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MASTER THESIS

THE EFFECTS OF AUTOMATED WRITING EVALUATION ON EFL
STUDENTS' WRITING ACHIEVEMENT AND MOTIVATION TOWARDS
WRITING

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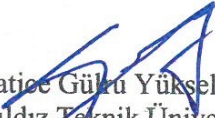
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PREFACE

There are a number of great people I owe a debt of gratitude for. First and foremost, I would like to express my gratitude to my supervisor, Gülay Kıray Kanatlı, for her precious support, endless patience at every stage of this study. She always supported me with her stimulating suggestions, invaluable feedback, experience, and constructive criticism as well as giving me inspiration.

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ÖZET

OTOMATİK YAZI DEĞERLENDİRME ARACININ İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENEN ÖĞRENCİLERİN YAZMA BAŞARISINA VE MOTİVASYONUNA ETKİLERİ

Bu çalışmanın amacı, bir otomatik yazma değerlendirme aracı olan PEG Writing Scholar®'ın yabancı dil olarak İngilizce öğrenen öğrencilerin yazma başarısına ve yazma motivasyon düzeylerine etkisini araştırmaktır. Çalışma aynı zamanda geleneksel ve otomatik yazma değerlendirme öğretim programının yabancı dil olarak İngilizce öğrenen öğrencilerin yazma başarısı ve motivasyonu üzerindeki etkileri açısından karşılaştırılmasını da amaçlamaktadır.

Çalışma, Boğaziçi Üniversitesi Yabancı Diller Yüksekokulu'nda okuyan 60 öğrencinin katılımıyla gerçekleştirilmiştir. Anadili Türkçe olan katılımcılar uygun örnekleme kullanılarak kontrol ve deney grupları olarak atandılar. Kontrol grubu geleneksel bir kalem ve kağıt eğitimi ile öğretilirken, deney grubu bir otomatik yazı değerlendirme aracına maruz bırakıldı. Bahsedilen hedefler doğrultusunda, veriler Demografik Sorular Anketi, Payne (2012) tarafından hazırlanan Akademik Yazma Motivasyon Anketi (AWMQ), alan notları ve Yazma testleri ile toplanmıştır. Çalışmanın sonunda, bir otomatik yazı değerlendirme aracı kullanmanın, yabancı dil olarak İngilizce öğrenen öğrencilerin yazma başarısına, içsel motivasyonlarına ve öz yeterlik inançlarına olumlu katkılarının olduğu sonucuna varılmıştır.

Anahtar Kelimeler: Otomatik Yazı Değerlendirme, yazma motivasyonu, yazma başarısı, İngiliz Dili Öğretimi

ABSTRACT

THE EFFECTS OF AUTOMATED WRITING EVALUATION ON EFL STUDENTS' WRITING ACHIEVEMENT AND MOTIVATION TOWARDS WRITING

The purpose of this study is to investigate the effects of an automated writing evaluation tool, PEG Writing Scholar[®], on EFL students' writing achievement and their motivation level towards writing. The study also aims at comparing traditional pen & paper and automated writing evaluation instruction in terms of their effects on EFL students' writing achievement and motivation.

The study was carried out with 60 students studying at Boğaziçi University School of Foreign Languages. All of the participants were non-native speakers of English, sharing the same native language, Turkish; and they were assigned as control and experimental groups by using convenience sampling. While control group was taught with a traditional pen and paper instruction, the experimental group was exposed to an AWE tool as part of instruction. In accordance with the objectives, data were collected through Background Questionnaire, Academic Writing Motivation Questionnaire (AWMQ) by Payne (2012), field notes, and Writing tests. At the end of the study, it was concluded that using an AWE tool had some supportive effects on EFL students' writing achievement, intrinsic motivation and self-efficacy beliefs.

Key Words: Automated Writing Evaluation, writing motivation, writing achievement, English Language Teaching

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CHAPTER I: INTRODUCTION

This chapter aims to present the rationale behind the current study. For this purpose, first, background of the study is briefly presented, then problems in relation to English as a Foreign Language (EFL) writing are discussed. Following the problems, aims and the significance of the study are mentioned. After premises, limitations of the study are given, finally, terms and abbreviations are defined.

1.1. BACKGROUND OF THE STUDY

Writing is regarded as one of the most complex literate activities in which adults and children engage (Troia and Graham, 2003). Although it is a challenging activity even in one's first language as it requires a lot of focus and practice, developing writing skills in another language makes the process much harder. Within this framework, learning writing might be one of the most challenging experiences for language learners since one needs to have a good command of using various elements in that language to be able to write, which can be difficult even for native speakers (Javed et al., 2013). Writing in a foreign language also necessitates focus, brainstorming, and practice while trying to overcome a language barrier challenge. Once it is being acquired, it stimulates thinking; helps students concentrate and organize their ideas; and also enhances their ability to summarize, analyse, and criticize (Rao, 2007). Therefore, writing is widely accepted as one of the most difficult and important skills for EFL learners to improve (Allen and Corder, 1974). Writing is also a prerequisite for academic competency because along with speaking, it is a productive language skill with which students produce something concrete. Due to these facts, writing has always been in the center of EFL research studies so as to find problematic areas related to writing and to improve its implementation in language classes.

For decades, a number of different writing approaches have been presented depending on the developments and requirements of that time. In recent years, advanced technology plays a vital role in education and it has been influencing teaching EFL writing to a great extent, too. Since digital literacy has become undeniably necessary to keep up with the times, researchers and language teachers try to integrate technology in writing classes to be able to create a better and more

productive learning environment. Therefore, a number of educational technology tools such as e-journals or blogs have started to be used in language classes in recent years. These tools provide opportunity for limitless usage of networks in doing research, building and sharing knowledge, and practicing for language learners. Similar to blogs and wikis, which are used as influential and collaborative tools of communication, and help students enhance their writing skills (Özdemir and Aydın, 2015), Automated Writing Evaluation (AWE) software has newly been the center of interest in English Language Teaching (ELT) area.

AWE is basically described as the capability of computer technology to evaluate and grade written texts (Shermis and Burstein, 2013). AWE originated from Automated Essay Scoring (AES); and in the beginning, it was referred to as computerized essay scoring, computer essay grading, computer assisted writing assessment, and automated essay evaluation (Shermis et al., 2015). A large number of educational technology followers consider AWE as a silver bullet for language development as they are inspired by the promise of computerized writing evaluation, and confronted with time-consuming commenting on students' drafts (Warschauer and Ware, 2006). Concordantly, according to Page (1968), the major benefits of AWE are to have a potential to ease the burden of language teachers, and to promote the increased use of writing assignments in the process of instruction.

Motivation in EFL writing is also a chief concern as it can be accepted as a prerequisite to stimulate learning. Motivation, in a broad sense, is explained as a wish or requirement that enables or stimulates a behaviour and gives it direction (Kleinginna and Kleinginna, 1981). Concerning foreign language learning, motivation involves attitudes and emotional states that influence the desire to learn and the amount of efforts (Ellis, 1997). In EFL writing, motivation is an essential phenomenon to get actively involved in writing process and to produce positive outcome. It is also a primary matter in cultivating EFL literacy along with some cognitive, psychological, and social features, among which motivation ranks as one of the most significant (Çelik, 2016). Because of these reasons, motivation is an absolute must for EFL students to develop their writing skills.

1.2. PROBLEM STATEMENT

In a broad sense, writing is perceived as the most important as well as the most challenging language skill (Aliakbari and Boghayeri, 2014; Choi, 2012; Jackson, 2004). Because written prose of learners obviously demonstrates how much they could acquire; and there is always one to check and correct them, learners usually find it troublesome and demotivating. Similarly, as Polio and Williams (2009) states, writing in a second language is unquestionably a complex process since it includes both the cognitive processes of L2 (second language) acquisition, along with the genres, aims, and values of the target L2 discourse community.

According to Dyson and Freedman (2003), the complexities associated with writing stem from two chief factors: the nature of writing itself and the nature of classrooms as educational settings. Writing necessitates practicing, which means that the more learners practice, the more they can acquire writing skills (Tuan, 2010). Due to this fact, a learner can manage to write better and more properly by writing, which shows that it can be obtained with the help of itself. Therefore, writing is inherently both a process and a product which require the use of body and mind collaboratively (Sokolik, 2003). One of the problems that EFL writers are confronted with stems from lack of language competence and meta-cognitive strategies such as brainstorming, planning, outlining, drafting, and revising. Since writing in a foreign language necessitates the knowledge of grammatical rules and lexical devices in addition to the ability to generate, compose, and revise their ideas in sentences and paragraphs (Nunan, 2000), EFL students may find it intimidating. Classroom setting also affects the relationship between writing and students. Many EFL classrooms depend on textbooks that emphasize grammar and usage rules, paragraph models, and vocabulary development as their entire curriculum instead of offering composing practices for students, encouraging them to express themselves in writing that is both meaningful and purposeful (Grabe & Kaplan, 1996). This emphasis on structure of writing rather than meaning and content requires students to focus on form more, whereas it needs to increase students' productivity, which results in making the writing process much harder for them.

Even though writing in English is regarded as relatively difficult, it is highly essential so as to be coherent, fluent and competent language learners. Writing

provides EFL learners with the opportunity to foster their language acquisition since they need to cope with words, chunks, and sentences to be able to convey their ideas and to advance the grammar and vocabulary they have learned (Bello, 1997).

Motivation towards EFL writing should be a primary concern since the lack of motivation leads some problems. In this regard, Boscolo and Hidi (2007) claim that the shortage of motivation in writing instruction is one of the main problems that requires to be overcome. Similarly, as Sparks and Ganschow (1993) claimed, one of the basic problems faced during the foreign language learning process is the lack of motivation. Therefore, it would not be difficult to come up with the conclusion that success is hard to come by without motivation.

Loss of motivation can arise from various reasons. One of them is the process of generating ideas. Since students believe that composing ideas in an organized way on a topic is challenging and time-consuming, they may lose their motivation which hinders learning. Writing experience is another cause of losing motivation towards EFL writing (Lee et al., 2017). These include the methods and techniques used by the teacher such as a heavy emphasis on the practice of decontextualized grammar (Lo and Hyland, 2007), the shortage of intriguing teaching materials, inadequate time for writing practice owing to a focus on the written product, and demotivating feedback of the teacher consisting primarily of detailed error correction (Lee, 2014).

In addition to these factors, learning environment has a big influence on EFL writing motivation. Higgins et al (2005) claimed that learning environment plays a crucial role on the achievement, motivation, attitude, affective condition, and attendance of learners. With the rapid developments in technology and with the increase in digital literacy, it is indispensable to follow the trends and integrate the new developments in language classrooms to get efficiency. The reasons for the necessity of adopting various technological tools in the classroom are the learners' needs and the curriculum itself (Christison and Murray, 2014). Insufficient classrooms in terms of software and technology may lead to passive and ineffective learning (Merc, 2015). In short, taking all these factors into consideration, it is noticeably essential to provide an anxiety-free, psychologically safer (Oz et al., 2015), and technologically equipped classroom atmosphere that is appropriate for today's digital generation.

Consequently, as motivation is considered as the individual's compelling force to begin learning the target language and to maintain the long and monotonous learning process (Dörnyei, 1998); the problems related to motivation should be identified, analyzed in depth, and dealt with in order to enhance language-learning process. In compliance with this problem, new methods and new learning environments should be provided to increase university level EFL students' motivation towards writing.

1.3. AIMS OF THE STUDY

The current study aims to reach some goals. The first purpose of this study is to examine the effects of an AWE tool, PEG Writing Scholar[®], on university level EFL students' writing achievement. More specifically, the study intends to critically evaluate the effects of AWE feedback on written prose by determining general patterns and trends and identifying factors which may influence those effects. The study also aims to investigate the writing motivation of Turkish university level EFL learners and to examine the effects of PEG Writing Scholar[®] on their EFL writing motivation. The final objective of this study is to compare traditional pen and paper writing and teacher assessment to AWE with regard to their effects on EFL writing achievement and EFL writing motivation.

1.3.1. Hypothesis and Research Questions of the Study

Concerning the problems in relation to second language writing, and analyzing the relevant literature, it is hypothesized that integrating an AWE tool in writing classes would have more positive effects on university level EFL students' writing achievement and motivation than traditional pen and paper instruction method. In an effort to test this hypothesis, and to evaluate the effects of an AWE tool (PEG Writing Scholar[®]) on students' writing achievement and motivation, following research questions are asked:

1. Does the use of an AWE system in EFL writing have an effect on writing achievement?

1.1. Is there a difference between the effects of AWE and pen-paper writing instruction on EFL writing achievement?

2. Does the use of an AWE system in EFL writing have an influence on EFL writing motivation?

2.1. Is there a difference between the effects of AWE and pen-paper writing instruction on EFL writing motivation?

1.4. SIGNIFICANCE OF THE STUDY

There are some specific reasons to make the current study significant. To begin with, it is one of the first studies conducted in Turkey that investigates the effect of an AWE tool on writing achievement and motivation of university level EFL students. In this regard, it is expected to fill a gap in the field. Secondly, the study has a potential to contribute to the related field by examining the effects of utilizing a computer-based tool that is integrated in an EFL academic writing course. Moreover, the current study is significant as it provides some practical implementations on teaching EFL academic writing for language teachers, researchers, and curriculum designers by comparing the effects of both computer-based and a traditional pen and paper writing evaluation systems. The study is also significant as it comprises almost a whole academic term corresponding to 3 months. This period of time is far more than the previous studies' (Liao, 2004; Wang et al, 2012; Wilson and Czik, 2016). Finally, as the study presents some evidence related to AWE effect on students' motivation towards writing, which is an understudied research area, it provides some educational implementations on EFL academic writing motivation.

1.5. PREMISES

In this study, it is assumed that;

1. The data collected with the help of data collection tools like Academic Writing Motivation Questionnaire (AWMQ) by Payne (2012), field notes, and writing tests have the capacity to reveal EFL students' writing achievement and motivation,
2. The participants give answers frankly,
3. The sample which is chosen can represent the population,

4. Methodology is appropriate for the aim, content, and problem analysing of the study,
5. The data collection tools properly measure what is intended to be measured.

1.6. LIMITATIONS OF THE STUDY

The study has several limitations:

1. This research study is limited to 60 university-level EFL students studying at School of Foreign Languages in Boğaziçi University.
2. It is limited to a quasi-experimental research design including mostly quantitative tools which are pre-tests and post-tests on achievement and motivation.
3. The participant groups are limited to only one experimental and one control group.
4. The data collected related to motivation is limited to Academic Writing Motivation Questionnaire (AWMQ) by Payne (2012).
5. The study is limited to examining the effects of using AWE and traditional pen and paper writing on motivation and holistic writing achievement.

1.7. TERMS AND ABBREVIATIONS

AES: Automated Essay Scoring

Automated Writing Evaluation (AWE): The ability of computer technology to evaluate and score written texts

Autonomous learning: The ability to take charge of one's own learning including knowing what, when, why, how and where to learn

CALL: Computer Assisted Language Learning

Comprehensible input: The part of the total input that the learner understands and which is hypothesized to be necessary for learning to take place

Constructivism: A theory of learning and meaning making in which individuals generate their own new understandings on the basis of an interaction between what they already know and believe and knowledge which they come into contact with

ELA: English Language Arts

English as a Foreign Language (EFL): The study or use of English by non-native speakers

English Language Learning (ELL): The act of learning the English language and its features

English Language Teaching (ELT): The act of training the English language with its properties

Extrinsic motivation: The motive which includes doing something to get some separable outcome like gaining a qualification or getting a good job

Functional approach: An approach which teaches writing as an extension of grammar.

Genre approach: An approach which considers writing as both an outcome of internal processes and being determined by purpose and context

Instrumental motivation: The degree of effort that a learner employs in L2 learning as a result of the wish to succeed some functional goal such as passing an exam

Integrative motivation: The degree of effort that a learner employs in L2 learning through an interest in a wish to identify with the target language culture

Intrinsic motivation: The degree of effort that a learner employs in L2 learning as a result of the interest generated by a specific learning activity.

L2: Second Language

Linguistic competence: The knowledge of a language represented by the mental grammar that are responsible for speakers' linguistic ability and creativity

Linguistic performance: The use of linguistic competence in the production and comprehension of language

Motivation: The degree of effort that a learner employs in L2 learning as a consequence of their desire or need to learn it

PEG Writing Scholar[®]: Project Essay Grader Writing Scholar, an automated writing evaluation tool

PLOC: Perceived locus of causality

Process approach: A writing approach that depends on the cognitive stages of planning, composing and revising writing

Product-centered approach: A writing approach whose main emphasis is on the role of the environment, or the end product

Productive skills: Basic language skills that require learners to generate such as writing and speaking

Receptive skills: Basic language skills that are based on comprehension such as listening and reading

Second Language Acquisition: The gaining of another language after first language acquisition is under way or completed

Self-determination theory (SDT): A theory dealing with the quality of motivation and the social conditions affecting learners.

Writing achievement: The process of reaching expected goals and developing writing skills

Writing motivation: The sense of being eager and ready to give effort for writing activity

CHAPTER II: THEORETICAL FRAMEWORK

This section consists of detailed information on the theoretical framework of the study including five sub-sections. Initially, the role of writing in EFL learning is discussed. Secondly, approaches in writing are presented. Then, the term motivation is elaborated in relation to EFL writing. After the use of AWE in EFL learning is mentioned, *Constructivism*, *Autonomous Learning*, and *Self-determination Theory* are presented. Finally, related literature is reviewed; consisting of research on educational technology, AWE, EFL writing achievement, and EFL writing motivation.

2.1. WRITING AS A LANGUAGE SKILL

Language skills are often divided into two main categories. '*Receptive skills*' is a term used for reading and listening skills in which meaning is extracted from the discourse. '*Productive skills*' is a term for speaking and writing skills in which learners actually need to produce language themselves (Harmer, 2007). Among these four main language skills, writing plays an important role in learning and serves as the source of product-based development for language learners (Richard and Renandya, 2002). Writing is also highly essential for academic life of the students wishing to pursue further studies in the new language. Inherently, it includes a dynamic interaction among three basic factors which take part in the writing act: the text, the writer, and the reader (Silva and Matsuda, 2002); and it is placed in the cultural and institutional context in which it is produced (Kern and Warschauer, 2000).

2.1.1. Writing as a Foreign Language Skill

Writing has been often considered as the most difficult foreign language skill to acquire mainly because it requires production, creative thinking, exploration, and reformulating ideas as well as arrangement, fitting sentences and paragraphs into prescribed patterns. Several other reasons can be named to make writing, which is a complex, recursive, and creative process, demanding for EFL students (Kroll, 2003). To begin with, the ability to write is not a naturally acquired skill. It is usually learnt through experience and must be practiced. The fact that it necessitates a great amount of effort and commitment in the long run can make students have concerns towards writing. Furthermore, writing is often regarded as an extremely complex ability, a profoundly conventionalized means of communication, and an individual way of

expression (Cumming, 2001). Another aspect of writing that creates problems is the act of composing that is processed through some sort of systems. As Nunan (2000) states, good writing requires not only knowledge of grammatical rules and lexical devices, but also the ability to generate, compose, and revise ideas in sentences and paragraphs in well-developed forms. Learning to write in a foreign language require learners to improve features of the texts they write, their processes of composing, and their interactions to be appropriate to social contexts (Grabe and Kaplan, 1996). Learners can develop their written prose by increasing their fluency in text production, knowledge in a range of rhetorical or genre functions, use of particular vocabulary, complexity of syntax, and accuracy in grammatical forms. In addition to linguistic knowledge, the socio-cultural nature of writing, including prior proficiency, knowledge of genre and register, and cultural expectations may also hinder attempts to transfer competence in first language writing to another language (Hyland, 2003). Because of all these challenges, even students with high second language competence have high level of writing anxiety and seem uncertain of their ability to organize their thoughts effectively and to produce relevant ideas, thereby suffering from high anxiety (Atay and Kurt, 2006).

A further difficulty of writing may be related to the requirements of being a good writer. As Grabe and Kaplan (1996) indicate, good writers have a greater sense of what they want to do when they write, and have a fully developed representation of the rhetorical problem. They are also creative in their problem finding and in their problem solving. Similarly, the study conducted by Gordon (2008) illustrates that effective writers read in the target language and deal with vocabulary. They use some strategies to manage a degree of uncertainty by attending both form and meaning. They also create their own interest and opportunities to write and they carry on until their writing is satisfactory.

Even though writing is thought to be acquired more difficultly relatively to other language skills, it is a skill which can be developed through practice. On top of that, once it is learnt, it has considerably big contributions to students' both academic and life-long careers. In terms of writing's academic benefits, Bello (1997) states that for EFL learners, writing is considered as a chance to foster their language acquisition since they need to manage words, chunks, and sentences to convey their ideas and to enhance the grammar and vocabulary that they learn.

Another indisputable role of writing is that it stimulates thinking, concentrating and organizing ideas (Rao, 2007). Besides, Glazier (1994) focuses on the contribution of writing to students' life-long careers by claiming that being able to write in English is vitally important in academic life and it is probably a benefit in people's career.

2.1.2. Writing and Other Language Skills

As a language skill, writing can be associated with other language skills. To begin with, both writing and speaking are considered as productive skills since both of them require creation and production in the context of communication rather than receive information through language. Similar to speaking, writing is also a communicative act that is performed in a social context to conduct a purpose (Kıray, 2013). It is known that uses of oral and written language interact and support each other as sets of practices that carry out social functions. Also known as active skills, writing and speaking are in reciprocal relationship. That is, being implemented in both active skills, grammatical forms, words and their proper use, and certain extent of accuracy should be respected. Similarly, Geva (2006) claims that well-developed oral language skills in English are related to better writing skills in English.

Secondly, writing skill is highly interrelated with reading; and it is often assumed that reading texts serve as foremost models from which writing skills can be learned. The nature of this reading and writing connection is assumed to be like Krashen's notions about second language learning. Krashen (1984) asserts that second language proficiency and the improvement of writing ability occur in the same way: via comprehensible input with a low affective filter. It is theorized that writing competence stems from large amounts of self-motivated reading for interest and pleasure. Reading provides the writer with the feel for the look and texture of reader-based text. It is believed by many second language writing researchers that better writers are more likely to be better readers and vice versa (Stotsky, 1983; Taylor and Beach, 1984). Stotsky (1983) also found that there are correlations between reading experience and writing quality; that is, better writers often read more than poorer writers. In addition, better readers are more prone to produce more syntactically developed writing than poorer readers. It is a well-known fact that both reading and writing include some structural elements leading that the acquired structure in one

modality can be applied in the other. Shanahan (1984) asserts that if reading and writing share analogous cognitive forms and processes, it is possible that instruction in one may result in extended ability in the other. Since the connection between the two language skills is apparent, writing instruction should be designed by taking advantage of the structural and cognitive similarities in reading and writing.

2.2. APPROACHES IN WRITING

Different theories have emerged to provide teachers with a framework which guides students on the path to proficiency. While some theories have superseded others from time to time, they have been often used together so as to give language learners a variety of tools necessary to help them develop proficiency in writing in the target language (Hyland, 2003).

2.2.1. Product-centered Approach

One approach to writing is *product-centered approach*. The main focus of product-centered approach is on the product or the end product (Harmer, 2007). Until the end of 1960s, writing was ignored in the language learning area. This notion developed out of environmentalist ideas, which identified language with speech, and considered writing as secondary to speech as it was considered as only its orthographic representation. In this approach, writing is regarded as a language skill that functions as reinforcing of vocabulary and grammatical knowledge. According to this approach, main emphasis is on the role of the environment and it denies the existence of internal mental processes, which were seen as inaccessible to proper scientific investigation (Williams and Burden, 1997).

Steele (2004) presents four stages of *Product Approach Model*. In Stage 1, learners work on model texts, and characteristics of the genre are highlighted. The second stage consists of controlled practice of those highlighted properties, usually in isolation. In the third stage, learners organize their ideas. This stage may be the most important since organizing ideas is considered more significant than the ideas themselves. Stage 4 is considered as the final product of the learning process. Learners use the skills, grammatical and vocabulary knowledge that they are taught to produce the text.

Being influenced by product-centered approach, a teacher immediately corrects any mistakes in grammar and language form, therefore not providing learners with the opportunity to cope with their own weaknesses either on form or conveying meaning (Gordon, 2008). Instruction involves imitation of relevant sentences along with their grammatically correct combinations. The writing task is closely controlled to prevent errors, and it is considered as a combination of vocabulary items and sentence patterns, a linguistic artefact, and a means for language practice (Silva, 1990). Similar to *text-based approach*, *product-centered approach* focuses on accuracy and neglects how meaning is developed. It also fails to recognize that regardless of purpose or form, the writer must go through a number of stages like brainstorming, planning, or structuring before producing a text (Hyland, 2003).

2.2.2. Process Approach

By the end of 1960s, attention began to shift away from attention to accuracy and form to the real process of composition, and *process approach* came out, which focuses on the internal processes of writers. Chomsky's *innatist theory* (1965) seemed to affect this paradigm shift because this theory claims that children innately tend to learn language. Likewise, as the disciplines of psycholinguistics (Brown, 1973) and cognitive psychology (Schank and Abelson, 1977) state, children are active in language learning process. Thus, mental processes of writers during the composing act began to have importance. This approach is similar to *writer-centered approach* which is primarily concerned with the processes of writing.

Experienced writers undergo the cognitive stages of planning, composing, and revising in a repetitive manner. Taking this fact as basis, *process approach* proposes that those who want to develop their ability to write should go through the same stages. Therefore, it promotes planning, drafting, and as a result, revising, and deliberating over the extent to which the draft efficiently conveys meaning (Flower and Hayes, 1981). Flower and Hayes (1981) brought forward one of the most influential theories of *cognitive models of writing* which consists of three main components: 1) the planning stage, divided into smaller processes, such as producing and organizing ideas, and setting targets for writing; 2) the translating stage, in which writers express and write down ideas that they generate in the first stage; 3) the reviewing stage, in which writers evaluate and revise the written prose produced in the previous stages. This

model emphasizes that writing is a recursive process rather than a linear one; and encourages personal expression and content knowledge as more important than the end product, grammar, and usage, therefore repeating tasks alternatively as often as necessary (Grabe and Kaplan, 1996).

Process approach concentrates on several stages that any written prose goes through. By spending time with learners on pre-writing phases, editing, re-drafting and finally generating a completed version of their work, a *process approach* aims to get to the heart of the various skills which most writers use, and which are, thus, worth replicating when writing in a foreign language (Harmer, 2007). The *Process Approach Model* that was presented by Steele (2004) is composed of eight stages which are brainstorming, planning/structuring, mind mapping, writing the first draft, peer feedback, editing, final draft, evaluation and teachers' feedback. The primary role of a teacher in this approach is to stimulate creativity of learners, and to lead them in drafting, revising, and editing processes of their writings (Silva, 1990). Feedback plays a crucial role in process approach. Both peer and teacher feedback are employed so as to inspire writers to re-plan, re-draft, or re-edit their texts to communicate their intended meaning in the best way. As opposed to product-centered approaches, errors are regarded natural and corrected at the final stages of the product. Within this scope, a written text is not considered as a means for language practice, but as a tool for producing ideas. However, one vital drawback of *process approach* is that it gives so much emphasis on the cognitive processes of writing that too little importance given to the social forces, which help to shape a text (Swales, 1990). The consideration of sociocultural context on composing processes was the center of attention in the following years.

2.2.3. Genre Approach

Considering the above mentioned shortcomings of process approach, a basis for *genre approach* was established in the beginning of the 1980s, with an interest towards the sociocultural context of writing activity. Hyland (2007) defines genre as a group of texts sharing similar discoursal elements that are easily identifiable by community members. According to this approach, language is considered as a part of social relations and writing is seen as a social activity (Kıray, 2013). Besides, writing is not merely the end result of internal processes, but it is also shaped by context and

purpose (Gordon, 2008). Similarly, Hasan and Akhand (2010) states that, according to genre-based approach, writing is a both social and cultural practice. The main emphasis is on reader expectations, the language and discourse features of particular texts, and the context in which the text is used. According to Systemic Functional Linguistics, developed by Halliday (1994), a genre-based approach to teaching second language writing focuses on the conventions of a specific text type and addresses to help learners understand purpose, which means why they are writing a text; audience, referring who they are writing for; and organization, that is, how to write a text. In an EFL writing class, *genre approach* requires teacher-supported learning or scaffolding, and peer interaction or collaboration. Accordingly, Hyland (2007) presents a teaching-learning cycle which has five major key stages:

1. setting the context: exploring the objectives and setting where a given genre is applied;
2. modelling: analyzing the chief discursal characteristics of a sample genre text;
3. joint construction: providing teacher-guided activities to strengthen the organizational pattern and grammatical characteristics of the genre;
4. independent construction: withdrawing teacher-support continuously and monitoring independent writing; and
5. comparing: associating what is learnt from the given genre with other genres to identify specific social purposes.

Genre approach holds that every piece of writing is conducted with a purpose, and this purpose affects the overall structure of a text. Context can be described as social influences operating beyond the page. Students write their individual texts by using a model text after they learn it, in other words, after gaining initial support. *Genre approach*, similar to interactionist approach, provides learners with real benefits since it pulls together language, content, and contexts. Hyland (2004) summarizes the main advantages by claiming that genre pedagogy is *explicit* (expressing what to be learnt to promote the gaining of writing skills); *systematic* (providing a coherent framework to concentrate on both contexts and language); *needs-based* (assuring that content and

objectives of the course stem from students' needs); *supportive* (giving teachers a prominent role in promoting learning and creativity of the learners); *empowering* (providing access to possibilities and patterns of variation in special texts); *critical* (supplying resources for learners to comprehend and challenge special discourses); and *consciousness-raising* (increasing text awareness of teachers to confidently recommend learners on writing).

There are also some disadvantages of genre approach. As Paltridge (2001) states, genre approach combines text knowledge along with cultural and social context for the learners, as a consequence, identification of the either is difficult. It is also claimed by Swales (2000) that genre approach overemphasizes on the reader while giving less importance to learner expression. Genre and process approach can be implemented together as both of them argue that writing is both personal and social when they are used together. Once students start to write according to a genre which creates a purpose, they can construct and improve their texts by pursuing the cognitive stages of planning, composing, and revising. One important advantage of using the two approach together is that it eliminates the deficiency of process approach which ignores the socio-cultural nature of writing (Swales, 1990).

2.3. MOTIVATION

The word 'motivation' is originated from the Latin verb *movere*, which means to move, and deals with what drives a person to make particular choices, to engage in actions, and to carry on an action (Ushioda, 2008). Associating with a variety of outcomes such as learning, curiosity, persistence, and performance (Deci and Ryan, 2000), motivation is a significant prerequisite to reach success.

2.3.1. Motivation and English as a Foreign Language Learning

Motivation is a chief concern in education since high motivation generally sustains student attention and engagement in learning, which leads to effective learning. The role of motivation in language learning is very much the same. As Dönyei (2005) pointed out, without adequate motivation, even learners with the most exceptional abilities cannot achieve long-term goals, thus, suitable curricula and good teaching may not be enough to ensure learner achievement. Ushioda (2008) supports this idea by claiming that good language learners are motivated; and also asserts that

high achievers of this world have motivation suggested by common sense and everyday experience. It is also stated that learners must advance particular skills and strategies to keep themselves on track. These strategies may include setting short-term goals for themselves, taking part in positive self-talk, encouraging themselves with self-rewards and inducements, or managing their time efficiently to deal with multiple demands and tasks. These strategies do not only increase self-awareness, but also foster feelings of personal responsibility; which in turn help learners get involved in their learning more and become more successful.

In relation to language learning, Gardner (1985, 2007) identifies two kinds of motivation: language learning motivation and classroom learning motivation. The former refers to the level of a student's willingness to use a second language to communicate with others with the help of an internal drive. In the latter, classroom settings and external factors -including the instructor, teaching materials, or facilities- determine the level of motivation.

2.3.2. Types of Motivation

Canadian social psychologists, Gardner and Lambert (1972) argue that language learning motivation is qualitatively different from other forms of learning motivation since language learning includes much more than acquiring a body of knowledge and enhancing a set of skills. Therefore, a language learner should also have a positive attitude towards the target culture and language. This speculation paved the way for a distinction between *integrative* and *instrumental motivation*. As Gardner and Lambert (1972) states, *integrative motivation* refers to a sincere and personal interest in the target language, people, and culture. When the learners' attitudes towards a target language are positive, they easily become a part of the target language culture. Gardner (2007) discusses that integratively motivated students are more prone to participate in the classroom and in extra-curricular activities in a target language environment. However, *instrumental motivation* is based on practical value and advantages of the target language and culture. Learners' practical needs such as finding a qualified job, or having high income come into prominence in this type of motivation.

Since 1990s, attention of research on motivation has increasingly turned to classroom based approaches and cognitive theories of learner motivation, including goal setting, self-efficacy beliefs, and self-perceptions of competence (Pintrich and Schunk, 2002). Thus, these research studies show the importance of learners who have their own motivation from within which can be divided into two categories as *intrinsic* and *extrinsic motivation*. Intrinsic motivation can be related to the inner feelings of learners and it considers how learners engage in the task, and if they are eager to be involved in the activity (Griffiths and Özgür, 2013). Deci and Ryan (1985) suggest that *intrinsic motivation* refers to doing an activity merely for itself, the satisfaction or pleasure resulted from participation. In *intrinsic motivation*, doing an activity for its own pleasant self sustaining rewards of interest, enjoyment, challenge, skill, and knowledge development are underlined. *Intrinsic motivation* derives from high-quality learning, which means there is significant educational value in dwelling on the intrinsic motivation of a skill as important as writing. *Extrinsic motivation* refers to doing an activity for some independent outcome, like getting a qualification or a job, avoiding punishment, or pleasing the teacher (Deci and Ryan, 2000). Undertaking a task can be something the individual feels forced to do, rather than naturally wants to do. A considerable body of research indicate that intrinsically motivated learners are more prone to demonstrate much higher levels of participation in learning, to take part in more creative and efficient thinking processes, to utilize a wider range of problem solving strategies, and to maintain and interact with material more effectively when compared to *extrinsically motivated* learners (Amabile and Hennessy, 1998; Condry and Chambers, 1978; Fransson, 1984; Griffiths and Özgür, 2012).

2.4. AUTOMATED WRITING EVALUATION

AWE is a web-based formative writing assessment software which provides learners with automated feedback immediately in the form of essay ratings and individualized suggestions for development when revising (Shermis and Burstein, 2013). In recent years, AWE has become a popular educational technology which saves time for teachers in evaluating writing, facilitates more writing practice, and expands writing instruction (Roscoe, 2017). Many AWE systems, including commercially available as well as non-commercial ones, exhibit high scoring accuracy (Attali et al., 2012; Shermis, 2014) and progressively present constructive, formative feedback on features like organization, development, usage, and mechanics. These

functions of scoring and feedback, in addition to the opportunity to process a huge number of written pieces in seconds, may enable teachers to offer more writing assignments without an accompanying increase in workload.

While some AWE systems provide feedback on only grammar, spelling, and vocabulary; others, including PEG Writing Scholar[®], analyze students' writings according to different essay types, by giving detailed feedback for each of the different aspects of writing which are style, word choice, sentence structure, development of ideas, and organization. They also provide grant access to resources that each student needs, strengthen writing skills by means of specialized online lessons; and provide unlimited access to electronic graphic organizers, prepackaged prompts for each type of essay, customized prompts designed by instructors themselves, instructor feedback, peer review tools, and digital writing portfolios.

In recent years, thanks to the technological advancements and the expansion of internet use, computerized feedback, provided by AWE has gained more importance in EFL writing instruction. Several advantages can be mentioned with regard to the usage of AWE in writing instruction. First, the speed of responsiveness is found out to be a strong motivator and a source of satisfaction for students to practice writing. Students state that with the help of AWE which saves time, they can complete their writings more quickly with the immediate feedback they get from the software, and produce a greater number of revisions by focusing more on content development (Lee, 2014). In addition, unlike traditional feedback approaches such as feedback given by teachers or peers, AWE can be operated independently, by oneself, and it can provide students near-instant feedback, which is convenient and accessible without the usual limitations of time and usage frequency, therefore helping students achieve significant improvements in their writing (Wang et al, 2013).

Another benefit of AWE is that it can facilitate students' learner autonomy awareness in order to develop their writing, by providing learners with different scoring and feedback functions and resources like online supportive courses (Dikli, 2006; Li, 2007). As Dikli (2006) states, AWE provides several advantages including the ability to conduct repeated functions without boredom, adaptability, flexibility, and the ability to make decisions without being subjective, which is worth trying. Within this context, it can be said that AWE enhances students' writing quality in terms of

accuracy because it offers a vigorous source of writing practice opportunities by means of individualized diagnostic error feedback along with detailed explanations on grammar, spelling, sentence, and word usage (Milton, 2006).

Furthermore, as Li (2005) states, AWE claims to be more consistent and more objective than human raters because students who write more neatly and who show better writing mechanics, usually get higher scores from human raters than the students who do not have such skills although their content may be better. Computerized feedback is considered more objective in this aspect since it disregards such skills like writing more neatly. AWE is also useful for language teachers with its capacity to process a large number of written texts in seconds, and thus, gives teachers an opportunity to offer more writing assignments without an increase in workload (Roscoe et al., 2017). Thus, it can be concluded that AWE is helpful with regard to EFL students' writing performance and motivation as it provides immediate, convenient, and individualized feedback with clear explanations. Moreover, AWE is seen as advantageous in terms of its reliability and validity. For instance, Shi (2001) investigated holistic ratings given by both native and non-native EFL writing teachers in a Chinese university. The study concluded that the two groups did not differ significantly in the scores they gave; however, there was a great difference between raters in terms of their justifications they gave for their scores. While native speakers appeared to concentrate on content and language, non-native speakers tended to focus on length and organization more. These findings revealed that raters gave similar scores to an essay, but for very different reasons, implying that their understanding of the test construct were different from each other. Shi (2001) also noted that if learners received feedback from different raters as in the study, they would probably be confused by contradictory messages. At the end of the study, Shi (2001) suggested that the findings underlined the lack of a one-to-one correspondence between construct-validity and reliability of human ratings and there was a need for developing more construct-valid rating. Therefore, standardizing test scores has become a crucial need in EFL teaching - which can be easily done with technology, namely with AWE.

On the other hand, like many other forms of educational technology, the use of AWE in the classroom has been the subject of controversy, with scholars taking divergent stances (Stevenson, 2016). AWE has been criticized by new literacies proponents for doing nothing but reiterating or replicating unimaginative, obsolete,

objectivistic teaching practices (Stevenson, 2016). For these reasons, an online petition, “Professionals against Machine Scoring of Student Essays in High-Stakes Assessment” received a large number of signatures, including Noam Chomsky’s, and it was specified in some newspapers such as The New York Times (Stevenson, 2016). Among the more convincing criticisms of AWE was the concern that learners’ and teachers’ awareness of automatic scoring could lead to some negative washback effects on study habits and instruction (Alderson and Wall, 1993).

AWE is also criticized because of its contravention the nature of writing. The Conference on College Communication and Composition (CCCC, 2004) argued that writing to a machine contravenes the crucially social nature of writing, that is, we write to other people for social purposes. Cheville (2004) pointed out that “we know that the standards of correctness that constitute the diagnostic domains of a program are arbitrary. They reflect the selective attention of a cadre of computational linguists whose technical sophistication is oriented not solely to what language can do but rather to what machines can do with language” (p. 50). Similarly, the National Council of Teachers of English presented a statement in 2013 (Anson et al., 2013) and stated that computers were unable to recognize or judge those elements that we most associate with good writing. These elements include logic, clarity, accuracy, ideas relevant to a specific topic, innovative style, effective appeals to audience, different forms of organization, types of persuasion, quality of evidence, humor or irony, and effective uses of repetition. Besides, in terms of scoring essays, human raters are claimed to outperform automated writing evaluation tools in identifying errors. Hoang and Kunnan (2016), for example, investigating the use and effectiveness of *MyAccess!* in consistent scoring of essays and suitable feedback to student writers, analyzed nearly 150 writing samples. Among them, *MyAccess!* detected a mean error rate of 13.2, compared to 18 error rate by human raters while scoring the same essays. Hence, *MyAccess!* was found to be insufficient to be used as an independent instructional tool.

Williamson et al. (2012) discuss four validity concerns associated with automated scoring. The first one is *evaluation*, which is the bridge between the score and the performance. Whether the scores given by an AES is accurate representation of the performance or not is a matter of question. Therefore, association and agreement with human scores should be provided. The second concern is related to *generalization* from the actual score received to scores that would be received on a different occasion,

on different tasks which share similar features. So, there should be correlations of scores across prompts. The third one is *extrapolation*, which is the inference that scores are representative of performance in a target domain. Thus, relationships between scores and external signals of writing ability, such as instructor assessment, self-assessment, and scores on non-test writing samples, should be investigated. And the final concern is *utilization*. Since the scores should provide useful information for decision making and curriculum, it is essential to examine the consequences of these decisions. Analyzing different point of views and findings of research studies, it can be concluded that some teachers and researchers are in favor of utilizing AWE in EFL writing classrooms while some others are totally against it due to above mentioned reasons.

2.4.1. Constructivism as Conceptual Background of Automated Writing Evaluation

Constructivism is mainly defined as a theory of learning or meaning making in which individuals create their own new understandings on the basis of an interaction between what they already know and believe; and ideas and knowledge which they come into contact with (Resnick, 1989; Keogh and Naylor, 1999). Constructivists claim that learners construct their knowledge by actively and self-consciously bringing their past experiences and understandings into a new input (Rummel, 2008). Constructivism has put the individual development of learners in the center of instruction and learning; and the critical role of internal factors and internal schema along with external social and cultural variables which contribute to the transformation of the internal schema of learners are highlighted (Cole, 1990).

The notion of Constructivism is mainly based on the work of Piaget (1955, 1970) and Vygotsky (1962, 1978). According to Piaget (1955), learning is a developmental process involving change, self-generation and construction, each building on prior learning experiences. Learning takes place through construction of new understandings through reading, listening, exploration and experience. In addition to that, as stated in Vygotsky's social constructivist theory (1978), learning is constructed socially and occurs out of social interactions with the environment, such as peers, teachers, and parents. Reflections of these two important theories can be seen in recent studies as well, with one important contribution that the new age brings with

it: technology. Educational technology tools help learners engage in reflective and collaborative learning, which is a notion of Constructivism. To illustrate, socially web-based learning emphasizes that a variety of resources of the learner-led collaborative learning environment should construct knowledge (Liu and Lan, 2016). That is, individuals in a group co-construct knowledge with the help of interaction with the surrounding environment, denoting the concept of social constructivism by Vygotsky (1978). Likewise, relating technology with the idea of constructivism, Dhindsa and Emran (2006) state that knowledge is constructed via reflection, observation, and interaction with others such as peers, teachers, and technology. In the light of the above-mentioned information, using AWE tools in EFL writing classes correspond with Constructivism in terms of supplying a collaborative environment for learners to interact with peers at any time, to share and rebuild knowledge, to write reflective feedback to each other, and to construct knowledge on their own and for their own needs.

2.4.2. Autonomous Learning as Conceptual Background of Automated Writing Evaluation

Autonomous learning, which has become an extensively used term in education, is specified as the ability to take charge of one's own learning (Holec, 1996). Taking charge of one's own learning addresses that learners know what, when, why, how and where to learn; and also can work on their own pace (Orawiwatnakul and Wichadee, 2016). Little (2007) also points out that learning how to learn is a vital and central element of all autonomous learning schemes. Because every student is different with regard to language production during writing process, autonomous learning has become an important and efficient approach to deal with this difficulty (Singer et al, 2010).

Autonomy is a crucial feature for students, especially for those learning a foreign language and not having the opportunity to use it in the real life situations (Orawiwatnakul and Wichadee, 2016). In this regard, Gardner and Miller (1999) note that autonomous language learners are able to initiate the planning and to apply their own learning program. By setting some specific goals to achieve and by using opportunities both in and outside of the classroom, learners begin to be involved in a conscious, fully self organized, and active learning. This can result in a better language

learning and higher proficiency. Likewise, Dafei (2007) discussed many benefits of learning autonomy, which can be regarded in three different aspects: learning motivation, learning efficiency, and effective language use.

In EFL learning, technological tools are regarded to stimulate autonomous learning. For instance, Kondo et al. (2012) conducted an experimental study on mobile devices and its effects on learners' achievement and learners' autonomy. Participant students used mobile devices to achieve learning activities in the class, in the campus, or outside the campus. Results of this study concluded that learning performance developed and the technology allowed learners to be more autonomous and to personalize their learning with the help of mobile devices. Moreover, using technology in language classrooms has been considered to increase learner autonomy in writing (Li and Hegelheimer, 2013). AWE creates online learning environments for learners in which they can work individually at their own speed and collaboratively with their peers. As Oxford (1999) asserted, an autonomous learner is able to learn both independently and in collaboration. The opportunity of unlimited access to resources such as graphic organizers, prepackaged prompts, technology enhanced lessons, and digital writing portfolios helps EFL learners take self-regulatory steps. These steps include setting themselves learning goals, identifying and improving learning strategies to accomplish such goals, developing study plans, identifying and selecting relevant resources, reflecting on learning, and supporting and assessing their own learning progress.

2.4.3. Self-Determination Theory as Conceptual Background of Automated Writing Evaluation

Self-determination theory (SDT) was developed by Deci and Ryan (1985, 2000); and further elaborated by different scholars (Niemiec and Ryan, 2009; Noels et al., 2000). SDT postulates that when learners' basic psychological needs for competence, autonomy, and relatedness are provided in the classroom, internalizing their motivation to learn and to get involved in their studies more autonomously becomes more likely (Niemec and Ryan, 2009). SDT makes the distinction between *intrinsic* and *extrinsic motivation* and considers *intrinsic motivation* as the most highly self-determined type of motivation: "From birth onward, humans in their healthiest states are active, inquisitive, curious and playful creatures displaying ubiquitous

readiness to learn and explore and they do not require extraneous incentives to do so.” (Ryan and Deci, 2000, p.56). Moreover, SDT draws its attention on the concept of perceived locus of causality (PLOC) so as to provide an account of how people perceive the sources of their behavior (Deci and Ryan, 2000). PLOC which refers to perceived origin of initiation and regulation of behavior can be internal, represented by *autonomous motivation*; or external, characterized by *controlled motivation*. *Autonomous motivation* is stated to be brought about by inner desire, meaning that the sources are in agreement with the self, and thus, the behavior is perceived as volitional; *controlled motivation*; on the other hand, is driven by external factors, meaning that the origins stem from external factors to the self, and thus, the individual feels forced to perform the behavior (Deci and Ryan, 2000).

SDT maintains that, it is essential to address three main psychological needs to move from an external motivation (extrinsic) to a more integrated one (intrinsic) (Muñoz and Ramirez, 2015). These psychological needs that are innately present in human beings are autonomy, competence, and relatedness. Autonomy refers to the experience of volitional and self-endorsed behavior, which manifests itself as willingness to dedicate time and energy to studies. Competence is associated with the experience of effectively performed behavior, which manifests itself as feeling able to fulfil challenges of school work. Relatedness refers to a student feeling that s/he is genuinely liked, respected, or valued by the teacher. Within this scope, AWE presents some choices for students like being able to study wherever or whenever they like, to reach sources according to their interests and needs; and in this way it maintains a more intrinsic and autonomous motivation. In addition, detailed feedback given by AWE contributes to not only enhancing feelings of competence and self-esteem, but also a successful performance and establishing a sense of warmth and connection among the learner, peers, and the teacher. In short, SDT deals with the quality of motivation and the social conditions affecting learners. In this aspect, AWE tools, which are motivational and collaborative environments help today’s digital learners to interact with each other, and enhance their motivation.

2.5. RESEARCH ON THE EFFECTS OF EDUCATIONAL TECHNOLOGY ON ENGLISH AS A FOREIGN LANGUAGE WRITING ACHIEVEMENT

The more important and even more indispensable technology has become in our lives; the more technological tools educators use in language instruction. Due to the high accessibility and convenience of them, educational technology tools have become essential contributors to learning process. Most of the researchers believe that the integration of educational technology in foreign language classrooms does not only help learners acquire new knowledge, but it also contributes to the improvement of writing skills (March, 2003; Noytim, 2010). Other merits of using educational technology are broadening intercultural competences and making information sharing more meaningful, interesting and also challenging. It also enables students develop their communication skills (AbuSeileek, 2012). Examining the effectiveness of computer assisted language learning (CALL), Zaini and Mazdayasna (2015) concluded that students who were taught through computer-based instruction outperformed their counterparts who were exposed to a traditional approach in terms of using convenient tense, spelling, articles, and plural forms, and also producing higher quality of texts.

Tzu and Chen (2012) investigated the impacts of blog-based peer review activities in English writing courses by analyzing students' online reviews, students' reflective essays, comparison of students' first and final drafts, end of semester questionnaires, and classroom observations. The study found out that students showed a considerably important improvement in effective writing behaviors after getting involved in blog-based peer review activities. In addition to helping students develop their writing skills, it also gave students more confidence and support. Furthermore, concentrating on the use of blogs in EFL writing classes, Kuimova and Zvekov (2016) conducted an experimental study with 40 participants during an entire semester. At the end of the study, the experimental group who used blogging during entire semester demonstrated both better writing skills in the final test and positive attitudes towards the idea of personal blogging. The participants also noted they were able to communicate useful information, developed their reading and writing skills, built confidence in their writing. Another study conducted by İnceçay and Genç (2014) revealed that blogging could provide learners with developing metalinguistic

awareness through which they could notice their linguistic mistakes and pay more attention to sentence construction, which improved writing quality. In addition, use of self-blogging made students develop their technological skills as well as language skills.

Apart from blogs, e-journal is another educational technological tool which can be used in foreign language classes. To begin with, in his experimental study with participation of forty-four freshman students, Lee (2012) found out that a reading response e-journal helped students improve their writing skills and become more confident learners of English. Participants also stated that they enjoyed learning in collaboration with peers with the help of an innovative and technological tool. Rodliyah (2016) explored the potential of social media, namely Facebook, to improve EFL students' writing by employing electronic dialogue journal writing. The study did not integrate e-dialogue journal writing with a writing course, rather, it was an informal learning channel. During four months of experiment, participants wrote their journal entries. The findings revealed that students improved their writing skills especially in vocabulary and grammar. Similarly, by paying attention to specific language development in EFL writing, Alshumaimeri and Bamanger (2013) revealed that using WebQuest writing instruction – a scaffold learning structure that uses links to essential resources on the World Wide Web as an authentic task to motivate students (March, 2003)- improved writing skills of the students in terms of length, vocabulary, and grammar.

In addition to blogs and e-journals, e-readers are also used in EFL classes. E-readers are portable electronic devices which include a built-in dictionary and tools for browsing information. Hung and Young (2015) examined how e-readers could develop EFL students' academic writing skills. The findings indicated that e-readers could promote creating a better environment for writing in the process-based writing approach. The researchers made some other conclusions associated with the benefits of e-readers such as potentially contributing to improving writing skills of the students and being beneficial for learners' academic progress when compared to the traditional paper-based approach. The ease of use, usefulness, ease of learning, satisfaction and functionality dimensions were also emphasized.

Forums have also been used in EFL writing classes. Fitze (2006) compared the effectiveness of an online and face-to-face instruction via a forum use. The same topics and essay writing activities were conducted in both participant groups but in different settings. The results showed that although total production by word count did not differ significantly across groups, students attending in online instruction demonstrated more interaction and a larger lexical range in writing.

There are also some studies which have found no relationship between educational technology tools and writing achievement. Lu (2010) carried out a study investigating learners' responses to the integration of computer based self-access language learning into an EFL course. According to the findings, there was no gain from the project on part of the students. The reason behind was indicated as the project's being compulsory. In other words, if computer based self-access language learning was handled as an obligatory learning task, it would not be successful. Similarly, Kol and Scholnik (2008) conducted a study in four English for Academic Purposes courses with 156 participants with an aim to put valid assessment criteria for students' written contributions in forum discussions. The results of the study revealed that although participant students showed positive attitudes toward the experiment, there was no significant improvement in writings of the students who participated in forum discussions. One other research study on blogging effects was carried out by Çiftçi (2009). 30 first year Turkish EFL students in the Foreign Language Department in a Turkish university participated in her study. The aim was to investigate the effects of peer feedback on participants' writing performance and the perceptions of participants on the use of blogs in their writing classes. Including one control group who was instructed in traditional classroom environment and gave face-to-face peer feedback to each other; and one experimental group who attended the classes in computer laboratory and wrote blog comments to each other. The study concluded that although students' perception on the use of blogs were mostly positive; the both group students' writing significantly improved in all aspects without a significant difference on quality and quantity of their writing.

Another study was carried out by Koçoğlu (2010) to investigate if using WebQuests was effective in enhancing EFL students' writing and reading performance. 34 first year ELT students enrolled in a Turkish university participated in the study While one gone group received traditional teacher-led reading and writing

tasks, the other group used WebQuest tasks during the 4-week instruction period. The data obtained from pre- and post-tests revealed that although the group demonstrated significantly higher improvement in their reading; the two groups did not differ in terms of their post-test writing scores. This result was an indication that the students did not benefit academically from the WebQuest use in writing (Koçoğlu, 2010).

As can be seen, within the research results that focus on the effects of educational on EFL writing have mostly found positive correlation between them. Based on experiments, studies proved that students who integrate an educational tool into their EFL writing process tended to perform better in writing comparing to students who only used traditional pen and paper writing. Other common advantages of educational technology use are improving especially vocabulary and grammar, providing a better learning environment in the process-based writing approach, and broadening intercultural competences. Moreover, making information sharing more meaningful, interesting and challenging, ease of learning, and ease of use are claimed to be other benefits of educational technology on EFL writing achievement. Conversely, using technology in class does not guarantee the effectiveness and quality of learning a certain skill (Atay et al., 2009). As discussed previously, a few research studies found out no relationship between educational technology tools and EFL writing achievement. This is possibly because making educational technology use obligatory. Besides, not every student is a fan of technology. Some of the participant students of research studies reported that integrating technology in EFL writing classes was boring, time-consuming and tiring.

2.6. RESEARCH ON THE EFFECTS OF EDUCATIONAL TECHNOLOGY ON ENGLISH AS A FOREIGN LANGUAGE WRITING MOTIVATION

The researchers have also led their attention to analyzing the impacts of educational technology on EFL students' writing motivation. One reason to utilize educational technology tools in language classrooms is that they can compensate the face-to-face settings' drawbacks arising from time constraints. The study of Satar and Akcan (2014), in which 42 pre-service language teachers took part in, can be given as a case in point. *Canvas*, a learning management system, in which the participants created audio/visual or written introductions and weekly discussions on the discussion

board, was utilized in the study. The findings indicated that the participants appreciated the online component in tasks in which they were able to generate and share their end products, which was not applicable in a face-to-face component. In addition, the participants noted that they enjoyed sharing their individual experiences online, possibly due to constrained time allocated for sharing of individual experiences in the classroom due to time limitations of the face-to-face setting. (Satar and Akcan, 2014).

Tzu and Chen (2012) aimed to examine the influences of blog-based peer review activities in English writing courses, and what first year university level EFL students' perceptions of peer review on weblog were. The results indicated that students showed remarkable improvement in effective writing behaviors. After analyzing reflective essays, online reviews of the students, doing classroom observations, comparing students' drafts, the researchers found that using weblogs gave students more confidence and relieved stress in association with English writing activities. It was also pointed out that the interaction among students significantly increased and students progressively improved more positive attitudes toward writing. The results were similar to Lin (2015)'s study conducted with the participation of 18 university-level Taiwanese EFL students. Findings reveal that integration of such learner-centered blogging into English writing instruction provide learners to enhance writing skills along with self-efficacy and motivation.

Mobile learning is also preferred in language classes due to the five features of mobile devices, which are portability, individuality, connectivity, social interactivity, and context sensitivity (Klopfer and Squire, 2008). Learners do not have to be limited to learning in a traditional classroom and can undertake digital learning activities at any place and time (Hwang and Tsai, 2011). Huang et al. (2016) conducted an experiment integrating a mobile learning tool into traditional teaching tools. Over 80 fourth-grade students participated in their study. While one group of participants were exposed to teaching via a mobile learning tool; the other was taught with traditional learning tools. After analyzing the data that were collected by interviews, tests, and motivation questionnaire; it was concluded that learning motivation of the students using the mobile learning tool was superior to the group using traditional learning tools.

Apart from specifically designed educational technology tools, social media has been used in writing classes as teaching tools. Most educators and researchers believe the idea that integrating social media in a traditional teaching environment enhances students' involvement in EFL writing and motivates them to go further in learning. To give an example, in their experimental study, Laire et al. (2012) worked on *Storify*, which is amongst social media, as a new teaching tool for EFL writing instruction. The primary purpose of the study was to specify attitudes of students who were taking general education and whose ages range from 16 to 20, towards the online tool, *Storify*. The study concluded that social media usage in EFL writing courses influenced learning process of the students in a positive way and it improved student involvement. Furthermore, the study detected a positive tendency towards educational technology tools, namely *Storify*. The participant students felt that they could enhance their writing performance with the help of educational technology tools. Similarly, as Sun (2010) asserted, with the help of social media, students got better at sharing their ideas and making progress in writing to an audience, resulting in higher motivation levels and fostered learning autonomy.

Moreover, a qualitative study was carried out by Selçuk (2017) to examine high school level Turkish EFL students' interpretations of peer collaboration in an online short story writing activity through a *Facebook* group and to investigate their perceptions on the impacts of peer collaboration on their writing development. 6 participant students wrote short stories online collaboratively and gave corrective feedback to each other during the writing activity. The study concluded that all participants felt that they benefited from online collaborative writing, namely *Facebook social interactions*, in many ways in terms of the advancement of the task, linguistic knowledge, and self-confidence. Peer collaboration was found to be a developmental and exponentially inclusive and shared process in which peer affective factors such as giving praises were crucial (Selçuk, 2017). It was also indicated that corrective feedback increased their self confidence in writing in English as well as enabling them to develop self-correction techniques.

Wikis are another type of educational technology tools that are used in writing classes. Wikis are already created online classrooms, which are free platforms for sharing authentic texts, passages, encouraging learning exercises and any supplementary resource for learners in order to boost their language skills (Çelik,

2016). Having a formal language, they motivate learners to edit, revise, and rewrite to produce comprehensive and coherent written prose. Altay (2018) investigated the effects of teacher and peer feedback on EFL learners' writing performance in a wiki-based writing environment and their perceptions of paragraph writing through wiki. 67 Turkish freshmen students studying in ELT departments in a Turkish university took part in the study which lasted 14 weeks. One group of students received teacher feedback online while the other group got peer feedback online. With the help of both qualitative and quantitative data, the study concluded that there was not a significant difference between students' writing development when the two feedback types were compared. However, the qualitative data indicated that participants had mostly positive ideas towards the integration of wiki in their writing classes. They also found *Wikis* to be useful for writing development, language learning, and improving communication. In addition, Özdemir and Aydın (2015) reviewed literature on the impacts of Wikis on EFL writing motivation. Despite the limited number of studies conducted in the area, they concluded as a common point that wikis contributed to cooperation and collaboration positively, since they were useful and powerful tools to enhance writing skills.

In addition to above mentioned tools, YouTube videos, podcasts, Padlet, and Prezi are among educational technology tools that are commonly implemented by EFL teachers so as to advance learners' positive attitudes and language skills mainly because of their free access and the facilities provided for users (Solano et al., 2017). Aiming to investigate the contemporary state of technology use in English classrooms, and to find out the current state of the use of technology in English classrooms, Solano et al. (2017) stated that although English teachers did not integrate technology much in their classes; students felt interested and motivated toward using technological tools in classrooms. The reason behind is that they allow students to effectively and interactively learn based on their needs, and thus, the curiosity of students increases.

As can be comprehended from the previous studies, technology stimulates the interest of learners in the contents they will study; enables learners to improve their problem-solving and critical skills, and greater level of understanding. It also enables students reduce their anxiety toward a foreign language (AbuSeileek, 2012). Within this context, Ilter (2009) stated that one of the elements affecting learners' attitude positively in the learning teaching process might be technology. As a final comment,

it can be said that, in spite of the benefits and drawbacks that the use of technology might cause, EFL teachers should be aware of the fact that they need technology in order to serve digital natives in a more meaningful and comprehensive way (Merç, 2015).

On the other hand, not all research studies found positive correlation between educational technology and motivation towards EFL writing. For instance, in Özdemir's (2015) study, which was carried out with 48 pre-service English language teachers; it was intended to investigate the effects of blogging on student motivation. The results showed that blogging itself did not increase EFL writing motivation, whereas the process-based writing instruction positively influenced their motivation both in blog and traditional environments. That is, only the online learning environment did not create a significant difference in students' motivation toward L2 writing. Accordingly, Shanthi et al. (2013) explored motivation of students toward composition writing in online blogs and traditional paper-based mode. The findings demonstrated that the minority of students (%) did not favor online writing, and 20.5% of the participants remained neutral. There were also some students who preferred to write using paper and pencil, and some who found online writing as distracting. Moreover, Aydın (2014) examined perceptions and attitudes of university-level EFL writers toward Facebook portfolio use. Even though students believed that F-portfolio improved their writing skills, they also faced some problems during the implementation. For instance, some students reported that the process was time-consuming, boring, and tiring. Besides, they experienced some difficulties in F-portfolio process such as pre-writing activities, feedback, revision, and production of initial and final drafts. Therefore, it cannot be claimed that educational tools always appeal to everyone or increase students' motivation towards writing.

As can be seen, research studies on educational technology and EFL writing motivation demonstrate that there is generally a positive correlation between the two. Educational technology tools, including blogs, wikis, e-journals, social networking sites and mobile learning, are preferred because of their high accessibility and convenience. Research results show that utilization of educational technology tools in EFL writing classes give students more confidence, relieve anxiety, provide an opportunity to learn outside the traditional classroom. In addition, with the help of such tools, students get better at sharing their ideas and advancing in writing with an

audience. They also contribute positively to collaboration by developing learners' problem solving and critical thinking skills. On the other hand, according to some studies, educational technology tools are not preferred by some students as they find online writing as distracting. Also, some studies show that an online educational tool itself does not increase EFL writing motivation.

2.7. RESEARCH ON THE EFFECTS OF AUTOMATED WRITING EVALUATION ON ENGLISH AS A FOREIGN LANGUAGE WRITING ACHIEVEMENT

As Kern and Warschauer (2000) discussed, as the software-generated approaches for teaching second language writing increased, the computer was not only viewed as a tutor anymore that could offer an untiring source of practice opportunities for students by generating individualized error feedback and grammatical explanations, but, more importantly, computers also became tutees that enhance classroom language learning (Kern and Warschauer, 2000). Therefore, it can be claimed that web-based learning environments are useful for both learners and teachers. By utilizing these environments, the information stored can be accessed easily with the aim of understanding and overcoming writing problems.

Hegelheimer et al (2016) stated that the first AWE software for assessment purposes dated back to the 1960s when Page Ellis developed Project Essay Grader (PEG). Since that time, it has been in the spotlight of researchers. According to Lai (2010), AWE feedback can be defined as effective with regard to three dimensions: 1) the effects on written production such as error frequencies and rates, lexical measures, quality scores, and text length; 2) the effects on processes of writing like revision rates and types, editing time, time on task and text production rates; and 3) perceived usefulness. Furthermore, the influence of automatic scoring tools should not be underestimated since such tools can also have positive washback effects in classrooms such as promoting more writing activities, reducing the workload of teachers, providing students with more opportunities to get useful feedback on writing. (Page, 1968). Besides AWE has been regarded as positively affecting students' writing quality because of the immediacy of its online feedback (Dikli, 2006).

Studies have demonstrated that the use of AWE feedback has some significant positive effects on writing outcomes. Studies show that students can significantly develop their writing skills, including grammar, word usage, spelling and accuracy by receiving detailed and diagnostic feedback with clear explanations provided from the AWE (Hoon, 2006; Kern and Warschauer, 2000; Li, 2007; Milton, 2006; Warschauer and Ware, 2006; Wang et al., 2013; Yeh et al., 2007). To illustrate, in their experimental study, Franzke et al. (2005) used a pre-test post-test design to compare an AWE with a no-feedback condition. Participant students who were secondary school students in both groups wrote four texts whose quality was scored by human raters. At the end of the study, it was concluded that students in the AWE group had higher content and holistic scores on not only the averaged score for the four texts but also for orthogonal comparisons of the scores. Similarly, as found in Liao's (2016) study, in which 63 students from three intact sophomore English writing classes in three different universities took part in, using AWE, namely *Criterion*[®], in a process writing approach seemed to have a lessening impact on the number of grammatical errors in new text compositions and revisions. The positive performance of the participants appeared to be strengthened by recursive practices and gap noticing, which were in turn provided using an AWE system under the integrated process.

Some studies have directed attention on AWE corrective feedback usage among ESL students, and investigated how AWE corrective feedback may influence revision. In Li et al. (2015), for example, the use of an AWE system, *Criterion*[®] by the instructors in ESL writing classrooms and probable effects of the system on learners' writing were explored. Participants were taking academic ESL writing courses. Over a 15-week semester, with the help of qualitative (interviews) and quantitative data which concern writing practice of the students and the accuracy change between different drafts and papers, some conclusions were drawn. Although instructors were not happy with the feedback quality that *Criterion*[®] provided, the majority appreciated the AWE corrective feedback potential in terms of improving skills on grammar and mechanics. In addition, it was indicated that AWE corrective feedback tended to motivate learners to get involved in writing practices. Finally, AWE corrective feedback appeared to improve students' linguistic accuracy.

Another study which was conducted by Holman (2011) found out similar results with a purpose to examine the effectiveness of AWE systems on writing

achievement. Two groups consisting of 80 students who were from similar demographic backgrounds and locations participated in this study. While one group received only traditional writing instruction for 15-week instruction period, the other group used *MY Access!*, an AWE program as part of their writing instruction. The study concluded that students who used an AWE program showed statistically higher level of writing achievement than those who did not participate in the AWE program. Holman (2011) also asserted that the instant feedback provided by AWE tools encouraged editing, aided students in that process, and gave more flexibility in their writing; as well as relieving a huge burden from language teachers by decreasing their grading workload. A large scale study conducted by Palermo and Thomson (2018), including 829 student participants studying at secondary school, also supported the usefulness of AWE by concluding that integrating AWE into writing instruction supported developments in writing quality of the learners.

Wilson and Czik (2016) examined eight different eight-grade English classes so as to find out the effects of AWE, PEG Writing Scholar®, on students' writing quality. Four of these classes got feedback from the AWE software and from their teacher, while the other four were assigned to a teacher-feedback-only condition, in which they got feedback only from their teacher through *GoogleDocs*. The amount of feedback in each condition was the same. The study concluded that in terms of final-draft writing quality, the two groups did not differ significantly. Another criticism about AWE is about the main concern of this software. Most AWE systems model only a relatively small part of the writing construct, being largely concerned with structure such as topic sentences and paragraph transitions; phrasing like vocabulary and sentence length; and transcribing such as spelling and mechanics (Deane, 2013). Furthermore, in Grimes' and Warschauer 's study (2010), interviews and writing samples were utilized to investigate the effects of *Criterion*® and *MyAccess!*—commercial AWE software programs— in four secondary schools in the United States. The examination of writing samples demonstrated that AWE feedback was more likely to direct students to word or sentence level revision instead of significant change on content.

Some other controversies are also on the carpet on AWE discussions. For example, Stevenson and Phakiti (2014) made a review and drew the conclusion that there was only modest evidence that AWE feedback had a positive effect on the quality

of texts that students produced using AWE, and that as yet there was little clarity about whether AWE was associated with more general improvements in writing proficiency. Supporting the same idea, Deane (2013) claimed that computers could only give feedback on features which can be automatically detected; and they might sometimes exclude detailed and subjective extents that even humans also have difficulty in assessing. Examining the improvement in writing quality related to feedback given by an AWE tool, Wilson (2017) stated there was not a positive correlation between an AWE tool usage and a positive association between the use of an AWE tool and development in typically-developing students' writing quality. It has also been claimed that writers can easily fool AWE if an essay is lengthy and involves particular lexical-grammatical features favored by the AWE scoring systems (Wang et al., 2013). This can lead students to create some methods to beat the software, instead of making a real effort to learn and improve by themselves. A similar conclusion was made by Ding (2008) stating that monolingual feedback offered by AWE fails to provide improvement for less skillful students and to increase learner autonomy due to frustration of understanding the nature of such limited feedback.

As obviously seen from the previous research studies, there are some controversies among research studies concerning effects of AWE on EFL writing achievement. First of all, the immediacy of AWE online feedback is perceived as useful for improving the quality of students' writing. It is also specified that using AWE tools have some positive washback effects such as promoting more writing activities and more opportunities to get beneficial feedback on writing. Besides, AWE tools are claimed to be helpful in identifying and also correcting grammatical and mechanical errors. However, many researchers have some doubts about AWE tools. Their main concern is that what is evaluating students' writing is a computer, a kind of artificial intelligence, so it can only give feedback on writing features that can be detected automatically.

2.8. RESEACRH ON THE EFFECTS OF AUTOMATED WRITING EVALUATION ON ENGLISH AS A FOREIGN LANGUAGE WRITING MOTIVATION

Motivation is considered as one of the core elements of language learning, seeing that good attitudes and strong motivation are indicators of an effective learning (Öztürk, 2014). Similarly, as Horwitz (1988) discussed, learners may easily hold erroneous beliefs about their language abilities and lose their desire to learn, which may hinder the language learning process. To increase this highly important element of language learning, internet and technology have been valued to a great extent. Many studies demonstrate that use of internet can provide a non-threatening environment, and thus, decrease learner anxiety in writing (Sullivan and Pratt, 1996; Li, 2009). Lin and Griffith (2014) state that online collaborative learning environments can benefit cognitively, socioculturally, and psychologically. They also enhance critical thinking skills, writing skills, and knowledge construction, promote participation, motivation, interaction; and reduce anxiety.

Chen and Cheng (2008) investigated the effectiveness of *MyAccess!* in helping writing improvement. Three EFL writing classes participated in the study and the data were collected through classroom observation and interviews with teachers and students. The study concluded that some students regard the automated feedback as vague and formulaic, while others asserted that it was useful for identifying and correcting mechanical and grammatical errors. On the other hand, Chen and Cheng (2008) noted that human assistance should not be absent in AWE learning environments, primarily because writing is a social and communicative act that includes negotiation of meaning between readers and writers.

Roscoe et al. (2017) explored perceptions and expectations of students toward automated scoring, *Writing Pal*, and AWE feedback; and investigated the effects of these attitudes on writing quality, future intentions, and revising behaviors. The participants were 110 undergraduate students at a large university in the United States. Findings indicated that students' perceptions toward *Writing Pal* were positive. They believed that scores that the computer program gave for their writings were reliable; and the feedback it assisted them to develop their writing skills. Furthermore, as mentioned in the study of Kahmi-Stein (2000), in classrooms that value collaboration

and group work through participation in writers' community, technology enhanced environments could be a good opportunity to support student collaboration by making student work more widely available and promoting a sense of community and cooperation in the classroom. In their study, Wilson and Czik (2016) examined eight different eight-grade English Language Arts (ELA) classes in order to explore the effects of AWE on student motivation and writing quality. Four of these classes got feedback on their writing from their teacher and from an AWE software called PEG Writing Scholar®, while the other four classes received feedback only from their teacher. The findings of the study revealed that students using AWE software reported increases in their motivation towards writing. Similarly, Fang (2010) investigated perceptions of EFL college students about a computer-assisted writing program – *MyAccess!*. Results demonstrated that the majority of the participants held favorable attitudes towards *MyAccess!* as a writing tool.

While students who use AWE tools perceive them as useful for their writing skills, there are also some features that are not appealing for them. To illustrate, in order to discover the weaknesses and the strengths of an AWE tool, *Criterion*®, Wang (2013) examined 530 writing samples of 53 English major students. Results of the study indicated that nearly all of the participants (93.8%) valued the instant scoring speed. Around 75% of them perceived that the program was useful in terms of the error analysis of usage and the feedback for development and organization. However, they also pointed out that the tool's scoring rubric, scoring summary, the writing assistance plan tool, and error analysis of style were problematic. A similar study on AWE tool *Criterion*® was conducted by LaGuerre (2013) with college students. She aimed to reveal the extent to which students perceived that *Criterion*® fostered learning. The study concluded that students appreciated the tool's ability to edit their work in grammar and mechanics; however, majority of them felt that a human reader was still necessary for feedback regarding organization and development. Some other studies also revealed that when students were asked to prefer for human versus automated feedback, they were more likely to opt for comments from teachers or peers instead of computers (Curran et al., 2013; Lai, 2010; Lipnevich and Smith, 2009) claiming that computer- provided suggestions were faulty and irrelevant.

Some students sometimes found the amount of AWE feedback overwhelming, too. McNamara et al. (2014) conducted a study on *Writing Pal*. After

having interacted with *Writing Pal* for several months, students reported their opinions and attitudes toward it. Although the majority of the students reported the writing tools as easy to use, some students criticized *Writing Pal* concerning quantity of feedback (either too much or not enough). Besides, the shortage of feedback specificity and the lack of personalization were other emphasized key points by the participants. Apart from the quantity of feedback, specificity and personalization, students and teachers had also some concerns with regard to scoring accuracy and clarity (Roscoe et al., 2017).

The accuracy of feedback that AWE tools provide is approved by the majority of research studies (Chang and Chou, 2011; Lavolette et al., 2015; Ranalli et al., 2017). However, using an AWE tool only is not seen as sufficient; instructor support and control are considered as irrefutably important. To put in another way, it is suggested that AWE technology can help students improve their motivation or success, but it is the teacher who will incorporate AWE into a broader writing program emphasizing authentic communication, and who can assist students recognize and compensate for the limitations of software (Grimes and Warschauer, 2010; Link et al., 2014, Wang, 2013).

The number of studies conducted on effects of AWE on EFL writing motivation is quite limited since it is relatively a newly studied and focused area. The majority of the relevant studies indicate that technology-enhanced environments promote students' collaboration and provide a sense of community in the classroom, which leads to increasing their motivation. Students' perceptions toward AWE tools are also positive in general according to the research results. However, most of them did not focus on the effects of AWE on different domains of writing motivation; thus, this study aims to make a contribution by analyzing AWE feedback impact on different writing domains. On the other hand, some students reported their criticism against AWE tools regarding the amount and the quality of feedback. As Warschauer and Ware (2006) discussed, the majority of AWE research has been too outcome-oriented and neglected the significance of learning and processes included in AWE use in the classroom.

Unfortunately, not much has changed since 2006. As can be seen in this section, researchers investigating automated writing evaluation software have been

interested in only its effect on the writing quality, its reliability and validity, and students' attitudes or perceptions about the AWE. In addition, most of these studies have concerned about AWE software that only provide mechanical checks and give a total score on students' papers. However, going one-step further, the current study examines an AWE software (PEG Writing Scholar[®] – updated version) which allows students to take detailed and targeted feedback, showing strengths and weaknesses of their papers, providing pre-packaged prompts almost in each essay category apart from only giving a mechanical score. Moreover, there is no doubt that motivation is one of the most essential concept, even a requirement for EFL students to make progress. This becomes more important when we consider second language writing that is found as one of the most challenging skills for EFL students. Thus, if language teachers and researchers can find some ways to increase students' motivation towards language learning, the outcome will probably be more positive and more efficiency will be provided. Therefore, putting motivation as one of the main concerns, this study avoided focusing on the over-looked areas on AWE and tried to broaden horizons on the related subject.

CHAPTER III: METHODOLOGY

In the following section, the procedure and the methods to collect and analyze data are presented. In accordance with this purpose, initially, research design is introduced; secondly, participants are described. After these sections, tools that are used in order to collect data are explained. Lastly, the procedure in the data analysis process is introduced.

3.1. RESEARCH DESIGN

This study is a quasi-experimental study since it involves assignment of the whole groups to treatment, and pre-testing to ensure that both groups are similar (Lodico et al., 2006). In other words, since it was not possible to assign individual participants to groups randomly due to the school regulations, the entire groups –not individual students- were assigned to the treatment (Gay et al., 2012). The design of the study is a non-equivalent groups design since participants have not been randomly assigned to the treatment. However, to ensure that the two participant groups are as similar as possible, and to increase internal validity, both groups were pre-tested. Quantitative and qualitative methods were implemented and a four-stage procedure was used: (1) Implementation of Academic Writing Motivation Questionnaire (AWMQ) by Payne (2012) and Achievement Test as pre-test, (2) practice, (3) field notes, (4) administration of AWMQ (Payne, 2012) and Final Test as post-test. Considering participants' scores of the Placement Test which was administered in the first week of 2017-2018 Fall Term, according to their overall English language proficiency, students were allocated in different programs of levels by Boğaziçi University, School of Foreign Languages administration. One Program 2 (pre-intermediate level) class was assigned to the researcher by the school administration and this class was also assigned as experimental group of the current study. Then, another class which had a close mean score of writing was intended to be chosen as control group. Since it was not possible to reach writing scores of the Placement Test, the Achievement Test conducted in the third week of the Fall Term was used as a pre-test. By looking at the results of writing parts of this test, another Program 2 class that had very close writing score average with the experimental group was assigned as control group. Afterwards, AWMQ (Payne, 2012) was conducted to both groups in the

third week of 2017-2018 Fall Term; and it was ensured that the two groups did not differ significantly with regard to their motivation levels to writing.

During the instruction period, both groups studied the same topics, with the same instruction, and with the same educational materials but in different settings. Within the practice process, the participants were provided three-month process-based writing instruction. While the participants in the control group completed their writing tasks with the help of a traditional pen and paper technique, the experimental group participants used PEG Writing Scholar®, a specially-designed software to assess essays and to give immediate feedback. In order to eliminate the novelty effect, which occurs when a new treatment is more effective than an older one simply because it is new and different, the period of the study was extended to three months, which is long enough for a novelty effect to wear off.

Due to school regulations, two classes were taught by different instructors, one class was taught by the researcher and the other by another instructor; but, the curriculum and the activities were identical, and the two instructors were always in touch about the process. Since it was not possible to use ‘blind’ researchers who knew neither the expected outcome nor which group was experimental or control, the researcher had to take an active role in the study as an instructor. However, in an attempt to eliminate the experimenter effect, in other words, to avoid exerting unintentional influence on the outcome of the study, the researcher was very careful not to make biased comments, or ask leading questions either in the classroom or during the unstructured interviews. Moreover, since the treatment involved students’ individual work on the computer independently from the classroom atmosphere, the effect of the researcher was attempted to be eliminated as much as possible.

In addition, during this practice process, field notes were taken, as well. These field notes included informal class observations, unstructured interviews with the students in both groups, and daily notes consisting of what was taught and assigned on each day of the instruction. Finally, at the end of three months, Background and AWMQ, having the same content with the pre-test, and writing section results of the Final Exam were used.

3.2. PARTICIPANTS

60 students studying at Boğaziçi University School of Foreign Languages participated in the study. All of the participants were non-native speakers of English and share the same native language, Turkish. As indicated in Table 3-1, 29 of the participants were female students (48.3%) and 31 of them were male students (51.7%). 30 of them were assigned in the control group, and the other 30 took part as experimental group. All of the participants were students at School of Foreign Languages, and in the following year, they would be studying in different departments, ranging from engineering faculty and faculty of economics to social sciences. They were all Program 2 students, corresponding to A2 level of The Common European Framework of Reference for Languages (CEFR). The participants of the study were exposed to an obligatory intensive English Language program with a workload of approximately 23 hours weekly. Their ages were between 18 and 25. The participants were assigned in control and experimental group with the help of convenience sampling. Students were placed in level classes according to their score on the Placement Test held by Boğaziçi University School of Foreign Languages in the beginning of the academic year. While choosing the participant groups, it was identified that the mean score of their writing in the Achievement Test and motivation questionnaire were very close to each other.

Table 3- 1: Participants' Age and Gender

	Age			Gender			
	Mean	Minimum	Maximum	Number	Percentage		
Control Group	18,5	18	25	Female	Male	Female	Male
				14	16	46.6%	53.4%
Experimental Group	18,4	18	23	Female	Male	Female	Male
				15	15	50%	50%
Both Groups	18,4	18	25	Female	Male	Female	Male
				29	31	48.3%	51.7%

3.3. DATA COLLECTION PROCEDURE

3.3.1 Tools

The data was collected with the help of three different tools: (1) AWMQ (Payne, 2012), (2) field notes, and (3) Writing tests. In the first place, in order to learn motivation levels of participants toward writing, Payne's (2012) AWMQ, which is a Likert-scale including 37 items (Appendix 1) was applied. Items in AWMQ are based on four aspects of motivation. These aspects include self-efficacy, goal orientation which refers to intrinsic and extrinsic motivation, and perceived value of writing. The following twelve questionnaire items intend to discover intrinsic motivation of EFL students towards academic writing:

- "I enjoy writing."
- "I like to write down my thoughts."
- "I like to participate in online discussions."
- "I enjoy creative writing assignments."
- "I like classes that require a lot of writing."
- "Becoming a better writer is important to me."
- "I enjoy literary analysis papers."
- "I like to write down even if my writing will not be graded."
- "I enjoy writing research papers."
- "I would like to have more opportunities to write in classes."
- "I am motivated to write in my classes."

In addition to intrinsic motivation, in AWMQ (Payne, 2012), ten of the items are associated with self-efficacy which show participants' beliefs about their writing ability:

- "I use correct grammar in my writing."
- "I complete a writing assignment even if it is difficult."

- “I write as well as other students.”
- “I write more than the minimum on writing assignments.”
- “I am able to clearly express my ideas in writing.”
- “I easily focus on what I am writing.”
- “It is easy for me to write good essays.”
- “Punctuation is easy for me.”
- “Spelling is easy for me.”
- “Choosing the right word is easy for me.”

There are also ten items which are based on extrinsic motivation including:

- “Being a good writer will help me do well academically.”
- “I like to get feedback from an instructor on my writing.”
- “I like my writing to be graded.”
- “Being a better writer will help me in my career.”
- “It is important to me that I make an A on a writing assignment.”
- “I like others to read what I have written.”
- “Being a good writer is important in getting a good job.”
- “I practice writing in order to improve my skills.”
- “I want the highest grade in the class on a writing assignment.”
- “I want others to recognize me as a good writer.”

The final aspect of writing is perceived value of writing which shows itself in five items like:

- “I put a lot of effort on my writing.”
- “I am more likely to succeed if I can write well.”
- “I plan how I am going to write something before I write it.”
- “I revise my writing before submitting an assignment.”

- “I would rather write an essay than answer multiple-choice questions.”

With the aim of being informed about participants’ age, gender, and academic writing achievement scores, some background questions were also added to AWMQ as can be seen in Appendix 1.

In addition, in order to reach more reliable results, field notes were taken by the researcher during the whole instruction process. These notes consisted of descriptive information which refers to actions, behaviors, and conversations in the class, transcription of unstructured interviews with the students in both groups, summary of daily discussions with the control group’s instructor, and daily notes consisting of what was taught and assigned on each day of the instruction. Some reflective notes were also included such as impressions, analyses, observer comments, and other ideas about what the researcher learned in the inquiry. Besides, writing scores of the Achievement Test which was conducted in the early weeks of the Fall Term was used as pre-test. Lastly, writing scores of the Final Exam which was the post-test were used to determine participants’ academic writing performance.

3.3.2 Procedure

As a first step, negotiations were made with PEG Writing Scholar® authorities to grant necessary permissions in order to get free teacher and student accounts for a certain period of time. Then, necessary permissions were taken from Boğaziçi University School of Foreign Languages Administration (Appendix 2). Before the experiment, necessary permissions were taken both orally and written from the school administration; however, since there was a problem with the first document’s seal, the necessary document was taken again. Because of the slow-going bureaucracy, it was sent to the researcher three months after the study as can be seen in Appendix 2. After this phase, all participants’ consent was granted and participants were confirmed about the confidentiality of their answers, personal information, and their involvement in the study (Appendix 3). The further step was to inform participants about the significance, purpose, and procedure of the study.

3.3.2.1 Pre-Test Administration

First, writing scores of the Achievement Test, which was conducted in the early weeks of the 2017-2018 Academic Year, was used to determine experimental and control groups. In this exam, students were given the following task: “*Compare and contrast being self-employed and working as an employee.*”. The essays were evaluated by two English instructors in accordance with the rubric provided by Testing Office of Boğaziçi University School of Foreign Languages (Appendix 4). The rubric is based on language accuracy, fluency, vocabulary usage, organization, and coherence. According to this rubric, 15 points is given to written texts which use target language and vocabulary correctly almost without exception; and develop an extended discourse with substantial support and elaboration in a fluent style. The texts which have low frequency of mechanical errors, use vocabulary correctly, well-developed and well-supported ideas with adequate exemplification in a generally coherent and meaningful way get 12 points. Texts that get 9 points might have some structural errors, but there are more samples of correct than incorrect usage. The task is also developed adequately with some supporting ideas which are connected, and adequate amount of vocabulary. Texts whose language is below adequate level with re-occurring or frequent errors in target structures get 6 points. These texts also have sentence fragments and errors in linking devices, inadequate usage of vocabulary. Generally comprehensible texts that do not seem to satisfy the expected level of performance fall into this category. 3 points is given to texts in which meaning and coherence are seriously disrupted, sentences are mostly incomprehensible and the language is marked with serious or very frequent errors in target structure. Students’ essays were evaluated according to this rubric, and then, inter-rater and intra-rater reliability of the scores were calculated as can be seen in Table 3-2.

As a second step, a background questionnaire was implemented to obtain demographic information about the participants. After this questionnaire, a writing motivation questionnaire AWMQ, including 37 items, by Payne (2012) was held as a pre-test (Appendix 1). It is a Likert-scale questionnaire ranging from one to five (never=1, rarely=2, sometimes=3, usually=4, always=5). The questionnaire included items such as “Being a good writer will help me do well academically.”, “I like to get feedback from an instructor on my writing.”, “I like to write even if my writing will not be graded.”, and “I would rather write an essay than answer multiple-choice

questions.”. The Program 2 class which was assigned to the researcher after the Placement Test, conducted by Boğaziçi University School of Foreign Languages administration, was chosen as the experimental group. By looking at the results of writing Achievement Test and AWMQ (Payne, 2012) which were held on the third week of the fall semester, another Program 2 class having close mean scores was chosen by the researcher and assigned as control group.

3.3.2.2 Instruction Process

The instruction process took three full months from October to January in the Fall Term of 2017-2018 Academic Year. Both control and experimental groups followed exactly the same curriculum designed by Boğaziçi University School of Foreign Languages. The experimental group was taught by the researcher, and the control group was taught by a different teacher since the school regulation didn't allow one teacher to teach two classes in the same academic year. Both groups followed a process-based writing instruction that required drafts and rewriting depending on the feedback they got. However, the participants in the control group completed their tasks in a traditional pen and paper process that included teacher feedback, while the experimental group completed the same tasks by using PEG Writing Scholar® and got immediate feedback from this software. For this purpose, the teacher set up a class on PEG Writing Scholar® system and all students in the experimental group were assigned in that class. This software also allowed students to upload their works, see their friends' work and comment on them. Students also had unlimited access to electronic graphic organizers to help them brainstorm and outline, prepackaged prompts or customized prompts by the instructor, and technology enhanced writing lessons. Students in the experimental group were asked to upload one essay on PEG Writing Scholar® every week and write second drafts if necessary. PEG Writing Scholar® gives immediate feedback on students' writing in terms of development of ideas, organization, word choice, style, sentence fluency, and conventions by giving scores for each component out of 5 and a total score out of 30 as can be seen in Appendix 8. It also illustrates these scores with a bar chart. Besides, it makes a detailed writing analysis for each component and offers some online specific lessons for each student according to their needs. It also allows students to read their peers' essays and give feedback to each other. Students in the control group submitted their essays to their teacher by hand and also asked to write second drafts if needed. The teacher gave

feedback on students' essays by using an error code and underlining problematic parts and asked students to revise them again if necessary. She also put some notes on the essays to give more explanations. The control group got feedback on organization and development of ideas, word choice, mechanics, sentence fluency, and coherence. The amount of feedback given to both groups was the same although means of feedback was different. Furthermore, so as to reach more reliable results, the researcher took field notes including informal class observations, informal chats with the students in both groups, and daily notes consisting of what was taught and assigned on each day of the instruction for both groups.

Month 1:

In the first week of administration, students in the experimental group were assigned in an online class created in PEG Writing Scholar® system; and experimental group was explicitly informed about how to use the system such as reaching lessons according to their needs, analyzing example essays and rubrics, writing peer feedback and practicing based on specific prompts and by using specific graphic organizers. In the meantime, the control group was informed about process writing and error codes used by the teacher so as to give feedback on essays (*ww= wrong word, wf=wrong form, wo=word order, rw=rewrite, sva=subject-verb agreement, s/p= singular-plural, sp=spelling, mw=missing word, f=fragment*).

In the first week, after practicing Simple Past Tense and Past Continuous Tense structures, and time clauses, the *narrative* genre was introduced to both groups. After sections of the narrative were discussed, a plot-line diagram was presented and then some sample narratives were analyzed in order to make students more familiar with the relevant type of writing. Thereafter, the following writing task was given to experimental group students to be uploaded on PEG Writing Scholar® by using the plot-line diagram. The same writing task was given to the control group by the teacher:

Write about a memorable journey / a frightening experience / a time when you lost something. Describe the experience in detail.

- a. *When and where did it happen? Who were you with? Describe the setting.*
- b. *What happened? Describe the events in detail.*

- c. *How did you feel? What did you learn from this experience?*

Basic materials used to teach narratives can be seen in Appendix 5.

In the second week of administration, subsequent to covering transition words, students in both groups started to learn how to write well-organized paragraphs considering paragraph organization, unity, and coherence. Concepts of *topic sentence*, *supporting sentences*, and *concluding sentence* were introduced. To facilitate these new concepts, a number of different types of paragraphs were examined in the class. This week's writing task which was given to both groups to write was the following:

Write about your eating habits and the ways you improve them. Write 3 paragraphs.

- a. *In paragraph 1, write about your eating habits. (What do you eat every day? How many meals do you eat? What do you like/dislike to eat? Explain why.)*
- b. *In paragraph 2, write your opinion of your eating habits. Is your usual diet healthy for both mind and body? What should you eat / avoid eating and why?*
- c. *In paragraph 3, write about the ways you can improve your diet. What / how much / how often should you eat in order to stay healthy? What do experts recommend?*

During the third and the fourth week, in pursuit of learning comparative structures, students in both groups were presented compare and contrast paragraph. Useful language and structures were introduced with the help of mostly grammar activities. Paragraph organization, unity, and coherence were discussed more specifically. Meanwhile, they had the opportunity to analyze sample paragraphs to be more acquainted with the new structure. Writing topics given for the third and fourth week were as follows:

Write two paragraphs comparing and contrasting two towns of your choice. You can write about their geographical features, tourist attractions, and population.

Compare and contrast the two kinds of family: nuclear family vs. extended family. You may write about size of family, roles and responsibilities of family members, parent/ grandparent relations, and economic conditions.

(Useful Language:

X and Y are similar/different in many ways /There is/are / is (bigger) than/ is more (crowded) than / is less (noisy) than / (not) as (crowded) as / the best / If you have any problems, you can...

similarity / difference / family structure / parent / sibling /grandparents / in-laws /relatives / elderly members / teenager / young children / household / family life / relationship / responsibility / traditional / modern / consist of / because / as / but / however / also / when / so / because of/ much/many /a lot / a few / a little)

During the first month of instruction, both control and experimental groups were taught based on the lecture notes given in Appendix 5.

Month 2:

Students in both groups started to learn the basic principles of how to write an academic essay beginning from the second month. In the first week, parts of an essay (the introduction, thesis statement, the main body, and the conclusion) were the main focus. All the parts were presented in detail and analyzed with the help of some sample essays. Additionally, since steps of creating an essay were also important to be discussed, some pre-writing techniques such as free writing, brainstorming, clustering, and outlining were taught. Examples for each technique were given to the students. Since they were not familiar with writing a full essay, the task in the first week was a guided writing. Similar to the in-class exercises, an essay which had some missing parts was given to students. Those missing parts included thesis statement, topic sentences, and some supporting ideas. Students were asked to complete it. This writing task was:

Write an essay about qualities of a good teacher.

The second week dealt with writing a good introduction paragraph and a good thesis statement. After being informed about the purpose of an introduction, students in both groups learnt a number of different techniques to make an introduction paragraph more effective such as the funnel method, defining a word or phrase, quotation, turn about, and asking rhetorical questions. Each technique was covered in detail with samples, and students were asked to write introduction paragraphs about the ways to overcome cigarette addiction by using each technique. Afterwards, characteristics of a good thesis statement were discussed. A lot of samples were examined in the class, and evaluated according to the basic features of a good thesis statements that were learned newly. In this week, students in both groups were expected to write a well-developed introduction paragraph for an essay. The writing task assigned is given below:

Write an introduction paragraph about the ways for dealing with insomnia. Use one of the techniques you learned to introduce the topic (funnel method, quotation, rhetorical question, etc.) and make sure you have a strong thesis statement.

(Useful language: Insomnia is... / Have you ever...? / After / When / While / If you can't sleep / because of / so you should... / you could try... / People who suffer from / experience / have difficulty

fall asleep / difficulty / suffer from / a heavy/light sleeper / avoid / sleeping pattern / nap / doze / melatonin / body temperature / caffeine / relaxation/ breathing techniques / anxiety / sleep quality)

Development of the body paragraphs was the primary focus of the third week. The teachers introduced functions of body paragraphs; features of a good topic sentence; and a variety of techniques to support a topic sentence. Sample body paragraphs were analyzed and a number of activities were done in the class. In accordance with the main focus of that week, students in both groups were asked to complete an essay which had only introduction and conclusion paragraphs. The topic of the essay for which students wrote main body paragraphs was *how to become a professional athlete*.

The fourth week concerned about conclusion paragraph of an essay. The main purpose and the concluding techniques such as recommendation, prediction about future developments of the essay topic, suggesting a solution, and final evaluation were taught. Now that students were made familiar with all parts of an essay in a detailed way, the writing task of this week was to write a full essay on *the ways to keep healthy*.

During the second month of instruction, basic classroom materials and lecture notes that were used in both groups are given in Appendix 6.

Month 3:

During the third month of instruction, after unity and coherence are discussed, a specific type of essay was also taught. Lecture notes and classroom materials that are used in both groups in this month are given in Appendix 7. Throughout the first week of the third month, concepts of unity and coherence were recycled in detail. A detailed essay checklist to revise and edit an essay was provided by the teachers and used by the students to analyze a great number of samples in the class. The writing task of the relevant week was:

“Who is an active learner? Choose three of the points below and support each point with examples and anecdotes.

- a. know what they want to learn*
- b. take responsibility for their own learning*
- c. seek answers to their questions*
- d. take notes of what they learn*
- e. discuss what they have learned with their friends*
- f. integrate new information, concepts, or skills*
- g. directly experience knowledge*
- h. actively participate in discussions with friends and teachers*

Start your essay by informing your reader of the term “active learner”. Explain the importance of the term and present a definition of the term. In the development paragraph tell your reader what makes a person an active learner. What does a learner do that qualifies him as an active learner? You may use understandable facts, examples, or anecdotes that will make it easier for your reader to understand the term.”

The second week was devoted to doing writing practice. Besides, in this week, students gave peer feedback to one of their friends, assigned by the teachers, with the help of the essay checklist. The writing task which was assigned to students in the experimental and the control group was the following:

What makes a true friend? Write an essay about it. You may change three of the points given and develop them (e.g. respect, patience, dependability, and support).

Throughout the third and the fourth week, students covered *Classification Essay*. After the definition, purpose, and sections were given, sample classification essays were examined. They also learnt useful classification language to help them express themselves more clearly while writing the recently mentioned essay type. The writing tasks that students were responsible to complete were as follows:

Divide the leisure time activities that appeal to you into categories and write a classification essay describing the categories.

Shopping can be divided into two categories as rational and emotional in terms of the motives that influence the kind of product one buys. By doing a search on both types, write a well-organized classification essay.

3.3.2.3 Post-Test Administration

After the experiment process, as the final phase of the research, post tests were administered. First, Final Exam which was conducted at the end of the semester, was utilized in order to see the difference in writing achievement and compare the scores of both participant groups. In this exam, all participants were expected to write an essay on *describing a good leader*. The essays were evaluated by two English instructors in accordance with the rubric provided by Testing Office of Boğaziçi

University School of Foreign Languages (Appendix 4) and inter-rater and intra-rater reliability were calculated (Table 3-2). Finally, AWMQ by Payne (2012) was applied again in both experimental and control groups in order to examine if there was any difference with regard to students' motivation towards writing after the experiment process.

Table 3- 2: Inter-rater and Intra-rater Reliability of the Pre-Tests and Post-Tests

	Pre-test		Post-test
Scorer 1	0,83		0,84
		0,87	0,91
Scorer 2	0,77		0,87

3.4. DATA ANALYSIS PROCEDURE

In order to analyze and interpret the data, Statistical Package for Social Sciences (SPSS, Version 24) was used. Initially, mean scores, maximum and minimum values of participants' ages were calculated. Then, the percentage of participants' gender was counted up. As a further step, participants' writing scores were evaluated in terms of mean scores, standard deviation, maximum and minimum values. In order to compare participant groups' answers for AWMQ (Payne, 2012) and to find out if there was a significant difference between pre- and post-test results of each group, Paired Samples Tests and Independent Samples Tests were conducted. In addition, since there were two raters evaluating students' papers in both pre- and post-test; inter-rater and intra-rater reliability check were done with the help of statistic known as Cronbach's Alpha. As is shown in Table 3-2, both inter- and intra-rater reliability for pre- and post-test were obtained. The reliability coefficient for the pre-test was 0.83, and for the pre-test was 0.84 for the first scorer. Also, the reliability coefficient for the pre-test was 0.77, and for the post test was 0.87 for the second scorer.

Finally, reliability coefficients of AWMQ (Payne, 2012) in Cronbach's Alpha model were calculated and interpreted. Table 3-3 demonstrates that reliability of AWMQ was also obtained. The reliability coefficient of the pre-test is 0.87, while it is 0.93 for the post-test.

Table 3- 3: AWMQ Reliability of the Pre-Tests and Post-Tests

	Reliability Coefficients (Cronbach's Alpha)
Pre-Test	0,87
Post-Test	0,93

As a final step, for AWMQ (Payne, 2012), an exploratory factor analysis, a component analysis with a Varimax rotation, was used to identify the correlations between the obtained factors with the original items they are extracted from. Table 3-4 is a rotated component matrix demonstrating significance levels of the items and factor loadings, in other words, it shows that the items that are loaded under the same factor must be measuring relatively the same thing. As can be seen in Table 3-4, the first factor that was determined by SPSS factor analysis is extrinsic motivation. All the items loaded under the first factor are based on extrinsic motivation. Thus, by looking at this statistic based on participants' responses, it can be claimed that the questionnaire items that were intended to discover extrinsic motivation are strongly related. The second factor in Table 3-4 is intrinsic motivation. All ten items under the second factor are based on participants' enjoyment and it is statistically proven that they are also associated with each other. In addition, if the twelve items that are loaded under the third factor are analyzed, it can be understood that they are all based on self-efficacy. Two items on enjoying writing are also found to be related to self-efficacy items. The fourth factor contains items that are related to effort, and in parallel with it, perceived value of writing. There are three extra items gathered under the fifth factor: "I would rather write an essay than answer multiple-choice questions.", "I easily focus on what I am writing.", and "I like to write even if my writing will not be graded.". Although they were designed to examine different aspects of writing, students' responses for the questionnaire revealed that they were strongly related to each other. The exploratory factor analysis made by Payne (2012) is to a great extent consistent with the current study's factor analysis. Payne's (2012) exploratory factor analysis also yielded five primary factors of writing motivation which are enjoyment (intrinsic

motivation), self-efficacy, instrumentality (extrinsic motivation), effort (perceived value of writing), and recognition.

Table 3-4: Exploratory Factor Analysis of AWMQ responses

	Factor				
	1	2	3	4	5
Being a better writer will help me in my career.	,891				
Being a good writer is important in getting a good job.	,797				
Being a good writer will help me do well academically.	,682				
I like to get feedback from an instructor on my writing.	,668				
It is important to me that I make an A on a writing assignment.	,602				
Becoming a better writer is important to me.	,537				
I like my writing to be graded.	,531				
I want the highest grade in the class on a writing assignment.	,402				
I would like to have more opportunities to write in classes.		,823			
I am motivated to write in my classes.		,752			
I like classes that require a lot of writing.		,736			
I enjoy writing assignments that challenge me.		,653			
I enjoy writing research papers.		,647			
I would rather write an essay than answer multiple-choice questions.		,491			,463
It is easy for me to write good essays.			,804		
I write as well as other students.			,712		
I complete a writing assignment even if it is difficult			,656		
I write more than the minimum on writing assignments.			,605		
I am able to clearly express my ideas in writing.			,593		
I like to write down my thoughts.			,561		
I enjoy writing.		,455	,527		
I practice writing in order to improve my skills.			,448		
Spelling is easy for me.			,882		
Choosing the right word is easy for me.			,763		
I plan how I am going to write before I write it.				,851	
I put a lot of effort on my writing.				,456	
I easily focus on what I am writing.					,774
I like others to read what I have written.	,716				
I revise my writing before submitting an assignment.				,740	
I use correct grammar in my writing.			,409		

I enjoy creative writing assignments.	,442
I enjoy writing literary analysis papers.	,842
I like to participate in online discussions.	,404
I am more likely to succeed if I can write well.	,876
I want others to recognize me as a good writer.	,804
I like to write even if my writing will not be graded.	,604
Punctuation is easy for me.	,442



CHAPTER IV: RESULTS

This section presents findings of the study in line with the research questions. Initially, results associated with the effects of PEG Writing Scholar® and pen and paper method on writing achievement are given. Then, results on the effects of PEG Writing Scholar® and pen and paper method on writing motivation are given. For each research question, results in relation to the control and experimental groups are demonstrated separately; then, comparisons between groups are also provided.

4.1. RESEARCH QUESTION 1: DOES THE USE OF AN AWE SYSTEM HAVE AN EFFECT ON WRITING ACHIEVEMENT?

4.1.1. Instruction Effect On Writing Achievement In Control

Group

In order to address the above research question, descriptive statistics were used to provide a summary of the basic features of the test scores; and a Paired Sample T-Test was used to determine if there was a significant difference between pre- and post-writing achievement test results for each group. Within this scope, Table 4-1 below shows the descriptive statistics results, that is, the mean, standard deviation, and standard error mean of pre- and post-writing achievement test scores for the control group. Students' writings were evaluated out of 15 points. When pre- and post-test scores of the control group are compared, it can be seen that the mean score increased from 9.16 to 11.2 for the control group who were exposed to pen and paper instruction. In other words, control group participants seemed to become more successful in EFL writing after the experiment period with an increase in mean score in their writing achievement test.

Table 4- 1: Writing Achievement of the Control Group

	Mean	Std. Deviation	Std. Error Mean
Pre-Test	9,16	2,98	0,54
Post-Test	11,2	3,46	0,63

Besides, for the same purpose, pre- and post-test writing achievement test scores of the control group were compared with a Paired Sample T-Test to analyze the instruction effect. Table 4-2 presents the significance level of mean differences for writing achievement between pre- and post-test scores of the control group. With a significance value of 0.021, it is shown that post-writing achievement test scores of the control group are significantly increased. In other words, participants in the control group seemed to have higher achievement with a significance value of 0.021 in EFL writing at the end of the instruction period in which traditional method was used.

Table 4- 2: Paired Samples Test for the Control group

	Paired Differences					Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		
				Lower	Upper	
Pre-Test – Post-Test	-2,03	4,55	0,83	-3,73	-0,33	0,021

4.1.2. Instruction Effect on Writing Achievement in Experimental Group

In order to refer to the first research question, pre- and post-writing achievement test results of the experimental group were also calculated with the help descriptive statistics. Mean, standard deviation, and standard error mean of pre- and post-test scores are given in Table 4-3. Students' writings were evaluated out of 15 points. While the mean score of experimental group's pre-test is 9.86, it increased to 14.13 in the post-test after the exposure to PEG Writing Scholar® AWE system. In other words, similar to control group students, participants in the experimental group also seemed to become better EFL writers at the end of the instruction period with an increase in their writing achievement test scores. When this finding is compared to the PEG Writing Scholar® data which show student progress over months, it can be seen that the two findings are consistent with each other. The data obtained from the

software demonstrate that the average holistic score of the experimental group students increased from 16.7 to 22.5 through the experiment process (Appendix 8).

Table 4- 3: Writing Achievement of the Experimental Group

	Mean	Std. Deviation	Std. Error Mean
Pre-Test	9,86	2,94	0,53
Post-Test	14,3	3,96	0,72

In accordance with the same purpose, a Paired Sample T-Test was conducted to find out the effects of the instruction method which was implemented in the experimental group on their writing achievement. Table 4-4 presents the comparison between pre- and post-test scores of the experimental group and it also shows whether the difference between the scores is significant or not. The results show that there is a significant difference in pre- and post-test writing achievement test scores of the experimental group with a significance value of 0.00. In other saying, it was explored that experimental group participants, just like the control group, appeared to become considerably more successful in EFL writing at the end of the instruction period as shown in the Table 4-4 below. In short, by looking at the pre- and post-test results of both control and experimental group, it is obvious that students have made progress in their writing skills regardless of the method they were exposed to; rather, it may be the process-based approach that led to such an improvement.

Table 4- 4: Paired Samples Test for the Experimental Group

	Paired Differences					Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		
				Lower	Upper	
Pre-Test-Post-Test	-4,26	5,48	1,002	-6,31	-2,21	0,000

4.1.3. Comparison of Traditional Pen and Paper and Automated Writing Evaluation systems

After examining the effects of each instruction method on each group's writing achievement, Independent Samples T-Tests were employed to compare the means of two groups in order to determine whether there was statistical evidence that writing achievement results of both groups were significantly different. Table 4-5 below displays descriptive statistics, that is, the mean, standard deviation, standard error mean, and the significance value of the pre-writing achievement test for each group by making a comparison between them. The results of this analysis revealed that before the instruction, writing achievement rate of the experimental group, which is 9.86, was higher than the control group's, which is 9.16. In other words, the experimental group had a higher mean score than the control group before the instruction process. However, it can be clearly seen that this difference between the pre-test scores of each group was not statistically significant with a significance value of 0.364. In other words, it was discovered that two groups assumed to be similar with respect to their writing achievement scores before the instruction.

Table 4- 5: Pre-Test Scores for the Control and Experimental Group (Independent Samples Test)

Group	Mean	Std. Deviation	Std. Error Mean	Sig.
Control Group	9,16	2,98	0,54	0,364
Experimental Group	9,86	2,94	0,53	0,364

The same process was followed in order to address the sub-question of the first research question (Is there a difference between the effects of AWE and pen-paper writing instruction on EFL writing achievement?) and to determine if the two groups differed in terms of their post-writing achievement test results. With the help of an Independent Samples T-Test, post-test scores of both the control and the experimental group were compared. Table 4-6 below provides findings including the mean, standard deviation, standard error mean, and the significance value of the two groups' post-test

scores. It appears from the table that the post-test mean scores of the two groups are different. While the mean score of the control group's post-test was 11.2; it was 14.13 for the experimental group. That is, at the end of the instruction, experimental group had a higher mean score in the writing achievement test. More importantly, the table below revealed that this difference between post-test results of each group was statistically significant with a significance value of 0,003. In other words, the experimental group who was exposed to PEG Writing Scholar® AWE system during the instruction period seemed to become significantly more successful in writing than the control group who was taught with the help of a traditional pen and paper writing instruction. Therefore, by looking at the results in Table 4-6, it can be claimed that AWE tends to provide more positive effects on university-level EFL writing achievement compared to pen and paper writing instruction. This result correlates with a number of previous research studies of Dikli (2006), Holman (2011), Hoon (2006), Kern and Warschauer (2000), Li (2007), Li et al. (2015), Liao (2016), Milton (2006), Palermo and Thomson (2018), Warschauer and Ware (2006), Wang et al. (2013), and Yeh et al. (2007) concluding that integrating AWE into writing instruction program improves writing quality and achievement of the EFL university students.

Table 4- 6: Post-Test Scores for the Control and the Experimental Group (Independent Samples Test)

Group	Mean	Std. Deviation	Std. Error Mean	Sig.
Control Group	11,2	3,46	0,63	0,003
Experimental Group	14,13	3,96	0,72	0,003

4.2. RESEARCH QUESTION 2: DOES THE USE OF AN AWE SYSTEM HAVE ANY INFLUENCE ON WRITING MOTIVATION?

4.2.1. Effects of Pen and Paper Method on Writing Motivation

The second research question aimed to clarify the effects of instruction methods on students' motivation towards writing. With this object in mind, first, a Paired Samples Test was used to explain whether there was a difference between

control group's motivation towards writing between their responses to the pre-test and post-test AWMQ by Payne (2012). Table 4-7 presents a comparison of control group participants' responses before and after the instruction by showing the mean scores, standard deviation, standard error mean, and the significance values. Items which demonstrated significant difference between pre- and post-motivation tests are presented in Table 4-8 in order to make considerable results more visible.

First of all, it was understood that control group's intrinsic motivation decreased significantly after the instruction period. The analysis of participants' responses to the first item of AWMQ which is "I enjoy writing." is a case in point. This finding indicates that control group seemed to lose their intrinsic motivation throughout the instruction period. Although they reported that they enjoyed writing in the beginning of the term (M=3.46), it appeared to decrease significantly after the instruction they were exposed to (M=2.96) with a significance value of 0.041. Similarly, control group participants' responses in the pre-test revealed that "they like to write down their thoughts" with a mean score of 3.76. However, results drawn from the post-test motivation questionnaire which was conducted at the end of the 3-month instruction period showed that there was a significant decrease in control group's motivation to write down their thoughts (M=3.13, p=0.003). The third item which is related to intrinsic motivation and which showed a significant decrease in students' responses was "I like to participate in online discussions.". Control group's responses demonstrated that their motivation with regard to online learning environments decreased significantly (p=0.02). Whereas pre-test scores showed that "they liked to participate in online discussions" (M=3.16), this rate decreased significantly after the instruction period according to the post-test results (M=2.63). This finding is inconsistent with the study of De Bernardi and Antolini (2007) reporting that students enjoyed using the Internet and the computer to complete their writing assignments. However, this finding can be related to the level of control group students' familiarity with the computer and the Internet since they did not do computer work for writing assignments during the instruction period.

In addition, there were some significant differences between pre- and post-test answers with regard to extrinsic motivation. An important finding inferred from the comparison of pre- and post-test AWMQ results is that there was a dramatically significant increase in participants' belief for the fifth item of the questionnaire which

was “Being a good writer will help me do well academically.” Before the instruction, the control group seemed to have a weaker belief for being a good writer to help them be successful academically ($M=3.13$). This increase in extrinsic motivation towards writing for the control group can be correlated with the study of Deci and Ryan (2000) claiming that “college students are more focused on extrinsic goals rather than intrinsic ones”. In other words, post-test results indicated that these students started to give a significantly greater importance to being a good writer which helped them do well in their academic lives ($M= 4.5$, $p=0.00$). However, control group participants seemed to lose their belief that being a good writer would help them in their future career. As shown in Table 4-8, the mean score for the item “Being a better writer will help me in my career.” decreased from 4.36 to 3.73 ($p=0.023$). Secondly, by the same token, control group participants reported that “Being a good writer is important in getting a good job.” with a mean score of 4.06 in the pre-test. However, this ratio decreased significantly to a mean score of 3.36 ($p=0.015$). These results revealed that at the end of the instruction, students in the control group thought writing was important in their academic life, but not in their future career. The increase in students’ appreciation of writing with respect to its effect on their academic lives and the decrease in their belief of writing effects on their future career or finding a good job look contradicting each other. However, this finding may be related to students’ focus on their short term goals -like passing the class or graduating from university with a high degree- rather than long term goals.

Moreover, in terms of participants’ self-efficacy with regard to pre-test results, Table 4-8 shows that participants reported “they were able to clearly express their ideas in writing” ($M=3.33$). Yet, post test results showed a statistically significant decrease for that item. After the instruction period, students’ self efficacy related to their belief that they were able to express themselves clearly in writing decreased significantly ($M=2.83$, $p=0.049$). This decline in students’ writing self-efficacy as they progressed through school is consistent with the findings of Lee et al. (2017), and Schunk et al. (2008). Lee et al. (2017) associated this decrease to the feedback focused mostly on language errors and student papers which were often covered in red ink. These points lead to a decrease in confidence, motivation, and interest in writing. Similarly, according to informal chats with the students made by the researcher, control group students occasionally complained about the amount of feedback they got on their

papers since they considered them as signs of their inefficacy in writing, which in turn may have caused a decrease in their motivation.

Table 4- 7: Pen and Paper Effect on Writing Motivation for the Control Group (Paired Samples Test)

	Paired Differences					t	Sig. (2- taile d)
	Mean	Std. Deviatio n	Std. Error Mean	95% Confidence			
				Interval of the			
				Lower	Upper		
I enjoy writing.	,50	1,27	,23	,02	,97	2,1	,04
I like to write down my thoughts.	,63	1,06	,19	,23	1,03	3,2	,00
I use correct grammar in my writing.	,50	1,07	,19	,09	,90	2,54	,01
I complete a writing assignment even if it's difficult.	,63	1,79	,32	-,03	1,30	1,93	,06
Being a good writer will help me do well academically.	,56	1,13	,20	,14	,99	2,73	,00
I write as well as other students.	,50	1,19	,21	,05	,94	2,28	,03
I write more than the minimum on writing assignments.	,56	1,35	,24	,06	1,07	2,28	,03
I put a lot of effort on my writing.	,63	1,03	,18	,24	1,01	3,35	,05
I like to participate in online discussions.	,53	1,47	,27	-,01	1,08	1,97	,00
I like to get feedback from an instructor on my writing.	,66	1,60	,29	,06	1,26	2,27	,06
I am able to clearly express my ideas in writing.	,50	1,33	,24	,00	,99	2,05	,04
I easily focus on what I am writing.	,70	1,31	,24	,20	1,19	2,91	,05
I like my writing to be graded	,46	1,33	,24	-,03	,96	1,91	,06
I am more likely to succeed if I can write well.	,53	1,13	,20	,10	,95	2,57	,08
It is easy for me to write good essays.	,56	1,25	,22	,09	1,03	2,48	,07
I enjoy creative writing assignments.	,66	1,18	,21	,22	1,10	3,08	,08
I like classes that require a lot of writing.	,40	1,56	,28	-,18	,98	1,39	,17
I plan how I am going to write before I write it.	,53	1,22	,22	,076	,99	2,38	,08
Becoming a better writer is important to me.	,53	1,43	,26	-,00	1,06	2,04	,05
Being a better writer will help me in my career.	,63	1,44	,26	,09	1,17	2,39	,02
It is important to me that I make an A on a writing assignment.	,46	1,33	,24	-,03	,96	1,91	,06
I enjoy writing assignments that challenge me.	,63	1,21	,22	,17	1,08	2,85	,08
I revise my writing before submitting an assignment.	,33	1,51	,27	-,23	,89	1,20	,23
Punctuation is easy for me.	,43	1,61	,29	-,16	1,03	1,47	,15
I enjoy writing literary analysis papers.	,46	1,35	,24	-,04	,97	1,88	,07
I like to write even if my writing will not be graded.	,50	1,40	,25	-,02	1,02	1,94	,06
I like others to read what I have written.	,50	1,54	,28	-,07	1,07	1,76	,08

I enjoy writing research papers.	,30	1,82	,33	-,38	,98	,90	,37
I would like to have more opportunities to write in classes.	,43	1,50	,27	-,12	,99	1,58	,12
Being a good writer is important in getting a good job.	,70	1,48	,27	,14	1,25	2,57	,01
I practice writing in order to improve my skills.	,40	1,37	,25	-,11	,91	1,58	,12
I want the highest grade in the class on a writing assignment.	,63	1,58	,28	,04	1,22	2,18	,07
I would rather write an essay than answer multiple-choice questions.	,40	1,52	,27	-,16	,96	1,43	,16
I want others to recognize me as a good writer.	,43	1,56	,28	-,15	1,01	1,51	,14
Spelling is easy for me.	,60	1,37	,25	,08	1,11	2,38	,07
Choosing the right word is easy for me.	,50	1,25	,22	,03	,96	2,18	,06
I am motivated to write in my classes.	,56	1,67	,30	-,05	1,19	1,85	,07



Table 4- 8: Pen and Paper Effect on Writing Motivation for the Control Group (Paired Samples Test)– Significant Results

	Paired Differences						T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
I enjoy writing.	0,5	1,27	0,23	0,022	0,97	2,14	29	0,041	
I like to write down my thoughts.	0,63	1,06	0,19	0,23	1,03	3,13	29	0,003	
Being a good writer will help me do well academically.	-1,36	1,37	0,25	-1,88	-0,85	-5,4	29	0,00	
I like to participate in online discussions.	0,53	1,47	0,27	-0,01	1,08	1,97	29	0,02	
I am able to clearly express my ideas in writing.	0,50	1,33	0,24	0,002	0,99	2,05	29	0,049	
Being a better writer will help me in my career.	0,63	1,44	0,26	0,091	1,17	2,39	29	0,023	
Being a good writer is important in getting a good job.	0,70	1,48	0,27	0,14	1,25	2,57	29	0,015	

4.2.2. Effects of Automated Writing Evaluation Method on Writing Motivation

In order to address the second research question, a Paired Samples T-Test was implemented to determine if there was a difference between experimental group participants' motivation towards writing before and after being exposed to PEG Writing Scholar® AWE system. Table 4-9 illustrates a comparison of experimental group participants' responses before and after the instruction by showing the mean

scores, standard deviation, standard error mean, and the significance values. In this regard, significant differences were found out in three items as presented in Table 4-10.

A considerable improvement was found between pre- and post-test answers of the experimental group students for the item “It is easy for me to write good essays.” ($p=0.027$). The mean score for the related item increased from 2.5 to 3.06 after the instruction period. In other words, exposure to an AWE system appears to result in a significant improvement in students’ self efficacy; and they started to believe that they could write good essays easily. This finding is consistent with the study of Park and Cho (2014) who found out that online writing experiences had positive effects on students’ self efficacy. Classroom observations and informal chats with the students conducted by the researcher prove this finding as some students in the experimental group stated that being able to use essay outlines, analyze sample essays at their convenience online made them feel free and write better without being under pressure. They even started to write extra essays on the program even if they did not have to. Thus, it can be said that an online platform helped their self confidence in writing increase.

Moreover, mean scores of some items related to students’ extrinsic motivation indicated a considerable decrease in the post-test. Although experimental group participants believed that “being a better writer will help them in their career” before the experiment ($M=4.4$), this ratio showed a significant decrease to 3.9 with a p value of 0.023. That is, similarly, values of another item stating participants’ extrinsic motivation “Being a good writer is important in getting a good job.” noticeably decreased as shown in Table 4-10. In the pre-test, students reported that being a good writer is necessary to get a good job ($M=4.26$), this attitude seemed to become weaker in the post-test. In other words, after being exposed to an AWE, students tended to give less importance to being a good writer to get a good job. This decrease in extrinsic motivation towards writing is compatible with the control group’s post-test results. Students in both groups seemed to believe less that achievement in writing would help them in their future career. As discussed previously, all students appreciate writing about its effect on their academic life but not on their career. This might be because they quickly and directly experienced a positive influence of writing on their academic achievement by getting good grades; however, as newly-graduates of high school, they

did not relate academic writing to their future career which was a far destination for them.

Table 4- 9: Automated Writing Evaluation Effect on Writing Motivation for the Experimental Group (Paired Samples Test)

	Paired Differences					t	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower	Upper		
I enjoy writing.	-,13	1,25	,22	-,60	,33	-,58	,56
I like to write down my thoughts.	-,03	1,60	,29	-,63	,56	-,11	,91
I use correct grammar in my writing.	-,10	,92	,16	-,44	,24	-,59	,55
I complete a writing assignment even if it is difficult.	-,13	1,38	,25	-,64	,38	-,52	,60
Being a good writer will help me do well academically.	-,13	1,07	,19	-,53	,26	-,68	,50
I write as well as other students.	-,16	1,14	,20	-,59	,26	-,79	,43
I write more than the minimum on writing assignments.	-,20	1,21	,22	-,65	,25	-,90	,37
I put a lot of effort on my writing.	,20	1,09	,20	-,20	,60	1,00	,32
I like to participate in online discussions.	-,13	1,67	,30	-,75	,49	-,43	,66
I like to get feedback from an instructor on my writing.	-,16	1,11	,20	-,58	,25	-,81	,42
I am able to clearly express my ideas in writing.	,00	,87	,15	-,32	,32	,00	1,00
I easily focus on what I am writing.	-,03	1,35	,24	-,53	,47	-,13	,89
I like my writing to be graded.	-,30	1,48	,27	-,85	,25	-1,10	,27
I am more likely to succeed if I can write well.	1,30	5,14	,93	-,61	3,21	1,38	,17
It is easy for me to write good essays.	-,56	1,33	,24	-1,06	-,06	-2,33	,02
I enjoy creative writing assignments.	,03	1,40	,25	-,49	,55	,130	,89
I like classes that require a lot of writing.	-,56	1,75	,32	1,22	,08	-1,76	,08
I plan how I am going to write before I write it.	,03	1,51	,27	-,53	,60	,12	,90
Becoming a better writer is important to me.	,06	1,52	,27	-,50	,63	,23	,81
Being a better writer will help me in my career.	,50	1,13	,20	,07	,92	2,40	,02
It is important to me that I make an A on a writing assignment.	,10	1,34	,24	-,40	,60	,40	,68
I enjoy writing assignments that challenge me.	-,13	1,50	,27	-,69	,42	-,48	,63
I revise my writing before submitting an assignment.	-,06	1,59	,29	-,66	,52	-,22	,82
Punctuation is easy for me.	-,23	1,16	,21	-,66	,20	1,09	,28
I enjoy writing literary analysis papers.	,46	1,50	,27	-,09	1,02	1,70	,10

I like to write even if my writing will not be graded.	-,20	1,51	,27	-,76	,36	-,72	,47
I like others to read what I have written.	-,10	1,62	,29	-,70	,50	-,33	,73
I enjoy writing research papers.	,10	1,68	,30	-,53	,73	,32	,74
I would like to have more opportunities to write in classes.	,13	1,67	,30	-,49	,75	,43	,66
Being a good writer is important in getting a good job.	,73	1,57	,28	,14	1,32	2,55	,01
I practice writing in order to improve my skills.	,10	1,49	,27	-,45	,65	,36	,71
I want the highest grade in the class on a writing assignment.	,16	1,85	,33	-,52	,86	,49	,62
I would rather write an essay than answer multiple-choice questions.	,00	1,89	,34	-,70	,70	,00	1,00
I want others to recognize me as a good writer.	,23	1,50	,27	-,32	,79	,85	,40
Spelling is easy for me.	-,16	1,05	,19	-,55	,22	-,86	,39
Choosing the right word is easy for me.	-,20	,92	,16	-,54	,14	1,18	,24
I am motivated to write in my classes.	-,20	1,54	,28	-,77	,37	-,71	,48

Table 4- 10: Automated Writing Evaluation Effect on Writing Motivation for the Experimental Group (Paired Samples Test)– Significant Results

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
				Lower	Upper			
It is easy for me to write good essays.	-0,56	1,33	0,24	-1,06	-0,06	-2,33	29	0,027
Being a better writer will help me in my career.	0,50	1,13	0,20	0,07	0,92	2,40	29	0,023
Being a good writer is important in getting a good job.	0,73	1,57	0,28	0,14	1,32	2,55	29	0,016

4.2.3. Comparison of Traditional Pen and Paper and Automated Writing Evaluation systems' effects on Writing Motivation

In order to address the sub-question of the second research question (Is there a difference between the effects of AWE and pen-paper writing instruction on EFL writing motivation?) and to discover the differences between pre- and post- AWMQ (Payne, 2012) results of both groups, some comparisons were made. Firstly, as presented in Table 4-11, in order to find out if the two groups differed with regard to their motivation towards writing before the experiment, Independent Samples Test was employed and pre-test results of both groups were compared. Table 4-12 presents significant differences found between pre-test scores of the control and the experimental group. The analysis of participants' responses to the item "I enjoy writing assignments that challenge me." indicated that the mean score of the control group (M=3.66) was considerably higher than the experimental group's mean score (M=3.23). In other words, before the instruction process, control group students seemed to enjoy challenging writing tasks, which is a sign of self-efficacy towards writing, significantly more than the experimental group with a p value of 0.036.

Another item that revealed a significant difference between groups was "I revise my writing before submitting an assignment." According to Table 4-12, while the control group reported that they revised their assignments before submission with a mean score of 3.3; experimental group had a higher mean score with regard to the same questionnaire item (M=3.43). The difference between each group's pre-test mean scores was statistically significant ($p=0.05$). That is, before the experiment, experimental group appeared to do more revisions on their writing assignments relatively to the control group, which is a sign of perceived value of writing.

As shown in Table 4-12, the results revealed that the control group had a considerably higher motivation to "get the highest grade in the class on a writing assignment" (M=3.96). Before the instruction period, experimental group showed a lower mean score (M=3.56) for the same item, that is, a lower level of extrinsic motivation towards writing. According to the findings, experimental group seemed to be less motivated to take the highest grade on a writing assignment compared to the control group before the experiment ($p=0.039$).

In short, the results that are shown in Table 4-11 and 4-12 demonstrate that there were few significant differences between the two participant groups before they were exposed to the instruction. The control group reported that they enjoyed challenging writing assignments that represented their self-efficacy level; and wanted to get the highest grade on a writing assignment in the class, which was a sign of extrinsic motivation. On the other hand, the experimental group stated that they did more revisions before submitting an assignment when compared to the control group. However, these differences are not associated with the post-test results, and the groups were chosen as identical as possible.

Table 4- 11: Pre-Test Scores for the Control and Experimental Group (Independent Samples Test)

	Group	Mean	Std. Deviation	Std. Error Mean	Sig.
I enjoy writing.	Control Group	3,16	1,11	,20	
	Experimental Group	3,46	,97	,17	,731
I like to write down my thoughts.	Control Group	3,56	1,13	,20	
	Experimental Group	3,76	,97	,17	,324
I use correct grammar in my writing.	Control Group	3,53	,62	,11	
	Experimental Group	3,46	,68	,12	,577
I complete a writing assignment even if it is difficult.	Control Group	4,20	,92	,16	
	Experimental Group	3,93	1,25	,22	,213
Being a good writer will help me do well academically.	Control Group	4,30	,91	,16	
	Experimental Group	4,23	,81	,14	,268
I write as well as other students.	Control Group	3,56	1,07	,19	
	Experimental Group	2,96	,88	,16	,203
I write more than the minimum on writing assignments.	Control Group	3,76	1,04	,18	
	Experimental Group	3,10	1,12	,20	,803
I put a lot of effort on my writing.	Control Group	3,83	,79	,14	
	Experimental Group	3,80	,66	,12	,117
I like to participate in online discussions.	Control Group	2,73	1,28	,23	
	Experimental Group	3,16	1,14	,20	,263
I like to get feedback from an instructor on my writing.	Control Group	4,40	,81	,14	
	Experimental Group	4,30	,87	,16	,839
I am able to clearly express my ideas in writing.	Control Group	3,56	,77	,14	
	Experimental Group	3,33	,84	,15	,481
I easily focus on what I am writing.	Control Group	3,36	1,09	,20	
	Experimental Group	3,36	1,03	,18	,903

I like my writing to be graded.	Control Group	3,73	1,08	,19	
	Experimental Group	3,70	,87	,16	,743
I am more likely to succeed if I can write well.	Control Group	5,43	5,05	,92	
	Experimental Group	4,30	,79	,14	,202
It is easy for me to write good essays.	Control Group	2,50	,86	,15	
	Experimental Group	2,30	,95	,17	,658
I enjoy creative writing assignments.	Control Group	3,60	1,03	,18	
	Experimental Group	3,90	1,06	,19	,668
I like classes that require a lot of writing.	Control Group	2,60	1,40	,25	
	Experimental Group	3,03	1,12	,20	,091
I plan how I am going to write before I write it.	Control Group	3,66	1,18	,21	
	Experimental Group	3,96	1,18	,21	,892
Becoming a better writer is important to me.	Control Group	4,40	1,00	,18	
	Experimental Group	4,36	,85	,15	,766
Being a better writer will help me in my career.	Control Group	4,40	,89	,16	
	Experimental Group	4,36	,92	,16	,987
It is important to me that I make an A on a writing assignment.	Control Group	4,13	1,16	,21	
	Experimental Group	4,33	,84	,15	,158
I enjoy writing assignments that challenge me.	Control Group	3,66	,80	,14	
	Experimental Group	3,23	1,25	,22	,036
I revise my writing before submitting an assignment.	Control Group	3,30	,83	,15	
	Experimental Group	3,43	1,07	,19	,005
Punctuation is easy for me.	Control Group	3,43	,97	,17	
	Experimental Group	2,73	1,20	,21	,420
I enjoy writing literary analysis papers.	Control Group	3,36	1,15	,21	
	Experimental Group	3,13	,97	,17	,189
I like to write even if my writing will not be graded.	Control Group	3,10	1,06	,19	
	Experimental Group	3,23	1,04	,18	,894
I like others to read what I have written.	Control Group	2,90	1,21	,22	
	Experimental Group	3,06	1,08	,19	,283
I enjoy writing research papers.	Control Group	3,00	1,14	,20	
	Experimental Group	3,33	1,15	,21	,406
I would like to have more opportunities to write in classes.	Control Group	2,93	1,38	,25	
	Experimental Group	3,20	1,09	,20	,185
Being a good writer is important in getting a good job.	Control Group	4,26	1,01	,18	
	Experimental Group	4,06	1,20	,21	,297
I practice writing in order to improve my skills.	Control Group	3,66	1,15	,21	
	Experimental Group	3,70	1,02	,18	,355
I want the highest grade in the class on a writing assignment.	Control Group	3,96	1,03	,18	
	Experimental Group	3,56	1,30	,23	,039
I would rather write an essay than answer multiple-choice questions.	Control Group	2,83	1,36	,24	
	Experimental Group	2,93	1,17	,21	,240

I want others to recognize me as a good writer.	Control Group	3,46	1,13	,20	
	Experimental Group	3,50	,93	,17	,228
Spelling is easy for me.	Control Group	3,60	,93	,17	
	Experimental Group	3,16	,94	,17	,915
Choosing the right word is easy for me.	Control Group	3,13	,62	,11	
	Experimental Group	2,86	,73	,13	,356
I am motivated to write in my classes.	Control Group	3,06	1,25	,22	
	Experimental Group	3,33	1,06	,19	,626

Table 4- 12: Pre-Test Scores for the Control and Experimental Group (Independent Samples Test)– Significant Results

	Group	Mean	Std.Devia tion	Std. Error Mean	Sig.
I enjoy writing assignments that challenge me.	Control Group	3,66	0,8	0,14	0,036
	Experimental Group	3,23	1,25	0,22	
I revise my writing before submitting an assignment.	Control Group	3,3	0,83	0,15	0,05
	Experimental Group	3,43	1,07	0,19	
I want the highest grade in the class on a writing assignment.	Control Group	3,96	1,03	0,18	0,039
	Experimental Group	3,56	1,3	0,23	

Secondly, post- test results of AWMQ (Payne, 2012) for both control and experimental groups were compared in order to examine the differences between groups. For this purpose, another Independent Samples Test was conducted to compare differences between groups' post-test answers for AWMQ (Payne, 2012) and the findings are displayed in Table 4-13. It was found out that eleven items showed significant differences as shown in Table 4-14.

Initially, experimental group's level of intrinsic motivation towards writing increased significantly compared to the control group after the instruction. In other words, AWE seemed to have a more positive effect on writing motivation than traditional writing instruction. To illustrate, experimental group reported that they "enjoyed writing" more than the control group at the end of the instruction period ($p=0.025$). While the mean score of the control group was 2.96 for the item which was related to enjoying writing, it was 3.3 for the experimental group according to the post-test results. In addition, according to Table 4-14, the analysis of participants' responses to the item "I enjoy creative writing assignments" also indicated a statistically significant difference between groups. Experimental group reported that they enjoyed writing creative writing assignments with a mean score of 3.56 which was significantly higher than the control group's mean score which was 3.23 ($p=0.033$). Therefore, students who were exposed to AWE instruction did not only enjoy writing in general, but also creative ones. The fact that the experimental group enjoyed writing may also be related to features the AWE tool provides such as graphic organizers, writing maps or essay planners, which prevented students from following a monotonous style and helped them use their creativity.

Moreover, as demonstrated in Table 4-14, values regarding "enjoying writing even if their writing would not be graded" also indicated a significant difference between groups ($p=0.035$). Experimental group showed signs of enjoying writing regardless of being graded with a mean score of 3.3, while the mean score of the control group for the same item was 2.73 according to the post-test results. Another item that showed a considerable difference between groups was related to students' perceptions regarding their motivation towards writing in the class. According to Table 4-14, results revealed that at the end of the study, experimental group students reported that they were more "motivated to write in their classes" ($M=3.33$) comparatively to the control group ($M=2.36$, $p=0.00$). In parallel with these results, classroom observations conducted by the researcher also revealed that students in the control group only wrote compulsory writing tasks while the majority of the students in the experimental group were willing to write extra writing tasks, which can be a sign of enjoying the language itself or intrinsic motivation. The data obtained from PEG Writing Scholar[®] also revealed that students kept on writing and submitting their essays on the software even after the experiment process when they did not have to do

so. This can be interpreted as students in the experimental group seemed to write merely for the pleasure they got from writing, which is a sign of being intrinsically motivated. In addition, although the differences are not significant, some other results can be discussed to prove the increase in intrinsic motivation of the experimental group. To begin with, the experimental group reported that they “enjoyed classes requiring a lot of writing” more ($M=3.16$) than the control group ($M=2.63$). Moreover, in terms of “enjoying literary analysis papers” ($M=2.9$), and “enjoying writing research papers” ($M=3.03$), the experimental group seemed to be more intrinsically motivated towards writing than the control group ($M=2.66$, $M=2.9$).

These significant increases in intrinsic motivation towards writing after being exposed to AWE system are compatible with a number of previous research studies such as Lin and Griffith (2014) reporting that online learning environments increased interaction and motivation, and Wilson and Czik (2016) stating that AWE increased motivation towards writing. Similarly, the results are compatible with several research studies which find out that online learning environments help students develop a more positive attitude toward writing (Tzu and Chen, 2012), develop motivation and self-efficacy (Lin, 2015), improve student involvement (Laire et al., 2012), and make students get better at sharing their thoughts which leads to greater levels of motivation (Sun, 2010).

Besides intrinsic motivation, experimental group students also showed a considerably higher difference in items associated with self-efficacy. One item which brought a significant difference between groups to light is the item “I am able to clearly express my ideas in writing.”. For this item, experimental group students stated that they could express their ideas clearly in writing ($M=3.56$) in comparison with the control group ($M=2.83$) with a significant difference ($p=0.001$). Another similar item which revealed a noticeable difference and which was related to self-efficacy was “It is easy for me to write good essays.”. As Table 4-14 demonstrates, at the end of the study, the experimental group seemed to be more confident in writing as they stated that writing good essays was easy for them ($M=3.06$). The mean score of the control group’s post-test results for the same item was 1.73 which was significantly lower than the experimental group ($p=0.00$). Moreover, AWE which was used in the study appeared to result in a significant improvement in spelling according to what the two groups reported. Although the control group stated that spelling was not that easy for

them ($M=2.56$), the experimental group seemed to develop a perception that they had less difficulty with spelling ($M=3.76$, $p=0.005$). Students in the experimental group also stated that they “used correct grammar in their writing” with a mean score of 3.63, while the mean score of the control group for this item was 2.96. In addition, for the item “I complete a writing assignment even if it is difficult.”, the experimental group seemed more confident ($M=4.33$) at the end of the study compared to the control group ($M=3.3$). Besides, the experimental group stated that they could “write as well as other students” with a mean score of 3.73 while the control group seemed less confident in this aspect ($M=2.46$). The field notes also supported these results in that some students in the control group stated that they felt a bit embarrassed about submitting a piece of writing many times to their teacher, which might have led to a decrease in self-efficacy beliefs. However, this was not the case for the experimental group who could submit as many drafts as they wanted without feeling of embarrassment. Although both groups got the same type of feedback, the experimental group could easily reach the reports or charts showing their progress clearly on each domain of writing with the help of the AWE tool they used. They could not only see their scores on a holistic base, but also analyze their progress on each domain of writing such as organization, word choice or conventions separately (Appendix 8). This feature of PEG Writing Scholar[®] may have helped the experimental group students see their development clearly and become more aware and self confident on their writing abilities; and also this kind of feedback might boost self-regulated learning. In short, the results revealed that AWE seemed to affect students’ self-efficacy towards writing with a significant difference compared to traditional pen and paper writing instruction. This increase in students’ self-efficacy after being taught with an AWE tool was also supported by other research studies like Hani (2015) and Lin (2015).

Additionally, as Table 4-14 indicates, students in the experimental group stated that they “liked to get feedback from an instructor on their writing” more than the control group with a significance value of 0.027. To put it another way, after the instruction with an AWE software for 3 months, experimental group students reported that they gave more importance to the feedback from an instructor ($M=4.56$) than the control group ($M=3.63$). This result is supported by the field notes taken by the researcher, too. From time to time, some experimental group students stated that the computer software was unable to replace the teacher’s role; and they preferred to think

about their errors by looking at the underlined parts -which was normally done in a traditional setting by the teacher- instead of being immediately corrected by the software. In addition, since the program failed to recognize some aspects and accepted them as errors such as the usage of titles, irony, or humor; the experimental students complained about it from time to time and stated that they preferred the teacher, a human grader, to convey their intended meaning in the best way. Lack of supervision and lack of interaction also affected some students to hold less favorable attitudes towards AWE feedback. During the unstructured interviews with the experimental students, especially with the low achievers, they reported that sometimes they had difficulty understanding the feedback and wanted further elaboration or explanation; however, they could not do it with a machine, which they saw as a demerit of AWE feedback when compared to instructor feedback. This finding is consistent with the studies of Curran et al. (2013), Fang (2010), LaGuerre (2013), Lai (2010), Lipnevich and Smith (2009). According to the results of these studies, students who used an AWE tool as part of writing instruction felt that their teacher's written feedback was more helpful than the computer feedback in improving their English writing; held less positive attitudes toward the use of computer-assisted writing program as a writing grader; and preferred their teacher's feedback to the computerized feedback.

There are also some other findings which show that the control group outperformed the experimental group in some aspects. First of all, at the end of the instruction period, the control group seemed to develop more positive attitudes with respect to perceived value of writing. For the item "I am more likely to succeed if I can write well.", the control group had a mean score of 4.13 whereas the experimental group had 3.76 as a mean score. This difference between the groups was significant with a value of .006. Moreover, students in the control group stated that "becoming a better writer was important to them" ($M=4.33$, $p=.022$). For the same item, the experimental group seemed less motivated with a mean score of 3.83. The control group also reported that "they put a lot of effort on their writing" ($M=3.63$) more than the experimental group ($M=3.16$); and "they planned how they were going to write before they write" ($M=3.63$) more than the experimental group ($M=3.43$). Another item which is related to perceived value of writing is "I revise my writing before submitting an assignment." For this item, the control group had a mean score of 3.5. On the other hand, the mean score of the experimental group was 2.9. The last item

associated with perceived value of writing is “I would rather write an essay than answer multiple-choice questions.”. While the control group’s mean score was 2.83, that of the experimental group was 2.53. These significant and insignificant differences may be related to the lack of necessity of preparation or revising essays before submission in AWE. They had access to some special outlines, graphic organizers, pre-packaged prompts that help them write more easily. Also, experimental group students did not have limited number of revisions or submissions, so this might have led them not to put a lot of effort or not to make a lot of plans or revisions beforehand. However, in a traditional class, like the control group, students need to plan, revise and show a lot of effort since they have limited number of draft submissions. And all these factors might have affected the control group to perceive writing as a more important skill.

Another aspect that the control group had higher mean scores than the experimental group was extrinsic motivation. A significant difference was discovered between the groups on the item “It is important to me that I make an A on a writing assignment.”. The control group’s mean score was 4.03, however it was 3.86 for the experimental group ($p=.002$). Similarly, students in the control group reported that they “wanted the highest grade in the class on a writing assignment” with a mean score of 3.4 whereas the experimental group’s mean score was 3.33. For the item “Being a better writer will help me in my career.”, the control group’s mean score was 3.9 which was higher than the experimental group ($M=3.73$). Concordantly, the control group thought that “being a good writer was important in getting a good job” ($M=3.53$); however, the experimental group’s mean score was 3.36. The final item related to extrinsic motivation and showed a difference between the two groups was “I want others to recognize me as a good writer.” For this item, the control group had 3.23 and the experimental group had 3.06 as mean scores. This finding is also supported by the field notes showing that the control group students were not willing to write extra writings when there was nobody to give scores to them, unlike the experimental group keeping on writing on the AWE software even if they did not have to, and when there was nobody to check or give grades to them. In short, the control group seemed to write for an independent outcome such as getting a high grade, gaining a qualification in their career; or feeling of acceptance.

By looking at the results of post-motivation tests, it can be seen that some important differences appeared between the two participant groups after the instruction period. While the experimental group seemed to be more intrinsically motivated, better in self-efficacy, and needed an instructor to get feedback on their writing more; the control group can be stated to be more extrinsically motivated and perceived writing as a more valuable and important language skill.

Table 4- 13: Post-Test Scores for the Control and Experimental Group (Independent Samples Test)

	Group	Mean	Std. Deviation	Std. Error Mean	Sig.
I enjoy writing.	Control Group	2,96	1,06	,19	0,025
	Experimental Group	3,30	,79	,14	
I like to write down my thoughts.	Control Group	3,60	,81	,14	1,381
	Experimental Group	3,13	1,10	,20	
I use correct grammar in my writing.	Control Group	2,96	,88	,16	,734
	Experimental Group	3,63	,66	,12	
I complete a writing assignment even if it is difficult.	Control Group	3,30	1,17	,21	3,553
	Experimental Group	4,33	,88	,16	
Being a good writer will help me do well academically.	Control Group	4,43	,67	,12	2,929
	Experimental Group	3,66	,92	,16	
I write as well as other students.	Control Group	2,46	,77	,14	,017
	Experimental Group	3,73	,78	,14	
I write more than the minimum on writing assignments.	Control Group	3,96	,80	,14	2,592
	Experimental Group	2,53	,93	,17	
I put a lot of effort on my writing.	Control Group	3,63	,66	,12	2,136
	Experimental Group	3,16	,83	,15	
I like to participate in online discussions.	Control Group	2,86	1,19	,21	,082
	Experimental Group	2,63	1,15	,21	
I like to get feedback from an instructor on my writing.	Control Group	3,63	1,12	,20	0,027
	Experimental Group	4,56	,62	,11	
I am able to clearly express my ideas in writing.	Control Group	2,83	,94	,17	0,001
	Experimental Group	3,56	,67	,12	
I easily focus on what I am writing.	Control Group	3,40	,85	,15	,148
	Experimental Group	2,66	,92	,16	
I like my writing to be graded.	Control Group	4,03	,92	,16	,489
	Experimental Group	3,23	1,00	,18	
I am more likely to succeed if I can write well.	Control Group	4,13	,77	,14	,006
	Experimental Group	3,76	,81	,14	
It is easy for me to write good essays.	Control Group	1,73	,69	,12	0,00

	Experimental Group	3,06	,94	,17	
I enjoy creative writing assignments.	Control Group	3,23	,89	,16	0,033
	Experimental Group	3,56	1,19	,21	
I like classes that require a lot of writing.	Control Group	2,63	1,09	,20	,214
	Experimental Group	3,16	1,08	,19	
I plan how I am going to write before I write it.	Control Group	3,63	,92	,16	2,616
	Experimental Group	3,43	1,27	,23	
Becoming a better writer is important to me.	Control Group	4,33	,95	,17	,022
	Experimental Group	3,83	1,01	,18	
Being a better writer will help me in my career.	Control Group	3,90	1,02	,18	,179
	Experimental Group	3,73	1,11	,20	
It is important to me that I make an A on a writing assignment.	Control Group	4,03	,96	,17	,002
	Experimental Group	3,86	,86	,15	
I enjoy writing assignments that challenge me.	Control Group	3,36	,92	,16	,118
	Experimental Group	3,03	1,03	,18	
I revise my writing before submitting an assignment.	Control Group	3,50	1,04	,19	3,562
	Experimental Group	2,96	,85	,15	
Punctuation is easy for me.	Control Group	3,66	,92	,16	1,244
	Experimental Group	2,30	1,20	,22	
I enjoy writing literary analysis papers.	Control Group	2,66	1,06	,19	,136
	Experimental Group	2,90	1,15	,21	
I like to write even if my writing will not be graded.	Control Group	2,73	,98	,17	0,035
	Experimental Group	3,30	1,05	,19	
I like others to read what I have written.	Control Group	3,00	1,11	,20	,320
	Experimental Group	2,56	1,00	,18	
I enjoy writing research papers.	Control Group	2,90	1,06	,19	,899
	Experimental Group	3,03	1,21	,22	
I would like to have more opportunities to write in classes.	Control Group	2,80	1,06	,19	,379
	Experimental Group	2,76	1,19	,21	
Being a good writer is important in getting a good job.	Control Group	3,53	1,22	,22	,245
	Experimental Group	3,36	1,18	,21	
I practice writing in order to improve my skills.	Control Group	3,56	1,00	,18	,504
	Experimental Group	3,30	,98	,18	
I want the highest grade in the class on a writing assignment.	Control Group	3,40	1,30	,23	,929
	Experimental Group	3,33	1,18	,21	
I would rather write an essay than answer multiple-choice questions.	Control Group	2,83	1,34	,24	2,292
	Experimental Group	2,53	1,10	,20	
I want others to recognize me as a good writer.	Control Group	3,23	1,22	,22	1,812
	Experimental Group	3,06	,98	,17	
Spelling is easy for me.	Control Group	2,56	,97	,17	0,005
	Experimental Group	3,76	,77	,14	
Choosing the right word is easy for me.	Control Group	3,26	,79	,19	,34

	Experimental Group	2,76	1,06	,14	
I am motivated to write in my classes.	Control Group	2,36	,71	,14	0,001
	Experimental Group	3,33	,71	,12	

Table 4- 14: Post-Test Scores for the Control and Experimental Group (Independent Samples Test)– Significant Results

	Group	Mean	Std.Deviation	Std. Error Mean	Sig.
I enjoy writing.	Control Group	2,96	1,06	0,19	0,025
	Experimental Group	3,3	0,79	0,14	
I like to get feedback from an instructor on my writing.	Control Group	3,63	1,12	0,2	0,027
	Experimental Group	4,56	0,62	0,11	
I am able to clearly express my ideas in writing.	Control Group	2,83	0,94	0,17	0,001
	Experimental Group	3,56	0,67	0,12	
It is easy for me to write good essays.	Control Group	1,73	0,69	0,12	0,00
	Experimental Group	3,06	0,94	0,17	
I enjoy creative writing assignments.	Control Group	3,23	0,89	0,16	0,033
	Experimental Group	3,56	1,19	0,21	
I like to write even if my writing will not be graded.	Control Group	2,73	0,98	0,17	0,035
	Experimental Group	3,3	1,05	0,19	
Spelling is easy for me.	Control Group	2,56	0,97	0,17	0,005
	Experimental Group	3,76	0,77	0,14	
I am motivated to write in my classes.	Control Group	2,36	0,71	0,13	0,001
	Experimental Group	3,33	0,71	0,12	

I am more likely to succeed if I can write well.	Control Group	4,13	0,7	0,14	0,006
	Experimental Group	3,76	0,8	0,14	
Becoming a better writer is important to me.	Control Group	4,3	0,95	0,17	0,022
	Experimental Group	3,8	1,01	0,18	
It is important to me that I make an A on a writing assignment.	Control Group	4,03	0,96	0,17	0,002
	Experimental Group	3,86	0,86	0,15	

CHAPTER V: DISCUSSION AND CONCLUSION

This chapter consists of three sub-sections including detailed information about the main results of the study and discussions about the effects of using an automated writing evaluation software on writing achievement and writing motivation of university level EFL students. For this purpose, first, conclusions drawn from the findings of the study are presented by comparing them to the previous studies' findings. Then, implications of the study are given followed by recommendations for future studies.

5.1 INTERPRETATION OF THE MAIN RESULTS

The study aimed at investigating the effects of an automated writing evaluation tool (PEG Writing Scholar[®]) on EFL students' writing achievement. Another objective of the study was to examine the writing motivation level of Turkish university level EFL learners towards writing and to examine the effects of PEG Writing Scholar[®], an AWE, on EFL writing motivation. The final purpose of this study was to compare traditional pen & paper writing and teacher assessment and PEG in terms of their effects on EFL writing achievement and motivation. In relation to mentioned objectives, following research questions were asked to evaluate the effects of an AWE tool (PEG Writing Scholar[®]) on students' writing achievement and motivation:

1. Does the use of PEG Writing Scholar[®] in EFL writing have an effect on writing achievement?
 - 1.1. Is there a difference between the effects of AWE and pen-paper writing instruction on EFL writing achievement?
2. Does the use of PEG Writing Scholar[®] in EFL writing have any influence on EFL writing motivation?
 - 2.1. Is there a difference between the effects of AWE and pen-paper writing instruction on EFL writing motivation?

In order to address the above research questions, pre-test and post-test scores were analyzed in SPSS (version 24) and some conclusions were drawn. The first conclusion that can be inferred from the study is that using an AWE software has

obviously supportive influences on EFL learners writing achievement. With the help of a comparison of the holistic scores obtained from the pre- and post-tests, it is obvious that getting computerized feedback tends to increase writing achievement of university-level EFL students. The fact that students who used an AWE tool increased their writing scores considerably is consistent with a number of research studies conducted on the same subject (Dikli, 2006; Franzke et al, 2005; Hoon, 2006; Kern and Warschauer, 2000; Lai, 2010; Li, 2007; Li et al, 2015; Milton, 2006; Ware and Warschauer, 2006; Wang et al., 2013; Yeh et al., 2007).

The second conclusion is that AWE enables learners to get noticeably higher writing scores when compared to traditional pen and paper instruction although both methods lead improvement in writing. As Zhang and Hyland (2018) stated, different sources of formative assessment can have a huge potential in facilitating student involvement in writing tasks. However, when above-mentioned writing instruction and feedback methods were compared, as Wang et al. (2013) found out, regarding the overall effect and the exploration of students' perceptions toward their usage of the AWE software, it was seen that students who used AWE display obvious writing enhancement. Therefore, it can be concluded that AWE appears to be more significantly helpful than traditional pen and paper instruction and feedback in terms of university-level EFL students' writing performance by providing immediate error feedback with clear explanations.

The third conclusion that can be drawn from the study is that AWE has some positive and negative influences on students' motivation towards writing. To start from the positive influences, students showed a considerably stronger belief that it was easy for them to write good essays after being exposed to an AWE tool, which can be considered an indication of increase in self-efficacy. This finding demonstrating a significant development in participants' self-efficacy beliefs is consistent with the studies of Cho (2014) and Liu and Lan (2016), concluding that online writing experiences has positive effects on undergraduate EFL students' self-efficacy. Apart from AWE's positive effect on self-efficacy beliefs, some negative impacts were also found. For instance, students' motivation towards being a good writer with regard to its role and importance in getting a good job or helping them in their career seemed to decrease after the experiment. Although the majority of the students appreciated EFL writing's role on their academic life, they have weaker beliefs about its effect on their

career probably because they cannot relate academic EFL writing directly to their future career which is a far destination for them.

The fourth conclusion is that traditional pen and paper writing evaluation method leads to some positive and negative impacts on university-level EFL students' writing motivation. To start with the positive impacts, the importance that students give to writing in terms of its help in their academic lives seemed to increase. This significant increase in control group students' extrinsic motivation is similar to the results of Deci and Ryan (2000) revealing that college students are more focused on extrinsic goals rather than intrinsic ones. Apart from this positive effect, some negative effects were also detected. The first negatively affected domain of motivation is intrinsic motivation. Students' eagerness to writing, writing down their thoughts, participating in online discussions, and writing challenging assignments were affected negatively. In addition, the level of self-efficacy beliefs of the control group students decreased considerably as found in the studies of Lee et al. (2017) and Schunk et al. (2008) relating this decrease to the feedback mostly focused on language errors. In other words, students who got feedback from their teacher seemed to become less self-confident about being able to clearly express their ideas in writing. Finally, similarly to the experimental group, the control group students' attitude towards writing's importance in their career became weaker.

The final conclusion is that AWE and pen and paper method have some similar and different effects on learners' writing motivation. To start with, both groups seemed similar in terms of planning before writing, appreciating being a good writer, enjoying literary analysis papers and research papers, and their desire to get the highest grade on a writing assignment. On the other hand, the students who got traditional feedback became more extrinsically motivated compared to the students who got AWE feedback. This means that, they appeared to become more dependent on an external outcome while writing. Furthermore, the control group seemed to develop more positive attitudes in terms of perceived value of writing. This is probably because - unlike the students who got AWE feedback- they had to show a lot of effort, preparation, and time on writing due to having limited number of essay submissions within a limited period of time and lack of software or peer help, which might have ended up perceiving writing as a more important skill which is worth a lot of effort. In addition, the need for an instructor to get writing feedback increased more in the

experimental group when compared to the control group mainly because they thought that there might be some points that the software failed to detect and give feedback on. This finding is consistent with the results of several previous studies, such as Curran et al. (2013), Lai (2010), and Lipnevich and Smith (2009) and concluding that students are in favor of teacher feedback and comments rather than online feedback. However, when the two groups were compared, it was also concluded that AWE provided some positive effects on learner's intrinsic motivation towards writing. Enjoying writing including creative writing assignments and regardless of being graded, being able to express ideas, finding writing good essays and spelling easy, and being motivated to write in their classes were the items that demonstrated a significant difference between groups. Like Lin and Griffith (2014), Wilson and Czik (2016), Tzu and Chen (2012), Lin (2015), Laire et al. (2012), and Sun (2010) concluded in their studies, online learning environments, namely AWE, lead students develop positive attitudes and abilities to share thoughts, and get involved more, which provide greater levels of motivation. These findings are also compatible with Lee's (2004) study demonstrating that learners expressed their satisfaction with the AWE tool, and got more willing to write on the computer due to the extended time allowed for planning and the opportunity for correction and revision. Likewise, Griffiths and Nicolls (2010) found out that students who were exposed to an AWE tool, *e-Support4U*, demonstrated a 100% positive response to the web-based academic writing support, and stated that they were able to take a step forward in their mastery of writing by using a convenient, easily accessible, and effective tool.

5.2 PEDAGOGICAL IMPLICATIONS OF THE STUDY

In terms of English language teaching practice, the study has some implications for language teachers, material developers, and curriculum designers. Initially, it can be suggested that AWE is a very effective technique in teaching writing because it seems to increase EFL learners' writing achievement. For this reason, language teachers could be aware of the importance of online learning environments and integrate them into their teaching plan in order to help students facilitate learning and to increase their writing scores. Since AWE is found to be an efficient tool to enhance learners' writing skills, students can also be encouraged to get involved in such online learning environments and use them actively and efficiently. However, since the current study found out the learners who got feedback from the AWE tool became

more successful but they also began to need their teacher more to get feedback, it would be more reasonable to make both AWE feedback and traditional feedback integrated in an effort to fulfil the optimal efficacy of feedback and to ensure successful learning.

Secondly, motivation is highly related with being good language learners and considered as an essential component which has a considerable influence on foreign language learning achievement. Since AWE's individualized feedback meets university-level EFL students' specific needs, increases writing motivation, and also encourages learners to take responsibility of their learning, language teachers had better pay attention to this fact and can carry out process-based writing instruction with the help of an AWE tool in order to increase students' writing motivation, autonomy, and self-efficacy. However, one important point that should be taken into consideration is that language teachers may need to supervise especially low students since they may have difficulty understanding the computerized feedback, which may influence them to cause a decrease in their motivation.

In the digital era we are living, following the trends and integrating the new technological developments in language classrooms have become indispensable. Therefore, another pedagogical implication for language teachers might be to make use of those rapid developments in technology so as to get efficiency. In order to make use of technological advancements, language teachers had better be digitally literate. Besides, teachers' technology literacy is necessary to effectively incorporate it in their learning and teaching processes and facilitate students' learning. Namely, utilizing AWE in EFL writing classes allows teachers to reduce the time spent on huge number of essays and therefore increase the number of writing assignments to provide student ability and self-efficacy. In short, in order to be able to use such online tools effectively, digital or media literacy could be compulsory in teacher training programs in order to help language teachers catch up with necessities of the 21st century digital era.

When it comes to material developers and curriculum designers, they should integrate new teaching environments to writing curriculum. It is a widely accepted fact that technology helps English language learners get involved in the target culture and language more easily, and find a voice. Thus, advances in technology can be fully and

creatively used and integrated into writing curriculum to help students learn as much as possible. Language learners should also be able to embrace new developments and undertake digital learning activities at any place and time instead of being limited to learning in a traditional classroom in order to get the optimal efficiency in their language learning process.

5.3 RECOMMENDATIONS FOR FUTURE STUDIES

This study was conducted with the participation of 60 university level students who were pre-intermediate English language learners. As it lacks generalizability to the population due to small sample size, a further study can be implemented with a larger sample in order to reach more reliable results. Besides, a study with participants from various proficiency levels or from different backgrounds can be carried out to find out if similar results can be reached or not.

Moreover, the current study investigated the effects of AWE on learners' writing achievement holistically due to regulations of the school where the research took place. A further study can be conducted to examine the effects on the specific writing domains separately. In other words, how students develop on vocabulary usage, organization, coherence, content, grammar and spelling can be analyzed separately to reach more detailed results and also to compare the post-test results with the software's scores for each domain of writing directly. Also, in order to eliminate the researcher effect completely, a further study can be conducted with the same teacher teaching both groups during the experiment. Finally, this study aimed to investigate the influences of an AWE tool on writing motivation with the help of a motivation questionnaire and informal field notes. In further studies, apart from questionnaire, structured observation and interviews with teachers and students could be used as data collection tools to come up with more reliable results.

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APPENDICES

Appendix 1: Academic Writing and Motivation Questionnaire by Payne (2012):

Background and Academic Writing Motivation Questionnaire

Dear participant,

A questionnaire was presented below to measure your attitudes and perceptions towards EFL writing. Please read the questions and mark the most appropriate choice. I would like to thank for your kind participation.

Serap Erdal
Bulut

Part 1: Background Questionnaire

Your age: _____

Your gender: Female (1) Male (2)

Class: Section _____

Your 1st achievement exam *total* score: _____

Your 1st achievement exam *Writing* score: _____

Part 2: Attitudes and perceptions towards EFL writing

Statements	Never	Rarely	Sometimes	Usually	Always
1. I enjoy writing.	(1)	(2)	(3)	(4)	(5)
2. I like to write down my thoughts.	(1)	(2)	(3)	(4)	(5)
3. I use correct grammar in my writing.	(1)	(2)	(3)	(4)	(5)
4. I complete a writing assignment even if it is difficult.	(1)	(2)	(3)	(4)	(5)
5. Being a good writer will help me do well academically.	(1)	(2)	(3)	(4)	(5)
6. I write as well as other students.	(1)	(2)	(3)	(4)	(5)
7. I write more than the minimum on writing assignments.	(1)	(2)	(3)	(4)	(5)
8. I put a lot of effort on my writing.	(1)	(2)	(3)	(4)	(5)
9. I like to participate in online discussions.	(1)	(2)	(3)	(4)	(5)
10. I like to get feedback from an instructor on my writing.	(1)	(2)	(3)	(4)	(5)

11. I am able to clearly express my ideas in writing.	(1)	(2)	(3)	(4)	(5)
12. I easily focus on what I am writing.	(1)	(2)	(3)	(4)	(5)
13. I like my writing to be graded.	(1)	(2)	(3)	(4)	(5)
14. I am more likely to succeed if I can write well.	(1)	(2)	(3)	(4)	(5)
15. It is easy for me to write good essays.	(1)	(2)	(3)	(4)	(5)
16. I enjoy creative writing assignments.	(1)	(2)	(3)	(4)	(5)
17. I like classes that require a lot of writing.	(1)	(2)	(3)	(4)	(5)
18. I plan how I am going to write something before I write it.	(1)	(2)	(3)	(4)	(5)
19. Becoming a better writer is important to me.	(1)	(2)	(3)	(4)	(5)
20. Being a better writer will help me in my career.	(1)	(2)	(3)	(4)	(5)
21. It is important to me that I make an A on a writing assignment.	(1)	(2)	(3)	(4)	(5)
22. I enjoy writing assignments that challenge me.	(1)	(2)	(3)	(4)	(5)
23. I revise my writing before submitting an assignment.	(1)	(2)	(3)	(4)	(5)
24. Punctuation is easy for me.	(1)	(2)	(3)	(4)	(5)
25. I enjoy writing literary analysis papers.	(1)	(2)	(3)	(4)	(5)
26. I like to write even if my writing will not be graded.	(1)	(2)	(3)	(4)	(5)
27. I like others to read what I have written.	(1)	(2)	(3)	(4)	(5)

28. I enjoy writing research papers.	(1)	(2)	(3)	(4)	(5)
29. I would like to have more opportunities to write in classes.	(1)	(2)	(3)	(4)	(5)
30. Being a good writer is important in getting a good job.	(1)	(2)	(3)	(4)	(5)
31. I practice writing in order to improve my skills.	(1)	(2)	(3)	(4)	(5)
32. I want the highest grade in the class on a writing assignment.	(1)	(2)	(3)	(4)	(5)
33. I would rather write an essay than answer multiple-choice questions.	(1)	(2)	(3)	(4)	(5)
34. I want others to recognize me as a good writer.	(1)	(2)	(3)	(4)	(5)
35. Spelling is easy for me.	(1)	(2)	(3)	(4)	(5)
36. Choosing the right word is easy for me.	(1)	(2)	(3)	(4)	(5)
37. I am motivated to write in my classes.	(1)	(2)	(3)	(4)	(5)

Appendix 2: Consent Form of the Institution



T.C. BOĞAZIÇI ÜNİVERSİTESİ
YABANCI DİLLER YÜKSEKOKULU

Sayı : 25593661-050.02.01[2017/24]: 79
Konu :

12 Mart 2018

Sayın Serap ERDAL BULUT,

Yabancı Diller Yüksekokulu Yönetim Kurulu'nun 01.11.2017 tarih ve 2017/24 sayılı toplantısında; YADYOK Hazırlık Birimi'nde yüksek lisans teziniz çerçevesinde deneysel bir çalışma yapma talebinizin kabul edilmesine oy birliğiyle karar verildi.

Saygılarımla,

Prof. Dr. Nebahat Nisan GÖKŞEN
Müdür

Appendix 3: Student Consent Form

Research Consent Form

Name of the Researcher: Serap Erdal Bulut

Title of the Study: The Effects of Automated Writing Evaluation on EFL Students' Writing Achievement and Motivation Towards Writing

Please read and complete this form carefully. If you are willing to participate in this study, ring the appropriate responses and sign and date the declaration at the end. If you do not understand anything and would like more information, please ask.

YES/NO

- I have had the research satisfactorily explained to me in verbal and / or written form by the researcher.

YES /NO

- I understand that the research will involve 3 months.

YES /NO

- I understand that I may withdraw from this study at any time without having to give an explanation. This will not affect my future care or treatment.

YES /NO

- I understand that all information about me will be treated in strict confidence and that I will not be named in any written work arising from this study.

YES /NO

- I understand that any material of me will be used solely for research purposes and will be destroyed on completion of your research.

I freely give my consent to participate in this research study and have been given a copy of this form for my own information.

Signature:

Date:

Appendix 4: Writing Evaluation Rubric

BAND	MARK	RUBRICS
VERY GOOD	15	The language might not be without errors, yet the target language and vocabulary is used correctly almost without exception. The writer may exhibit a degree of adequacy in using structures other than the ones practiced explicitly in class (several adverbs, passives, adverbial and noun clauses) with minor errors in them. The writer is able to develop an extended discourse at his/her language level with substantial support and elaboration in a fluent style.
GOOD	12	The language is marked with a high degree of adequacy in using the target language and low overall frequency of errors (few errors in prepositions, word choice, agreement and linking devices). When the writer attempts more sophisticated discussion, there may be some errors in articles, and more complex structures that have not been covered in class (passives, adverbial/noun clauses, and infinitives/gerunds), but the language is mostly correct and there is no interference in meaning. The target vocabulary is used correctly. The task is well-developed; ideas are supported with more than adequate explanation and exemplification in a generally coherent and meaningful way.
ADEQUATE	9	The language is not without errors, yet the writer seems to be able to handle most of the structures covered in class. There are some errors in the use of tenses, linking devices, prepositions, agreement, relative pronouns, yet there are more samples of correct than incorrect usage. There may be many errors in articles. More complex structures (gerunds/infinitives, noun clauses, passives) should be treated with high tolerance as attempts to use complex language not yet covered in class will probably result in error. Target vocabulary appears adequate and is used mostly correctly. The task is developed adequately with some supporting ideas and elaboration of points. The ideas are connected and the reader does not experience difficulties in reading the text.
NOT ADEQUATE	6	The language is below adequate level with re-occurring or frequent errors in target structures: simple and continuous forms of past and present tenses; number and tense agreement (singular/plural, pronouns, present-past in when-while clauses); articles; relative pronouns; word order; tense usage; omission and/or incorrect usage of prepositions; frequent word choice/ form errors. There might be a few sentence fragments and errors in linking devices (when, while, but, because, so). The writer is generally able to handle basic SVO structure. Attempts at complex sentences result mostly in errors. Task related vocabulary appears, but is used inadequately and/or infrequently. Despite errors interfering with meaning at points, the text is mostly comprehensible with some coherence and reads more like a paragraph than a list of ideas. There are better and worse essays that fall into this category; there might be more developed content but with frequent errors, or there might be underdeveloped content with fewer errors. Generally comprehensible texts do not seem to satisfy the expected level of performance should fall into this category.

POOR	3	The language is marked with serious and very frequent errors in target structure: simple and continuous forms of past and present tenses, verb/copula omission, prepositions of place and time, articles, comparative structures, number and tense agreement, sentence fragments and word order errors in basic sentence structures, incorrect usage of basic linkers, word choice and word forms of simple vocabulary items. Meaning is seriously disrupted. The majority of sentences are incomprehensible. The text reads like a list of sentences rather than a paragraph as coherence is seriously disrupted due to the inability of the writer to express him/herself. A text of only a few short sentences.
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Appendix 5: Classroom Materials used in the 1st month of Administration

THE NARRATIVE

What is a Narrative?

Definition: A narrative is basically a story that describes a sequence of events

Topics: Narratives can be

- ✓ fictional (story, novel) or
- ✓ non-fictional (biography, historical events)

The story teller: A narrative can be written in the first (I) and third person (he/she).

What are the sections of the Narrative?

Introduction (Exposition): The writer sets the scene (people involved, time, place) in an interesting way to catch the reader's attention and make him want to continue reading the narrative. Key question words: **who, where, when, what.**

Reminder: do not use phrases like "Now I'm going to tell you about..."

Main Body (Rising action/climax/falling action): This is the actual story. It consists of 2 or more paragraphs that develop the story. The writer describes the incidents that lead up to the main event and the main event itself in detail.

Conclusion (Resolution): The end to the story. Here, the writer may refer to people's feelings, comments and relations or consequences. The more unpredictable the conclusion is, the longer-lasting the impression it will make on the reader.

How can you make the narrative more attractive for your reader?

- ✓ Use descriptions of people, places, objects or events to make the story come alive.
- ✓ **Write an interesting beginning:**
You can start your story with a striking detail. Don't forget to describe the setting (time and place).
- ✓ **Write an interesting ending:**
You can end your narrative with an unexpected conclusion.

WRITING TIPS: Time Relationships

Tenses

In narratives, you are writing about events that happened in the past, so you will have to use past tenses. You can use

1. **Past Continuous** to set the scene (e.g. It *was raining* hard and the wind *was blowing* as Jonathan drove towards the small cottage.)
2. **Past Simple** to describe the main events of the story. (e.g. Jonathan *opened* the garden gate and *went* through the garden towards the front door. He *knocked* on the door but there *was* no answer.)

(Not included into Students' Booklet)

Note to teacher: There is a Plot Line Diagram on the next page to guide your students. It is optional, and it is only included into Teachers' Booklet. You may photocopy it.

A plot diagram is a tool that is commonly used to organize a story into certain segments. Once the parts of the plot diagram are identified, it is easier to analyze the content. A plot diagram also gives a common framework for analyzing and understanding written prose.

1. The **exposition** or the introduction introduces the characters, describes the setting and establishes the problem in the story.
2. The **rising action** is where the suspense builds and the problem gets worse and becomes more complicated. There are often multiple steps or parts in the rising action.
3. The **climax** is the turning point in the story. It is usually the most exciting part in the story and the part that makes the reader want to keep reading.
4. The **falling action** is the events that happen after the climax that lead to a resolution or ending to the story.
5. The **resolution** is the outcome of the story. It is how things end up or turn out for the characters.

THE PARAGRAPH – Part 1

A. What is a paragraph?

Look at the following statements from students. Which are correct?

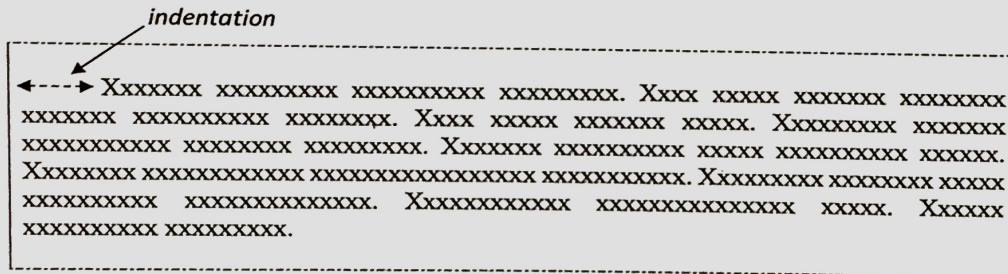
1. You use paragraphs when you speak or write.
2. A paragraph is a group of sentences. *correct*
3. It is part of a long piece of writing. *correct*
4. It is about one topic. *correct*
5. It starts on a new line. *correct*
6. It starts with an empty space that is known as indentation. *correct*

NOTE TO TEACHER

NOT INCLUDED IN THE STUDENT'S BOOK

A paragraph is a group sentences about ONE IDEA, which is called the *topic*.
The paragraph is a basic unit of composition.

All paragraphs begin with an empty space known as indentation. Indentation signals the start of a new paragraph. This is how a paragraph should look:



There is no definite rule about the length of a paragraph. Some paragraphs are short while others are longer. Generally, a paragraph should be at least four sentences. The length depends on the main idea and the number of the supporting details. Every paragraph must adequately develop its main idea, and you cannot do this in one or two sentences.

B. Paragraph Organization

A well-written paragraph has *a topic sentence, supporting sentences, and a concluding sentence.*

What is a topic?

It is the subject of a paragraph.

What is a topic sentence?

The topic sentence introduces the topic. It tells us what the writer will say about the topic.

What are supporting sentences?

The supporting sentences follow the topic sentence. They add details to the topic and give more information about it.

What is a concluding sentence?

The concluding sentence often repeats the information in the topic sentence in a different way. It may also include what the writer has learned or why the topic is important. Sometimes the concluding sentence offers a prediction, a request, or a warning.

Topic vs. Topic Sentence

Topic is the general idea that your teacher wants you to write about. Take, for example, the general topic of *football*. There are so many things to say about football that you cannot put it all into one single paragraph. That is why, you need to limit your paragraph to a single idea. This single idea must be clear in your topic sentence.

Exercise: Look at the paragraphs below. The topic of all these paragraphs is “football”. Find what the paragraph is about and underline the topic sentence.

1. Football is a very popular sport in our country. There are a lot of football clubs, and the most important ones are Galatasaray, Beşiktaş, Fenerbahçe, and Trabzonspor. In addition to these, there are local football clubs almost in each city. Football is popular because people like both watching and playing it with their friends. Today, 6 people out of every 10 support one football club. **(This paragraph is about: The popularity of football in Turkey)**

NOTE TO TEACHER

To show students how a paragraph works, you can analyze the paragraphs in detail:

Topic: Football

The aspect of the general topic to be handled in this paragraph (the paragraph is about):
Popularity of football in our country

Topic sentence: Football is a very popular sport in our country.

Supporting sentences:

A lot of football clubs
↓
Examples
↙ ↘
important clubs local clubs

People like
↙ ↘
watching playing
↓
6 people out of every 10

2. Football is dangerous for several reasons. Sometimes players do not obey the rules. They want to win the match, and start playing violently. They hit, trip or kick each other instead of the ball. Also, football fans sometimes get too excited or angry. They throw some objects, such as bottles and eggs, at the pitch. They attack the fans of the other team. As a result of this, some football fans find themselves in a hospital at the end of a 90 minute match. **(This paragraph is about: Reasons of why football is dangerous)**

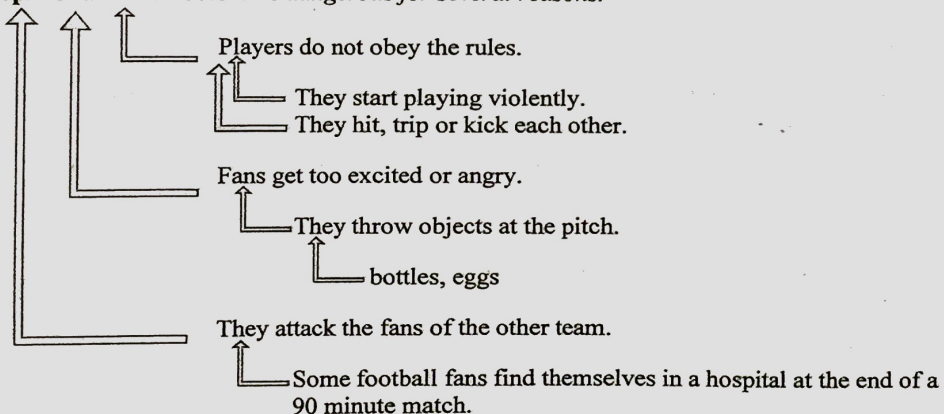
3. Football and tennis do not have a lot in common. Football is a game between two teams with eleven players. In tennis, however, there are two players, and they compete against each other. Although tennis can also be played with 4 players in 2 teams, it is still a more individual game than football. In tennis, players have their rackets and use their hands. In football, players have to use their feet and kick the ball. Only the goalkeeper is allowed to use his hands. When it comes to scoring, they are totally different from each other. In football, the players simply have to move the ball into the opposing team's goal line to get a score, but in tennis it is much more complex than this. Yet these are only some of the differences. **(This paragraph is about: the difference between football and tennis)**

C. Unity

Remember that besides the topic sentence, a paragraph includes other sentences. They must contribute to or *support* the idea in the topic sentence. In other words, **all these sentences must be related to the topic and** must therefore refer back to the topic sentence. When you do that, your paragraph has unity.

Refer back to the *second* paragraph above and notice how the sentences are related to the topic sentence.

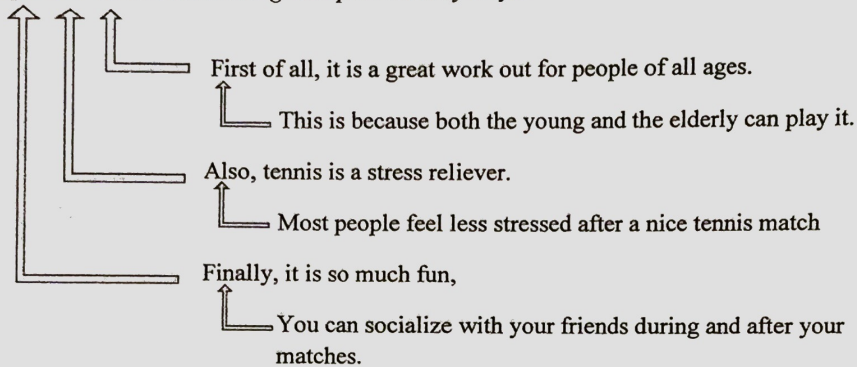
Topic Sentence: *Football is dangerous for several reasons.*



Exercise: Look at the paragraph below and fill in the chart by analyzing how sentences are related to each other.

Tennis is a great sport in many ways. First of all, it is a great work out for people of all ages. This is because both the young and the elderly can play it. Also, tennis is a stress reliever. Most people feel less stressed after a nice tennis match. Finally, it is a lot of fun, and you can socialize with your friends during and after a game.

Topic Sentence: *Tennis is a great sport in many ways.*



D. Coherence

Even when a paragraph is unified, and the topic sentence is well supported, the paragraph can still sound choppy (that is, rough or interrupted).

- Coherence means “to stick together”. For the ideas to stick together, each sentence should be related to the previous sentence.
- In some paragraphs, sentences naturally follow each other.

Example:

E-books are easy to find. There are a lot of websites where people can download e-books from. Some of these websites share e-books for free and the others sell them for lower prices than hard copies. Lower prices and free copies increase the popularity of e-books.

In the paragraph above, sentences are connected to each other without *transition words*. Although there are no transition words, this is still a coherent paragraph. The way the sentences follow one another provides coherence.

THE PARAGRAPH – Part 2

A Good Topic Sentence...

1. controls or guides the paragraph.
2. is specific such as “Drinking herbal tea is healthy for many reasons.”
3. has a controlling idea.
4. isn't a fact that everyone accepts as true such as “Cats are animals.” *+idea
contr.*

Exercise 1: Read each paragraph and choose the best topic sentence

Paragraph 1: _____ . I love to see all the interesting things there. The city is big, exciting, and full of life. I always visit the Statue of Liberty and the Empire State Building. I also visit Chinatown. At night, I go to shows on Broadway. The food in the city is excellent, too. I truly enjoy New York City.

- a. I like to see the Statue of Liberty and the Empire State Building.
- b. New York is a very big city.
- c. **My favorite city in the world is New York.**

Paragraph 2: _____ . Pasta tastes great. Some people eat it with butter. Others also like it with cheese. Another reason people like pasta is the variety. Pasta includes spaghetti, macaroni, ravioli, lasagna, and many other kinds. In addition, pasta is very easy to prepare. It takes less than 10 minutes to prepare.

- a. **Everybody loves pasta.**
- b. Pasta comes from Italy.
- c. I love pasta a lot.

Paragraph 3: _____ . First of all, good teachers are patient. They never rush their students. Good teachers explain things without getting bored. In addition, they are organized, and they plan everyday. Good teachers are also encouraging. They help students understand the subject. These are some of the most important qualities of good teachers.

- a. All good teachers are patient.
- b. **Good teachers have special qualities.**
- c. Some teachers are good, but others are not so good.

Exercise 2: Read each paragraph and write a topic sentence for each of them. (Note to teachers: The answers in the key are suggested answers.)

Paragraph 1: **London is an exciting city for many reasons.** Life is very fast and exciting here. There are big parks, museums, art galleries, and theaters. Also, one can meet lots of interesting people here, and one can do something different every weekend. London is never boring.

Paragraph 2: **Students who start university have several problems.** Some students have financial problems because their pocket money is not enough for their expenses. Secondly, they usually have accommodation problems because dormitories are not enough for all, and rents are too expensive around the campus. Another problem is feeling lonely because most students are far away from their hometown, and it is not easy to make new friends.

Paragraph 3: **Being married is a better option for men.** Compared to single men of the same age group, married men enjoy better physical and mental health. Their lives are likely to be longer and happier. In addition, they enjoy more successful careers and earn more money.

Exercise 3: Put the sentences into the correct order to form a meaningful paragraph.

Exercise: (1) Reading e-books is just like reading a normal book without holding the book or turning the pages. (2) E-book readers are great devices for students. (3) Also, e-books are convenient because students can read them everywhere. (4) These devices are easy to carry because they are light.

2 - 1 - 4 - 3

Exercise: (1) This heavy and white fur protects them from icy winds. (2) Their bodies are large and they weigh up to 800 kilogram. (3) Also, they have heavy white fur. (4) Polar bears have unique bodies that help them live in the difficult weather of the Arctic. (5) The body fat from all this weight helps keep them warm.

4 - 2 - 5 - 3 - 1

Exercise: (1) A third way is to fry an egg without breaking the yolk. (2) Finally, poaching an egg involves cooking an egg by pouring it into hot boiling water. (3) There are four ways to prepare a delicious egg. (4) Just put it into a pot of water and boil it for 5 minutes. (5) Another easy way is to scramble an egg, and you can scramble an egg in a hot frying pan. (6) The first and probably the easiest way is to boil an egg.

3 - 6 - 4 - 5 - 1 - 2

Controlling Ideas

Some examples of topic sentences with a controlling idea are provided below. The controlling ideas are underlined.

Many students prefer e-books to paper books. *+ to express why?*

- The paragraph will focus on why many students prefer e-books more.

The best season for children is summer.

- The paragraph will focus on the reasons and examples of why summer is the best season for children.

People from different cultures live in the U.S.

- The paragraph will include information about different groups of people who live in the U.S.

Tennis is enjoyable for many reasons.

- The paragraph will focus on reasons why tennis is enjoyable.

Exercise 4: Findings Good Topic Sentences

✓ Read the sentences in each set and write the general topic of all the sentences in the set. Then, check the best topic sentence and explain why it is the best in the set.

1. General Topic: Winter (Example)

_____ Winter is a good season

_____ Winter is cold, and it snows.

✓ The most enjoyable season for children is winter.

*narrow
detail
- contr. idea.
make it specific.*

2. General Topic: Football

✓ Football is a popular game for many reasons.

_____ You need a ball to play football.

_____ Football is a nice game.

3. General Topic: Urban life

_____ Everyone loves urban life.

✓ There are many difficulties of urban life.

_____ Urban life is difficult, and everyone knows it.

4. General Topic: Pets

_____ Children love pets, and they play with them.

_____ There are many pet owners around us.

✓ Owning a pet is beneficial in many ways.

What are supporting sentences?

Supporting sentences give information that explains and expands the topic of the paragraph. They answer questions – who? what? where? when? why? and how? – and give details. Effective writers think of these questions when they write supporting sentences for the topic sentence.

Kinds of Supporting Sentences

- **Explain:** Most students prefer living in a dormitory because it is an affordable option.
- **Describe:** Istanbul is located on the Bosphorus.
- **Give reasons:** Jane finally quit his job because of the stressful work environment.
- **Give facts:** More than half of Eskişehir's population is university students.
- **Give examples:** Coffee and tea are consumed a lot in Turkey.
- **Define:** Many tourists visit Istanbul, which is the most crowded city in Turkey.

Exercise 7: Match the supporting sentences with the topic sentences given below.

Topic sentences

1: In Istanbul, traffic is a serious problem for many reasons.

2: In Istanbul, public transportation is problematic in many ways.

Supporting sentences

- 2 City dwellers have many options such as buses, metro, and ferry, but they are too crowded.
- 1 It takes a great amount of time for drivers to travel from one place to another.
- 1 The number of cars is increasing day by day, so traffic jam is becoming a problem beyond the rush hour.
- 2 The prices are too high for people with low incomes.
- 2 Millions of people have to travel around the city by transferring from a vehicle to another, and it is exhausting.
- 1 A great number of people own a car in Istanbul, which has a population of 15 million.
- 2 During the rush hour, it is almost impossible to find a seat.
- 1 Most people prefer driving to commuting because it is more comfortable, but this increases problems in the city.

Exercise 8: Read the paragraphs given below and underline the unrelated sentence that disturbs the unity.

1. Most homes are full of dangers for small children. Many of these dangers are obvious. For example, stairs and sharp corners of a table can be dangerous. Another well-known danger is fire, and parents are usually careful about matches and candles. However, other dangers may be less obvious to a parent. **Parents must be very careful because children always find something dangerous at home.** Many children get poisoned with medicine, alcohol, and chemicals used for cleaning. Therefore, all these things should be kept far away from the reach of children.
2. Starting a day early is a good thing. When you get up early, you feel energetic and you can get organized easily. **With your extra energy, you should not forget to exercise every day.** As a result, you can complete your daily tasks in a better way. If you don't have fixed working hours, you have your afternoon free. In your free time, you can do things you enjoy such as swimming, reading, or meeting friends.
3. Cats are easy to take care of and to feed. They are very quiet, and they are happy to stay inside. They are happy with people, and they clean themselves. **Some cats also find a way to leave their home, but they come back.** Furthermore, a cat is a good friend for people who live alone. Therefore, many people adopt a cat as a pet.

Exercise 9: Read each paragraph below. For each of the underlined and numbered sentences, write *good supporting sentence* or *unrelated sentence*. Then, write an explanation for your choice.

Snorkeling can be one of the most amazing adventures you can ever take part in. (1) Floating on the water and watching the fish swim below you is a unique experience. It is normal to be nervous in the beginning, but once you are in the water, the anxiety goes away. Coral reefs are the best places to snorkel because hundreds of fish and other sea creatures. (2) Depending on the location, you can see tiny squids, turtles, sea cucumbers, and many other animals. (3) I saw a shark the last time I was snorkelling, and it really scared me. It is truly a beautiful sight and a magical experience. If you want to have one of the most beautiful experiences in the world, you should try snorkeling.

1. **Good supporting sentence** **It explains why snorkeling is amazing.**
2. **Good supporting sentence** **It gives examples of sea creatures that you can see when snorkeling.**
3. **Unrelated sentence** **It is personal experience.**

Appendix 6: Classroom Materials used in the 2nd month of Administration

THE ESSAY 1

THE ACADEMIC ESSAY⁹

Writing academic essays is an important part of university work. An academic essay is a structured, organized body of writing on one topic. It may provide information about the topic, explain ideas and opinions, raise and/or answer a question, or persuade the reader. Writing an academic essay involves thinking about, analyzing and evaluating the topic. Unlike fictional or personal writing, a good academic essay has a formal structure.

Why do we write essays?

There are sound reasons for writing essays although the process might be difficult. Writing an academic essay

- makes you think about an issue in depth;
- allows you to organize your thoughts coherently;
- helps you to present the appropriate information in a logical sequence;
- helps you to write clearly and fluently;
- allows your teachers to evaluate your learning.

What are the parts of an essay¹⁰?

An academic essay is basically made up of three parts. The description below summarizes an acceptable essay in our circumstances:

I. The Introduction

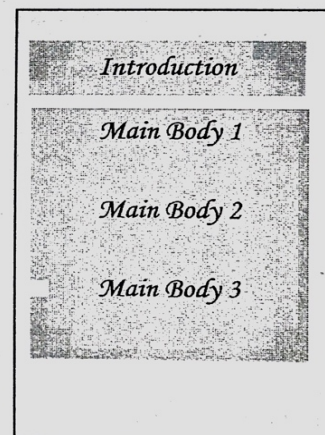
This is a one-paragraph section of about 4-5 sentences. It “introduces” the topic you are going to write about. The last sentence of the introduction is called a thesis statement¹¹, and it states the main idea of the essay.

II. The Main Body

This section is usually made up of three paragraphs of about 5-7 sentences. Each paragraph develops one aspect of the main topic. The first sentence of a main body paragraph is called a topic sentence, and it states the main idea of the paragraph.

III. The Conclusion

This is also a one-paragraph section of about 4-5 sentences. It wraps up the essay and brings it to a close.



⁹ Please note that this section is only an introduction to the academic essay. Please inform your students that they will learn how to write an essay part by part in the following sections.

¹¹ Please note that students will learn about thesis statement in detail in the following sections.

When people have a hard time falling asleep at night, there are three things that they can do to relax before going to bed. (1) One of the most pleasant ways to relax is to imagine a beautiful and peaceful place. (2) Imagination also increases creativity of people. This requires a creative mind, but it's very effective. Another common method is to practice deep breathing exercises. These rhythmic exercises are good for getting rid of the stress that causes people to stay awake. (3) A third method is to listen to relaxing music because relaxing music lowers stress and helps people sleep easier.

- | | |
|------------------------------------|--|
| 1. <u>Good supporting sentence</u> | <u>It explains one of the methods of relaxation.</u> |
| 2. <u>Unrelated sentence</u> | <u>It is not about relaxation, but creativity.</u> |
| 3. <u>Good supporting sentence</u> | <u>It explains one of the methods of relaxation.</u> |

What are concluding sentences?

The concluding sentence is the last sentence of the paragraph. It concludes, or wraps up, a paragraph. It lets the reader know that you have finished talking about the idea introduced by the topic sentence. A concluding sentence often restates the main idea.

Perhaps the easiest way to write a concluding sentence is to restate the main idea or summarizes the main points of the paragraph. The following transitional words and phrases are commonly used at the beginning of a concluding sentence:

Overall – Certainly – Surely – In conclusion – Clearly – In brief

Topic Sentence: Cats are animals which are easy to look after and cheap to feed.

Concluding Sentence: Overall, many people keep cats as a pet at home.

Topic Sentence: Good teachers have special qualities.

Concluding Sentence: In brief, these are some of the most important qualities of good teachers.

Exercise: Write a concluding sentence for each topic sentences given below. (Note to teachers: Please be informed that the answers in the key are suggested answers.)

Topic Sentence: Retirement is the best time of life.

Concluding Sentence: Overall, there are many good activities for the elderly.

Topic Sentence: Most students face a lot of problems when they start university.

Concluding Sentence: Financial and social problems are among the problems that students have at the beginning of their university life.

Topic Sentence: Living in a city is more advantageous than living in a village in many ways.

Concluding Sentence: To sum, urban life offers more advantages than rural life, so most people migrate to big cities.

How do we write an essay?

The following text is a *sample essay*. Follow the while-reading tasks below to see the basic structure of an essay.

While-reading Tasks:

1. Each *main body* paragraph develops one main idea. As you read, double underline the sentence that gives this main idea in each paragraph.
2. In the main body paragraphs, each main idea is supported by three secondary ideas. As you read, underline the secondary ideas.
3. There is also one main idea in the Introduction and one in the Conclusion. Double underline those ideas as well.

HOW TO WRITE AN ESSAY

Writing essays is essential in academic life. An essay is a formal expression of the writer's ideas presented in an orderly fashion. For most students, essay writing is a frightening prospect. This is because they are not familiar with the requirements of the task. Actually, writing an essay is very enjoyable if students **follow some simple steps**.

The first step of writing an essay is the organization. Brainstorming is the first stage in this step. All kinds of ideas are put on paper randomly, even those that are unrelated to the main idea. Clustering is the second stage. In this stage, related ideas are organized into clusters in a diagram. Finally, the clustered ideas are put in order in the form of an outline. This organized list forms the basic structure of the essay.

The second step is the actual writing. To begin with, the introduction is written. It introduces the topic and ends with the thesis statement, which is the main idea of the essay. Then, the thesis statement is developed in the main body. Each main body paragraph deals with one aspect of the thesis statement and expands on it. Lastly, a conclusion is written to wrap up the essay. It summarizes the main ideas and offers further ideas for the reader to think about.

The final step is the revision. First, the general organization should be checked to make sure all the ideas are presented in appropriate sections. Next, the content should be revised. The whole essay should develop around one topic, and there should not be any irrelevant ideas. The last point to check is language use. An essay with good organization and content still needs to be presented correctly to be acceptable.

To sum up, writing an essay involves the basic steps of preparing to write, actually writing it, and a final revision. Once students get into the habit of following these steps, the task is fairly easy. Moreover, writing in this systematic way ensures good content and an organized presentation of ideas. As a result, students learn to write assignments that would be acceptable for all university courses.

Reminder: *This is only a very basic format, not the only one! You can structure your paragraphs in your own style, but just make sure to follow these rules:*

1. *Make sure each paragraph addresses only one main point;*
2. *Provide supporting ideas (do not repeat the main idea in paraphrases throughout);*
3. *Organize your ideas so that they are in a logical order that the reader can follow;*
4. *Treat each main/ supporting idea equally (equal weight to all ideas/ main body paragraphs; do not vary the length of body paragraphs).*



THE ESSAY 2

PRE-WRITING TECHNIQUES

What is pre-writing?

Pre-writing is the first stage of the writing process, and it is used to generate and clarify ideas. It includes all the things you do before you are ready to write out the first version of your text. Pre-writing refers to any activity that helps a writer think about a topic, determine a purpose, and prepare to write. Like all good work, writing an essay requires a preparation stage, as well.

There are three stages of pre-writing:

1. Free Writing & Brainstorming: Free writing and brainstorming are two different techniques that are used to generate ideas.

- **Free writing** is writing whatever you can think of about a given topic. Do not try to organize your ideas in any way or follow a pattern. Just write as long as ideas keep coming and stop when you have nothing more to say. Later, you can use this text to choose ideas from. **This is not a finished assignment!**
- **Brainstorming** is similar to free-writing in that you write whatever occurs to you about a given topic. However, you do not write a long text, just keywords that you can later use as points. This can be done individually on paper, or as a group on the board. The important point is to write down anything that comes up. You do not try to eliminate ideas or put them in some kind of order. Students should feel free to offer any idea that they associate with the topic.

2. Clustering: Clustering is a technique that is used to select and group ideas. Now that you have generated ideas through brainstorming or free-writing, it is time to select and organize them. This is done by clustering related ideas in groups, deciding which ideas to use, and deciding which ideas seem to be major points and which seem to be minor points that can support the major ones. In the end, you get a visual representation of ideas and their relation to each other.

3. Outlining: You can write your essay directly from the cluster diagram, but you will write your essays easier and faster if you master outlining technique. Also, you will need to write a formal outline in presenting your later assignments, and this is a good time to learn how to write one. An outline is simply the numbered list form of a cluster diagram. However, it will not include all the points from the brainstorming or the cluster diagram. For each major point, you will have to write about the same length of text. Therefore, some points will be eliminated. The 'content' pages of books could be considered a kind of outline. Your outline will be similar, only much simpler.

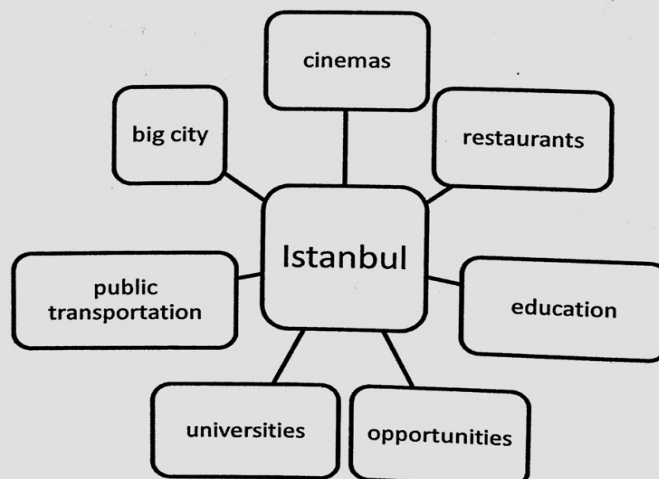
Exercise 1: Study the following examples. Explore how pre-writing techniques are used in these examples.

Thesis statement: Istanbul is a popular city for many reasons.

Free writing: It is a metropolitan. It is crowded. It is difficult to work in a crowded place. There are universities and hospitals. Economy is important. People earn good salaries. There are many cinemas, theaters, and activities. Also, there are good restaurants and cafes. I have many favorite cafes in Istanbul. Istanbul has opportunities. It is very popular among students. *(Please note that this is not a paragraph. Remember paragraph writing – part 1 and part 2)*

Note to teachers: *At this point, you may ask your students why this is not a paragraph, and you may remind your students the basics of a paragraph such as topic sentence, unity, and coherence.*

Brainstorming (option 1):



THE ESSAY 4: THE INTRODUCTION

What is the purpose of writing an introduction?

The *introduction* is the first paragraph of an essay. The introduction paragraph usually

- introduces the topic of the essay to the reader;
- gives the reader some background information about the topic;
- uses some techniques to attract the reader's interest;
- states the thesis (the main idea, the focus, the purpose) of the essay. This sentence is therefore called the "*Thesis Statement*," and is the *last sentence* of the paragraph.

How can one write an effective introduction?

The introduction paragraph should catch the reader's attention because the reader will most probably decide if he wants to read the essay or not within the first few lines of the text. It is, therefore, essential to write an effective *introduction*. Here are some ways to make the *introduction* effective:

a) *The Funnel (or general-to-specific) Method*



The funnel is a conical utensil with a wide top and narrow bottom. Similar to a funnel, the *introduction* usually begins with a very broad, general statement about the topic. The writer then gradually narrows the subject down to the main idea of the essay. In the last sentence of the paragraph the writer tells the reader what she is going to say about the topic. This is the thesis statement: the last and most focused, most specific statement of the *introduction*.

Example:

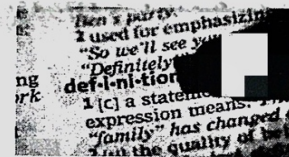
"Writing an academic essay is a demanding task for many students, especially for those whose native language is not English. However, once a student learns the classical process for writing an essay, all the bad dreams can turn into a joyful experience. The classical process to write a sound academic essay involves three basic steps."

(The writer is going to write about "writing an academic essay" [the topic]; she is going to write about "the steps to writing an academic essay" [the main idea].)

Although the *introduction* may be organized differently, for most university writing, the funnel method will prove to be an easy and acceptable technique to present the essay.

b) Defining a Word or Phrase

If the topic of the essay is unfamiliar to the readers, the writer may choose to begin the *introduction* by defining it.



Example:

The term “violence in the family” refers to male violence against females. It means that men are generally rude to women both physically and psychologically. Concerning this issue, a study covering five different geographic regions of Turkey has been conducted by the Family Research Institute in Turkey. The results of this survey indicate that two independent variables seem to be related to the approval of violence.

c) Quotation

A striking comment by a well-known person or an expert may help to draw readers' attention.



Example:

“Let me have men about me that are fat,” says Shakespeare’s Julius Caesar to Marcus Antonius. In his opinion, fat people are more trustworthy than thin ones. Shakespeare was not the first person to categorize personality according to body type, nor was he the last one. In the late 1940s, William Sheldon suggested a relationship between temperament and body type. According to him, people are divided into three categories according to their body types.

d) Turn About

The *introduction* may start with a statement completely opposite the writer's thesis. Absurd or unacceptable statements could be made to surprise the reader and urge him to read on.



Example:

The world and all the things living on it were created to serve human beings. So, why not abuse them as long as we can? This, unfortunately, has been a popular belief for many centuries which has led to the destruction of many species and habitats. If we keep on destroying the earth and creatures living on it, the future of humankind will not be a bright one. Saving the world is not easy, but there are some things we can do as individuals.

Characteristics of a good thesis statement

A thesis statement

1. should be a statement, not an open-ended question.

- Credit cards are convenient to use for three main reasons. (*thesis statement*)
- What are the advantages of credit cards? (*not a thesis statement*)

2. should be an opinion, not an obvious fact, because facts cannot be argued.

- The rate of unemployment is high in Turkey for many reasons. (*thesis statement*)
- The rate of unemployment in Turkey is 11%. (*not a thesis statement - this is a fact; there is nothing to be argued about it*)

3. should make a claim, not an announcement.

- In this essay I will discuss the advantages of living on your own. (*announcement*)
- When considered generally, living on your own is much better than living with your family. (*thesis statement*)

4. should have one main idea.

- Radioactive waste from nuclear power plants and waste from coal-burning power plants have several destructive effects on people, on plants and on our environment in general. (*This statement has two subjects and you cannot develop both of them successfully in one essay.*)

5. should not be too general. It should be specific enough to be developed in a five-paragraph essay.

- Art is often censored because of politics. (*This is too broad to be a thesis statement. What kind of art? Visual, theatrical, musical, literary? And what do you mean by 'politics'? In which country? In which era? At which level of government? On an institutional level or a personal level?*)

6. should not be too narrow.

- Meat is the most important source of protein. (*This is too narrow for an essay. What else can the writer say about this idea?*)

7. should not make a claim that cannot be analyzed logically.

- People who earn high incomes never pay taxes. (*not a thesis statement: This view cannot be analyzed logically. It is an illogical generalization*)

8. should not report someone else's opinion; it should be the writer's own opinion.

- Many people have different opinions on whether people under twenty one should be able to drink alcohol. (*not a thesis statement: the essay should be about what the writer himself thinks. What other people think about the topic is irrelevant.*)
- People under twenty one should be able to drink alcohol. (*thesis statement*)

9. should not dominate the introduction

In a one-page essay the *introduction* is about 4-5 sentences. The *thesis statement* is only the last sentence. Typical errors include:

- Writing one very long *thesis statement* instead of a 5-sentence paragraph.
- Writing the *organization* section of the *thesis statement* in full sentences. In this case, the *thesis* may be as long as one-half the whole paragraph.

Example:

- Criminals should receive harsher punishments for many reasons. Firstly, harsh punishments for criminals will discourage other people from turning to a life of crime. Another reason is that a long prison sentence gives criminals time to think about what they have done. If the punishment is not harsh, the criminal will not realize that he has committed a serious crime. (*not a thesis statement. This is almost as long as a paragraph, and cannot be used for a thesis statement*)

Exercise 2: Read the following sentences. Some of them are good *thesis statements*, while the others have problems. Write TS in the boxes next to the sentences that can be *thesis statements*. State the problem with the others. Note: You could ask students to rewrite the sentences so that they become *thesis statements*.

<i>announcement</i>	1. This paper will consider the advantages and disadvantages of certain limitations on free speech.
<i>too broad</i>	2. World hunger has many causes and effects.
<u>TS</u>	3. There are several effective treatment programs for alcoholics.
<i>not sentence</i>	4. The differences between Mandarin and Hunan cuisine.
<u>TS</u>	5. Generally, criminal behavior is a result of multiple factors.
<i>plain fact</i>	6. In today's society, children are not allowed to vote.
<i>two topics</i>	7. There are many different kinds of pollution and the government should take some precautions to prevent it.
<i>question</i>	8. Should there be a pub on the campus?
<i>illogical</i>	9. Children who listen to classical music succeed in school.

THE ESSAY 6

THE MAIN BODY

The *main body* of an essay gives support for the opinion or idea in the thesis statement. The function of the body is to explain, illustrate, discuss or prove the thesis statement.

Development of the body paragraphs

A *The Topic Sentence*

- Each *body paragraph* discusses **one point or idea** mentioned in the thesis statement of the essay.
- Each *body paragraph* should have a **topic sentence**:
 - The *topic sentence* is the main idea of the paragraph;
 - It states which aspect of the thesis statement that paragraph will discuss;
 - It is usually the first sentence in the paragraph.
 - The **wording of the topic sentence** should show the relationship between the *thesis statement* and the *main body* paragraph.

e.g.: There are many advantages to living in the school dorm. (*thesis st.*)

The first/ second/ third advantage of living in the school dorm is..... *topic sentence of the body paragraphs*)

B. Supporting the Topic Sentence of a Body Paragraph

- Each body paragraph starts with a *topic sentence*, which is the *main idea* of that paragraph. The main idea in each body paragraph should be developed logically. Writing anything that comes to mind is not acceptable.
- There should be two or three support sentences in each paragraph. These sentences should provide adequate evidence to back up the *topic sentence*.
- Support can include facts, statistics, reasons, explanations, examples, comparisons and contrasts and recommendations.
- Personal examples such as an anecdote from one's own life or his family's or friend's life are totally unacceptable. The information included should be logically acceptable for the reader to agree with the writer.

Exercise 5:

1. The paragraph below is one of the body paragraphs of an essay about the harms of watching TV. Which sentence is the topic sentence? What are the supporting ideas?

I.

One harmful effect of watching too much TV is the bad effect on children's health. Radiation from television can cause cancer. Excessive television viewing can also affect children's eyesight negatively. Watching TV all the time can also lead to children becoming overweight.

In the paragraph above, the three harms of watching TV are mentioned to convince the reader that watching TV is harmful. However, the paragraph is very dry and boring. The supporting sentences should be improved with the addition of examples or details that tell the story more fully.

2. Read the following version of the same example. What points have been added to the main *support sentences*?

II.

One harmful effect of watching too much TV is the adverse effect on children's health. Radiation from television can be harmful to health when people watch TV at close range. If they absorb too much radiation, people can develop cancer. Moreover, excessive television viewing can also adversely affect viewers' eyesight. This may result in them having to wear glasses, or even more serious problems. Another problem with watching TV all the time is that it can cause children to become overweight. This is because they don't have time left to go outside and play with their friends, and also because they tend to eat a lot while they are watching TV.

Appendix 7: Classroom Materials used in the 2nd month of Administration

THE ESSAY 7

THE CONCLUSION

The final paragraph of an essay is the *conclusion*. The aim of this paragraph is to let your reader know that you are bringing your ideas to a close.

- The conclusion paragraph can
 - restate the thesis of the essay in different words, OR
 - restate the main ideas discussed in the essay.
- It contains one or more of the following concluding techniques:
 - A recommendation, advice, or a warning
 - A prediction about future developments of the essay topic
 - A solution to the problem presented in the essay
 - A final evaluation of the major ideas discussed in the essay
- It does not contain any new ideas that need to be supported.

Exercise 1: Read the following examples of introductory and concluding paragraphs. Compare the *thesis statement* and the *concluding statement*.

- How is the conclusion paragraph connected to the introduction paragraph? In the conclusion the writer restates the thesis statement.
- What do you think were the main ideas discussed in the main body paragraphs? exercising, eating nutritious food, and sleeping well.

Introduction:

All cultures have proverbs about the importance of maintaining good health, including Turkish culture. It is generally accepted that being healthy is the basic step to improving the quality of life. Every activity or benefit one may hope for can only be enjoyed if one is healthy. Therefore, it is necessary to have a lifestyle that brings good health. There are three main ways of keeping healthy.

Conclusion:

In conclusion, exercising, eating nutritious food and sleeping well help one to remain healthy. For most people, these are easier said than done: It is difficult to give up a lazy lifestyle, sugary snacks, or a night out with your friends. However, it does pay in the long run. So go get your running shoes out!

THE ESSAY 9

REVISING AND EDITING AN ESSAY

Every essay needs to be revised and edited to make sure it follows the basic rules of essay writing. Below is a checklist to revise essays. Once you finish writing your essay, reread it and check if your essay complies with the checklist below.

Essay Checklist

I. Organization

Introduction:

1. Does the *introduction* start with a general reference to the topic and flow smoothly to the *thesis statement*?
2. Does the *thesis statement* state a clearly focused main idea for the whole essay?
3. Does the *thesis statement* indicate what is to follow in the *main body*?

Main body: (for EACH paragraph)

1. Does each paragraph have a clear *topic sentence* which expresses the main idea for that paragraph?
2. Do all the *support sentences* and details / examples in that paragraph explain or reinforce the *topic sentence* of the paragraph? (weed out irrelevant sentences)
3. Are there clear verbal and contextual links between all sentences? Is the flow smooth? (join choppy sentences and add missing links)
4. Does the *topic sentence* of each paragraph relate to the *thesis statement* of the essay?

Conclusion:

1. Is there a *concluding sentence* that wraps up the main idea of the essay?
2. Are there any ideas in the final comments that actually belong to the *main body*? If so, weed out those new support points.
3. Are the final comments fresh sound ideas that leave the reader thinking? (avoid clichés, weak comments and repetition)

CLASSIFICATION ESSAY 1

What is Classification?

To classify is to gather into categories, segments, methods, types, or kinds according to a single basic criterion. This criterion is called the principle of division. Classification is a common activity that is especially helpful in organizing large groups of ideas into smaller, recognizable divisions that can be given distinct names or titles and then described in detail.

Exercise 1: In pairs, study the following groups of words classified according to the underlined principles. Cross out the category that does not belong. The first one is done for you.

1. Automobiles: two-door, ~~economy~~, four-door, station wagon.
2. Transportation: on land, by water, by air, by train.
3. Teachers: well-prepared, easy graders, hard graders.
4. Students: hard-working, motivated, not motivated.

Many different principles of classification may be available for a topic. To illustrate, consider the topic of *students*. Students could be classified according to

1. How many credits they have completed: freshmen, sophomores, juniors, seniors.
2. Level of intelligence: brilliant, intelligent, average, below average.
3. Their attitude towards school: a place to improve one's general knowledge, a place to socialize, a place to learn a trade.

Exercise 2: In pairs, study the following groups of words. In each blank, write the principle of classification. The first one is done for you.

1. Teachers: those who dress conservatively, those who dress fashionably, those who dress in a variety of styles.

The teachers in this school can be classified according to the way they dress.

2. Readers: those who read voraciously, those who read regularly, those who read sporadically, and those who read as rarely as possible.

People who read can be classified according to the way they read.

3. Smokers: Those who smoke because of nervousness, those who smoke to look sophisticated, those who smoke out of boredom.

Smokers can be classified according to their reasons for smoking.

CLASSIFICATION ESSAY 2

What is a Classification Essay?

Purpose: This is a type of essay where information about people, objects, concepts, etc. is presented in categories.

What are the sections of the Classification Essay?

Introduction: The writer presents the main idea.

The Thesis Statement: The main idea indicates that the essay is going to describe different categories of the topic. It is essential to use only 1 principle of classification.

Most categories can be expressed simply in the thesis to indicate essay organization.

The Body Paragraphs: Each category / type stated in the thesis statement is fully explained in one main body paragraph. There is no set rule about which category to present first, second, or last in a classification essay; however, some kind of logical sequence should be followed: from the most to the least important category, from the least to the most important (climactic order), or from the smallest to the largest, and so on.

The Conclusion: The conclusion will:

- ✓ restate the thesis, and
- ✓ provide a general comment on the topic.

OUTLINE: *KINDS OF HOTELS*

- I. Introduction
- II. Main Body
 - A. _____
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 - B. _____
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 - C. _____
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
- III. Conclusion

Appendix 8: PEG Writing Scholar®

a) A sample student essay evaluated by PEG Writing Scholar

DEC 27 2017
Student Choice Argumentative
by
for Research

Use this prompt to write an argumentative essay of your choice.

Computer in Education

Technology changes our lives in the last century. For me, the most important product which came our lives with the development of technology is computer. This product affects us every part of daily activities even in education. **However people** do not use enough computer in education. There are some benefits of using computer. For an example, I believe that if we start to use computer instead of textbooks, we can save the world.

In addition that resources of the world are not ran out for experts **expectations**. These resources will be ran out four time longer than now because people won't use paper or pencil to write something and also people will not need any lights for it. Most of know that a normal lane **convert 5 percent** of energy to light. The rest of the energy is converted to heat so, a lane heats us mostly instead of lightening. **However producers** use a **led screen** to produce a computer and led screens convert most of the energy to light thus people who can use computer instead of paper and pencil to write save 6-7 times more.

Another benefit of using computer is that people can research the topic when they are writing. Not only **research** a person can use a dictionary if they write their text in a foreign language. **For example, I write essay because of my homework and I** generally use my computer to write. Sometimes my teacher gives a topic which I do not have any idea about it. Then I start to

res... developing my ideas in my essays, and I also **use a internet** dictionary to **S**

tra... of.

T... can listen to music and give a break when they write an essay. They can

wa... music inspires me to write or develop my ideas. Nowadays, I realized that I

alw... take heart and start to improve my ideas easily and write some potential

ser... g computer instead of textbook in education and I mentioned only three of

I... e world and write something easily and more enjoyable

the... of.

Comments

Did you mean "In addition, ..."? Use a comma to separate introductory words or phrases from the main sentence.

< > Remove OK Cancel

b) Peer review and a bar chart showing given scores on each domain of writing

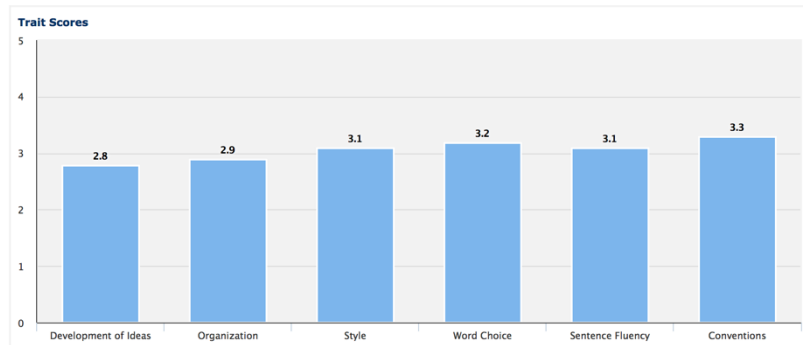
Peer Reviews

- by . . .
- #1: I think your topic is interesting ans your writing is quite fluent.
 - #2: There are some grammar mistakes but all of us make this kind of mistakes due to lack of attention and the limited time.
 - #3: Totally, I find your writing sufficient. I am sure that you can made the better if the topic was one of your fields of interest.

Edit

Scores

This essay's total score is **18.4**
The essay was scored by PEG, the automated essay scorer, according to the scoring standard for your level.
Scored on a **Level 1** scoring level.



c) Detailed and individualized feedback and suggested online lessons

Writing Analysis

Development of Ideas

★ ★ ★ ☆ ☆
You scored 3.2 out of 5

Organization

★ ★ ★ ☆ ☆
You scored 3.2 out of 5

Style

★ ★ ★ ☆ ☆
You scored 3.6 out of 5

Evaluation

- Did you identify and reject the counter-claim?
- Did you provide a strong introduction and conclusion?
- Did you use support appropriately, including facts and expert opinions?
- Is there more support you can add to your essay, including facts, examples, details, cause and effect, anecdotes, testimonies, and/or statistics to support your main points?
- Is your essay appropriate for its task, purpose, and audience?
- Is your writing clear and completely focused on the claim or argument?

Lessons

- [Text Evidence in Argumentative Essays](#)
- [Strategies for Planning and Writing an Argumentative Essay](#)

Evaluation

- Do all your paragraphs each address only one part of the argument, and are they all clearly connected to the claim?
- Have you included a conclusion with a solution or call to action?
- Have you used a variety of transition words to connect your ideas?
- Is your writing organized so that it is easy for the reader to understand?

Lessons

- [Developing Strong Conclusions](#)
- [Writing Paragraphs](#)
- [Improving Essays with Transitions](#)

Evaluation

- Have you formed an effective connection with the audience by demonstrating a strong sense of purpose and appropriateness to task and audience?
- Is your own engagement with the topic or argument clear?
- Is your tone objective and appropriate, fitting the task, purpose, and audience?
- Does your voice come through the composition and strengthen the connection with the audience?
- Have you established and maintained a formal style throughout the essay?

Feedback

- Try making your writing more lively by using more colorful language, dialogue, and questions.

Lessons

- [Enhancing Writing with Figurative Language](#)
- [Sentence Variety](#)

d) Sample essays provided by PEG Writing Scholar

*Prompt for Essays 1-3: Frito-Lay is a popular snack company. Most people think of chips when they hear "Frito-Lay." In the late 1980's, the company was considering options to expand into a healthier niche market with a vegetable dip. Should Frito-Lay expand their snack options or capitalize on and grow their popularity as a current leader in the chip dip market? Assume you are a market analyst, writing an essay in the time in which Frito-Lay was still considering their options. Your argumentative essay should make a claim, address counterclaims, and use at least three of the suggested sources.**

Argumentative Essay 1: Should Frito-Lay Enter Another Market?

Frito-Lay should not enter another market as a vegetable dip but stay working as a chip dip company.

It would be expensive to switch. The current delivery system would change if the company switches to a vegetable dip. Produce managers would have to be the contacts in stores. Also, a new delivery system would have to be created. More products would need to be developed. This would add to the costs of research and development (Kerin & Peterson, 2007).

Frito-Lay has a good position in its current position as a chip dip manufacturer. Frito-Lay had \$135 million of \$185 million in chip dip sales in 1985 (Kerin & Peterson, 2007). The consumer interest in convenience over healthy eating also creates a great opportunity for Frito-Lay. The market is there for development, but the answer is target the right customers.

Annotation: This essay needs further development. As is, it is merely a beginning of an organizational structure for a full essay.

Argumentative Essay 2: Should Frito-Lay Enter Another Market?

Frito-Lay should not enter another market as a vegetable dip, but instead penetrate the chip dip market even further. Frito-Lay should focus on penetrating the market and remaining focused as a chip dip company for many reasons. It would be expensive to switch from a salty chip dip to a healthier vegetable dip. The current "front-door store delivery system," which does a good job of combining sales and delivery (Kerin & Peterson, 2007), would change if the company switches to a vegetable dip. Instead of working with current customers, produce managers would become the main point of contact in stores, and a new delivery system would have to be developed. To keep a market presence as a vegetable dip, more products would need to be developed, adding to the costs of research and development (Kerin & Peterson, 2007).

Frito-Lay is secure in its current position as a chip dip manufacturer. Sales of shelf-stable chip dips were at \$185 million in 1985 and Frito-Lay had \$135 million of that (Kerin & Peterson, 2007). The consumer interest in convenience over healthy eating also gives Frito-Lay a great opportunity. "Between 1980 and 1985 increased expenditure on convenience foods was almost double that for food as a whole" (Goodman, 1991). The market is there for more convenience foods; the key is to target the right customers.

Frito-Lay has many opportunities for expanding its audience. Advertising should be focused on the convenience of their chips and dips as snack foods for sporting events, holidays, afternoons after school, and children's parties. This will get Frito-Lay to where they want to be.

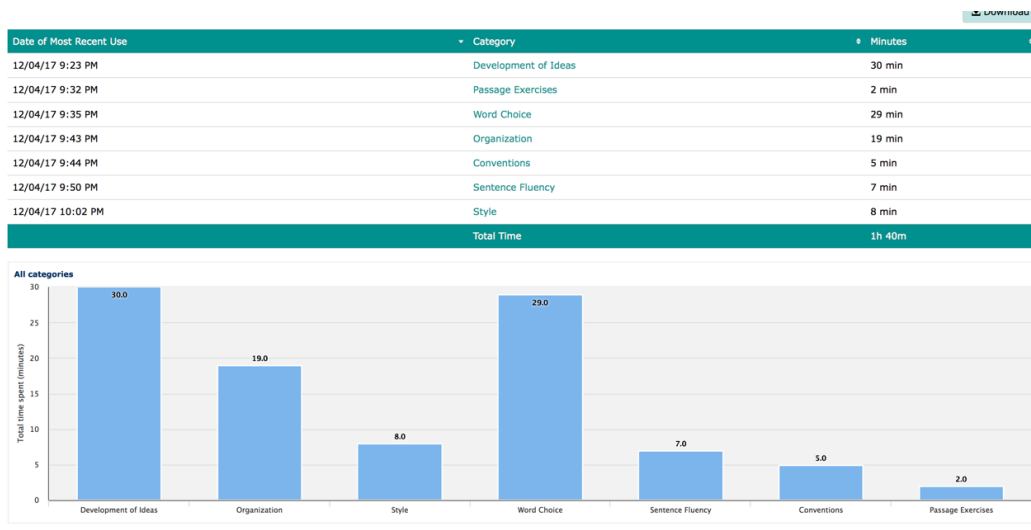
e) A sample graphic organizer

Student Name: _____ Date: _____

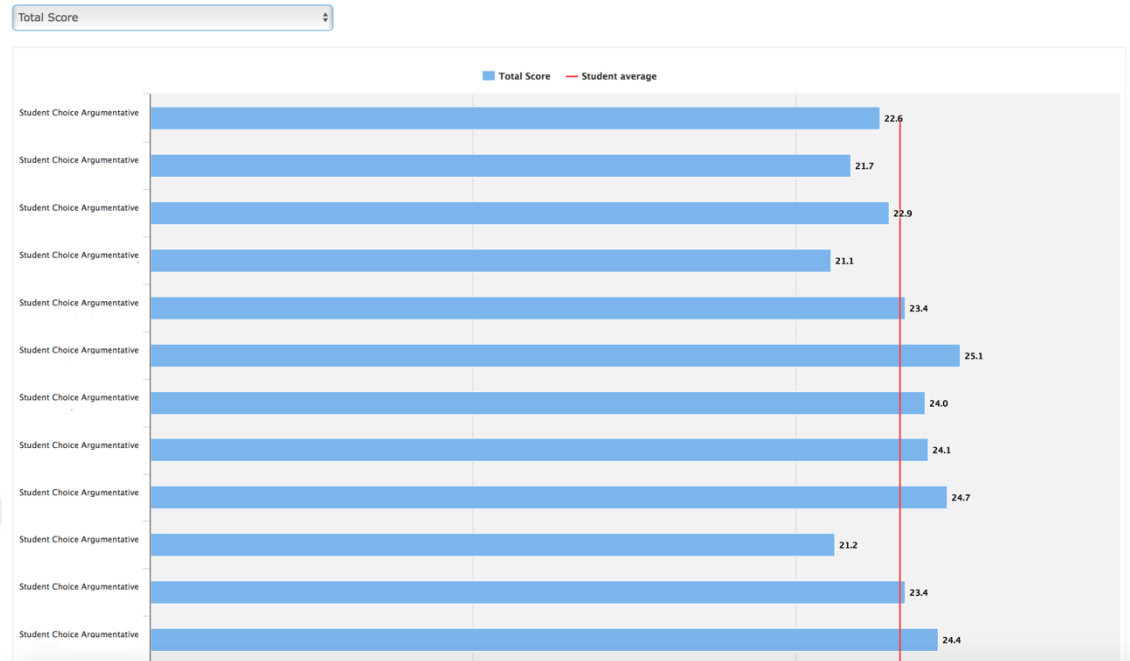
Compare and Contrast Organizer

TOPIC OR IDEA 1	TOPIC OR IDEA 2	
ALIKE IN WHAT WAYS?		
DIFFERENT IN WHAT WAYS?		
TOPIC OR IDEA 1	WITH REGARD TO WHAT?	TOPIC OR IDEA 2
DO YOU SEE ANY PATTERNS IN HOW THEY ARE ALIKE OR DIFFERENT?		
WHAT CONCLUSIONS CAN YOU DRAW?		

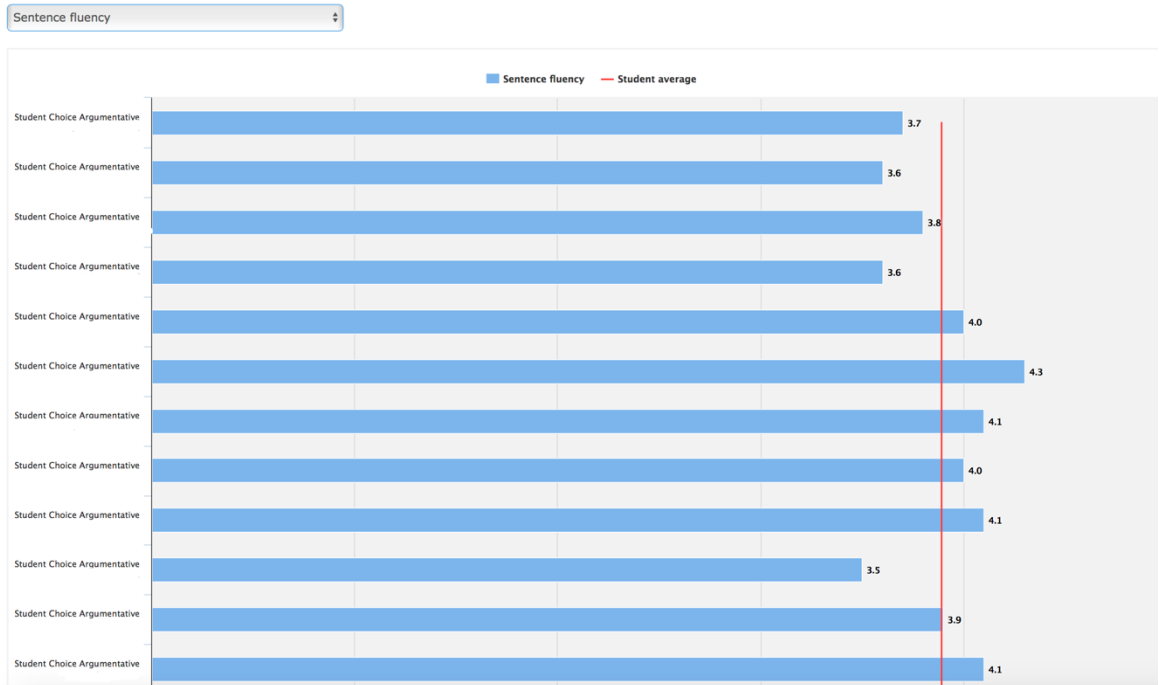
f) A sample bar chart showing a student's progress



g) A sample bar chart showing overall progress of a student



h) A sample bar chart showing student progress on sentence fluency



i) A part of the rubric provided by PEG Writing Scholar

Development of Ideas

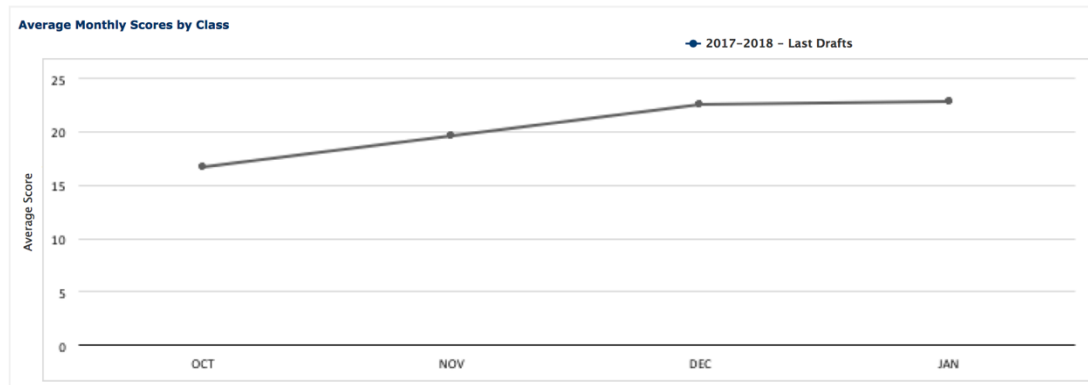
Argumentative

Development centers on the presentation of additional supportive details and information pertinent to the topic. It is enhanced by specificity of word choice and a clear organizational structure.

- 5** The response is strongly focused and complete, with a wealth of appropriate information and details.
- The writer introduces a claim.
 - The writer clearly states an opinion/takes a position.
 - The writer provides sufficient and convincing support using facts and details to fully develop the composition, as well as strategies and elaborative techniques appropriate to the task, purpose and audience.
 - All main ideas in the response are uniformly developed.
 - Support strongly enhances cohesion.
 - The writer may take creative approaches that enhance the response.
- 4** The response is focused and reasonably complete, with appropriate information and details.
- The writer introduces a claim.
 - The writer states an opinion/takes a position
 - The writer provides sufficient specific support to develop the composition, using strategies and techniques appropriate to the task, purpose and audience.
 - Reasons and supporting details may not be convincing.
 - All reasons are supported but development may be uneven.
 - Support enhances cohesion.
- 3** The response is focused and somewhat complete, with sufficient appropriate information and details to support the topic.
- The claim, position, or opinion may be unclear.
 - Development is uneven, with a mix of general and specific details.
 - Reasons and details may lack logic.
 - Some reasons may lack support.
 - Support somewhat enhances cohesion.
- 2** The response is weakly focused and lacks development.
- The claim may be unclear or absent.
 - The writer may not state an opinion/take a position.
 - Details may be general, vague, or inappropriate.
 - The response has very little or no support and may display minimal writing.
 - Cohesion may be lacking.
- 1** The response lacks focus and development.
- The writer does not state a claim nor take a position.
 - Details are minimal.
 - The response may be confusing and may display minimal writing.
 - Ideas may be presented randomly.

j) Average Monthly Scores by PEG Writing Scholar

Choose chart [Advanced Filtering](#)



PERSONAL BACKGROUND

Serap Erdal Bulut was born in 1990 in İstanbul. She graduated from Foreign Language Education Department in Middle East Technical University in 2012. She has worked as an English Language Instructor in English Preparatory Programs in several universities and has been teaching general English and EAP courses since then. She is currently working as a lecturer in Boğaziçi University School of Foreign Languages.

