 5 to evaluate the responses. 1 means *never true*, 2 is *usually not true,* 3 means *somewhat true,* 4 is *usually true a*nd 5 is *always true* in this scale.

Method of data collection

Quantitative data was gathered during 2016- 2017 Fall semester. The survey was conducted with the permission of the university, the Ministry of National Education, school and parents. The printed survey was used by the researcher at the end of some Turkish lessons after the approval of class teacher.

The researcher first explained the purpose of the study and the procedures that needed to be followed during the administration of the instrument to the participants before conducting the instrument. Also, the researcher informed the participants of the nature of the study in that there were no rights or wrong answers. The participants were told to answer the questions based on their own perceptions of to what extent they agreed with the statements. During the administration of the questionnaire, the researcher clarified some statements that were confusing to some participants upon the participants' requests. On an average, all grade levels completed the questionnaire in thirty minutes.

Method of data analysis

The quantitative data which include 164 participants' responses were transferred into IBM SPSS Statistics (version 24.0) to obtain descriptive and inferential statistics results. There were no missing answers and no need for any reverse coding for statistical analysis in the data.

Reliability of this study is measured by Cronbach's alpha (0.70) in the six dimensions in SILL and the participants' objectivity (Hair, Anderson, Tathan, &

Black, 1998). It is observed that Cronbach's alpha is greater than 0.70 for each dimension.

Firstly, the normality was checked using descriptive statistics. It was determined that the skewness and kurtosis values were between +2 and -2. Then, inferential statistics analyses were conducted to answer the research questions. Thus, in the study, the variables were supposed to have univariate normality (Gravetter & Wallnau, 2014).

In this study, independent samples t-test, one-way ANOVA, and Post hoc tests were mainly used to analyze data in descriptive and inferential terms. Means and standard deviations of data were obtained by descriptive statistics. When the assumptions of variances were equal, Tukey's Honestly Significant Difference (HSD) post hoc test was used.

To answer the first research question, frequencies, means and standard deviations were obtained with regard to direct and indirect writing strategy use. In this study, mean score ranges are developed by Oxford (1990); high- always or almost always used ranges from 4.50 to 5.00, high- usually used ranges from 3.50 to 4.49, medium-sometimes used ranges 2.50 to 3.49, low-generally not used ranges 1.50 to 2.49, low-never or almost never used ranges 1.00 to 1.49.

To answer the second question, independent samples t-test, post-hoc tests, and One-way ANOVA were used to test whether or not there were any differences in writing strategies according to grade level, gender, types of texts written, the number of books read, whether students like writing or not. In all inferential analyses, alpha

level was taken as 0.05. In the analyses through independent samples t-test, the homogeneity of variance was checked using Levene's test to discover if the assumption was met.

CHAPTER 4: RESULTS

Introduction

The findings of the study will be analyzed in this chapter. It will be mainly based on the writing strategies used by high school students at a laboratory and international school and whether there are any differences between the use of writing strategies applied by students regarding grade level, gender, types of texts written and the number of books read. Also, this chapter will focus on whether they like writing or not, which composes the variables of the study. The findings will be presented in the same line with the research questions.

Direct and indirect writing strategies: Grade level

This study examines how direct and indirect writing strategies are employed by students at an international school offering bilingual education in descriptive and inferential terms. In this study, high- always or almost always used ranges from 4.50 to 5.00, high- usually used ranges from 3.50 to 4.49, medium-sometimes used ranges 2.50 to 3.49, low-generally not used ranges 1.50 to 2.49, low-never or almost never used ranges 1.00 to 1.49 (Oxford, 1990).

Table 1 below includes the means and standard deviation of the use of direct and indirect writing strategies across grade levels- 9^{th}, 10^{th}, 11^{th} and 12^{th} grade. While 12^{th} graders use direct and indirect writing strategies at the exact same medium level, others use them at similar medium rates. Direct and indirect writing strategies are

employed at medium level for all grade levels. Overall, direct and indirect writing strategies are used at the highest level among 12th graders.

When the students' writing strategies across grade level are analyzed, the analysis of variance (ANOVA) test results regarding overall use of direct and indirect strategies demonstrates that there is no statistically significant mean difference across grade levels ($p>0.05$).

Table 1
Overall direct and indirect writing strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Direct Strategies					
	M	3.11	3.15	3.20	3.38
	SD	0.57	0.50	0.64	0.53
Indirect Strategies					
	M	3.17	3.10	3.21	3.38
	SD	0.62	0.55	0.62	0.53

When the constituent components of direct and indirect writing strategies are analyzed in more detail, one can observe that they are used at medium in general; still, there is a less tendency towards the use of memory and affective strategies across grade levels (Table 2). It might be also worth noting that 12-graders tend to use meta-cognitive strategies at high level.

Table 2
Direct and indirect writing strategies: Grade level

Grade Level		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Memory Strategies	M	2.80	2,76	3,14	3.07
	SD	0.72	0.76	0.74	0. 73
Cognitive Strategies	M	3.19	3.22	3.23	3.49
	SD	0.58	0.60	0.76	0.62
Compensatory Strategies	M	3.15	3.28	3.20	3.38
	SD	0.75	0.62	0.73	0.53
Meta-cognitive Strategies	M	3.36	3.28	3.39	3.57
	SD	0.56	0.64	0.65	0.54

Table 2 (cont'd)
Direct and indirect writing strategies: Grade level

Grade Level		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Affective Strategies	M	2.67	2.76	2.88	2.95
	SD	0.86	0.73	0.81	0.80
Social Strategies	M	3.26	3.26	3.07	3.39
	SD	0.97	0.97	0.94	0.95

Nevertheless, the ANOVA test findings indicates that there is no statistically significant mean difference across grade levels ($p>0.05$).

Memory strategies: Grade level

Table 3 presents the memory strategies used by students across grade levels. The strategy of *using background knowledge to relate the composition* (Q1) is in particular used at the highest level across grade levels. The strategy of *memorizing new words by writing them several times* (Q3) is, however, used at the lowest level by all graders. On the other hand, *using new words in a sentence* (Q2) and *revising old compositions* (Q4) are used at medium level across all grade levels. (All 4 questions can be seen in Appendix B)

Table 3
Memory strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Question 1	M	3.65	3.85	4.06	4.15
	SD	0.93	0.87	0.69	0.89
Question 2	M	2.83	2.58	2.71	3.09
	SD	1.22	1.12	1.08	1.13
Question 3	M	1.90	1.90	2.44	2.24
	SD	1.07	1.29	1.58	1.25
Question 4	M	2.83	2.73	3.38	2.82
	SD	1.22	1.39	1.23	1.02

Still, the results of ANOVA test indicate that there is no statistically significant mean difference across grade levels in memory strategies ($p>0.05$).

Cognitive strategies: Grade level

Table 4 presents the cognitive strategies used in all grade levels. While the strategy of *reviewing previous sections of the text* (Q7), *using the transition words* (Q16) and *choosing the right word* (Q17) are in particular employed at high level for all grade levels, the others are employed at medium level by all graders. *Putting aside the writing to reconsider the ideas* (Q14) seems to be the least preferred strategy by both 9th and 10th graders (Questions 5 to 17 can be seen in Appendix B).

Table 4
Cognitive strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Question 5	M	3.58	3.42	3.09	3.65
	SD	1.23	1.14	1.26	1.07
Question 6	M	3.40	3.04	3.12	3.53
	SD	1.28	1.23	1.22	1.05
Question 7	M	3.67	3.88	3.62	3.74
	SD	1.22	1.06	1.15	1.13
Question 8	M	3.44	3.81	3.53	3.88
	SD	0.98	1.12	1.08	0.97
Question 9	M	3.15	3.48	3.53	3.65
	SD	1.32	1.11	1.05	0.88
Question 10	M	2.52	2.23	2.94	2.76
	SD	1.30	1.07	1.30	1.30
Question 11	M	3.06	3.04	3.24	3.38
	SD	1.34	1.39	1.25	1.12
Question 12	M	2.50	2.77	2.71	2.79
	SD	1.33	1.37	1.36	1.20
Question 13	M	2.94	2.71	3.00	3.29
	SD	1.29	1.33	1.51	1.11
Question 14	M	1.98	2.17	2.97	2.91
	SD	1.22	1.31	1.52	1.31
Question 15	M	3.40	3.40	2.91	3.35
	SD	1.42	1.42	1.56	1.30
Question 16	M	4.13	4.21	3.94	4.21
	SD	0.89	1.11	0.88	0.88
Question 17	M	3.79	3.75	3.44	4.18
	SD	1.20	1.06	1.10	1.02

The ANOVA test conducted yields statistically significant mean difference across grade levels in the strategy of *putting aside the writing to reconsider the ideas* (Q14) (Table 5).

Table 5
ANOVA for cognitive strategies: Grade level

	df_1	df_2	F
Question 5	3	163	1.59
Question 6	3	163	1.43
Question 7	3	163	0.41
Question 8	3	163	1.75
Question 9	3	163	1.56
Question 10	3	163	2.52
Question 11	3	163	0.59
Question 12	3	163	0.45
Question 13	3	163	1.31
Question 14	3	163	5.77*
Question 15	3	163	0.94
Question 16	3	163	0.62
Question 17	3	163	2.52

* $p<0.05$

The post hoc Tukey HSD test shows that the significant difference is between 9^{th} and 11^{th}, and 9^{th} and 12^{th} graders.

Compensatory strategies: Grade level

Table 6 indicates the compensation strategies used by students across grade levels. There is a high tendency towards the use of compensatory strategies across grade levels. It can be seen that the strategy of *using synonyms* (Q18) is at the highest level across all grade levels; whereas, the strategy of *repeating* (Q20) is used less than other compensation strategies. Moreover, the use of compensation strategies increases starting from 9^{th} grade to 12^{th} grade. (Questions 18 to 23 can be seen in Appendix B).

Table 6
Compensatory strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Question 18	M	3.67	3.90	3.79	4.06
	SD	1.11	1.03	1.17	1.09
Question 19	M	2.92	3.06	2.94	3.35
	SD	1.39	1.24	1.20	1.09
Question 20	M	2.56	2.73	2.59	2.53
	SD	1.38	1.12	1.18	1.05
Question 21	M	3.08	2.90	3.32	3.29
	SD	1.36	1.35	1.31	1.14
Question 22	M	3.44	3.33	3.53	3.71
	SD	1.41	1.29	1.05	1.06
Question 23	M	3.23	3.75	3.00	3.35
	SD	1.46	1.17	1.10	1.09

It is indicated in ANOVA test, there is no statistically significant mean difference across grade levels in their use of compensation strategies ($p>0.05$).

Meta-cognitive strategies: Grade level

Table 7 displays meta-cognitive strategies used by high school students across grade levels. The strategies are mainly used at medium and high level across all grade levels. Furthermore, 12^{th} graders seem to use meta-cognitive strategies at the highest level. Also, the strategies of *identifying the purpose* (Q32) and *knowing the characteristics of good essays* (Q36) are used at high level by all graders. On the other hand, almost all students have a less tendency to use the strategy of *setting the short-term goals* and *long-term* (Q28), *thinking audience* (Q30), and *concerning with the lack of writing fluency* (Q33) compared to other meta-cognitive strategies. (Questions 24 to 37 can be seen in Appendix B).

Table 7
Meta-cognitive strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Question 24	M	3.31	3.25	3.38	3.21
	SD	1.05	1.15	0.98	1.12
Question 25	M	3.94	3.33	3.71	3.76
	SD	0.99	1.34	1.21	1.20
Question 26	M	3.58	3.15	3.47	3.97
	SD	1.12	1.32	1.30	1.00
Question 27	M	3.38	3.02	2.97	3.76
	SD	1.23	1.21	1.24	1.04
Question 28	M	2.85	2.69	3.03	3.09
	SD	1.28	1.17	1.33	1.11
Question 29	M	2.90	3.19	3.32	3.18
	SD	1.41	1.29	1.24	1.19
Question 30	M	2.83	2.96	3.12	3.29
	SD	1.22	1.32	1.14	1.21
Question 31	M	3.04	3.63	3.53	3.91
	SD	1.07	1.24	1.26	1.33
Question 32	M	4.19	4.06	3.88	3.85
	SD	1.02	0.97	1.22	1.04
Question 33	M	3.31	2.83	2.82	2.68
	SD	1.38	1.26	1.11	1.27
Question 34	M	3.44	3.56	3.53	3.85
	SD	1.00	1.07	1.13	0.98
Question 35	M	3.29	3.27	3.32	3.56
	SD	1.23	1.36	1.24	1.13
Question 36	M	3.56	3.56	3.82	3.97
	SD	0.98	1.07	1.14	1.00
Question 37	M	3.42	3.35	3.59	3.88
	SD	1.08	1.21	1.20	1.06

The results of ANOVA test show that there is a statistically significant mean difference in the strategies as *planning* (Q26), *going back to the plan to reformulate* (Q27) and *paying attention* (Q31) across grade levels (Table 8).

Table 8
ANOVA for meta-cognitive strategies: Grade level

	df_1	df_2	F
Question 24	3	163	0.17
Question 25	3	163	2.15
Question 26	3	163	3.20*
Question 27	3	163	3.49*
Question 28	3	163	0.88
Question 29	3	163	0.81

Table 8 (cont'd)
ANOVA for meta-cognitive strategies: Grade level

	df_1	df_2	F
Question 30	3	163	1.02
Question 31	3	163	3.71*
Question 32	3	163	0.89
Question 33	3	163	2.06
Question 34	3	163	1.09
Question 35	3	163	0.41
Question 36	3	163	1.46
Question 37	3	163	1.63

* $p<0.05$

The post hoc Tukey HSD test demonstrates the significant difference is between 10^{th} and 12^{th} graders in terms of the strategy of *planning the learning*, and 9^{th} and 12^{th} graders regarding the strategy of *paying attention*. The same post hoc test also demonstrates that the significant difference with regards to the strategy of *going back to the plan* is between 10^{th} and 12^{th}, and 11^{th} and 12^{th} graders.

Affective strategies: Grade level

Table 9 presents the affective strategies used by students across grade levels. While the strategy of *writing a language learning diary* (Q41) is used only at the lowest level across all grade levels, the strategy of *having confidence* (Q43) is used only at high level among 10^{th}, 11^{th} and 12^{th} graders, whereas the rest of the affective strategies are mainly used at medium level. Besides, the strategies of *encouraging themselves* (Q38) and *having confidence* (Q43) seem to increase starting from 9^{th} to 12^{th} grade levels. (Questions 38 to 43 can be seen in Appendix B).

Table 9
Affective strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Question 38	M	2.96	3.15	3.32	3.38
	SD	1.27	1.33	1.26	1.18
Question 39	M	2.77	3.13	3.09	3.00
	SD	1.53	1.49	1.54	1.49
Question 40	M	2.42	2.40	2.21	2.71
	SD	1.54	1.41	1.36	1.52
Question 41	M	1.44	1.67	1.88	1.91
	SD	0.98	1.07	1.20	1.24
Question 42	M	3.04	2.69	2.91	2.71
	SD	1.45	1.50	1.37	1.42
Question 43	M	3.38	3.52	3.88	3.97
	SD	1.17	1.25	1.06	0.83

Nevertheless, the analysis of variance (ANOVA) test results regarding affective strategies shows that there is no statistically significant mean difference across grade levels ($p>0.05$).

Social strategies: Grade level

Table 10 demonstrates the social strategies which are mainly used at medium and high level across all grade levels. The strategy of *seeking assistance* (Q44) is used at the highest level across all grade levels except for 11th graders. Moreover, all graders have a less tendency to use the strategy of *seeking opportunities* (Q45). (Questions 44 to 47 can be seen in Appendix B).

Table 10
Social strategies: Grade level

		9 (n=48)	10 (n=48)	11 (n=34)	12 (n=34)
Question 44	M	3.60	3.52	3.15	3.79
	SD	1.26	1.45	1.37	1.20
Question 45	M	2.65	2.65	2.62	3.15
	SD	1.39	1.24	1.45	1.10
Question 46	M	3.56	3.38	3.35	3.71
	SD	1.33	1.31	1.20	1.24
Question 47	M	3.23	2.52	3.18	2.91
	SD	1.51	1.30	1.31	1.28

Still, the ANOVA test results demonstrate that there is no statistically significant mean difference for social strategies across grade levels ($p>0.05$).

Direct and indirect writing strategies: Gender

Based on the overall means of direct and indirect writing strategies, the results indicate that female students use direct strategies ($M= 3.30$, $SD= 0.53$) and indirect strategies ($M= 3.28$, $SD= 0.59$) slightly more frequently compared to male students.

Table 11
Overall direct and indirect writing strategies: Gender

		Male (n=78)	Female (n=86)
Direct Strategies	M	3.09	3.30
	SD	0.57	0.53
Indirect Strategies	M	3.11	3.28
	SD	0.57	0.59

As it is indicated in independent samples t-test, there is a statistically significant mean difference across genders in direct strategies (Table 12).

Table 12
Independent samples t-test for direct and indirect strategies: Gender

	F	p	t.	df	P
Direct Strategies	0.00	0.96	-2.430	162	0.01*
Indirect Strategies	0.55	0.45	-1.95	162	0.05

* $p<0.05$

Table 13 below includes all direct and indirect strategies and the differences of strategy use frequency across gender. When these strategies are considered, all strategies are employed at a medium level across gender in general; however, females use strategies more than males do. It can be seen from Table 13 that the most

frequently used strategy is meta-cognitive, yet there is a less tendency towards the use of memory and affective strategies across gender.

Table 13
Direct and indirect writing strategies: Gender

Gender		Male (n=78)	Female (n=86)
Memory Strategies	M	2.89	2,94
	SD	0.77	0.74
Cognitive Strategies	M	3.09	3.44
	SD	0.64	0.59
Compensatory Strategies	M	3.24	3.25
	SD	0.62	0.70
Meta-cognitive Strategies	M	3.30	3.46
	SD	0.55	0.64
Affective Strategies	M	2.74	2.85
	SD	0.86	0.75
Social Strategies	M	3.01	3.33
	SD	0.94	0.90

The analysis of variance (ANOVA) test results indicates that there is a statistically mean difference across genders in relation to the use of cognitive and social strategies, which are used by females more than males.

Table 14
Independent samples t-test for direct and indirect strategies: Gender

	F	p	t.	df	P
Memory Strategies	0.03	0.85	-0.45	162	0.65
Cognitive Strategies	0.06	0.80	-3.65	162	0.00*
Compensation Strategies	0.49	0.48	-0.10	162	0.91
Metacognitive Strategies	1.95	0.16	-1.74	162	0.08
Affective Strategies	0.84	0.35	-0.88	162	0.37
Social Strategies	0.50	0.47	-2.25	162	0.02*

* $p < 0.05$

Memory strategies: Gender

Table 15 presents the main categories of memory strategies used by students across gender. While the strategy of *associating with background knowledge* (Q1) is used at the highest level, the strategy of *memorizing new words* (Q3) is used at the lowest

level by both genders. In general, other memory strategies are used at medium level. (All 4 questions can be seen in Appendix B).

Table 15
Memory strategies: Gender

		Male (n=78)	Female (n=86)
Question 1	M	3.85	3.94
	SD	0.88	0.87
Question 2	M	2.74	2.83
	SD	1.11	1.20
Question 3	M	2.05	2.10
	SD	1.31	1.29
Question 4	M	2.92	2.91
	SD	1.29	1.22

According to the independent samples t-test results, however, there is no statistically significant mean difference across genders in the use of memory strategies ($p>0.05$).

Cognitive strategies: Gender

Table 16 consists of the categories of cognitive strategies employed by students at medium and high levels across genders in general. However, the strategy of *putting aside the writing for a few days* (Q14) and the strategy of *writing different drafts* (Q10) are used at the lowest level by both genders. Furthermore, females tend to employ more cognitive strategies than males. (Questions 5 to 17 can be seen in Appendix B).

Table 16
Cognitive strategies: Gender

		Male (n=78)	Female (n=86)
Question 5	M	3.24	3.63
	SD	1.13	1.21
Question 6	M	2.99	3.51
	SD	1.26	1.12

Table 16 (cont'd)
Cognitive strategies: Gender

		Male (n=78)	Female (n=86)
Question 7	M	3.37	4.06
	SD	1.12	1.05
Question 8	M	3.46	3.84
	SD	0.94	1.11
Question 9	M	3.35	3.50
	SD	1.16	1.10
Question 10	M	2.37	2.76
	SD	1.17	1.31
Question 11	M	2.92	3.37
	SD	1.24	1.31
Question 12	M	2.63	2.73
	SD	1.35	1.28
Question 13	M	2.88	3.02
	SD	1.39	1.26
Question 14	M	2.38	2.48
	SD	1.46	1.33
Question 15	M	3.04	3.49
	SD	1.43	1.37
Question 16	M	3.97	4.27
	SD	0.99	0.90
Question 17	M	3.49	4.06
	SD	1.06	1.11

As it is clearly seen in independent samples t-test (Table 17), there is a statistically significant mean difference across genders in the cognitive strategies. The strategies of *creating different ideas, rereading the composition, reviewing previous section of the text, reformulating the linguistic expression, reading good writers' books and choosing the right words* are used more by females than males.

Table 17
Independent samples t-test for cognitive strategies: Gender

	F	p	t.	df	p
Question 5	1.50	0.22	-2.08	162	0.03*
Question 6	1.82	0.17	-2.81	162	0.00*
Question 7	2.02	0.15	-4.02	162	0.00*
Question 8	0.82	0.36	-2.31	162	0.02*
Question 9	0.51	0.47	-0.87	162	0.38

Table 17 (cont'd)
Independent samples t-test for cognitive strategies: Gender

	F	p	t.	df	p
Question 10	2.81	0.09	-1.96	162	0.05
Question 11	1.46	0.22	-2.24	162	0.02*
Question 12	0.88	0.34	-0.50	162	0.61
Question 13	1.81	0.18	-0.66	162	0.50
Question 14	0.87	0.35	-0.42	162	0.67
Question 15	0.01	0.90	-2.04	162	0.05
Question 16	0.00	0.95	-1.98	162	0.05
Question 17	0.01	0.90	-3.35	162	0.00*

* $p < 0.05$

Compensatory strategies: Gender

Table 18 includes the categories of compensation strategies used by students across genders. When the outcomes are analyzed in detail, all of these strategies are at medium level except for the strategy of *using synonyms* (Q18), which is at the highest level across genders. (Questions 18 to 23 can be seen in Appendix B).

Table 18
Compensatory strategies: Gender

		Male (n=78)	Female (n=86)
Question 18	M	3.62	4.05
	SD	1.13	1.03
Question 19	M	2.96	3.14
	SD	1.16	1.33
Question 20	M	2.81	2.43
	SD	1.27	1.10
Question 21	M	3.15	3.09
	SD	1.31	1.31
Question 22	M	3.53	3.44
	SD	1.19	1.28
Question 23	M	3.37	3.35
	SD	1.20	1.30

Independent samples t-test conducted yields statistically significant mean difference across genders in terms of the strategy of *using synonyms* (Q18) (Table 19).

Table 19
Independent samples t-test for compensatory strategies: Gender

	F	p	t.	df	p
Question 18	2.82	0.09	-2.54	162	0.01*
Question 19	2.06	0.15	-0.90	162	0.36
Question 20	1.51	0.22	2.03	162	0.05
Question 21	0.06	0.80	0.29	162	0.06
Question 22	0.37	0.54	0.43	162	0.66
Question 23	0.49	0.48	0.11	162	0.90

* $p < 0.05$

Meta-cognitive strategies: Gender

Table 20 demonstrates how frequently meta-cognitive strategies are used across genders. According to the outcomes shown in the Table 20 below, meta-cognitive strategies are used at medium and high level by both genders. *Writing with a specific aim* (Q32) is the most preferred strategy by both female and male participants. It is also possible to see that males seem to use the strategy of *thinking of audience* (Q30) and *concerning the writing fluency* (Q33) more than females. (Questions 24 to 37 can be seen in Appendix B).

Table 20
Meta-cognitive strategies: Gender

		Male (n=48)	Female (n=48)
Question 24	M	3.28	3.29
	SD	1.05	1.10
Question 25	M	3.42	3.91
	SD	1.29	1.08
Question 26	M	3.35	3.66
	SD	1.22	1.21
Question 27	M	3.06	3.45
	SD	1.14	1.26
Question 28	M	2.85	2.93
	SD	1.10	1.33
Question 29	M	3.09	3.16
	SD	1.15	1.43
Question 30	M	3.17	2.90
	SD	1.21	1.25
Question 31	M	3.38	3.59
	SD	1.26	1.24
Question 32	M	3.87	4.15
	SD	1.09	1.01

Table 20 (cont'd)
Meta-cognitive strategies: Gender

		Male (n=48)	Female (n=48)
Question 33	M	3.09	2.80
	SD	1.16	1.37
Question 34	M	3.45	3.70
	SD	0.96	1.11
Question 35	M	3.36	3.34
	SD	1.20	1.29
Question 36	M	3.51	3.87
	SD	1.09	0.99
Question 37	M	3.31	3.73
	SD	1.13	1.14

Independent samples t- test results show there is a statistically significant mean difference in terms of the strategy of *planning the composition* (Q25), *knowing the characteristics of good essays* (Q36) and *awareness of the effectiveness of the strategies* (Q37) across genders (Table 21).

Table 21
Independent samples t-test for meta-cognitive strategies: Gender

	F	p	t.	df	p
Question 24	0.35	0.55	-0.05	162	0.95
Question 25	7.50	0.00	-2.58	150.59	0.01*
Question 26	0.01	0.91	-1.66	162	0.09
Question 27	3.12	0.07	-2.06	162	0.05
Question 28	4.13	0.04	-0.44	160.70	0.66
Question 29	10.16	0.00	-0.36	159.87	0.71
Question 30	0.02	0.87	1.40	162	0.16
Question 31	0.00	0.96	-1.06	162	0.28
Question 32	0.63	0.42	-1.69	162	0.09
Question 33	7.76	0.00	1.44	161.19	0.15
Question 34	1.96	0.16	-1.52	162	0.13
Question 35	0.12	0.72	0.11	162	0.91
Question 36	1.43	0.23	0.11	162	0.91
Question 37	0.06	0.80	-2.39	162	0.01*

* $p < 0.05$

Affective strategies: Gender

When the affective strategies are analyzed in more detail, one can observe that they are used at the medium level in general. There is a less tendency towards the use of

writing diary strategy (Q41), whereas *having confidence as capacity* (Q43) is the most preferred strategy across genders. (Questions 38 to 43 can be seen in Appendix B).

Table 22
Affective strategies: Gender

		Male (n=78)	Female (n=86)
Question 38	M	3.01	3.33
	SD	1.29	1.24
Question 39	M	3.00	2.98
	SD	1.57	1.46
Question 40	M	2.50	2.36
	SD	1.49	1.43
Question 41	M	1.63	1.76
	SD	1.17	1.07
Question 42	M	2.78	2.90
	SD	1.50	1.38
Question 43	M	3.50	3.78
	SD	1.11	1.14

The independent samples t-test results demonstrate that there is no statistically significant mean difference across genders in affective strategies ($p>0.05$).

Social strategies: Gender

As it is indicated in Table 23 below, social strategies are used at medium and high level across genders. It is clear that females have a tendency to employ the strategies of *seeking assistance* (Q44) and *giving the writing to someone to get an opinion* (Q46) at a higher level than males do. Other social strategies are used at medium level across both genders. (Questions 44 to 47 can be seen in Appendix B).

Table 23
Social strategies: Gender

		Male (n=78)	Female (n=86)
Question 44	M	3.24	3.78
	SD	1.30	1.33
Question 45	M	2.68	2.80
	SD	1.37	1.26
Question 46	M	3.21	3.76
	SD	1.28	1.22
Question 47	M	2.90	2.99
	SD	1.41	1.37

Independent samples t-test results demonstrate that there is a statistically significant mean difference across genders in *seeking assistance* (Q44) and *giving the writing to someone to get an opinion* (Q46) (Table 24). Females seem to use these social strategies more than males.

Table 24
Independent samples t-test for social strategies: Gender

	F	p	t.	df	P
Question 44	0.00	0.96	-2.59	162	0.01*
Question 45	1.15	0.28	-0.59	162	0.55
Question 46	0.27	0.60	-2.80	162	0.00*
Question 47	0.14	0.70	-0.41	162	0.67

* $p < 0.05$

Types of texts written

There are eight types of texts preferred by students which are e-mail, letter, note, essay, article, report, research paper and creative writing. In this part, the study explores the use of direct and indirect writing strategies across these text types written respectively. In this study, high- always or almost always used ranges from 4.50 to 5.00, high- usually used ranges from 3.50 to 4.49, medium-sometimes used ranges 2.50 to 3.49, low-generally not used ranges 1.50 to 2.49, low-never or almost never used ranges 1.00 to 1.49 (Oxford, 1990).

Direct and indirect writing strategies: E-mail

Based on the overall means of direct and indirect writing strategies, the results indicate that both strategies are used approximately at the same medium level across the category of writing e-mails (Table 25).

Table 25
Overall direct and indirect writing strategies: E-mail

		Yes (n=54)	No (n=110)
Direct Strategies	M	3.29	3.15
	SD	0.53	0.57
Indirect Strategies	M	3.24	3.18
	SD	0.52	0.61

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing e-mails and who did not, regarding their preference of direct and indirect strategies ($p>0.05$).

Table 26 below lists all direct and indirect writing strategies preferred by both students who did or did not choose writing e-mails. All of the strategies are used at a medium level in general. Students who generally write e-mails use all strategies more than students who do not, except for memory and affective strategies.

Table 26
Direct and indirect writing strategies: E-mail

E-mail		Yes (n=54)	No (n=110)
Memory Strategies	M	2.98	2,88
	SD	0.73	0.76
Cognitive Strategies	M	3.36	3.22
	SD	0.62	0.65
Compensatory Strategies	M	3.35	3.18
	SD	0.62	0.68
Meta-cognitive Strategies	M	3.48	3.33
	SD	0.55	0.62

Table 26 (cont'd)
Direct and indirect writing strategies: E-mail

E-mail		Yes (n=54)	No (n=110)
Affective Strategies	M	2.67	2.85
	SD	0.75	0.83
Social Strategies	M	3.28	3.12
	SD	0.85	0.96

The results indicates that there is no statistically significant mean difference for the preference of writing e-mails or not in terms of direct and indirect strategies ($p>0.05$).

Memory strategies: E-mail

Table 27 presents the memory strategies preferred by students who did and did not choose writing e-mails. While the strategy of *associating with background knowledge* (Q1) is used at the highest level, the strategy of *memorizing new words* (Q3) is used at the lowest level. In general, other memory strategies are used at medium level. (All 4 questions can be seen in Appendix B).

Table 27
Memory strategies: E-mail

		Yes (n=54)	No (n=110)
Question 1	M	4.24	3.73
	SD	0.69	0.90
Question 2	M	2.70	2.83
	SD	1.22	1.12
Question 3	M	2.11	2.06
	SD	1.28	1.31
Question 4	M	2.89	2.93
	SD	1.17	1.29

As it is clearly seen in the independent samples t-test (Table 28), there is a statistically significant mean difference regarding the preference of writing e-mails

or not in terms the strategy of *associating with background knowledge*. Students who generally write e-mails seem to employ the strategy more than students who do not.

Table 28
Independent samples t-test for memory strategies: E-mail

	F	p	t.	df	p
Question 1	4.67	0.32	-3.99	162	0.00*
Question 2	1.25	0.26	-0.64	162	0.82
Question 3	0.01	0.89	-0.21	162	0.85
Question 4	0.37	0.53	-0.18	162	0.85

* p< 0.05

Cognitive strategies: E-mail

Table 29 consists of the categories of cognitive strategies chose by students who did and did not prefer writing e-mails. All cognitive strategies are used at medium and high level in general. (Questions 5 to 17 can be seen in Appendix B).

Table 29
Cognitive strategies: E-mail

		Yes (n=54)	No (n=110)
Question 5	M	3.59	3.37
	SD	1.05	1.24
Question 6	M	3.33	3.23
	SD	1.21	1.22
Question 7	M	3.83	3.68
	SD	1.07	1.17
Question 8	M	3.83	3.57
	SD	1.06	1.04
Question 9	M	3.78	3.25
	SD	1.07	1.12
Question 10	M	2.57	2.57
	SD	1.38	1.20
Question 11	M	3.00	3.24
	SD	1.24	1.32
Question 12	M	2.74	2.65
	SD	1.41	1.27
Question 13	M	2.94	2.96
	SD	1.28	1.35
Question 14	M	2.52	2.39
	SD	1.48	1.34
Question 15	M	3.39	3.22
	SD	1.37	1.44

Table 29 (cont'd)
Cognitive strategies: E-mail

		Yes (n=54)	No (n=110)
Question 16	M	4.09	4.15
	SD	1.08	0.88
Question 17	M	4.06	3.65
	SD	1.01	1.15

Independent samples t-test results show there is no statistically significant mean difference between students who chose writing e-mails and who did not, regarding their preference of cognitive strategies ($p>0.05$).

Compensatory strategies: E-mail

Table 30 indicates the compensatory strategies across the category of writing e-mails. The strategy use is mainly at medium and high level. The least preferred strategy is *repeating in an attempt to keep writing.* (Questions 18 to 23 can be seen in Appendix B).

Table 30
Compensatory strategies: E-mail

		Yes (n=54)	No (n=110)
Question 18	M	4.04	3.75
	SD	1.04	1.12
Question 19	M	3.04	3.06
	SD	1.16	1.30
Question 20	M	2.70	2.56
	SD	1.16	1.21
Question 21	M	3.19	3.09
	SD	1.30	1.31
Question 22	M	3.74	3.35
	SD	1.24	1.21
Question 23	M	3.44	3.32
	SD	1.19	1.29

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the choice of writing e-mails or not in terms of compensatory strategies ($p>0.05$).

Meta-cognitive strategies: E-mail

Table below 31 indicates the categories of meta-cognitive strategies used by students who did and did not choose writing e-mails. The use of this strategy is mostly at medium and high level. (Questions 24 to 37 can be seen in Appendix B).

Table 31
Meta-cognitive strategies: E-mail

		Yes (n=54)	No (n=110)
Question 24	M	3.44	3.21
	SD	1.07	1.07
Question 25	M	3.89	3.57
	SD	1.25	1.17
Question 26	M	3.70	3.42
	SD	1.16	1.25
Question 27	M	3.15	3.33
	SD	1.29	1.18
Question 28	M	2.72	2.97
	SD	1.26	1.20
Question 29	M	3.37	3.01
	SD	1.33	1.27
Question 30	M	3.04	3.02
	SD	1.18	1.27
Question 31	M	3.78	3.35
	SD	1.14	1.28
Question 32	M	4.24	3.91
	SD	0.88	1.12
Question 33	M	3.00	2.91
	SD	1.28	1.28
Question 34	M	3.72	3.51
	SD	1.01	1.06
Question 35	M	3.37	3.34
	SD	1.26	1.25
Question 36	M	3.80	3.65
	SD	1.01	1.07
Question 37	M	3.57	3.51
	SD	1.17	1.14

The analysis of independent samples t-test results demonstrates that there is no statistically significant mean difference regarding the preference of writing e-mails or not in terms of meta-cognitive strategies ($p>0.05$).

Affective strategies: E-mail

As it is presented in Table 32, affective strategies are mostly used at medium level regarding the choice of whether or not to write an e-mail. However, while the strategy of *having confidence* (Q43) is at the highest level, the strategy of *writing a diary* (Q41) is at the lowest level among all affective strategies. (Questions 38 to 43 can be seen in Appendix B).

Table 32
Affective strategies: E-mail

		Yes (n=54)	No (n=110)
Question 38	M	2.96	3.28
	SD	1.22	1.28
Question 39	M	2.93	3.02
	SD	1.51	1.51
Question 40	M	2.31	2.48
	SD	1.38	1.50
Question 41	M	1.52	1.78
	SD	1.02	1.16
Question 42	M	2.74	2.89
	SD	1.37	1.48
Question 43	M	3.59	3.67
	SD	1.10	1.15

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the choice of writing e-mails or not in affective strategies ($p>0.05$).

Social strategies: E-mail

Table 33 indicates social strategies across the category of writing e-mails. The strategy of *giving writing to a friend or someone* (Q46) is used only at low level by students do not generally write e-mails, whereas the rest of memory strategies are mainly used at medium level. (Questions 44 to 47 can be seen in Appendix B).

Table 33
Social strategies: E-mail

		Yes (n=54)	No (n=110)
Question 44	M	3.74	3.42
	SD	1.18	1.40
Question 45	M	2.89	2.67
	SD	1.29	1.32
Question 46	M	3.63	1.43
	SD	1.15	1.33
Question 47	M	2.87	2.98
	SD	1.36	1.40

For social strategies, the analysis of independent samples t-test results shows that there is no statistically significant mean difference regarding the choice of writing e-mails or not ($p>0.05$).

Direct and indirect writing strategies: Letter

In Table 34, the overall means of direct and indirect writing strategies indicates that students who chose writing letters have a more tendency to use both strategies. Also, the use of both strategies is at medium level.

Table 34
Overall direct and indirect writing strategies: Letter

		Yes (n=23)	No (n=141)
Direct Strategies	M	3.37	3.17
	SD	0.57	0.56
Indirect Strategies	M	3.33	3.18
	SD	0.61	0.58

As the results of independent samples t-test suggests, there is no statistically significant mean difference regarding the choice of writing letters or not in terms of direct and indirect strategies ($p>0.05$).

When the constituent components of direct and indirect writing strategies are analyzed in more detail, one can observe that they are used at medium in general; still, there is a less tendency towards the use of affective strategies regarding the preference of writing letters or not (Table 35).

Table 35
Direct and indirect writing strategies: Letter

		Yes (n=23)	No (n=141)
Memory Strategies	M	3.11	2,88
	SD	0.93	0.72
Cognitive Strategies	M	3.50	3.23
	SD	0.63	0.63
Compensatory Strategies	M	3.25	3.24
	SD	0.76	0.65
Meta-cognitive Strategies	M	3.54	3.35
	SD	0.66	0.59
Affective Strategies	M	2.95	2.76
	SD	0.73	0.81
Social Strategies	M	3.14	3.18
	SD	1.04	0.91

The independent samples t-test findings demonstrate that there is no statistically significant mean difference regarding the choice of writing letters or not in direct and indirect strategies ($p>0.05$).

Memory strategies: Letter

In Table 36, memory strategies are mainly used at medium level across the category of writing letters. Otherwise, the strategy of *memorizing new words* (Q3) is used at low level. (All 4 questions can be seen in Appendix B).

Table 36
Memory strategies: Letter

		Yes (n=23)	No (n=141)
Question 1	M	3.91	3.89
	SD	0.79	0.89
Question 2	M	3.04	2.74
	SD	1.26	1.13
Question 3	M	2.48	2.01
	SD	1.56	1.24
Question 4	M	3.04	2.89
	SD	1.29	1.25

The analysis of independent samples t-test results shows that there is no statistically significant mean difference regarding the choice of writing letter or not in memory strategies ($p>0.05$).

Cognitive strategies: Letter

Table 37 below yields cognitive strategies preferred by both students who did and did not choose writing letters. Cognitive strategies are mostly used at medium and high level. However, there is a less tendency towards the use of *putting aside writing*

for a few days (Q14) strategy across the category of writing letters. (Questions 5 to 17 can be seen in Appendix B).

Table 37
Cognitive strategies: Letter

		Yes (n=23)	No (n=141)
Question 5	M	3.70	3.40
	SD	0.82	1.23
Question 6	M	3.30	3.26
	SD	1.10	1.23
Question 7	M	3.74	3.73
	SD	1.96	1.17
Question 8	M	3.83	3.63
	SD	1.98	1.06
Question 9	M	3.83	3.36
	SD	0.88	1.15
Question 10	M	3.00	2.50
	SD	1.41	1.22
Question 11	M	3.65	3.08
	SD	1.07	1.31
Question 12	M	3.09	2.62
	SD	1.47	1.28
Question 13	M	3.35	2.89
	SD	1.36	1.31
Question 14	M	2.57	2.41
	SD	1.40	1.39
Question 15	M	3.57	3.23
	SD	1.37	1.42
Question 16	M	3.96	4.16
	SD	0.97	0.95
Question 17	M	3.96	3.76
	SD	1.02	1.14

As it is clearly seen in independent samples t-test (Table 38), there is a statistically significant mean difference between students who chose writing letters in terms of the strategy of *reading books and good writers' composition* (Q11).

Table 38
Independent samples t-test for cognitive strategies: Letter

	F	p	t.	df	p
Question 5	7.04	0.00	-1.45	162	0.27
Question 6	0.66	0.41	-0.17	162	0.85
Question 7	1.13	0.28	-0.03	162	0.97
Question 8	0.31	0.57	-0.82	162	0.41
Question 9	5.11	0.02	-2.22	162	0.06
Question 10	0.57	0.45	-1.76	162	0.07
Question 11	2.28	1.13	-1.98	162	0.04*
Question 12	0.76	0.38	-1.59	162	0.11
Question 13	1.15	0.69	-1.52	162	0.12
Question 14	0.10	0.75	-0.49	162	0.62
Question 15	0.12	0.72	-1.06	162	0.29
Question 16	1.43	0.23	-0.73	162	0.35
Question 17	0.01	0.90	-3.35	162	0.43

Compensatory strategies: Letter

Table 39 shows the categories of compensation strategies used by students who chose writing letters and who did not. When the outcomes are analyzed in detail, all of these strategies are used at medium level except for the strategy of *using synonyms* (Q18), which is at the high level. (Questions 18 to 23 can be seen in Appendix B).

Table 39
Compensatory strategies: Letter

		Yes (n=23)	No (n=141)
Question 18	M	4.00	3.82
	SD	0.79	1.14
Question 19	M	2.83	3.09
	SD	1.30	1.24
Question 20	M	2.83	2.57
	SD	0.77	1.24
Question 21	M	3.00	3.14
	SD	1.27	1.31
Question 22	M	3.43	3.49
	SD	1.37	1.21
Question 23	M	3.43	3.35
	SD	1.37	1.24

However, the independent samples t-test results shows that there is no statistically significant mean difference regarding the choice of writing letters or not in terms of the use of compensatory strategies ($p>0.05$).

Meta-cognitive strategies: Letter

Table 40 displays meta-cognitive strategies used by high school students who chose writing letters and who did not. The strategies are mainly used at medium and high level. (Questions 24 to 37 can be seen in Appendix B).

Table 40
Meta-cognitive strategies: Letter

		Yes (n=23)	No (n=141)
Question 24	M	3.48	3.26
	SD	0.99	1.09
Question 25	M	4.00	3.62
	SD	1.04	1.22
Question 26	M	3.57	3.50
	SD	1.23	1.22
Question 27	M	3.13	3.29
	SD	1.32	1.20
Question 28	M	3.09	2.86
	SD	1.12	1.24
Question 29	M	3.17	3.12
	SD	1.19	1.32
Question 30	M	3.35	2.97
	SD	1.15	1.24
Question 31	M	3.70	3.46
	SD	1.18	1.26
Question 32	M	4.35	3.96
	SD	0.93	1.07
Question 33	M	2.96	2.94
	SD	1.52	1.24
Question 34	M	3.61	3.57
	SD	1.98	1.06
Question 35	M	3.74	3.28
	SD	1.17	1.25
Question 36	M	3.91	3.67
	SD	0.99	1.06
Question 37	M	3.65	3.51
	SD	1.22	1.14

Nevertheless, the analysis of independent samples t-test results regarding meta-cognitive strategies shows that there is no statistically significant mean difference across the category of writing letters. ($p>0.05$).

Affective strategies: Letter

Table 41 presents the affective strategies used by students who did and did not chose writing letters. While the strategy of *writing a diary* (Q41) is in particular used at low level, the others are used at medium level by all students. (Questions 38 to 43 can be seen in Appendix B).

Table 41
Affective strategies: Letter

		Yes (n=23)	No (n=141)
Question 38	M	3.48	3.13
	SD	1.31	1.26
Question 39	M	3.17	2.96
	SD	1.55	1.50
Question 40	M	2.83	2.36
	SD	1.64	1.42
Question 41	M	1.91	1.66
	SD	1.41	1.06
Question 42	M	2.57	2.89
	SD	1.34	1.45
Question 43	M	3.78	3.62
	SD	1.04	1.15

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the preference of writing letters or not in terms of affective strategies ($p>0.05$).

Social strategies: Letter

Table 42 demonstrates social strategies which are mainly used at medium and high level regarding the choice of writing letters or not. On the other hand, the strategy of *giving writing to a friend or someone who is good at writing* (Q46) is the least preferred strategy by students who do not generally write letters. (Questions 44 to 47 can be seen in Appendix B).

Table 42
Social strategies: Letter

		Yes (n=23)	No (n=141)
Question 44	M	3.65	3.50
	SD	1.46	1.32
Question 45	M	2.74	2.74
	SD	1.13	1.34
Question 46	M	3.65	1.47
	SD	1.33	1.27
Question 47	M	2.52	3.01
	SD	1.37	1.38

Still, the independent samples t-test test results demonstrate that there is no statistically significant mean difference regarding the preference of writing letters or not in social strategies ($p>0.05$).

Direct and indirect writing strategies: Note

Table 43 indicates overall direct and indirect writing strategies preferred by both students who did and did not choose writing notes. When it is analyzed in detail, both strategies are used at medium level in general.

According to the independent samples t-test results, there is no statistically significant mean difference regarding the preference of writing notes or not in terms of direct and indirect strategies ($p>0.05$).

Table 43
Overall direct and indirect writing strategies: Note

		Yes (n=57)	No (n=107)
Direct Strategies	M	3.24	3.18
	SD	0.61	0.53
Indirect Strategies	M	3.19	3.20
	SD	0.63	0.56

In Table 44, the use of overall direct and indirect strategies of cognitive, compensation, memory, affective, meta-cognitive, and social is at mainly medium level in terms of the choice of writing notes or not. Moreover, affective strategies are the least preferred strategies among other strategies.

Table 44
Direct and indirect writing strategies: Note

		Yes (n=57)	No (n=107)
Memory Strategies	M	2.98	2.88
	SD	0.75	0.75
Cognitive Strategies	M	3.35	3.22
	SD	0.70	0.60
Compensatory Strategies	M	3.17	3.28
	SD	0.75	0.62
Meta-cognitive Strategies	M	3.42	3.36
	SD	0.66	0.57
Affective Strategies	M	2.71	2.83
	SD	0.84	0.79
Social Strategies	M	3.11	3.20
	SD	1.00	0.89

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the preference of writing notes or not letter in terms of direct and indirect strategies (p>0.05).

Memory strategies: Note

Table 45 indicates the memory strategies across the category of writing notes. While the strategy of *memorizing new words* (Q3) is used at low level, the strategy of *associating with background knowledge* (Q1) is used at high level. Also, other memory strategies are used at medium level. (All 4 questions can be seen in Appendix B).

Table 45
Memory strategies: Note

		Yes (n=57)	No (n=107)
Question 1	M	4.14	3.77
	SD	0.78	0.89
Question 2	M	2.75	2.80
	SD	1.10	1.18
Question 3	M	2.18	2.03
	SD	1.29	1.30
Question 4	M	2.88	2.93
	SD	1.24	1.26

Independent samples t-test conducted yields statistically significant mean difference regarding the preference of writing notes or not in terms of the strategy of *associating with background knowledge* (Q1) (Table 46).

Table 46
Independent samples t-test for memory strategies: Note

	F	p	t.	df	p
Question 1	1.44	0.23	-2.65	162	0.00*
Question 2	0.23	0.63	0.26	162	0.79
Question 3	0.01	0.90	-0.69	162	0.49
Question 4	0.00	0.95	0.27	162	0.78

* p< 0.0

Cognitive strategies: Note

As presented in Table 47, cognitive strategies are mostly used at medium and high level. However, the strategy of *putting aside writing for a few days* (Q14) is used at low level regarding the preference of writing notes or not. (Questions 5 to 17 can be seen in Appendix B).

Table 47
Cognitive strategies: Note

		Yes (n=57)	No (n=107)
Question 5	M	3.61	3.36
	SD	1.16	1.19
Question 6	M	3.35	3.21
	SD	1.26	1.19
Question 7	M	3.81	3.69
	SD	1.17	1.12
Question 8	M	3.81	3.58
	SD	1.04	1.05
Question 9	M	3.72	3.27
	SD	1.13	1.10
Question 10	M	2.61	2.55
	SD	1.38	1.19
Question 11	M	3.09	3.20
	SD	1.29	1.29
Question 12	M	2.75	2.64
	SD	1.36	1.29
Question 13	M	2.89	2.99
	SD	1.33	1.32
Question 14	M	2.33	2.49
	SD	1.39	1.39
Question 15	M	3.32	3.25
	SD	1.32	1.47
Question 16	M	4.26	4.06
	SD	0.87	0.98
Question 17	M	4.00	3.67
	SD	1.10	1.12

Nevertheless, the analysis of independent samples t-test results shows that there is no statistically significant mean difference regarding the preference of writing notes or not in cognitive strategies ($p > 0.05$).

Compensatory strategies: Note

Table 48 displays compensation strategies preferred by students who did and did not choose writing notes. The use of compensation strategies is mostly used at high and medium level. (Questions 18 to 23 can be seen in Appendix B).

Table 48
Compensatory strategies: Note

		Yes (n=57)	No (n=107)
Question 18	M	3.72	3.91
	SD	1.19	1.05
Question 19	M	3.00	3.08
	SD	1.28	1.24
Question 20	M	2.65	2.59
	SD	1.21	1.18
Question 21	M	2.79	3.30
	SD	1.31	1.27
Question 22	M	3.42	3.51
	SD	1.20	1.25
Question 23	M	3.46	3.31
	SD	1.19	1.29

According to the independent samples t-test results, there is a statistically significant mean difference regarding the preference of writing notes or not for the strategy of *making guesses* (Q21).

Table 49
Independent samples t-test for compensatory strategies: Note

	F	p	t.	df	p
Question 18	1.68	0.19	1.03	162	0.30
Question 19	0.14	0.70	0.40	162	0.68
Question 20	0.00	0.95	-0.30	162	0.75
Question 21	0.29	0.58	2.40	162	0.01*
Question 22	0.42	0.51	0.45	162	0.64
Question 23	1.19	0.27	-0.71	162	0.47

* $p < 0.05$

Meta-cognitive strategies: Note

Meta-cognitive strategies, as suggested in Table 50, are mostly used at medium and high level across the category of writing notes. However, the strategy of *concerning with the lack of writing fluency* (Q33) is the least preferred strategy regarding the preference of writing notes or not. (Questions 24 to 37 can be seen in Appendix B).

Table 50
Meta-cognitive strategies: Note

		Yes (n=57)	No (n=107)
Question 24	M	3.42	3.21
	SD	1.11	1.05
Question 25	M	3.68	3.67
	SD	1.19	1.21
Question 26	M	3.51	3.51
	SD	1.25	1.21
Question 27	M	3.09	3.36
	SD	1.27	1.18
Question 28	M	2.93	2.87
	SD	1.23	1.22
Question 29	M	3.28	3.05
	SD	1.30	1.29
Question 30	M	3.02	3.03
	SD	1.28	1.21
Question 31	M	3.77	3.35
	SD	1.21	1.25
Question 32	M	4.05	4.00
	SD	1.07	1.05
Question 33	M	2.95	2.93
	SD	1.30	1.28
Question 34	M	3.46	3.64
	SD	1.07	1.03
Question 35	M	3.60	3.21
	SD	1.26	1.22
Question 36	M	3.77	3.66
	SD	1.00	1.08
Question 37	M	3.47	3.56
	SD	1.26	1.09

Nevertheless, the analysis of independent samples t-test results regarding meta-cognitive strategies shows that there is no statistically significant mean difference between students who chose writing notes and who did not ($p>0.05$).

Affective strategies: Note

As it is presented in Table 51, the use of affective strategies is mostly at medium level regarding the choice of writing notes or not. On the other hand, the strategy of *writing a diary* (Q41) is employed at low level, whereas the strategy of *having confidence* (Q43) is used at high level. (Questions 38 to 43 can be seen in Appendix B).

Table 51
Affective strategies: Note

		Yes (n=57)	No (n=107)
Question 38	M	3.04	3.25
	SD	1.33	1.23
Question 39	M	3.23	2.86
	SD	1.48	1.51
Question 40	M	2.28	2.50
	SD	1.50	1.43
Question 41	M	1.63	1.73
	SD	1.14	1.11
Question 42	M	2.56	2.99
	SD	1.36	1.47
Question 43	M	3.58	3.68
	SD	1.22	1.08

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the choice of writing notes or not in affective strategies ($p>0.05$).

Social strategies: Note

Table 52 indicates social strategies preferred by students who did and did not choose writing notes. The use of social strategies is mostly at medium level. (Questions 44 to 47 can be seen in Appendix B).

Table 52
Social strategies: Note

		Yes (n=57)	No (n=107)
Question 44	M	3.47	3.55
	SD	1.37	1.32
Question 45	M	2.51	2.87
	SD	1.12	1.39
Question 46	M	3.51	3.49
	SD	1.40	1.21
Question 47	M	2.98	2.93
	SD	1.43	1.37

The analysis of independent samples t-test results regarding social strategies demonstrates that there is no statistically significant mean difference between students who chose writing notes and who did not ($p>0.05$).

Direct and indirect writing strategies: Essay

Based on the overall means of direct and indirect writing strategies, the results indicate that both strategies are used approximately at the same medium level across the category of writing essays (Table 53).

Table 53
Overall direct and indirect writing strategies: Essay

		Yes (n=24)	No (n=140)
Direct Strategies	M	3.18	3.29
	SD	0.56	0.58
Indirect Strategies	M	3.19	3.22
	SD	0.59	0.54

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing essays and who did not, regarding their preference of direct and indirect strategies ($p>0.05$).

Table 54 indicates that the use of overall direct and indirect strategies of cognitive, compensation, memory, affective, meta-cognitive, and social is at mainly medium level regarding the choice of writing essays or not. Also, affective strategies are the least preferred strategies among other strategies.

Table 54
Direct and indirect writing strategies: Essay

		Yes (n=24)	No (n=140)
Memory Strategies	M	2.89	3.08
	SD	0.76	0.70
Cognitive Strategies	M	3.26	3.30
	SD	0.64	0.65
Compensatory Strategies	M	3.21	3.40
	SD	0.66	0.68
Meta-cognitive Strategies	M	3.37	3.44
	SD	0.60	0.58
Affective Strategies	M	2.83	2.56
	SD	0.81	0.74
Social Strategies	M	3.13	3.41
	SD	0.92	0.93

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing essays and who did not in terms of direct and indirect strategies ($p>0.05$).

Memory strategies: Essay

Table 55 indicates the memory strategies preferred by students who did and did not choose writing essays. The strategy of *associating with background knowledge* (Q1) is used at high level, whereas the strategy of *memorizing new words* (Q3) is used at low level. Furthermore, other memory strategies are used at medium level. (All 4 questions can be seen in Appendix B).

Table 55
Memory strategies: Essay

		Yes (n=24)	No (n=140)
Question 1	M	3.86	4.08
	SD	0.89	0.71
Question 2	M	2.72	3.17
	SD	1.15	1.12
Question 3	M	2.07	2.13
	SD	1.29	1.39
Question 4	M	2.91	2.96
	SD	1.25	1.30

The analysis of independent samples t-test results demonstrates that there is no statistically significant mean difference between students who chose writing essays and who did not in terms of memory strategies ($p>0.05$).

Cognitive strategies: Essay

As presented in Table 56, the use of cognitive strategies is moslty at medium and high level. On the other hand, the strategy of *putting aside writing for a few days* (Q14) is used at low level across the category of writing essays. (Questions 5 to 17 can be seen in Appendix B).

Table 56
Cognitive strategies: Essay

		Yes (n=24)	No (n=140)
Question 5	M	3.38	3.83
	SD	1.18	1.16
Question 6	M	3.21	3.54
	SD	1.21	1.25
Question 7	M	3.71	3.88
	SD	1.12	1.22
Question 8	M	3.59	4.04
	SD	1.07	0.80
Question 9	M	3.49	3.04
	SD	1.09	1.26
Question 10	M	2.62	2.29
	SD	1.24	1.30

Table 56 (cont'd)
Cognitive strategies: Essay

		Yes (n=24)	No (n=140)
Question 11	M	3.16	3.13
	SD	1.31	1.19
Question 12	M	2.67	2.75
	SD	1.29	1.48
Question 13	M	2.90	2.29
	SD	1.30	1.42
Question 14	M	2.46	2.25
	SD	1.38	1.48
Question 15	M	3.31	3.08
	SD	1.44	1.28
Question 16	M	4.14	4.04
	SD	0.94	0.99
Question 17	M	3.79	3.79
	SD	1.11	1.21

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing e-mails and who did not in cognitive strategies ($p>0.05$).

Compensatory strategies: Essay

Table 57 displays compensation strategies preferred by students who did and did not choose writing essays. The use of compensation strategies is mainly used at high and medium level. The strategy of *repeating in an attempt to keep writing going* (Q20) has the lowest means in all groups. However, the strategy of *using synonyms* (Q18) has the highest means among other compensation strategies. (Questions 18 to 23 can be seen in Appendix B).

Table 57
Compensatory strategies: Essay

		Yes (n=24)	No (n=140)
Question 18	M	3.79	4.13
	SD	1.11	0.99
Question 19	M	3.04	3.13
	SD	1.24	1.32
Question 20	M	2.59	2.71
	SD	1.15	1.45
Question 21	M	3.09	3.29
	SD	1.29	1.42
Question 22	M	3.41	3.88
	SD	1.26	0.94
Question 23	M	3.36	3.33
	SD	1.25	1.27

In independent samples t-test results, there is no statistically significant mean difference between students who chose writing essays and who did not, regarding the preference of compensation strategies ($p>0.05$).

Meta-cognitive strategies: Essay

Meta-cognitive strategies, as suggested in Table 58, are mainly used at medium and high level across the category of writing essays. The strategies of *setting long-term and short-term goals* (28) and *concerning with the lack of writing fluency* (Q33) are the lowest level, whereas the strategy of *writing with a specific purpose* (Q32) is at the highest level among all meta-cognitive strategies. (Questions 24 to 37 can be seen in Appendix B).

Table 58
Meta-cognitive strategies: Essay

		Yes (n=24)	No (n=140)
Question 24	M	3.28	3.33
	SD	1.08	1.09
Question 25	M	3.71	3.46
	SD	1.15	1.47
Question 26	M	3.51	3.50
	SD	1.24	1.14
Question 27	M	3.23	3.50
	SD	1.22	1.18
Question 28	M	2.84	3.21
	SD	1.22	1.25
Question 29	M	3.14	3.08
	SD	1.28	1.41
Question 30	M	3.02	3.04
	SD	1.24	1.23
Question 31	M	3.47	3.63
	SD	1.21	1.46
Question 32	M	3.99	4.17
	SD	1.09	0.81
Question 33	M	2.87	3.33
	SD	1.28	1.27
Question 34	M	3.58	3.58
	SD	1.03	1.13
Question 35	M	3.33	3.46
	SD	1.26	1.17
Question 36	M	3.74	3.50
	SD	1.03	1.14
Question 37	M	3.54	3.50
	SD	1.14	1.25

The analysis of independent samples t-test results demonstrates that there is no statistically significant mean difference between students who chose writing e-mails and who did not in terms of meta-cognitive strategies ($p>0.05$).

Affective strategies: Essay

As it is presented in Table 59, the use of affective strategies is mostly at medium and low level regarding the choice of writing essays or not. The strategy of *writing a diary* (Q41) is used at the lowest level among all affective strategies. (Questions 38 to 43 can be seen in Appendix B).

Table 59
Affective strategies: Essay

		Yes (n=24)	No (n=140)
Question 38	M	3.18	3.17
	SD	1.27	1.27
Question 39	M	2.99	2.96
	SD	1.48	1.68
Question 40	M	2.51	1.96
	SD	1.51	1.04
Question 41	M	1.71	1.58
	SD	1.14	1.01
Question 42	M	2.94	2.25
	SD	1.43	1.39
Question 43	M	3.67	3.50
	SD	1.11	1.25

According to the independent samples t-test results, there is a statistically significant mean difference between students who chose writing essays and who did not for the strategy of *trying to overcome feelings* (Q42).

Table 60
Independent samples t-test for affective strategies: Essay

	F	p	t.	df	p
Question 38	0.41	0.51	-0.04	162	0.96
Question 39	1.08	0.30	-0.10	162	0.91
Question 40	14.24	0.00	-1.71	162	0.08
Question 41	0.40	0.52	-0.52	162	0.59
Question 42	0.07	0.78	-2.19	162	0.02*
Question 43	0.21	0.64	-0.68	162	0.49

* $p < 0.05$

Social strategies: Essay

Table 61 indicates social strategies preferred by students who did and did not choose writing essays. The use of social strategies is mainly at mostly and level. (Questions 44 to 47 can be seen in Appendix B).

Table 61
Social strategies: Essay

		Yes (n=24)	No (n=140)
Question 44	M	3.49	3.75
	SD	1.34	1.32
Question 45	M	2.71	2.96
	SD	1.28	1.45
Question 46	M	3.44	3.79
	SD	1.27	1.31
Question 47	M	2.91	3.17
	SD	1.37	1.46

The analysis of independent samples t-test results regarding social strategies demonstrates that there is no statistically significant mean difference between students who chose writing essays and who did not ($p>0.05$).

Direct and indirect writing strategies: Article

Table 62 demonstrates direct and indirect writing strategies across the category of writing articles. Both direct and indirect strategies are used at medium level.

Table 62
Overall direct and indirect writing strategies: Article

		Yes (n=10)	No (n=154)
Direct Strategies	M	3.65	3.17
	SD	0.53	0.55
Indirect Strategies	M	3.42	3.18
	SD	0.77	0.57

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing articles and who did not, regarding their preference of direct and indirect strategies ($p>0.05$).

Table 63 indicates that the use of overall direct and indirect strategies of memory, cognitive, compensation, meta-cognitive, affective and social is at mainly medium and high level in terms of the choice of writing articles or not. Also, affective strategies are the least preferred strategies among other strategies.

Table 63
Direct and indirect writing strategies: Article

		Yes (n=10)	No (n=154)
Memory Strategies	M	3.37	2,88
	SD	1.16	0.71
Cognitive Strategies	M	3.72	3.24
	SD	0.57	0.63
Compensatory Strategies	M	3.70	3.21
	SD	0.53	0.66
Meta-cognitive Strategies	M	3.61	3.37
	SD	0.56	0.60
Affective Strategies	M	3.15	2.77
	SD	1.10	0.78
Social Strategies	M	3.15	3.17
	SD	1.38	0.90

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the choice of writing articles or not in terms of direct and indirect strategies ($p>0.05$).

Memory strategies: Article

Table 64 indicates the memory strategies preferred by students who did and did not choose writing articles. The strategy of *associating with background knowledge* (Q1) is used at high level, whereas the strategy of *memorizing new words* (Q3) is used at low level. Furthermore, other memory strategies are used at medium level. (All 4 questions can be seen in Appendix B).

Table 64
Memory strategies: Article

		Yes (n=10)	No (n=154)
Question 1	M	4.40	3.86
	SD	0.69	0.87
Question 2	M	3.50	2.74
	SD	1.58	1.11
Question 3	M	2.60	2.05
	SD	1.89	1.25
Question 4	M	3.00	2.91
	SD	1.49	1.24

The analysis of independent samples t-test results regarding memory strategies demonstrates that there is no statistically significant mean difference for the preference of writing articles or not ($p>0.05$).

Cognitive strategies: Article

Table 65 demonstrates that the use of cognitive strategies is mainly at medium and high level across the category of writing articles. The strategy of *moving paragraphs to organize writing* (Q12) is used at the lowest level among all cognitive strategies. (Questions 5 to 17 can be seen in Appendix B).

Table 65
Cognitive strategies: Article

		Yes (n=10)	No (n=154)
Question 5	M	3.50	3.44
	SD	1.17	1.19
Question 6	M	3.30	3.26
	SD	1.33	1.21
Question 7	M	4.20	3.70
	SD	1.03	1.14
Question 8	M	3.90	3.64
	SD	0.99	1.05
Question 9	M	4.00	3.39
	SD	0.94	1.13
Question 10	M	3.40	2.52
	SD	1.35	1.23

Table 65 (cont'd)
Cognitive strategies: Article

		Yes (n=10)	No (n=154)
Question 11	M	3.90	3.11
	SD	0.73	1.31
Question 12	M	3.00	2.66
	SD	1.56	1.30
Question 13	M	3.50	2.92
	SD	1.35	1.32
Question 14	M	3.30	2.38
	SD	1.56	1.36
Question 15	M	3.30	3.27
	SD	1.63	1.41
Question 16	M	4.50	4.10
	SD	0.52	0.97
Question 17	M	4.60	3.73
	SD	0.84	1.12

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing articles and who did not, regarding their preference of cognitive strategies ($p>0.05$).

Compensatory strategies: Article

Table 66 presents compensatory strategies which are mostly used at high and medium level across the category of writing articles. When it is analyzed in detail, the strategy of *repeating in an attempt to keep writing going* (Q20) has the lowest means, while the strategy of *using synonyms* (Q18) has the highest means among all compensation strategies. (Questions 18 to 23 can be seen in Appendix B).

Table 66
Compensatory strategies: Article

		Yes (n=10)	No (n=154)
Question 18	M	4.40	3.81
	SD	0.84	1.10
Question 19	M	3.70	3.01
	SD	1.05	1.25
Question 20	M	2.80	2.60
	SD	1.03	1.20

Table 66 (cont'd)
Compensatory strategies: Article

		Yes (n=10)	No (n=154)
Question 21	M	3.70	3.08
	SD	1.33	1.30
Question 22	M	4.10	3.44
	SD	1.28	1.22
Question 23	M	3.50	3.35
	SD	1.58	1.24

According to the independent samples t-test results, there is no statistically significant mean difference between students who chose writing articles and who did not, regarding their preference of compensation strategies ($p>0.05$).

Meta-cognitive strategies: Article

It is clearly seen in Table 67, the use of meta-cognitive strategies is mostly at medium and high level regarding the preference of writing articles or not. However, the strategy of *concerning with the lack of writing fluency* (Q33) is only used at low level among all meta-cognitive strategies. (Questions 24 to 37 can be seen in Appendix B).

Table 67
Meta-cognitive strategies: Article

		Yes (n=10)	No (n=154)
Question 24	M	3.50	3.27
	SD	0.85	1.09
Question 25	M	3.70	3.68
	SD	1.56	1.18
Question 26	M	3.60	3.51
	SD	1.35	1.22
Question 27	M	3.30	3.27
	SD	1.41	1.21
Question 28	M	3.00	2.88
	SD	1.49	1.21
Question 29	M	3.50	3.10
	SD	1.26	1.30

Table 67 (cont'd)
Meta-cognitive strategies: Article

		Yes (n=10)	No (n=154)
Question 30	M	3.00	3.03
	SD	1.33	1.23
Question 31	M	4.20	3.45
	SD	1.03	1.25
Question 32	M	4.80	3.97
	SD	0.42	1.06
Question 33	M	2.20	2.99
	SD	1.31	1.27
Question 34	M	3.60	3.58
	SD	0.84	1.06
Question 35	M	3.70	3.32
	SD	1.25	1.25
Question 36	M	4.40	3.66
	SD	1.07	1.03
Question 37	M	4.10	3.49
	SD	1.28	1.13

The analysis of the independent samples t-test results demonstrates that there is no statistically significant mean difference between students who chose writing articles and who did not, regarding their preference of meta-cognitive strategies ($p>0.05$).

Affective strategies: Article

Based on the mean differences demonstrated in Table 68, most of the affective strategies are employed at medium and low level regarding the choice of writing articles or not. The highest mean belongs to the strategies of *encouragement of yourself to find a better solution to linguistic problem in composition* (Q38) and the strategy of *having confidence in your capacity* (Q43). (Questions 38 to 43 can be seen in Appendix B).

Table 68
Affective strategies: Article

		Yes (n=10)	No (n=154)
Question 38	M	4.00	3.12
	SD	1.24	1.25
Question 39	M	3.50	2.95
	SD	1.78	1.49
Question 40	M	3.10	2.38
	SD	1.91	1.42
Question 41	M	2.10	1.67
	SD	1.28	1.10
Question 42	M	2.10	2.89
	SD	1.44	1.43
Question 43	M	4.10	3.62
	SD	1.28	1.12

As it is indicated in the independent samples t-test results, there is a statistically significant mean difference across the category of whether students generally write an article or not in term of the strategy of *encouragement of you to find a better solution to linguistic problem in composition* (Q38).

Table 69
Independent samples t-test for affective strategies: Article

	F	p	t.	df	p
Question 38	0.00	0.94	-2.13	162	0.03*
Question 39	1.64	0.20	-1.10	162	0.27
Question 40	4.16	0.04	-1.50	162	0.13
Question 41	1.19	0.27	-1.18	162	0.24
Question 42	0.14	0.70	1.68	162	0.09
Question 43	0.03	0.84	-1.30	162	0.19

* $p < 0.05$

Social strategies: Article

Table 70 indicates that the social strategies are mostly employed at medium and high level across the category of writing articles. The strategy of *looking for assistance for linguistic problems* (Q44) is at the highest level, while the strategy of *comparing the*

composition with friends' texts (Q47) is the lowest level among social strategies. (Questions 44 to 47 can be seen in Appendix B).

Table 70
Social strategies: Article

		Yes (n=10)	No (n=154)
Question 44	M	3.90	3.50
	SD	1.66	1.32
Question 45	M	2.90	2.73
	SD	1.52	1.30
Question 46	M	3.20	3.51
	SD	1.61	1.25
Question 47	M	2.60	2.97
	SD	1.50	1.38

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing articles and who did not, regarding their preference of social strategies ($p>0.05$).

Direct and indirect writing strategies: Report

Table 71 indicates overall direct and indirect writing strategies preferred by both students who did and did not choose writing reports. When it is analyzed in detail, both strategies are used at medium level in each category.

Table 71
Overall direct and indirect writing strategies: Report

		Yes (n=18)	No (n=146)
Direct Strategies	M	3.62	3.15
	SD	0.75	0.51
Indirect Strategies	M	3.53	3.16
	SD	0.82	0.54

The analysis of the independent samples t- test results regarding overall direct and indirect writing strategies demonstrates that there is a statistically significant mean difference between students who chose writing reports and who did not, regarding their preference of direct and indirect strategies.

Table 72
Independent samples t-test for direct and indirect writing strategies: Report

	F	p	t.	df	p
Direct Strategies	8.93	0.00	-2.60	162	0.00*
Indirect Strategies	10.21	0.00	-1.84	162	0.01*

Table 73 indicates that the use of writing strategies is mostly at medium and high level regarding the preference of writing reports or not. The affective strategy is the least preferred strategy among all strategies.

Table 73
Direct and indirect writing strategies: Report

		Yes (n=18)	No (n=146)
Memory Strategies	M	3.50	2.84
	SD	1.03	0.68
Cognitive Strategies	M	3.67	3.22
	SD	0.84	0.59
Compensatory Strategies	M	3.61	3.19
	SD	0.72	0.65
Meta-cognitive Strategies	M	3.70	3.34
	SD	0.75	0.57
Affective Strategies	M	3.18	2.74
	SD	1.00	0.77
Social Strategies	M	3.43	3.14
	SD	1.18	0.89

The independent samples t- test results yield statistically significant mean differences among all subcategories of writing strategies except for social strategies across the category of writing reports (Table 74).

Table 74
Independent samples t-test for direct and indirect strategies: Report

	F	p	t.	df	p
Memory Strategies	8.60	0.00	-2.61	162	0.00*
Cognitive Strategies	9.50	0.00	-2.21	162	0.00*
Compensatory Strategies	0.34	0.55	-2.49	162	0.01*
Meta-cognitive Strategies	3.66	0.05	-2.41	162	0.01*
Affective Strategies	1.98	0.16	-2.19	162	0.03*
Social Strategies	3.50	0.06	-1.22	162	0.22

* p< 0.05

Memory strategies: Report

Table 75 indicates the memory strategies preferred by students who did and did not choose writing reports. The use of memory strategies is used mostly at medium and high level in general. The strategy of *associating with background knowledge* (Q1) is the most preferred strategy among all memory strategies. (All 4 questions can be seen in Appendix B).

Table 75
Memory strategies: Report

		Yes (n=18)	No (n=146)
Question 1	M	4.39	3.84
	SD	0.69	0.87
Question 2	M	3.22	2.73
	SD	1.30	1.12
Question 3	M	2.89	1.98
	SD	1.60	1.22
Question 4	M	3.50	2.84
	SD	1.24	1.24

The independent samples t-test conducted yields statistically significant mean differences among all memory strategies except for strategy of *using new words* (Q2) regarding the preference of writing reports or not (Table 76).

Table 76
Independent samples t-test for memory strategies: Report

	F	p	t.	df	p
Question 1	0.48	0.48	-2.57	162	0.01*
Question 2	0.77	0.37	-1.70	162	0.09
Question 3	6.44	0.01	-2.32	162	0.00*
Question 4	0.01	0.92	-2.11	162	0.03*

* p< 0.05

Cognitive strategies: Report

Table 77 demonstrates that the use of cognitive strategies is mostly at medium and high level across the category of writing reports. The strategies of *putting aside writing for a few days to reconsider* (Q14) and *writing different drafts* (Q10) are used at the lowest level by students who do not generally write reports among all cognitive strategies. (Questions 5 to 17 can be seen in Appendix B).

Table 77
Cognitive strategies: Report

		Yes (n=18)	No (n=146)
Question 5	M	3.56	3.43
	SD	1.14	1.19
Question 6	M	3.44	3.24
	SD	1.14	1.22
Question 7	M	4.00	3.70
	SD	1.02	1.15
Question 8	M	3.89	3.63
	SD	1.07	1.05
Question 9	M	3.83	3.38
	SD	0.78	1.15
Question 10	M	3.56	2.45
	SD	1.24	1.21
Question 11	M	3.67	3.10
	SD	1.28	1.28
Question 12	M	3.28	2.61
	SD	1.40	1.29
Question 13	M	3.17	2.93
	SD	1.20	1.34
Question 14	M	3.33	2.32
	SD	1.53	1.33
Question 15	M	3.72	3.22
	SD	1.27	1.43
Question 16	M	4.28	4.11
	SD	0.75	0.97
Question 17	M	4.06	3.75
	SD	1.05	1.13

According to the results of the independent samples t-test, there is a statistically significant mean difference across the category of writing reports in terms of strategies of *writing different drafts* (Q10), *moving paragraphs to organize in a coherent way* (Q12), and *putting aside writing for a few days to reconsider* (Q14).

Table 78
Independent samples t-test for cognitive strategies: Report

	F	p	t.	df	p
Question 5	0.00	0.99	-0.41	162	0.67
Question 6	0.03	0.85	-0.67	162	0.50
Question 7	1.33	0.25	-1.05	162	0.29
Question 8	0.06	0.80	-0.98	162	0.32
Question 9	5.59	0.01	-2.19	162	0.10
Question 10	0.42	0.51	-3.64	162	0.00*
Question 11	0.00	0.97	-1.77	162	0.07
Question 12	0.29	0.59	-2.04	162	0.04*
Question 13	0.11	0.73	-0.70	162	0.48
Question 14	1.72	0.19	-2.97	162	0.00*
Question 15	0.96	0.32	-1.42	162	0.15
Question 16	0.97	0.32	-0.70	162	0.48
Question 17	0.05	0.82	-1.07	162	0.28

* $p < 0.05$

Compensatory strategies: Report

Table 79 presents compensatory strategies which are mostly used at high and medium level regarding the preference of writing reports or not. (Questions 18 to 23 can be seen in Appendix B).

Table 79
Compensatory strategies: Report

		Yes (n=18)	No (n=146)
Question 18	M	4.06	3.82
	SD	0.99	1.11
Question 19	M	3.39	3.01
	SD	1.14	1.26
Question 20	M	3.28	2.53
	SD	1.01	1.19

Table 79 (cont'd)
Compensatory strategies: Report

		Yes (n=18)	No (n=146)
Question 21	M	3.67	3.05
	SD	1.28	1.30
Question 22	M	3.78	3.45
	SD	0.94	1.26
Question 23	M	3.50	3.34
	SD	1.29	1.25

According to the results of the independent samples t-test, there is a statistically significant mean difference across the category of writing reports regarding the strategy of *repeating in an attempt to keep writing going* (Q20) (Table 80).

Table 80
Independent samples t-test for compensatory strategies: Report

	F	p	t.	df	p
Question 18	0.21	0.64	-0.87	162	0.38
Question 19	0.14	0.70	-1.19	162	0.23
Question 20	2.02	0.15	-2.55	162	0.01*
Question 21	0.16	0.68	-1.88	162	0.06
Question 22	3.23	0.07	-1.07	162	0.28
Question 23	0.04	0.83	-0.50	162	0.61

* $p < 0.05$

Meta-cognitive strategies: Report

As it is clearly seen in Table 81, the use of meta-cognitive strategies is mostly at medium and high level across the category of writing reports. (Questions 24 to 37 can be seen in Appendix B).

Table 81
Meta-cognitive strategies: Report

		Yes (n=18)	No (n=146)
Question 24	M	3.56	3.25
	SD	0.85	1.10
Question 25	M	3.94	3.64
	SD	1.16	1.21
Question 26	M	3.89	3.47
	SD	1.27	1.21
Question 27	M	3.67	3.22
	SD	1.08	1.22
Question 28	M	3.22	2.85
	SD	1.43	1.20
Question 29	M	3.78	3.05
	SD	1.21	1.29
Question 30	M	3.17	3.01
	SD	1.24	1.24
Question 31	M	4.83	3.45
	SD	1.20	1.25
Question 32	M	4.33	3.98
	SD	0.84	1.07
Question 33	M	3.06	2.92
	SD	1.39	1.27
Question 34	M	3.78	3.55
	SD	1.06	1.05
Question 35	M	3.67	3.31
	SD	1.28	1.24
Question 36	M	4.06	3.66
	SD	1.05	1.04
Question 37	M	3.94	3.48
	SD	1.05	1.15

As it is indicated in the independent samples t-test results, there is a statistically significant mean difference between students who chose writing reports and who did not, in the strategy of *thinking the clearness of ideas* (Q29) (Table 82).

Table 82
Independent samples t-test for meta-cognitive strategies: Report

	F	p	t.	df	p
Question 24	1.72	0.19	-1.12	162	0.26
Question 25	0.11	0.73	-0.99	162	0.32
Question 26	0.00	0.98	-1.38	162	0.16
Question 27	0.48	0.48	-1.47	162	0.14
Question 28	2.00	0.15	-1.21	162	0.22
Question 29	0.00	0.98	-2.27	162	0.02*
Question 30	0.31	0.57	-0.51	162	0.60

Table 82 (cont'd)
Independent samples t-test for meta-cognitive strategies: Report

	F	p	t.	df	p
Question 31	0.00	0.98	-1.22	162	0.22
Question 32	0.87	0.35	-1.34	162	0.18
Question 33	0.06	0.79	-0.40	162	0.68
Question 34	0.02	0.87	-0.84	162	0.39
Question 35	0.08	0.77	-1.14	162	0.25
Question 36	1.14	0.70	-1.52	162	0.13
Question 37	0.91	0.34	-1.62	162	0.10

* $p < 0.05$

Affective strategies: Report

Based on the mean differences demonstrated in Table 83, most of the affective strategies are employed at medium level regarding the preference of writing reports or not. On the other hand, the strategy of *writing a diary* (Q41) is used at low level. (Questions 38 to 43 can be seen in Appendix B).

Table 83
Affective strategies: Report

		Yes (n=18)	No (n=146)
Question 38	M	3.44	3.14
	SD	1.19	1.28
Question 39	M	3.61	2.91
	SD	1.37	1.51
Question 40	M	3.22	2.33
	SD	1.61	1.41
Question 41	M	2.17	1.64
	SD	1.46	1.06
Question 42	M	2.61	2.87
	SD	1.42	1.44
Question 43	M	4.06	3.60
	SD	1.11	1.13

The independent samples t-test results show there is a statistically significant mean difference across the category of writing reports in the strategy of *motivating yourself to keep writing* (Q40) (Table 84).

Table 84
Independent samples t-test for affective strategies: Report

	F	p	t.	df	p
Question 38	0.00	0.97	-0.94	162	0.34
Question 39	1.14	0.28	-1.86	162	0.06
Question 40	1.54	0.21	-2.48	162	0.01*
Question 41	5.25	0.02	-1.90	162	0.05
Question 42	0.07	0.78	0.71	162	0.47
Question 43	0.42	0.51	-1.63	162	0.10

* p< 0.05

Social strategies: Report

Table 85 indicates that the social strategies are mostly used at medium and high level regarding the preference of writing reports or not. The strategy of *looking for assistance for linguistic problems* (Q44) is at the highest level, while the strategy of *seeking opportunities to improve writing* (Q45) is the lowest level among social strategies. (Questions 44 to 47 can be seen in Appendix B).

Table 85
Social strategies: Report

		Yes (n=18)	No (n=146)
Question 44	M	4.00	3.47
	SD	1.32	1.33
Question 45	M	3.00	2.71
	SD	1.41	1.30
Question 46	M	3.44	3.50
	SD	1.54	1.25
Question 47	M	3.28	2.90
	SD	1.36	1.39

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing reports and who did not, regarding their preference of social strategies (p>0.05).

Direct and indirect writing strategies: Research paper

Table 86 indicates overall direct and indirect writing strategies preferred by both students did and did not choose writing research papers. When it is analyzed in detail, both strategies are used at medium level in each category.

Table 86
Overall direct and indirect writing strategies: Research paper

		Yes (n=24)	No (n=140)
Direct Strategies	M	3.52	3.14
	SD	0.66	0.53
Indirect Strategies	M	3.40	3.16
	SD	0.77	0.54

The independent samples t-test results demonstrate that there is a statistically significant mean difference between students who chose writing research papers and who did not, regarding their preference of direct strategies ($p>0.05$).

Table 87
Independent samples t-test for direct and indirect writing strategies: Research paper

	F	p	t.	df	p
Direct Strategies	2.50	0.11	-3.06	162	0.00*
Indirect Strategies	7.09	0.00	-1.41	162	0.07

Table 88 indicates that the use of writing strategies is mostly at medium and high level across the category of writing research papers or not. Also, cognitive and meta-cognitive strategies are the most preferred strategies, which have the same means.

Table 88
Direct and indirect writing strategies: Research paper

		Yes (n=24)	No (n=140)
Memory Strategies	M	3.32	2.85
	SD	0.87	0.71
Cognitive Strategies	M	3.58	3.21
	SD	0.75	0.60
Compensatory Strategies	M	3.52	3.19
	SD	0.73	0.64
Meta-cognitive Strategies	M	3.58	3.35
	SD	0.76	0.57
Affective Strategies	M	3.02	2.75
	SD	0.95	0.77
Social Strategies	M	3.31	3.15
	SD	1.08	0.90

According to the independent samples t-test results; there is a statistically significant mean difference between students who chose writing research papers and who did not, regarding their preference of memory, cognitive and compensatory strategies (Table 89).

Table 89
Independent samples t-test for direct and indirect strategies: Research paper

	F	p	t.	df	p
Memory Strategies	3.20	0.07	-2.89	162	0.00*
Cognitive Strategies	3.95	0.04	-2.25	162	0.01*
Compensatory Strategies	1.08	0.29	-2.21	162	0.02*
Meta-cognitive Strategies	4.83	0.02	-1.44	162	0.07
Affective Strategies	1.09	0.29	-1.44	162	0.12
Social Strategies	1.56	0.21	-0.77	162	0.44

* $p < 0.05$

Memory strategies: Research paper

Table 90 indicates the memory strategies preferred by students who did and did not choose writing research papers. The use of memory strategies is used mostly at medium and high level in general. However, the strategy of *memorizing new words*

(Q3) is the least preferred strategy among all memory strategies. (All 4 questions can be seen in Appendix B).

Table 90
Memory strategies: Research paper

		Yes (n=24)	No (n=140)
Question 1	M	4.25	3.84
	SD	0.67	0.89
Question 2	M	3.08	2.74
	SD	0.24	1.13
Question 3	M	2.54	2.00
	SD	1.53	1.24
Question 4	M	3.42	2.83
	SD	1.13	1.25

The independent samples t-test conducted yields statistically significant mean difference regarding the preference of writing research papers or not in terms of the strategies of *associating with background knowledge* (Q1) and *revising old compositions* (Q4) (Table 91).

Table 91
Independent samples t-test for memory strategies: Research paper

	F	p	t.	df	p
Question 1	1.92	0.16	-2.16	162	0.03*
Question 2	0.39	0.53	-1.36	162	0.17
Question 3	4.15	0.04	-1.64	162	0.05
Question 4	0.31	0.57	-2.14	162	0.03*

* $p < 0.05$

Cognitive strategies: Research paper

Table 92 demonstrates that the use of cognitive strategies is mostly at medium and high level across the category of writing research papers. The strategies of *putting aside writing for a few days to reconsider* (Q14) and *writing different drafts* (Q10)

are used at the lowest level by students who do not generally write research papers among all cognitive strategies. (Questions 5 to 17 can be seen in Appendix B).

Table 92
Cognitive strategies: Research paper

		Yes (n=24)	No (n=140)
Question 5	M	3.63	3.41
	SD	1.17	1.19
Question 6	M	3.58	3.21
	SD	1.13	1.22
Question 7	M	4.00	3.68
	SD	1.80	1.18
Question 8	M	3.88	3.62
	SD	1.07	1.04
Question 9	M	4.00	3.33
	SD	0.97	1.12
Question 10	M	3.42	2.43
	SD	1.31	1.19
Question 11	M	3.25	3.14
	SD	1.32	1.29
Question 12	M	3.04	2.62
	SD	1.39	1.30
Question 13	M	3.21	2.91
	SD	1.21	1.34
Question 14	M	3.25	2.29
	SD	1.51	1.32
Question 15	M	3.21	3.29
	SD	1.35	1.43
Question 16	M	4.21	4.11
	SD	1.06	0.93
Question 17	M	3.88	3.77
	SD	1.19	1.11

According to the results of the independent samples t-test, there is a statistically significant mean difference between students who chose writing research papers and who did not, in terms of the strategies of *trying to put meaning on paper as quickly as possible* (Q9), *writing different drafts* (Q10) and *putting aside writing for a few days to reconsider* (Q14).

Table 93
Independent samples t-test for cognitive strategies: Research paper

	F	p	t.	df	p
Question 5	0.00	0.95	-0.80	162	0.42
Question 6	0.03	0.84	-1.40	162	0.16
Question 7	10.41	0.00	-1.88	162	0.15
Question 8	0.06	0.80	-1.09	162	0.27
Question 9	2.31	0.13	-2.74	162	0.00*
Question 10	2.19	0.14	-3.68	162	0.00*
Question 11	0.05	0.81	-0.37	162	0.71
Question 12	0.02	0.88	-1.44	162	0.15
Question 13	0.28	0.59	-1.00	162	0.31
Question 14	1.83	0.17	-3.19	162	0.00*
Question 15	1.24	0.26	0.24	162	0.80
Question 16	0.06	0.79	-0.44	162	0.65
Question 17	0.74	0.39	-0.41	162	0.67

* p< 0.05

Compensatory strategies: Research paper

Table 79 presents compensatory strategies which are mainly used at high and medium level across the category of writing research papers. The strategy of *using synonyms* (Q18) is the most preferred strategy, while *repeating in an attempt to keep writing going* (Q20) is the least preferred strategy. (Questions 18 to 23 can be seen in Appendix B).

Table 94
Compensatory strategies: Research paper

		Yes (n=24)	No (n=140)
Question 18	M	4.17	3.79
	SD	1.16	1.08
Question 19	M	3.38	3.00
	SD	1.31	1.24
Question 20	M	2.88	2.56
	SD	1.22	1.18
Question 21	M	3.25	3.10
	SD	1.45	1.28
Question 22	M	3.96	3.40
	SD	0.16	1.23
Question 23	M	3.50	3.34
	SD	1.28	1.25

According to the results of the independent samples t-test, there is a statistically significant mean between students who chose writing research papers and who did not, regarding the strategy of *using sources* (Q22) (Table 95).

Table 95
Independent samples t-test for compensatory strategies: Research paper

	F	p	t.	df	p
Question 18	0.39	0.53	-1.57	162	0.11
Question 19	1.61	0.20	-1.35	162	0.17
Question 20	0.03	0.84	-1.17	162	0.24
Question 21	1.65	0.20	-0.51	162	0.60
Question 22	1.16	0.28	-2.06	162	0.04*
Question 23	0.00	0.97	-0.59	162	0.55

* $p < 0.05$

Meta-cognitive strategies: Research paper

As it is clearly seen in Table 96, the use of meta-cognitive strategies is mostly at medium and high level across the category of writing research papers. (Questions 24 to 37 can be seen in Appendix B).

Table 96
Meta-cognitive strategies: Research paper

		Yes (n=24)	No (n=140)
Question 24	M	3.46	3.26
	SD	0.88	1.10
Question 25	M	3.63	3.69
	SD	1.40	1.17
Question 26	M	3.75	3.47
	SD	1.32	1.20
Question 27	M	3.33	3.26
	SD	1.30	1.20
Question 28	M	3.00	2.87
	SD	1.44	1.19
Question 29	M	3.46	3.07
	SD	1.35	1.29
Question 30	M	3.21	2.99
	SD	1.31	1.22
Question 31	M	4.04	3.40
	SD	1.08	1.25
Question 32	M	4.38	3.96
	SD	0.87	1.07

Table 96 (cont'd)
Meta-cognitive strategies: Research paper

		Yes (n=24)	No (n=140)
Question 33	M	2.83	2.96
	SD	1.30	1.28
Question 34	M	3.92	3.52
	SD	1.01	1.04
Question 35	M	3.42	3.34
	SD	1.38	1.23
Question 36	M	4.04	3.64
	SD	1.99	1.05
Question 37	M	3.75	3.49
	SD	1.26	1.13

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the preference of writing research papers or not in terms of the use of meta-cognitive strategies ($p>0.05$).

Affective strategies: Research paper

Based on the mean differences demonstrated in Table 97, most of the affective strategies are employed at medium level across the category of writing reports. On the other hand, the strategy of *writing a diary* (Q41) is used at low level. (Questions 38 to 43 can be seen in Appendix B).

Table 97
Affective strategies: Research paper

		Yes (n=24)	No (n=140)
Question 38	M	3.50	3.12
	SD	1.35	1.25
Question 39	M	3.33	2.93
	SD	1.68	1.47
Question 40	M	2.67	2.39
	SD	1.68	1.42
Question 41	M	1.79	1.68
	SD	1.08	1.09
Question 42	M	2.92	2.83
	SD	1.44	1.44
Question 43	M	3.96	3.59
	SD	1.08	1.13

The analysis of the independent samples t-test results regarding affective strategies demonstrates that there is no statistically significant mean difference between students who chose writing research papers and who did not ($p>0.05$).

Social strategies: Research paper

Table 98 indicates that the social strategies are mostly employed at medium and high level across the category of writing research papers. The strategy of *looking for assistance for linguistic problems* (Q44) is at the highest level, while the strategy of *seeking opportunities to improve writing* (Q45) is the lowest level among social strategies. (Questions 44 to 47 can be seen in Appendix B).

Table 98
Social strategies: Research paper

		Yes (n=24)	No (n=140)
Question 44	M	3.75	3.49
	SD	1.51	1.31
Question 45	M	2.92	2.71
	SD	1.31	1.31
Question 46	M	3.63	3.47
	SD	1.34	1.27
Question 47	M	2.96	2.94
	SD	1.45	1.38

The independent samples t-test results demonstrate that there is no statistically significant mean difference across the category of writing research papers in terms of the use of social strategies ($p>0.05$).

Direct and indirect writing strategies: Creative writing

Table 99 indicates overall direct and indirect writing strategies preferred by both students who did and did not choose writing creative writings. When it is analyzed in detail, both strategies are used at medium level in each category.

Table 99
Overall direct and indirect writing strategies: Creative writing

		Yes (n=75)	No (n=89)
Direct Strategies	M	3.28	3.13
	SD	0.52	0.59
Indirect Strategies	M	3.27	3.14
	SD	0.55	0.60

The independent samples t-test results demonstrate that there is no statistically significant mean difference regarding the preference of writing creative writings or not in direct and indirect strategies ($p>0.05$).

Table 100 indicates that the use of writing strategies is mostly at medium level across the category of writing creative writings. The affective strategy is the least preferred strategy among all strategies.

Table 100
Direct and indirect writing strategies: Creative writing

		Yes (n=75)	No (n=89)
Memory Strategies	M	3.05	2.80
	SD	0.73	0.75
Cognitive Strategies	M	3.38	3.17
	SD	0.60	0.66
Compensatory Strategies	M	3.21	3.26
	SD	0.71	0.63
Meta-cognitive Strategies	M	3.45	3.33
	SD	0.58	0.62
Affective Strategies	M	2.88	2.71
	SD	0.77	0.83
Social Strategies	M	3.24	3.11
	SD	0.91	0.94

According to the independent samples t-test results; there is a statistically significant mean difference regarding the preference of writing creative writings or not in terms of memory and cognitive strategies (Table 101).

Table 101
Independent samples t-test for direct and indirect strategies: Creative writing

	F	p	t.	df	p
Memory Strategies	0.00	0.92	-2.16	162	0.03*
Cognitive Strategies	0.00	0.98	-2.10	162	0.03*
Compensatory Strategies	1.11	0.29	-0.51	162	0.60
Meta-cognitive Strategies	0.84	0.36	-1.26	162	0.20
Affective Strategies	0.03	0.85	-1.32	162	0.18
Social Strategies	0.39	0.53	-0.88	162	0.38

* $p < 0.05$

Memory strategies: Creative writing

Table 102 indicates the memory strategies preferred by students who did and did not choose writing creative writings. The use of memory strategies is used mainly at medium and high level in general. However, the strategy of *memorizing new words* (Q3) is the least preferred strategy among all memory strategies. (All 4 questions can be seen in Appendix B).

Table 102
Memory strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 1	M	4.08	3.74
	SD	0.81	0.89
Question 2	M	2.92	2.67
	SD	1.19	1.11
Question 3	M	2.20	1.98
	SD	1.37	1.23
Question 4	M	3.03	2.82
	SD	1.18	1.31

The independent samples t-test conducted yields statistically significant mean difference between students who chose writing creative writings and who did not for the strategy of *associating with background knowledge* (Q1) (Table 103).

Table 103
Independent samples t-test for memory strategies: Creative writing

	F	p	t.	df	p
Question 1	2.72	0.10	-2.50	162	0.01*
Question 2	0.08	0.76	-1.36	162	0.17
Question 3	1.06	0.30	-1.09	162	0.27
Question 4	2.37	0.12	-1.05	162	0.29

* $p < 0.05$

Cognitive strategies: Creative writing

Table 104 demonstrates that the use of cognitive strategies is mostly at medium and high level across the category of writing creative writings. The strategies of *putting aside writing for a few days to reconsider* (Q14) and *writing different drafts* (Q10) are used at the lowest level among all cognitive strategies. (Questions 5 to 17 can be seen in Appendix B).

Table 104
Cognitive strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 5	M	3.73	3.20
	SD	1.15	1.16
Question 6	M	3.41	3.13
	SD	1.16	1.25
Question 7	M	3.83	3.65
	SD	1.13	1.14
Question 8	M	3.73	3.60
	SD	1.00	1.09
Question 9	M	3.39	3.46
	SD	1.06	1.18
Question 10	M	2.68	2.48
	SD	1.27	1.24
Question 11	M	3.45	2.91
	SD	1.24	1.29

Table 104 (cont'd)
Cognitive strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 12	M	2.61	2.74
	SD	1.42	1.23
Question 13	M	2.89	3.01
	SD	1.31	1.34
Question 14	M	2.56	2.33
	SD	1.40	1.38
Question 15	M	3.48	3.10
	SD	1.38	1.43
Question 16	M	4.25	4.02
	SD	1.93	0.96
Question 17	M	3.97	3.63
	SD	1.07	1.14

According to the results of the independent samples t-test, there are statistically significant mean difference across the category of writing creative writings in terms of strategies of *trying to put meaning on paper as quickly as possible* (Q9), *reading books or good writers' compositions* (Q11) and *putting aside writing for a few days to reconsider* (Q14).

Table 105
Independent samples t-test for cognitive strategies: Creative writing

	F	p	t.	df	p
Question 5	0.00	0.98	-2.91	162	0.00*
Question 6	0.26	0.60	-1.46	162	0.14
Question 7	0.03	0.85	-0.97	162	0.32
Question 8	1.25	0.26	-0.83	162	0.40
Question 9	1.68	0.19	-0.41	162	0.67
Question 10	2.27	0.60	-0.99	162	0.32
Question 11	0.20	0.65	-2.72	162	0.00*
Question 12	4.51	0.03	0.61	162	0.53
Question 13	0.08	0.77	0.56	162	0.57
Question 14	0.25	0.61	-1.07	162	0.00*
Question 15	0.01	0.91	-1.71	162	0.28
Question 16	1.05	0.30	-1.55	162	0.12
Question 17	0.80	0.37	-1.97	162	0.05

* $p < 0.05$

Compensatory strategies: Creative writing

As it is clearly seen in Table 106, the use of compensatory strategies is mostly at medium and high level regarding the preference of writing creative writings or not. The strategy of *repeating in an attempt to keep writing* (Q20) is the least preferred strategy among all compensatory strategies. (Questions 18 to 23 can be seen in Appendix B).

Table 106
Compensatory strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 18	M	3.88	3.81
	SD	0.98	1.19
Question 19	M	3.05	3.06
	SD	1.32	1.20
Question 20	M	2.60	2.62
	SD	1.11	1.26
Question 21	M	3.08	3.16
	SD	1.32	1.30
Question 22	M	3.33	3.61
	SD	1.23	1.23
Question 23	M	3.35	3.37
	SD	1.34	1.19

According to the independent samples t-test results, there is no statistically significant mean difference between students who chose writing creative writings and who did not, regarding their preference of compensation strategies ($p>0.05$).

Meta-cognitive strategies: Creative writing

Table 107 presents meta-cognitive strategies which are mostly used at medium and high level across the category of writing creative writings. (Questions 24 to 37 can be seen in Appendix B).

Table 107
Meta-cognitive strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 24	M	3.31	3.27
	SD	1.11	1.05
Question 25	M	3.79	3.58
	SD	1.15	1.25
Question 26	M	3.56	3.47
	SD	1.20	1.25
Question 27	M	3.23	3.30
	SD	1.27	1.17
Question 28	M	2.96	2.83
	SD	1.27	1.18
Question 29	M	3.24	3.03
	SD	1.35	1.25
Question 30	M	3.28	2.81
	SD	1.22	1.21
Question 31	M	3.60	3.40
	SD	1.17	1.31
Question 32	M	4.16	3.90
	SD	0.98	1.10
Question 33	M	2.69	3.15
	SD	1.36	1.18
Question 34	M	3.72	3.46
	SD	0.96	1.10
Question 35	M	3.40	3.30
	SD	1.26	1.24
Question 36	M	3.73	3.67
	SD	1.00	1.09
Question 37	M	3.64	3.44
	SD	1.20	1.10

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing creative writings and who did not in terms of the use of meta-cognitive strategies ($p>0.05$).

Affective strategies: Creative writing

Based on the mean differences demonstrated in Table 108, affective strategies are employed at medium level regarding the preference of writing creative writings or not. On the other hand, the strategy of *writing a diary* (Q41) is used at low level. (Questions 38 to 43 can be seen in Appendix B).

Table 108
Affective strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 38	M	3.21	3.15
	SD	1.33	1.22
Question 39	M	3.15	2.85
	SD	1.54	1.48
Question 40	M	2.44	2.42
	SD	1.54	1.39
Question 41	M	1.76	1.64
	SD	1.14	1.10
Question 42	M	2.87	2.82
	SD	1.49	1.41
Question 43	M	3.89	3.44
	SD	1.03	1.17

The analysis of the independent samples t-test results regarding affective strategies demonstrates that there is no statistically significant mean difference between students who chose writing creative writings and who did not ($p>0.05$).

Social strategies: Creative writing

Table 109 indicates that the social strategies are mostly used at medium and high level across the category of writing creative writings. The strategy of *looking for assistance for linguistic problems* (Q44) is at the highest level, while the strategy of *seeking opportunities to improve writing* (Q45) is the lowest level among social strategies. (Questions 44 to 47 can be seen in Appendix B).

Table 109
Social strategies: Creative writing

		Yes (n=75)	No (n=89)
Question 44	M	3.65	3.42
	SD	1.27	1.38
Question 45	M	2.87	2.64
	SD	1.23	1.37
Question 46	M	3.61	3.39
	SD	1.30	1.25
Question 47	M	2.85	3.02
	SD	1.43	1.35

The independent samples t-test results demonstrate that there is no statistically significant mean difference between students who chose writing creative writings and who did not, in terms of the use of social strategies ($p>0.05$).

When the students were asked which types of written texts, they prefer other than the ones specified in the questionnaire, they added their preferred text types. According to their answers, 14 students choose text messages, three students prefer school assignment work, and two opt for WhatsApp. Social media, blogs, messages, games, stories, summaries, journals and diaries are selected by only one student each.

Direct and indirect writing strategies: The number of books read

There are five different groups of students across the number of books read in a year. The first group is composed of students who never read books. The second group consists of students reading between one to five books. The third group comprises of students reading between six to ten books. The fourth group is made up of students reading between 11 to 20 books. Finally, in the fifth group there are students who read between 21 to 50 books in a year. These groups will hereafter be referred as group A (none), group B (1-5), group C (6-10), group D (11-20), and group E (21-50) respectively for clarification and easier comprehension.

Table 110 demonstrates direct and indirect writing strategies across the category of the number of books read in a year. Both direct and indirect strategies are at medium and high level across the category of the number of books read. It can be seen that

group A and group D seem to use both direct and indirect writing strategies at the highest level across the category of the number of books read.

Table 110
Overall direct and indirect writing strategies: The number of books read

		A (None) (n=4)	B (1-5) (n=76)	C (6-10) (n=42)	D (11-20) (n=33)	E (21-50) (n=9)
Direct Strategies	M	3.59	3.11	3.15	3.52	2.79
	SD	1,64	0.46	0.54	0.45	0.61
Indirect Strategies	M	3.77	3.08	3.23	3.50	2.76
	SD	1.46	0.48	0.59	0.46	0.65

When student use of writing strategies across the number of books are analyzed through ANOVA (Table 111), a statistically significant mean difference has been found across the category of the number of books read in terms of both direct and indirect writing strategies.

Table 111
ANOVA for overall direct and indirect writing strategies: The number of books read

	df_1	df_2	F
Direct Strategies	4	163	5.39*
Indirect Strategies	4	163	5.74*

* $p < 0.05$

Direct and indirect writing strategies: The number of books read

Table 112 indicates that the use of writing strategies is mainly at medium and high level across the category of the number of books read. Memory, compensation, meta-cognitive and social strategies are used by the students who never read books, four participants, at the highest level. Other writing strategies are used at medium level by all groups of students.

Table 112
Direct and indirect writing strategies: The number of books read

		A (None) (n=4)	B (1-5) (n=76)	C (6-10) (n=42)	D(11-20) (n=33)	E(21-50) (n=9)
Memory Strategies	M	3.62	2.89	2.82	3.15	2.41
	SD	1.60	0.75	0.64	0. 70	0.59
Cognitive Strategies	M	3.48	3.16	3.20	3.67	2.93
	SD	1.76	0.54	0.62	0.54	0.59
Compensation Strategies	M	3.83	3.17	3.26	3.46	2.74
	SD	1.45	0.59	0.63	0.51	1.07
Meta-cognitive Strategies	M	3.95	3.26	3.44	3.70	2.84
	SD	1.33	0.52	0.59	0.49	0.62
Affective Strategies	M	3.46	2.67	2.78	3.03	2.82
	SD	1.78	0.74	0.84	0.69	0.80
Social Strategies	M	3.63	3.08	3.19	3.53	2.44
	SD	1.63	0.87	0.99	0.70	1.05

ANOVA test results yield statistically significant mean differences among all subcategories of writing strategies, except for affective strategies across the category of the number of books read (Table 113).

Table 113
ANOVA for direct and indirect strategies: The number of books read

	df_1	df_2	F
Memory Strategies	4	163	2.97*
Cognitive Strategies	4	163	5.03*
Compensatory Strategies	4	163	3.36*
Meta-cognitive Strategies	4	163	6.58*
Affective Strategies	4	163	1.85
Social Strategies	4	163	3.18*

* $p < 0.05$

Memory strategies: The number of books read

Table 114 indicates the memory strategies across the category of the number of books read. The use of memory strategies is used mainly at medium and high level in general. The strategy of *memorizing new words by writing them several times* (Q3) is only preferred at low level for group A and group B. On the other hand, the strategy of a*ssociating the background knowledge* (Q1) is common at the highest level across

all categories of the number of books read. (All 4 questions can be seen in Appendix B).

Table 114
Memory strategies: The number of books read

		A (None) (n=4)	B (1-5) (n=76)	C(6-10) (n=42)	D(11-20) (n=33)	E (21-50) (n=9)
Question 1	M	3.75	3.78	3.93	4.18	3.78
	SD	1.50	0.85	0.89	0.80	0.83
Question 2	M	4.00	2.84	2.50	3.97	2.44
	SD	1.15	1.16	1.01	1.15	1.33
Question 3	M	3.00	2.13	1.93	2.33	1.00
	SD	2.30	1.31	1.17	1.33	0.00
Question 4	M	3.75	2.83	2.93	3.12	2.44
	SD	1.50	1.29	1.31	1.08	1.13

The ANOVA test yields statistically significant mean difference across the category of the number of books read in the strategy of *memorizing new words* (Q3) (Table 115).

Table 115
ANOVA for memory strategies: The number of books read

	df_1	df_2	F
Question 1	4	163	1.32
Question 2	4	163	2.26
Question 3	4	163	2.63*
Question 4	4	163	1.07

* $p < 0.05$

A post hoc Tukey HSD test shows that the significant difference is between group D and group E in a year.

Cognitive strategies: The number of books read

Table 116 demonstrates that the use of cognitive strategies is mostly at high and medium level across the category of the number of books read. The strategy of

reading good writers' books to improve the writing (Q11) seems to increase progressively from group A to group E. On the other hand, the strategies of *comparing the composition with the plan* (Q13) and the strategy of *putting aside the writing for few days* (Q14) are used at the same low level by group E. (Questions 5 to 17 can be seen in Appendix B).

Table 116
Cognitive strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 5	M	3.00	3.41	3.43	3.79	2.78
	SD	2.30	1.12	1.23	0.99	1.48
Question 6	M	3.25	3.14	3.14	3.73	3.11
	SD	2.06	1.20	1.18	1.03	1.53
Question 7	M	4.25	3.64	3.50	4.21	3.56
	SD	0.95	1.12	1.27	0.82	1.33
Question 8	M	3.50	3.51	3.55	4.21	3.44
	SD	1.73	1.08	0.96	0.74	1.33
Question 9	M	4.00	3.32	3.26	3.76	3.67
	SD	1.41	1.19	1.01	1.09	1.00
Question 10	M	3.50	2.46	2.33	3.18	2.00
	SD	1.91	1.17	1.20	1.31	1.00
Question 11	M	3.00	2.79	3.33	3.70	3.56
	SD	2.30	1.29	1.11	1.04	1.66
Question 12	M	3.25	2.58	2.83	2.79	2.22
	SD	2.06	1.34	1.26	1.24	1.30
Question 13	M	3.75	2.97	3.05	3.00	1.89
	SD	1.50	1.27	1.37	1.29	1.26
Question 14	M	3.25	2.39	2.26	2.79	1.89
	SD	2.06	1.38	1.38	1.38	1.05
Question 15	M	3.50	3.14	3.14	3.97	2.33
	SD	1.91	1.37	1.47	1.15	1.50
Question 16	M	3.25	4.11	4.12	4.30	4.11
	SD	2.06	1.01	0.86	0.77	0.78
Question 17	M	3.75	3.63	3.71	4.30	3.56
	SD	1.50	1.06	1.15	1.13	0.88

According to the results of ANOVA test, there is a statistically significant mean difference across the category of the number of books read in terms of strategies of *reformulating the linguistic expression* (Q8), *writing different drafts* (Q10), *reading*

good writers' books to improve the writing (Q11), and *reading the composition aloud* (Q15).

Table 117
ANOVA for cognitive strategies: The number of books read

	df_1	df_2	F
Question 5	4	163	1.57
Question 6	4	163	1.53
Question 7	4	163	2.34
Question 8	4	163	3.01*
Question 9	4	163	1.49
Question 10	4	163	3.70*
Question 11	4	163	0.59*
Question 12	4	163	0.76
Question 13	4	163	1.92
Question 14	4	163	1.41
Question 15	4	163	3.43*
Question 16	4	163	1.14
Question 17	4	163	2.32

* $p<0.05$

A post hoc Tukey HSD test indicates a significant difference between group B and group D; and group C and group D in terms of the strategy of *reformulating the linguistic expression* (Q8). Similarly, the same groups stated previously differ from one another in the strategy of *writing different drafts* (Q10). Moreover, the same test shows that group B and group D have a significant mean difference regarding the strategy of *reading the good writers' books*. Finally, *reading the composition aloud* (Q15) constitutes another significant difference between group B and group D; and group D and group E.

Compensation strategies: The number of books read

Table 118 presents compensatory strategies which are mostly employed at high and medium level across the category of the number of books read. When it is analyzed in detail, the strategy of *using synonyms* (Q18) is used at the highest level in each

group. However, the strategy of *repeating in an attempt* (Q20) and the strategy of *using sources* (Q22) are used by group E at low level. It might be worth noting that group A seems to use all compensatory strategies at the highest level. (Questions 18 to 23 can be seen in Appendix B).

Table 118
Compensatory strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 18	M	3.75	3.74	3.74	4.33	3.44
	SD	1.89	1.07	1.08	0.95	1.23
Question 19	M	4.00	2.82	3.19	3.36	2.89
	SD	1.15	1.24	1.17	1.22	1.61
Question 20	M	3.50	2.58	2.71	2.55	2.22
	SD	1.73	1.16	1.17	1.14	1.48
Question 21	M	3.75	3.12	3.07	3.24	2.67
	SD	1.89	1.30	1.21	1.30	1.65
Question 22	M	3.75	3.37	3.60	3.88	2.33
	SD	1.50	1.19	1.23	1.11	1.32
Question 23	M	4.25	3.39	3.26	3.42	2.89
	SD	1.50	1.20	1.25	1.25	1.69

According to the results of ANOVA test, there is a statistically significant mean difference across the category of the number of books read regarding the strategy of *using sources* (Q22) (Table 119).

Table 119
ANOVA for compensatory strategies: The number of books read

	df_1	df_2	F
Question 18	4	163	2.27
Question 19	4	163	1.96
Question 20	4	163	0.90
Question 21	4	163	0.58
Question 22	4	163	3.26*
Question 23	4	163	0.91

* $p<0.05$

The post hoc Tukey HSD test indicates, the significant mean difference is between group C and group E; and group D and group E.

Meta-cognitive strategies: The number of books read

In Table 120, the use of meta-cognitive strategies is mainly at medium and high level. Group A has a tendency to use meta-cognitive strategies at the highest level, whereas group E has a tendency to use the strategies of *planning the content and organization* (Q26), *going back to the plan* (Q27), *setting the goals* (Q28), *taking the consideration of audience* (Q30), *concerning the lack of writing fluency* (Q33) at low level. (Questions 24 to 37 can be seen in Appendix B).

Table 120
Meta-cognitive strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 24	M	4.50	3.32	3.10	3.33	3.22
	SD	1.00	1.07	1.03	1.08	1.20
Question 25	M	3.75	3.54	3.79	3.94	3.33
	SD	1.89	1.24	1.09	1.02	1.65
Question 26	M	3.75	3.53	3.43	3.88	2.33
	SD	1.50	1.18	1.21	1.13	1.32
Question 27	M	4.25	3.26	3.10	3.76	1.89
	SD	0.95	1.12	1.22	1.20	0.92
Question 28	M	3.50	2.82	3.02	3.03	2.11
	SD	1.73	1.10	1.37	1.28	0.92
Question 29	M	4.25	2.70	3.33	3.73	3.11
	SD	0.95	1.17	1.22	1.37	1.36
Question 30	M	3.75	2.93	3.19	3.24	1.89
	SD	1.50	1.19	1.29	1.14	1.05
Question 31	M	3.75	3.24	3.60	4.12	2.78
	SD	1.89	1.28	1.12	0.96	1.39
Question 32	M	4.00	3.84	4.12	4.45	3.44
	SD	1.41	1.12	0.91	0.79	1.42
Question 33	M	4.25	3.16	2.83	2.70	1.89
	SD	0.95	1.22	1.22	1.35	1.16
Question 34	M	3.75	3.54	3.57	3.79	3.11
	SD	1.50	1.06	0.91	1.08	1.26
Question 35	M	4.25	3.13	3.40	3.70	3.22
	SD	0.95	1.26	1.21	1.21	1.30

Table 120 (cont')
Meta-cognitive strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 36	M	4.00	3.38	3.88	4.09	4.00
	SD	1.41	1.05	1.04	0.80	1.11
Question 37	M	3.50	3.21	3.76	4.00	3.44
	SD	1.91	1.06	1.26	0.90	1.23

It is indicated in ANOVA test results that there is a statistically significant mean difference across the category of the number of books read in term of the strategies of *planning the content and organization* (Q26), *going back to the plan* (Q27), *thinking the clearness of ideas* (Q29), *concerning the audience* (Q30), *paying attention to aspects* (Q31), *writing with a specific purpose* (Q32), *concerning with the lack of writing fluency* (Q33), *knowing the features of good essays* (Q36), *awareness of the effectiveness of the strategies* (Q37).

Table 121
ANOVA for meta-cognitive strategies: The number of books read

	df_1	df_2	F
Question 24	4	163	1.66
Question 25	4	163	0.90
Question 26	4	163	3.05*
Question 27	4	163	5.65*
Question 28	4	163	1.46
Question 29	4	163	5.34*
Question 30	4	163	2.91*
Question 31	4	163	4.00*
Question 32	4	163	2.79*
Question 33	4	163	3.68*
Question 34	4	163	0.82
Question 35	4	163	1.80
Question 36	4	163	3.68*
Question 37	4	163	3.46*

* $p<0.05$

The post hoc Tukey HSD test demonstrates that there is a statistically mean difference between group B and group E, and group D and group E with regard to the

strategy of *planning the content and organization of essay* (Q26). Secondly, another important difference is among group E and other four groups in terms of the strategy of *going back to the plan* (Q27). Thirdly, group B and group D have the significant mean difference in relation to the strategies of *thinking clearness of the ideas* (Q29), *writing with a specific purpose* (Q32), *realizing the features of good essay* (Q36), and *awareness of the effectiveness of the strategies* (Q37). Furthermore, there is a slightly significant mean difference among group C and group E, and group D and group E regarding the strategy of *thinking an audience* (Q30). Another important difference among group B and group D, and group D and group E is in the strategy of *paying attention to aspects* (Q31). Finally, group E has significant differences with group A and group B regarding the strategy of *concerning the writing fluency* (Q33).

Affective strategies: The number of books read

Based on the mean differences demonstrated in Table 122, most of the affective strategies are employed at medium and low level. The lowest mean difference belongs to the strategy of *writing a diary except* (Q41) for group A. The strategy of *having confidence* (Q43) seems to increase progressively when students read more and more books. (Questions 38 to 43 can be seen in Appendix B).

Table 122
Affective strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 38	M	3.75	3.00	3.00	3.79	3.00
	SD	1.50	1.28	1.28	0.82	1.80
Question 39	M	3.25	2.84	2.98	3.18	3.44
	SD	2.06	1.53	1.52	1.42	1.50
Question 40	M	3.50	2.39	2.31	2.58	2.22
	SD	1.91	1.39	1.50	1.52	1.48

Table 122 (cont'd)
Affective strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 41	M	3.25	1.57	1.64	1.91	1.56
	SD	2.06	0.98	1.16	1.12	1.13
Question 42	M	3.75	2.97	2.64	2.82	2.33
	SD	1.50	1.40	1.39	1.48	1.80
Question 43	M	3.25	3.24	4.10	3.88	4.33
	SD	2.06	1.13	0.95	0.89	1.11

The ANOVA test results show there is a statistically significant mean difference across the category of the number of books read in terms of the strategies of *encouraging themselves for linguistic problem* (Q38), *writing a diary* (Q41), *having confidence* (Q43).

Table 123
ANOVA for affective strategies: The number of books read

	df_1	df_2	F
Question 38	4	163	2.84*
Question 39	4	163	0.54
Question 40	4	163	0.74
Question 41	4	163	2.63*
Question 42	4	163	1.03
Question 43	4	163	6.09*

* $p<0.05$

The post hoc Tukey HSD test shows that there is a statistically significant mean difference between group C and group D concerning the strategy of *encouraging themselves* (Q38). Group A has the significant mean differences with group B and group C in terms of the strategy of *writing a diary* (Q41). Group B has the other significant mean differences with group C, group D, and group E with regard to the strategy of *having confidence in capacity* (Q43).

Social strategies: The number of books read

Table 124 indicates that the social strategies are mostly used at medium and high level across the category of the number of books read. On the other hand, the strategy of *seeking opportunities to improve the writing* (Q45) and the strategy of *comparing writing with others* (Q47) are used only at low level in group E. (Questions 44 to 47 can be seen in Appendix B).

Table 124
Social strategies: The number of books read

		None (n=4)	1-5 (n=76)	6-10 (n=42)	11-20 (n=33)	21-50 (n=9)
Question 44	M	3.00	3.38	3.48	4.09	3.11
	SD	2.30	1.42	1.21	1.01	1.45
Question 45	M	3.75	2.72	2.74	3.03	1.44
	SD	1.50	1.34	1.34	1.10	0.72
Question 46	M	4.00	3.38	3.43	3.88	3.11
	SD	1.41	1.22	1.38	1.11	1.69
Question 47	M	3.75	2.83	3.12	3.12	2.11
	SD	1.89	1.33	1.43	1.36	1.36

ANOVA test results demonstrate that there is a statistically mean difference across the category of the number of books read in the strategy of *seeking opportunities to improve writing* (Q45).

Table 125
ANOVA for social strategies: The number of books read

	df_1	df_2	F
Question 44	4	163	2.12
Question 45	4	163	3.37*
Question 46	4	163	1.28
Question 47	4	163	1.60

* $p < 0.05$

The post hoc Tukey HSD test shows that the significant mean difference is between group E with groups A, B and D.

Direct and indirect writing strategies: Whether students like writing or not

According to the study, there are five different groups of students across the category of whether they like writing or not. The first group has students who do not like writing at all. The second group comprises of students who do not like writing. In the third group, there are students who are indifferent to writing (having no feelings). The fourth group has students who like writing. Finally, the fifth group consists of students who like writing a lot. These groups from now on will be referred as group 1, group 2, group 3, group 4, and group 5 respectively for clarification and easier comprehension.

Table 126 indicates overall direct and indirect writing strategies across the category of whether students like writing or not. When it is analyzed in detail, both strategies are used at medium level in each category.

Table 126
Overall direct and indirect writing strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Direct Strategies	M	2.90	3.14	3.04	3.25	3.45
	SD	0.70	0.46	0.58	0.52	0.50
Indirect Strategies	M	2.99	3.13	3.03	3.26	3.44
	SD	0.69	0.37	0.58	0.56	0.55

The analysis of variance (ANOVA) test results regarding overall direct and indirect writing strategies demonstrates that there is a statistically significant mean difference in terms of direct strategies.

Table 127
ANOVA for overall direct and indirect strategies: Whether they like writing or not

	df_1	df_2	F
Direct Strategies	4	163	3.52*
Indirect Strategies	4	163	3.06

* $p < 0.05$

Direct and indirect writing strategies: Liking writing or not

In Table 128, the use of overall direct and indirect strategies of memory, cognitive, compensation, meta-cognitive, affective and social is at mainly medium level in terms of students' attitudes towards writing. However, cognitive and meta-cognitive strategies are used at the highest level in terms of students who like writing a lot.

Table 128
Direct and indirect writing strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Memory Strategies	M	2.85	3.00	2.73	2.93	3.22
	SD	0.73	0.62	0.82	0.66	0.77
Cognitive Strategies	M	2.80	2.99	3.10	3.33	3.63
	SD	0.84	0.48	0.63	0.61	0.52
Compensation Strategies	M	3.14	3.59	3.14	3.31	3.24
	SD	0.74	0.76	0.62	0.64	0.76
Meta-cognitive Strategies	M	3.06	3.51	3.22	3.42	3.65
	SD	0.59	0.15	0.56	0.60	0.64
Affective Strategies	M	2.83	2.43	2.59	2.86	3.10
	SD	1.00	0.83	0.84	0.78	0.64
Social Strategies	M	3.00	2.86	3.04	3.33	3.23
	SD	1.08	1.23	0.92	0.86	0.97

According to the ANOVA test results; there is a statistically significant mean difference across the category of whether students like writing or not in terms of cognitive and meta-cognitive strategies.

Table 129
ANOVA for direct and indirect strategies: Whether students like writing or not

	df_1	df_2	F
Memory Strategies	4	163	2.23
Cognitive Strategies	4	163	5.40*
Compensation Strategies	4	163	0.98
Meta-cognitive Strategies	4	163	3.40*
Affective Strategies	4	163	2.54
Social Strategies	4	163	1.01

* $p < 0.05$

Memory Strategies: Whether students like writing or not

Table 130 indicates the memory strategies across the category of whether students like writing or not. There is a high tendency towards the use of the strategy of *associating background knowledge* (Q1) across all categories of whether students like writing or not. On the other hand, the strategy of *memorizing new words by writing several times* (Q3) is used at the lowest level in each group. Other memory strategies are used at medium level across the category of whether students like writing or not. (All 4 questions can be seen in Appendix B).

Table 130
Memory Strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 1	M	3.86	4.00	3.66	3.90	4.29
	SD	1.06	1.00	0.92	0.79	0.78
Question 2	M	3.57	2.86	2.61	2.68	3.13
	SD	1.39	0.90	1.21	0.99	1.25
Question 3	M	1.86	2.14	1.93	2.17	2.19
	SD	1.21	1.21	1.27	1.33	1.35
Question 4	M	2.14	3.00	2.73	2.97	3.29
	SD	1.06	1.00	1.32	1.20	1.24

As it is seen in Table 131, there is a statistically significant difference across the category of students' attitude to writing with regard to the strategy of *relating the background knowledge* (Q1).

Table 131
ANOVA for memory strategies: Whether students like writing or not

	df_1	df_2	F
Question 1	4	163	2.71*
Question 2	4	163	2.00
Question 3	4	163	0.38
Question 4	4	163	1.71

* $p < 0.05$

A post hoc Tukey HSD test indicates that this difference is between the students having no feelings (Group 3) about writing and students who like it a lot (Group 5).

Cognitive strategies: Whether students like writing or not

As presented in Table 132, the use of cognitive strategies seems to increase from group 1 to group 5 progressively. While group 1 is at medium and low level, group 5 is at high and medium level. According to the outcomes presented in Table 49, if students like writing a lot, they use most of the cognitive strategies at high level. On the other hand, the strategy of *putting aside the writing for few days* (Q14) has the lowest mean for group 2. (Questions 5 to 17 can be seen in Appendix B).

Table 132
Cognitive strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 5	M	2.29	3.14	3.39	3.44	3.87
	SD	1.11	1.34	1.18	1.17	1.05
Question 6	M	2.86	2.71	3.16	3.21	3.77
	SD	1.21	1.49	1.26	1.20	0.99

Table 132 (cont'd)
Cognitive strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 7	M	3.14	3.71	3.61	3.73	4.10
	SD	1.21	1.25	1.13	1.19	0.94
Question 8	M	3.29	3.71	3.57	3.67	3.87
	SD	1.25	1.38	1.07	1.06	0.88
Question 9	M	2.57	3.29	3.41	3.48	3.58
	SD	1.13	1.38	1.17	1.09	1.05
Question 10	M	2.57	2.57	2.34	2.54	3.06
	SD	1.51	1.27	1.11	1.28	1.34
Question 11	M	2.29	2.14	2.73	3.29	4.10
	SD	1.89	1.06	1.22	1.18	0.90
Question 12	M	2.43	2.71	2.63	2.71	2.77
	SD	1.39	1.70	1.34	1.22	1.43
Question 13	M	2.71	2.86	2.80	3.03	3.16
	SD	0.951	1.06	1.35	1.34	1.39
Question 14	M	2.29	1.14	2.09	2.68	2.87
	SD	1.11	0.37	1.36	1.46	1.20
Question 15	M	3.00	2.71	2.96	3.43	3.71
	SD	1.73	0.95	1.48	1.37	1.29
Question 16	M	3.71	4.14	3.96	4.30	4.16
	SD	1.38	1.21	0.91	0.90	0.93
Question 17	M	3.29	4.00	3.59	3.79	4.19
	SD	1.25	1.15	1.12	1.12	1.01

The ANOVA test results show that there is a significant mean difference across the category of students' attitudes towards writing in terms of strategies of *trying out different ideas* (Q5), *reading good writers' books* (Q11), *and putting aside writing for a few days* (Q14).

Table 133
ANOVA for cognitive strategies: Whether students like writing or not

	df_1	df_2	F
Question 5	4	163	2.93*
Question 6	4	163	2.10
Question 7	4	163	1.44
Question 8	4	163	0.63
Question 9	4	163	1.21
Question 10	4	163	1.70
Question 11	4	163	9.10*
Question 12	4	163	0.13

Table 133 (cont'd)
ANOVA for cognitive strategies: Whether students like writing or not

	df_1	df_2	F
Question 13	4	163	0.48
Question 14	4	163	3.90*
Question 15	4	163	1.96
Question 16	4	163	1.28
Question 17	4	163	1.90

* $p<0.05$

A post hoc Tukey HSD test indicates that this difference is between group 1 and group 5 in terms of the strategy of *trying out different ideas* (Q5). Also, the same test shows that group 5 has a significant difference with other groups regarding the strategy of *reading good writers' books* (Q11). Another important difference is between group 2 and group 4, and group 2 and group 5 with regard to *putting aside writing for a few days* (Q14).

Compensation strategies: Whether students like writing or not

Table 134 displays compensation strategies pertaining to students' attitudes towards writing. The use of compensation strategies is mostly used at high and medium level. The strategy of *repeating in an attempt to keep writing going* (Q20) has the lowest means in all groups. However, the strategy of *using synonyms* (Q18) has the highest means among other compensation strategies. (Questions 18 to 23 can be seen in Appendix B).

Table 134
Compensation strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 18	M	3.14	4.71	3.59	3.92	4.10
	SD	1.57	0.48	1.12	1.14	0.74
Question 19	M	3.29	3.71	2.79	3.06	3.32
	SD	0.75	1.49	1.21	1.17	1.44
Question 20	M	2.57	2.29	2.71	2.65	2.42
	SD	1.13	1.60	1.27	1.10	1.17
Question 21	M	3.00	3.57	3.02	3.27	2.94
	SD	1.73	1.13	1.36	1.20	1.36
Question 22	M	3.71	3.71	3.48	3.49	3.35
	SD	0.75	1.11	1.33	1.20	1.27
Question 23	M	3.14	3.57	3.27	3.46	3.32
	SD	1.06	1.51	1.28	1.17	1.40

According to the ANOVA test results; there is a statistically significant mean difference between group 2 and group 3 in the strategy of *using synonyms* (Q18).

Table 135
ANOVA for compensation strategies: Whether students like writing or not

	df_1	df_2	F
Question 18	4	163	3.19*
Question 19	4	163	1.56
Question 20	4	163	0.44
Question 21	4	163	0.66
Question 22	4	163	0.20
Question 23	4	163	0.27

* $p<0.05$

Meta-cognitive strategies: Whether students like writing or not

Meta-cognitive strategies, as suggested in Table 136, are moslty used at medium and high level across the category of whether students like writing or not. Most of the meta-cognitive strategies means seem to increase from group 1 to group 5. The strategy of *thinking whether or not the ideas are clear* (Q29) and the strategy of *paying attention to aspects* (Q31) have the same low level means for group 1. Also,

the strategy of *setting short-term and long-term goals* (Q28) is at the lowest level for group 2. Otherwise, other meta-cognitive strategies are employed at high and medium level regarding students' attitudes towards writing. (Questions 24 to 37 can be seen in Appendix B).

Table 136
Meta-cognitive strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 24	M	2.86	3.57	3.30	3.24	3.39
	SD	1.21	1.13	1.12	0.97	1.17
Question 25	M	3.71	4.00	3.39	3.73	4.00
	SD	1.60	1.00	1.12	1.22	1.23
Question 26	M	3.43	4.00	3.29	3.59	3.68
	SD	1.61	0.81	1.15	1.27	1.22
Question 27	M	3.43	3.71	3.29	3.13	3.39
	SD	1.13	0.95	1.05	1.30	1.40
Question 28	M	3.00	2.00	2.66	3.08	3.10
	SD	1.00	1.00	1.18	1.20	1.35
Question 29	M	2.14	3.29	2.79	3.27	3.65
	SD	0.90	1.25	1.24	1.26	1.35
Question 30	M	3.29	3.29	2.73	3.02	3.45
	SD	1.25	1.38	1.21	1.19	1.26
Question 31	M	2.14	3.86	3.21	3.65	3.90
	SD	1.46	1.21	1.27	1.12	1.16
Question 32	M	2.86	4.43	3.91	4.05	4.32
	SD	1.06	0.53	1.13	1.03	0.87
Question 33	M	3.43	2.71	3.16	2.97	2.42
	SD	0.53	1.60	1.23	1.25	1.38
Question 34	M	3.00	3.71	3.50	3.54	3.90
	SD	1.15	0.95	1.14	1.02	0.90
Question 35	M	3.57	3.71	3.18	3.33	3.55
	SD	1.39	0.95	1.14	1.36	1.23
Question 36	M	3.14	3.71	3.43	3.73	4.26
	SD	1.77	0.95	0.98	1.00	0.89
Question 37	M	2.86	3.14	3.23	3.60	4.16
	SD	1.57	0.69	1.11	1.11	1.03

According to the results of ANOVA test, there is a statistically significant mean difference across the category of whether students like writing or not in terms of the

strategies of *thinking whether or not the ideas are clear* (Q29), *paying attention to aspects* (Q31), *writing with a specific purpose* (Q32), *knowing the characteristics of good essays* (Q36), and also *awareness the effectiveness of the strategies* (Q37).

Table 137
ANOVA for meta-cognitive strategies: Whether students like writing or not

	df_1	df_2	F
Question 24	4	163	0.49
Question 25	4	163	1.50
Question 26	4	163	0.96
Question 27	4	163	0.54
Question 28	4	163	2.06
Question 29	4	163	3.62*
Question 30	4	163	1.90
Question 31	4	163	4.28*
Question 32	4	163	3.34*
Question 33	4	163	2.05
Question 34	4	163	1.41
Question 35	4	163	0.65
Question 36	4	163	3.87*
Question 37	4	163	4.46*

* $p<0.05$

The post hoc Tukey HSD test indicates that strategy of *thinking whether or not the ideas are clear* (Q29) has the same significant difference with the strategy of *awareness of the effectiveness of the strategies* (Q37) between group 5 and group 1, and group 5 and group 3. For the strategy of *paying attention to aspects* (Q31), as it is displayed in the table, group 1 has the significant mean difference with group 4 and group 5. Moreover, the same post hoc test shows that group 1 has the significant mean difference with other groups except for group 3 in terms of the strategy of *writing with a specific purpose* (Q32). Finally, group 5 has the significant difference with group 1 and group 3 with regard to the strategy of *knowing the characteristics of good essays* (Q36).

Affective strategies: Whether students like writing or not

In Table 138, the use of affective strategies is mainly at medium and low level regarding students' attitude towards writing. The strategy of *writing a diary* (Q41) is at the lowest level among all groups. On the other hand, the strategies of *encouraging themselves* (Q38) and *having confidence* (Q43) are the highest means among all affective strategies. The use of strategy of *having the confidence* (Q43) seems to increase from group 1 and group 5, progressively. (Questions 38 to 43 can be seen in Appendix B).

Table 138
Affective strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 38	M	2.86	1.86	2.89	3.30	3.81
	SD	1.34	1.06	1.24	1.18	1.19
Question 39	M	3.57	3.43	2.61	3.17	3.06
	SD	1.81	1.71	1.42	1.54	1.43
Question 40	M	2.71	2.86	2.23	2.43	2.61
	SD	1.49	1.57	1.37	1.50	1.54
Question 41	M	2.43	1.14	1.61	1.70	1.81
	SD	1.81	0.37	1.13	1.02	1.16
Question 42	M	2.57	2.14	2.89	2.81	3.03
	SD	1.13	1.21	1.46	1.44	1.53
Question 43	M	2.86	3.14	3.32	3.78	4.26
	SD	1.06	1.57	1.16	1.03	0.85

The ANOVA test results presents statistically significant mean difference across the category of whether students like writing or not in terms of the strategies of *encouraging themselves to find a better solution to a linguistic problem* (Q38) and *having confidence in their capacity* (Q43) as affective strategies as seen in Table 139.

Table 139
ANOVA for affective strategies: Whether students like writing or not

	df_1	df_2	F
Question 38	4	163	5.23*
Question 39	4	163	1.58
Question 40	4	163	0.58
Question 41	4	163	1.34
Question 42	4	163	0.62
Question 43	4	163	5.32*

* $p<0.05$

The post hoc Tukey HSD analysis shows that the difference in the strategy of *encouraging themselves* (Q38) is between group 2 and group 4; group 2 and group 5; group 3 and group 5. Also, group 5 has the significant mean difference with group 1 and group 3 in terms of the strategy of *having confidence* (Q43).

Social strategies: Whether students like writing or not

Table 140 indicates social strategies across the category of whether students like writing or not. The use of social strategies is mostly at medium level. While the strategy of *comparing the composition with classmates' composition* (Q47) is used at the lowest level by group 2, the strategy of *giving the writing to someone who is good at writing* (Q46) is used at the highest level by group 5. (Questions 44 to 47 can be seen in Appendix B).

The analysis of variance (ANOVA) test results regarding social strategies demonstrates that there is no statistically significant mean difference in term of students' attitudes towards writing.

Table 140
Social strategies: Whether students like writing or not

		1 I don't like it at all (n=7)	2 I don't like it (n=7)	3 I have no feelings (n=56)	4 I like it (n=63)	5 I like it a lot (n=31)
Question 44	M	2.86	3.00	3.41	3.65	3.74
	SD	1.86	1.91	1.31	1.24	1.29
Question 45	M	3.29	2.86	2.55	2.90	2.61
	SD	0.95	1.34	1.36	1.32	1.25
Question 46	M	3.00	3.43	3.36	3.52	3.81
	SD	1.41	1.71	1.25	1.26	1.22
Question 47	M	2.86	2.14	2.84	3.24	2.74
	SD	1.57	1.67	1.39	1.27	1.43

Summary of the answers to the research questions

It was indicated in this chapter that this research tries to answer the following questions. The first question investigates the writing strategies most frequently used by high school students in a bilingual context. The second question examines if there were any differences in writing strategies depending on grade level, gender, types of written texts, the number of books read, and students' attitudes towards writing. In that sense, a brief summary of the results to each research question is mentioned below:

1. Writing strategies used most frequently respectively:
    - Meta-cognitive strategies
    - Cognitive strategies
    - Compensatory strategies
    - Social strategies
    - Memory strategies
    - Affective strategies

2. Differences in writing strategies according to the following variables:

   - **Grade level:** The use of direct and indirect writing strategies across all grade levels is at medium and high level. There is a statistically mean difference in cognitive and meta-cognitive strategies across grade levels. As the grade level increases, students have a more tendency to use writing strategies in general.

   - **Gender:** Both male and female students seem to favor the use of strategies at medium and high level in general, the independent samples t-test results show a significant difference between genders except for the memory and affective strategies. Females have a higher tendency to use writing strategies compared to males under each strategy group.

   - **Types of texts written:** Firstly, there is no statistically significant mean difference between students who chose writing e-mails and who did not. Secondly, the category of writing letters has a statistically significant mean difference in cognitive writing strategies. Thirdly, there is a significant mean difference regarding the preference of writing notes or not in terms of compensatory strategies. Moreover, the categories of writing essay or article have a significant mean difference in affective strategies. Also, there are significant mean differences among all writing strategies except for social ones across the category writing report. Besides, there is a significant mean difference regarding the preference of writing research paper in terms of direct strategies. Finally, there are significant mean differences in terms of memory and cognitive strategies across the category of writing creative writing.

- **The number of books read:** There is a mean difference across the category of the number of books read for all writing strategies. As the number of books read decreases, the students have a more tendency to use writing strategies in general.

- **Whether students like writing or not:** Students who like writing a lot seem to employ meta-cognitive, compensatory strategies more. There is a statistically mean difference across the category of whether students like writing or not except for the social strategies.

CHAPTER 5: DISCUSSION

Introduction

This chapter presents an overview of the study and the discussion of major findings concerning what writing strategies were most frequently used by students. Also, this chapter looks into whether there are any differences between the use of writing strategies employed by students regarding grade level, gender, types of texts written and the number of books read and whether students like writing or not in the light of related literature. The chapter continues with the implications for practice, implications for further research and limitations of the study.

Overview of the study

In this study, Penuelas's (2012) '*The Inventory of Learning Strategies'* was used in order to examine the writing strategies used by high school students in a bilingual context. In order to attain the desired outcome, the researcher first determined the mostly used writing strategies by bilingual high school students, and then investigated if there were any differences in writing strategies caused by grade level, gender, types of written texts, the number of books read, students' attitudes towards writing. In that sense, this study intended to answer the following questions:

1. What writing strategies do high school students in Turkish- English bilingual context use most frequently?

2. Does the use of writing strategies differ according to the following variables?

a. grade level

b. gender

c. types of texts written

d. the number of books read

e. whether they like writing or not

Discussion of the major findings

Considering the overall results of both descriptive and inferential analysis conducted for each variable, it is possible to state that meta-cognitive, cognitive and compensatory strategies include statistically significant differences respectively, followed by social, memory and affective writing strategies which align with the study of Penuelas (2012).

The details and possible reasons behind the use of writing strategies are discussed below under five sub-categories, grade level, gender, types of texts written, and the number of books read, whether students like writing or not.

Strategy use and grade level

Table 141 summarizes the relationship between strategy use and grade level. The use of direct and indirect writing strategies across all grade levels is at medium and high level. When analyzed in detail, the findings show that compensatory, meta-cognitive and social strategies are used by all graders at high level in overall descriptive terms.

In inferential analysis, there are statistically significant mean differences in terms of cognitive and meta-cognitive strategies across grade levels. For cognitive strategies, the strategy of *putting aside the writing to reconsider the ideas* is significantly used more by 11^{th} and 12^{th} graders than the 9^{th} graders. The meta-cognitive strategies of

planning the learning and *paying attention* are used more by the 12th than the 9th graders; the strategy of *going back to the plan* is significantly used more by the 12th graders when compared to the 10th and 11th graders.

Table 141

Strategy use and grade level

	Descriptive Analysis	Inferential Analysis
Direct Strategies		
Memory Strategies	Mainly at medium level	-
Cognitive Strategies	**Mainly at medium level**	**9th and 11th graders** **9th and 12th graders**
Compensatory Strategies	Mainly at high level	-
Indirect Strategies		
Meta-cognitive Strategies	**Mainly at high level**	**10th and 12th graders** **9th and 12th graders** **11th and 12th graders**
Affective Strategies	Mainly at medium level	-
Social Strategies	Mainly at medium and high level	-

Furthermore, the findings show that as the grade level increases, students have a more tendency to use writing strategies in general. Especially the use of meta-cognitive and cognitive strategies seems to increase starting from 9th graders to 12th graders (Weinstein & Mayer, 1986; Peñuelas, 2012).

Strategy use and gender

In a similar fashion, Table 142 summarizes the differences between strategy use and gender. Although both male and female students seem to favor the use of strategies at medium and high level in general, the independent samples t-test results show a significant difference between genders among all writing strategies except for the memory and affective strategies. When cognitive, compensatory, meta-cognitive,

social strategies are analyzed in detail, it seems that females significantly use the strategies more compared to males.

Table 142
Strategy use and gender

	Descriptive Analysis	Inferential Analysis
Direct Strategies		
Memory Strategies	Mainly at medium level	-
Cognitive Strategies	**Mainly at medium and high level**	**Females**
Compensatory Strategies	**Mainly at medium level**	**Females**
Indirect Strategies		
Meta-cognitive Strategies	**Mainly at medium and high level**	**Females**
Affective Strategies	Mainly at medium level	-
Social Strategies	**Mainly at medium and high level**	**Females**

The results of this study indicate that females have a higher tendency to use writing strategies compared to males under each strategy group. This finding aligns with previous studies (Torrance et al., 2000; Ülper, 2011; Peñuelas, 2012; Esen & Yiğit. 2013). Regarding gender, except for the memory and affective strategies, descriptive differences are found to be statistically significant across all strategy categories. Therefore, based on Peñuelas' study (2012), it could be said that females behave as compensators and motivators during writing whereas males pay little attention to the strategies. The findings are also in line with what Wharton (2002) suggests; two possible factors, physiological factors and socialization, can explain why females are more prone to incorporate writing strategies while composing texts.

Strategy use and types of texts written

There are eight types of texts which are preferred by students which are e-mail, letter, note, essay, article, report, research paper and creative writing. Students prefer these types of texts whether they generally write or not. When analyzed in detail, the findings indicate that memory, cognitive and compensation strategies have statistically mean differences among all types of texts written. Furthermore, affective strategies are the least preferred strategies among all types of texts written.

Essay is the most preferable text by all students. Since in the IB program, students are required to produce essays, it is likely that students could be more prone to write this type of text more than other types. If students have knowledge of this genre of writing styles and purposes for this kind of writing, they can use easily appropriate language (Badger &White, 2000).

Strategy use and the number of books read

Table 143 summarizes the relationship between strategy use and the number books read. All five different groups of students across the number of books read in a year seem to employ direct and indirect strategies at medium and high level.

Moreover, there are significant mean differences in terms of all writing strategies in inferential terms. Analyzing direct strategies separately in detail as seen in Table 143, it can be said that the memory strategies are significantly used more by group D than group E. When cognitive strategies are analyzed in detail, the cognitive strategies are significantly used more by group D than group B and C. The same strategies are used significantly more by group D than group B and E. As to .

compensatory strategies, it is used more by group D. Meta-cognitive strategies are employed significantly more by group D than other groups. The same strategy is significantly used more by group A than group B and E. For affective strategies, the strategy is employed significantly more by group D than group C. The same strategy is used more not only by group A than group B and C, but also by group E than other groups. For social strategies, group E employ the strategy significantly less than other groups

Table 143
Strategy use and the number of books read

	Descriptive Analysis	Inferential Analysis
Direct Strategies		
Memory Strategies	**Mainly at medium and high level**	**Group D and E**
Cognitive Strategies	**Mainly at medium and high level**	**Group B and D**
		Group C and D
		Group D and E
Compensatory Strategies	**Mainly at medium and high level**	**Group C and E**
		Group D and E
Indirect Strategies		
Meta-cognitive Strategies	**Mainly at medium and high level**	**Group B and E**
		Group D and E
		Group B and D
		Group C and E
		Group E and A
Affective Strategies	**Mainly at medium and low level**	**Group C and D**
		Group A and B
		Group A and C
		Group B and C
		Group B and D
		Group B and E
Social Strategies	**Mainly at medium and high level**	**Group E and A**
		Group E and B
		Group E and D

The results of this study indicate that as the number of books read decreases, the students have a more tendency to use writing strategies in general. However, Raimes

(1983) states that there is a strong connection between the development of writing skills and reading. If students are heavily engaged in reading activities, they can easily develop writing. Krashen (1993) states that students can learn to write by reading. Although the existing literature on the relationship between reading and writing indicates that these two are directly connected, the questionnaire results conducted on five groups of students show the opposite. However, those studies conducted did not directly examine the relationship between writing strategies and reading but writing skills and reading. Therefore, this contradiction in the results might have caused by the difference in the focus of the studies.

Strategy use and whether students like writing or not

Table 144 summarizes the relationship between strategy use and whether students like writing or not. Five different groups of students across the category of whether liking writing or not seem to use both direct and indirect strategies at medium and high level. In contrast, affective strategies are employed at very low levels by almost all groups in terms of the strategy of *writing diary*. Social strategies seem to be used more by the ones who like writing, yet the study yielded no statistical significance in inferential terms.

Analyzing direct strategies in detail as seen in Table 144, it seems that memory strategies are used significantly more by the students who like writing a lot (Group 5) than the students having no feelings (Group 3). For cognitive strategies, they are significantly used more by group 5 than other groups. Also, the same strategies are significantly used more by group 4 than group 2. The compensation strategies are significantly used more by group 2 than group 3.

Analyzed indirect strategies individually, as seen in Table 144, the meta-cognitive strategies are used significantly more by the students who like writing a lot than the ones who do not like writing at all (Group 1) and the ones having no feelings (Group 3). The same strategy is significantly used more by the students who like it a lot (Group 5) than others. Affective strategies are significantly employed more by the students who like writing a lot than other ones. Social strategies are used at medium level by all groups without any statistical significance.

Table 144
Strategy use and whether students like writing or not

	Descriptive Analysis	Inferential Analysis
Direct Strategies		
Memory Strategies	**Mainly at medium level**	**Group 3 and 5**
Cognitive Strategies	**Mainly at medium level**	**Group 5and other groups**
		Group 2 and 4
Compensatory Strategies	**Mainly at medium and high level**	**Group 2 and 3**
Indirect Strategies		
Meta-cognitive Strategies	**Mainly at medium and high level**	**Group 5 and 1**
		Group 5 and 3
		Group 1and 4
		Group 1 and 2
Affective Strategies	**Mainly at medium and low level**	**Group 2 and 4**
		Group 2 and 5
		Group 3 and 5
		Group 5 and 1
Social Strategies	**Mainly at medium level**	**-**

The results of this study suggest that the more students like writing, the more meta-cognitive, cognitive, compensatory, social, memory and affective strategies they employ respectively. This finding is in line with the study of Lipstein and Renninger (2007) which investigate the interaction between students' interest for writing and other motivational variables.

Implications for practice

In Turkish lessons, in order to develop students' language abilities, students should be provided with means how to incorporate writing strategies, and they should be enabled to use these strategies.

So as to assist teachers to effectively convey the use of writing strategies to their students, teachers can be raised awareness in different writing strategies, affective, social, memory, cognitive, meta-cognitive and compensation strategies. In teaching how to use different writing strategies in a classroom, teachers may be able to look out for students' differences in their gender and grade level. Moreover, teachers are recommended to consider other variables such as type of the text written, number of books students read and students' attitudes towards writing.

Education faculties in the universities are also recommended to ensure that their pre-service teacher education programs highlight the importance of stressing the role of writing strategies in the teaching of writing. Similarly, in-service teachers need to be further trained in this via continuous professional development activities like seminars or workshops.

There is a tendency to consider writing lessons only for academic purposes. That is why teachers should find ways to show their students how learning composing texts may be helpful to them for communicative purposes. In that sense, teachers can differentiate the writing lesson by incorporating different types of written texts such as business letters, research articles and reports that can students encounter in their social lives (Badger & White, 2000).

Students have differing attitudes towards writing. While some of them may like composing texts, some may not. As a result, teachers should motivate their students effectively to enhance students' interest in the writing lessons. Different kinds of genres can help teachers achieve heightened student interest in the writing lesson. Besides, teachers can apply communicative writing tasks in the lesson so as to spark student interest.

Implications for further research

The sample size in this case study is one of its limitations. A similar further research can be conducted across multiple schools.

In addition to writing skills, further research can be carried on the role of learning strategies in the improvement of reading, speaking and listening skills.

This study was conducted in a high-school context. Similar research can be conducted in middle-school or university contexts.

This study was conducted in an international high-school in the IB context. Similar research can be conducted in a non-IB state or non-IB private school.

As indicated by the findings of this study, affective and memory writing strategies seem not to be affected by gender. Therefore, further research can be conducted in a different context in order to see if this situation is only valid for the bilingual context of this research.

In this study, the findings regarding the relationship between students' reading habits and the tendency of using writing strategies are contrary to the previous studies on the topic (Langer & Applebee, 1987; Krashen, 1993). Further research could be conducted to find the underlying reasons for this contrast.

Scholars' approaches to writing strategies differ from one another. Writing strategies, most frequently, are described as summarizing, paraphrasing and proper use of tone. The six strategies mentioned and described in this study are given little importance. Studies can be expanded in the use of writing strategies as Oxford (1990) describes them.

There are many studies regarding the use of writing strategies in English as a native language environment (Flower & Hayes, 1981; Hayes, 1996; Torrance & Jeffery, 1999) There is a need to conduct similar studies in Turkish as a native language and Turkish-English bilingual contexts.

Limitations

This study is limited to Turkish native students taking bilingual education, from 9^{th} grade to 12^{th} grade level in an international high school. All the students who were present at school during the application process were involved in the study. The results obtained through the questionnaire are based on the statements of students. Therefore, it is estimated that the students give all answers honestly. The study was conducted in only one school, so it could be conducted in multiple schools. Other sort of data could be collected except the variables conducted in this study. The

findings of study depends on only students' views so teachers' opinions could be collected in order to compare all ideas.

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APPENDIX A: Background Questionnaire

1.Grade level: 9 ☐ 10 ☐ 11 ☐ 12 ☐
2. Male ☐ Female ☐
3. What types of texts do you generally write in Turkish? e-mails☐ letters☐ notes☐ essays☐ Others: …….. articles☐ reports ☐ research papers ☐ creative writing☐
4. How many books do you read in a year? None ☐ 1-5 ☐ 6-10 ☐ 11- 20☐ 21- 50 and more☐
5. Do you like writing in your native language? I don't like it at all ☐ I don' like it ☐ I have no feelings about it ☐ I like it ☐ I like it a lot ☐

APPENDIX B: SILL

(developed by Ana Belén Cabrejas Peñuelas)

Peñuelas (2012)

In this strategy inventory, you will find statements about writing in English. Please, read each statement and mark the responds that tells how true of you the statement is. Answer in terms of how well the statement describes you. Do not answer how you think you should be, or what other people do. There are no right or wrong answers to these statements. This usually takes about 10-15 minutes to complete. If you have any questions, let the teacher know immediately.	1= Never or never through of me	2= Usually not through of me	3= Somewhat through of me	4= Usually through of me	5= Always or almost through of me

PART A: Memory strategies

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
1. I relate my composition topic to my background knowledge.	1	2	3	4	5
2. I use new words in a sentence so that I can remember them.	1	2	3	4	5
3. I memorize new English words by writing them down several times.	1	2	3	4	5
4. I revise my old compositions so as not to forget the mistakes I made and how to solve them.	1	2	3	4	5

PART B: Cognitive strategies

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
5. I try out different ideas either orally or in writing to find out what I want to say.	1	2	3	4	5
6. I reread frequently in an attempt to find out what I want to say.	1	2	3	4	5
7. I review previous sections of the text when I find a mismatch between my written text and the ideas I want to express.	1	2	3	4	5
8. I reformulate the linguistic expression when I am not sure it is right.	1	2	3	4	5
9. I try to put my meaning on paper as quickly as possible so as not to forget my ideas even if I experience spelling or	1	2	3	4	5
10. I write different drafts of my composition.	1	2	3	4	5

APPENDIX B: SILL (cont'd)

PART B: Cognitive strategies (cont'd)

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
11. I read books or good writers' compositions to improve my writing.	1	2	3	4	5
12. I move paragraphs around in an attempt to organize my writing in a more coherent way.	1	2	3	4	5
13. I compare my composition with my plan or outline to see how well they match or to consider changes.	1	2	3	4	5
14. I put aside my writing for a few days to reconsider my thoughts with a fresh mind.	1	2	3	4	5
15. I read my composition aloud to "feel" its sound.	1	2	3	4	5
16. I use transition words ("thus", "however", "nevertheless" and so on) in my composition that would help my reader to understand my point.	1	2	3	4	5
17. I choose words and expressions that are formal when I write formally and informal forms when I write informally.	1	2	3	4	5

PART C: Compensation strategies

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
18. I use synonyms when I can't find the word I mean.	1	2	3	4	5
19. I use the dictionary to find out words that I don't know how to express in English.	1	2	3	4	5
20. I repeat in an attempt to keep my writing going.	1	2	3	4	5
21. I make guesses when I can't find the exact word that I need.	1	2	3	4	5
22. I use sources when I don't have enough ideas to complete my composition.	1	2	3	4	5
23. I make short pauses while writing my composition to consider what I have written so far.	1	2	3	4	5

APPENDIX B: SILL (cont'd)

PART D: Meta-cognitive strategies

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
24. Before starting to write or while writing I make decisions about the content, organization of my composition and the linguistic expression and how I should do about them.	1	2	3	4	5
25. I plan my composition in advance or while writing either mentally or in writing.	1	2	3	4	5
26. I plan the content and organization of my composition.	1	2	3	4	5
27. I go back to my plan to consider the ideas I have written down and to reformulate them if I feel they are flawed.	1	2	3	4	5
28. I set myself long-term and short-term goals for improving my writing.	1	2	3	4	5
29. I think whether or not my ideas are clear as they are on paper.	1	2	3	4	5
30. I frequently think of my audience so as to adjust my text to their needs.	1	2	3	4	5
31. I pay attention to aspects such as thesis statements, topic and supporting sentences.	1	2	3	4	5
32. I write with a specific purpose in mind (i.e. to convince, inform, narrate an event and so on).	1	2	3	4	5
33. I am concerned with my lack of writing fluency and do something about it.	1	2	3	4	5
34. I follow a certain organization in my composition that would help my readers understand my point.	1	2	3	4	5
35. I have a set of priorities when revising my composition: first, ideas and organization and then grammar and spelling concerns.	1	2	3	4	5
36. I know the characteristics of good essays.	1	2	3	4	5
37. I am aware of the effectiveness of the strategies that I employ for my writing.	1	2	3	4	5

PART E: Affective strategies

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
38. I encourage myself to find a better solution to a linguistic problem in my composition.	1	2	3	4	5
39. I reward myself when I'm given a good grade in a composition.	1	2	3	4	5
40. I motivate myself to keep writing by saying "come on", "go on", "you can do it".	1	2	3	4	5
41. I write a diary to write how I feel about my writing.	1	2	3	4	5
42. I try to overcome feelings of frustration, sadness, etc. when	1	2	3	4	5
43. I have confidence in my own capacity for writing.	1	2	3	4	5

PART F: Social strategies

A: Never true, B: Usually not true, C: Somewhat true, D:Usually true, E:Always true

	A	B	C	D	E
44. I seek assistance when I have linguistic problems that I cannot solve or I ask another person to revise my composition.	1	2	3	4	5
45. I seek opportunities to improve my writing, such as writing frequently for other people (emails, chat, letters, and others).	1	2	3	4	5
46. I give my writing to a friend or someone who is good at writing so that I have an opinion about my writing.	1	2	3	4	5
47. I compare my composition with my classmates' compositions.	1	2	3	4	5