

**ISTANBUL SABAHATTİN ZAİM UNIVERSITY**  
**INSTITUTE OF SOCIAL SCIENCES**  
**DEPARTMENT OF ENGLISH LANGUAGE TEACHING**

**THE EFFECT OF FLIPPED LEARNING-SUPPORTED  
CRITICAL THINKING INSTRUCTION ON THE  
CRITICAL DISPOSITION AND L2 WRITING SKILLS**

**MA THESIS**

**Muhammet Furkan ALPAT**

**Istanbul,**  
**June, 2019**

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Sosyal Bilimler Enstitüsü Müdürlüğüne,

Bu çalışma, jürimiz tarafından Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalında YÜKSEK LİSANS TEZİ olarak kabul edilmiştir.

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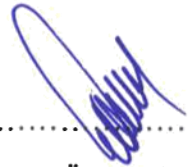


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## DECLARATION OF SCIENTIFIC ETHICS AND ORIGINALITY

This is to certify that this MA thesis/PhD dissertation titled “The Effect of Flipped Learning-supported Critical Thinking Instruction on the Critical Disposition and L2 Writing Skill” is my own work and I have acted according to scientific ethics and academic rules while producing it. I have collected and used all information and data according to scientific ethics and guidelines on thesis writing of Sabahattin Zaim University. I have fully referenced, in both the text and bibliography, all direct and indirect quotations and all sources I have used in this work.

Signature



**Muhammet Furkan ALPAT**

Istanbul, June 2019

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I would love to express my gratitude to my supervisor, Dr. Emrah Grgl, who has supported me throughout my thesis with his immense knowledge.

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**Muhammet Furkan ALPAT**

Istanbul, June 2019

## ABSTRACT

### THE EFFECT OF FLIPPED LEARNING-SUPPORTED CRITICAL THINKING INSTRUCTION ON THE CRITICAL DISPOSITION AND L2 WRITING SKILLS

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In this research, it was aimed to make research on the possible results of critical thinking education through following the Flipped Classroom on students' achievement of EFL writing skill. In addition, another dimension of the research is to learn whether the current instruction model causes any change in students' perception of critical thinking and attitudes towards the Flipped Learning integration which were examined.

During the Spring semester of the 2018-2019 academic year, students in upper-intermediate level who were studying in the School of Languages received the reading and writing course. As it was an experimental study, there were two groups which were experimental and control group which received six weeks of instruction from the researcher, and there were 15 students in each of the group.

Not only quantitative but also qualitative data collection instruments were used in the research, and for the former one; the California critical thinking level inventory survey and the Flipped Classroom questionnaire, for the latter one, interviews for critical thinking were applied in the study. When students' responses to the California Critical Thinking Level Inventory survey were analyzed, it can be put forward that the experimental group performed better than the control group, which means that there was a momentous increase in the critical thinking skill of the experimental ones. It can be understood from findings gathered through the Flipped Classroom questionnaire; the flipped writing class has a noteworthy effect on students in relation to their attitudes towards the new instructional model.

*Key terms: Flipped learning, flipped writing class, flipped classrooms, critical thinking,*

## ÖZET

### FLİPPED LEARNING DESTEKLİ ELEŞTİREL DÜŞÜNME EĞİTİMİNİN İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENEN TÜRK ÖĞRENCİLERİN ELEŞTİREL DÜŞÜNME EĞİLİM SEVİYELERİNİ VE İNGİLİZCE YAZMA BECERİLERİNE ETKİLERİ

Yüksek Lisans, İngiliz Dili Eğitimi Bölümü

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Bu araştırmada, öğrencilerin yabancı dil olarak İngilizce yazma becerisi kazanmalarına ilişkin ters yüz metodunu takip ederek eleştirel düşünme eğitiminin olası sonuçları üzerinde araştırma yapılması amaçlanmıştır. Araştırmanın bir başka boyutu da mevcut öğretim modelinin öğrencilerin eleştirel düşünme algılarında herhangi bir değişikliğe neden olup olmadığını ve Ters-Yüz eğitim metodunun entegrasyonuna yönelik tutumlarının değişip değişmediğini öğrenmektir. 2018-2019 eğitim-öğretim yılının Bahar döneminde, orta-üst düzeyinde Diller Okulu'nda okuyan öğrenciler okuma yazma dersi üzerinde çalışma gerçekleştirilmiştir. Çalışma deneysel bir çalışma olduğu için deney ve kontrol grubu olmak üzere iki grup vardır. Her iki grup da araştırmacıdan altı haftalık eğitim almıştır ve her grupta 15'er öğrenci vardır ve rastgele seçilmişlerdir. Araştırmada sadece nicel değil aynı zamanda nitel veri toplama araçları da kullanılmıştır. Çalışmada Kaliforniya eleştirel düşünme düzeyi envanter anketi ve Ters-Yüz eğitim anketi için uygulanmıştır ve ek olarak eleştirel düşünme mülakatları gerçekleştirilmiştir. Öğrencilerin, Kaliforniya Eleştirel Düşünme Seviyesi Envanteri anketine verdiği yanıtlar analiz edildiğinde, kontrol grubundan daha iyi performans gösteren “deney grubu”, eleştirel düşünme becerisinde önemli bir artış olduğu görülmüştür. Veriler analiz edildiğinde ters yüz eğitim destekli eleştirel düşünme eğitiminin ikinci dil olarak yazma yeteneğine kayda değer şekilde etkileri olduğu saptanmıştır.

*Anahtar Sözcükler: Ters-yüz öğrenme, ters-yüz yazma dersi, ters-yüz sınıf, harmanlanmış öğrenme, eleştirel öğrenme*

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# CHAPTER I

## INTRODUCTION

### 1.1 Background to the Study

People have always been concerned about their environment since ancient times and have followed the things around them with great curiosity. They tried to shape nature according to their own conditions, and not being satisfied with the conditions; they always seek for the better. They also wanted to use their abilities to think in the best way while doing all these things. Ultimately, this allowed people to distinguish themselves from others.

Since it is very important to think and especially make what you think happens, various definitions have been introduced about this concept throughout history.

According to Dewey (1910: 15), thinking is like feeling the signs of the rain, and recognizing that it will come in the future and take steps accordingly. Diestler (2001) states that thinking is to achieve a goal, get a result and solve a problem. Vygotsky and Bruner, on the other hand, claim that an effective and magical word, thinking, is the awareness of one's cognition and superiority (Lipman, 2003). Thinking is a problem-solving process, a set of words according to a specific purpose, and a logic pattern extending from univariate simple causal relations to multidimensional and variable complex causal relations (Facione, 1998).

Thinking is a process in which a person can recognize and interpret a sentence they are currently reading, the things they see around themselves, the word they write or the word they speak (Khun, 1999). According to Hooks (2010), these definitions were based on two different trends. The first defines thinking as a product or conclusion and the second defines it as a process of thinking. Behaviorists define it as products while cognitive psychologists as processes.

The needs of the modern world require that people of today possess the thinking skills. Instead of learning and giving information in teaching, learning thinking has become more important. Therefore, all students who are thinking, criticizing, producing and

knowing how to access information are educated and education programs are being prepared to give them the skills of thinking. Because when students possess thinking skills and especially critical thinking skills, they do not have difficulty in acquiring new opinions, attitudes and behaviors, or changing their possessions with the old ones. According to Nosich, (2012) instead of reaching a single recognized definition of critical thinking, it would be more functional to include certain definitions. For instance, Gündoğdu, (2009) defines critical thinking as the ability to think or think high on a thought while Paul and Elder, (2006) claim that it is the mastery of things in the thought system of a person. In short, Facione, (1998) puts forward that critical thinking can be put in the face of logical and rational forms of thinking. Halpern, (2004) explains that critical thinking skills can be learned and taught with many other thinking skills. Schafersman, (1991) conveys that because critical thinking is an important and vital issue in today's education, all educators should have the necessary skills to teach critical thinking to learners. Teaching critical thinking allows learners to look at events from a limited perspective and to perceive themselves and their environment in a better way. Therefore, there is a large variety of activities to be carried out in the educational environment of the critically thinking individuals in the development of their critical qualities. It is necessary to create enriched educational settings and activities that do not limit the learning capabilities and the development of knowledge skills of the learners. In this way, they can gain individual, productive, critical, scientific, tolerant, democratic thinking power by looking at the problems with a multi-perspective. Furthermore, the emergence of new approaches and methods in learning have been initiated by cognitive and constructivist educators in recent years. Thus, it can be easily seen that the role of instructors and learners has shifted from teaching what to think to teaching the way to think to help learners deal with the challenges of the modern era.

As underlined above, creating enriched educational environments and activities that do not limit the development of learner's skills and abilities is very significant. Because of radical changes in educational programs since 2005 in Turkey, educational programs originating from constructivist philosophy have begun to be implemented. Critical thinking skills are also included in the curriculum as a basic skill. Therefore, a significant increase has been observed, especially after 2005 in the studies conducted about critical thinking skills.

There are many different studies on teaching critical thinking, but scholars generally try to combine teaching critical thinking with communicative skills such as writing. Writing is of major importance considering the communicative framework of language teaching because it is one of the productive skills in language learning. In the modern world where languages are acquired for communication, this productive skill should be fostered in language classes. Hence, Matsuda & De Pew, (2002); Silva & Brice, (2004) states that research on L2 writing has dramatically increased and known as a new research field recently.

The main goal in language teaching is to make students acquire four basic skills in the target language. Students need to improve their writing skills so that they can express their feelings and thoughts in the foreign language they are learning in written form and learn how to write the language correctly. However, due to reasons such as putting the emphasis more on the rules of linguistic knowledge in language teaching and insufficient lesson hours, teaching writing is not given the necessary importance. However, in order for a language to be learned in the best and the right way, the writing skill must be taught correctly as one of the four basic language skills.

## **1.2 Statement of the Problem**

Lai (2012) informs that critical thinking has been widely used by educators since it was considered to be vital in the 21st century. In the same direction, the National Curriculum (2004) involves critical thinking as one of those skills that need to be improved. However, since the beginning of the 1990s, critical thinking levels of Turkish students have been reported to be low and moderate (Bökeoğlu & Yılmaz, 2005, Dayioğlu, 2003, Tümkaya, Aybek, & Aldağ, 2009). Furthermore, as there are some problems which are expected to be analyzed and studied more in detail regarding the critical thinking in EFL (English as a Foreign Language) education, another problem rising in FL is writing classes. It is thought that this is closely associated with negative approaches of learners towards writing. Sharples (1993) highlights that learners are demotivated by the nature and complexity of writing. It causes them to be discouraged resulting in negative attitudes. It is of crucial importance to develop attitudes towards writing, which is a component of writing development. decrease problems, and attempt to construct more gratifying, encouraging, and autonomous classes.

EFL writing teachers need to integrate technology into the classroom to deal with both negative aspects experienced in foreign language classes. Learners have restricted practice time for the L2 and therefore negative attitudes towards writing skills. Today's world belongs to "digital natives" which is defined in the Online Cambridge Dictionary (<http://dictionary.cambridge.org>) as "a person who is very familiar with digital technology, computers, etc. because they have grown up with them." Digital natives have almost limitless access to technology which always develops all over the world. With their technological devices such as smartphones, laptops, mp3 players, netbooks, tablet PCs, iPods, etc., digital natives cannot keep away from their technological devices in today's educational contexts. The integration of their devices into learning settings can probably yield better results in terms of language learning and production.

### **1.3 The Significance of the Study**

It is a fact that teachers are required to be critical thinkers to be able to foster the critical thinking skills of learners (Ten Dam & Volman, 2004; Kaye & Ragusa, 1998; Williams, 2005). Hence, throughout the language education, the maximum efforts need to be spent on teaching critical thinking by language teachers.

The results of different instructional methods have been analyzed to be able to teach critical thinking skills to learners. It is discussed that the way critical thinking is integrated into teaching settings has been affected by technological innovations. Moreover, by using the technological innovations, *Flipped Classroom*, an instructional strategy and a type of blended learning that reverses the traditional learning environment by delivering instructional content, often online, outside of the classroom is suggested in the current study as one of the effective ways to inspire critical thinking skills in the classroom. It transfers activities, involving those that may have traditionally been accepted as homework, into the classroom setting. In a flipped classroom, learners watch the lessons online and they try to collaborate, or carry out research at home and engage in concepts in the classroom through online discussions.

The effectiveness of the *Flipped Classroom* instruction has been investigated in many studies conducted in L1 settings (e.g. B Tucker, 2012; Bishop & Verleger, 2013; Herreid, NA Schiller, 2013). However, there is a limited number of studies that focuses on the potential of *Flipped Classroom* instruction in developing the critical thinking skills of L2 learners (e.g. Kong, 2014).



This study, therefore, aims to fill this gap in the literature with its focus on the development of EFL university students' critical thinking skills and L2 writing performance through Flipped Classroom instruction. More specifically, the aim of this study is threefold: To examine the effects of Flipped Classroom critical thinking instruction on the critical thinking and L2 writing performance of Turkish EFL learners; to determine whether receiving *Flipped classroom* critical thinking instruction leads to a difference in the EFL learners' perception of critical thinking; and lastly to investigate the EFL learners' perceptions of the *Flipped Classroom* integration.

#### **1.4 Research Questions**

1. Will there be a major difference between the EFL students who get conventional education and those who are educated with aim of increasing critical thinking skill through Flipped Classroom method on the subject of:
  - a. critical thinking stages?
  - b. EFL writing achievements?
2. Will there be a variation in the EFL learners' perception of critical thinking when the study ends?
3. What are the EFL students' opinions about the Flipped Classroom-supported instruction?

#### **1.5 Hypotheses of the Study**

According to the research questions above, the expected outcomes of the study, in other words, the hypotheses of the research are listed below:

1. The students who receive Flipped classroom-supported critical thinking instruction are more successful than the students who receive traditional instruction. Through the critical thinking instruction that students receive, they will analyze what they will learn and sustain what they have learned for a long time.
2. There will be a significant change in the EFL students' understanding of critical thinking and this will affect their language learning process positively.

3. The EFL students' opinions about the *Flipped Classroom*-supported instruction are expected to be positive because students will not have traditional learning which integrates technology into critical thinking.

### **1.6 Limitations of the Study**

- 1- The study is limited to one semester of teaching Flipped Writing Class.
- 2- This study is limited to two groups of students attending education at a private university for 6 weeks in 2018 – 2019 academic year.

### **1.7 Assumptions**

1. Levels of English knowledge are considered similar for both the experimental group and the control group.
2. All students are expected to have access to the internet easily and follow the videos prepared by the researcher.
3. It is assumed that all students in the experiment group respond to the questionnaire sincerely and assess their performance.
4. It is also assumed that the researcher will provide help for students by downloading and copying some technological tools, such as lack of computer or internet connection, necessary documents and videos into DVDs, flash memory or directly to the computers.

### **1.8 Definitions**

**Blended Learning:** There are different definitions of blended learning. Most of the researchers prefer defining blended learning as simply the combination of online (mostly asynchronous) learning with face-to-face learning environments (Reay, 2001; Rooney, 2003; Sands, 2002; Ward & LaBranche, 2003; Young, 2002).

**Flipped Class:** It is a term that has been recently introduced to the literature referring to inverted classrooms which bring an innovative perspective to the traditional lectures.

**Digital Native:** A person born or brought up during the age of digital technology and therefore familiar with computers and the Internet from an early age. ([www.oxforddictionaries.com](http://www.oxforddictionaries.com))

Course Management System: CMS is a software application for the administration, documentation, tracking, reporting and delivery of e-learning education courses or training programs (Ellis, 2009).

Video Lectures: Videos created by the teacher or collected from different sources. They represent the homework part of the Flipped Writing Class.



## **CHAPTER II**

### **REVIEW OF LITERATURE**

#### **2.1 Blended Learning**

##### **2.1.1 Definition**

Blended learning has been characterized as consolidating instructional modalities (Bersin and Partners, 2003; Orey, 2002a, 2002b; Singh and Reed, 2001), joining instructional techniques, House (2002) and Rossett (2002), and a mix of online and in-class education (Reay, 2001; Rooney, 2003; Sands, 2002; Ward and LaBranche, 2003). As proposed by Bonk and Graham (2006:5), “Blended learning systems combine face-to-face instruction with computer-mediated instruction.” Driscoll (2002:1) concentrates on a) the blend of methods of web-based technology; b) the mix of different academic methodologies; c) a combination of instructional innovation with face-to-face instruction, and d) the blend of instructional innovation with real tasks.

##### **2.1.2 Theoretical Framework**

Instructional methods vary depending on the requirements of that era. When information and communication technologies (ICT) began to develop, the educational environments started to realize blended learning. Structural linguistics and behavioral psychology prevailed in education during the early 1940s and 1950s (Brown, 2007). Behaviorism concentrated on a stimulus-response-reinforcement methodology because it regarded language as a structured system. According to the behaviorist perspective, languages have the ability to be categorized into portions or units and then systematically defined, compared and rejoined to 'form the whole' (Brown, 2007:10). Cognitive psychology became more popular in the 1960s, 1970s, and 1980s, as a result of the criticism behaviorism received for disregarding the mental characteristics of language. Leading that era were Chomsky's generative-transformational linguistics, Saussure's performance and competence dichotomy, and innateness aspects of languages. The focus shifted from stimulus-response relations and cognitive psychologists to explore the psychological characteristics of languages. Resulting in

importance being placed on the learner and teacher communication and relationship, and prompted learner-centeredness in education. Constructivism, paired with technology-enhanced learning techniques, began to lead the academic arena when innovation burst into academics after the 1980s.

Blended learning, combining two learning environments, progressively materialized. It utilizes the traditional face-to-face learning environment; dominant for centuries with the educator as the primary organizer, controlling entire lessons, activities, projects, and assignments and either actively or passively delivering information to the learners. Typically, learners receive information passively (Dabbagh and Bannan-Ritland, 2005, cited in Caner, 2009). To increase the effectiveness of teaching and the learning process, various teaching methods have been combined in face-to-face learning environments. Technological innovations, such as televisions, overhead projectors, VCD and DVD players, computers, etc. have enhanced face-to-face learning and teaching environments.

Learning options were not only limited to the face-to-face learning environment. Technological development ensured the improvement of the online and distant learning environments, and gradually, the integration of advances in ICT into the face-to-face learning environments provided academic prospects anytime or anywhere.

According to Graham (2006), in the past face-to-face and online learning systems were two distinctive terms; but presently, the use of blended learning systems in the traditional face-to-face learning environments is increasing and this trend will likely to continue in the future. The combination of traditional face-to-face and distributed learning environments is illustrated below.

From a historical perspective, Graham (2006) concentrates on four measurements of communication in face-to-face and distributed environments. As can be seen in the following figure, the distributed environments have started to get ahead of the face-to-face learning environments in terms of time and convenience dimensions. For instance, due to technological advances, a distributed environment can support synchronous instruction; efforts are increasing to give computers a more social and human feel.

The historical development of blended learning indicates that changes in innovations in educational instruction will continue. This idea is highlighted by Graham (2006:7) as follows:

“Although it is impossible to see entirely what the future holds, we can be pretty certain that the trend towards blended learning systems will increase. It may even become so ubiquitous that we will eventually drop the word blended and just call it learning.”

In the future, the prevalence of blended learning in the field of education will require staying up-to-date with technology and incorporating that technology into our learning environments.

### **2.1.3 Constructivism and Blended Learning**

Constructivism is a learning theory in which a new understanding is created by individuals based on existing ideas and knowledge and what is encountered (Resnick, 1989, cited in Richardson, 2003). Brown (2007:12) states constructivism is the 'integration of linguistic, psychological, and sociological paradigms, in contrast to the professional chasm that often divided those disciplines in the previous century.' Constructivism is divided into two as cognitive and social.

In cognitive constructivism, students create their own representation of reality. By active participation of the students in the classroom, the information should be transformed, making it their own (Brown, 2007). Cognitive constructivism is based on the work of Piaget; he expressed that learning is a formative procedure comprising progress, self-generation, and development; each based on earlier learning encounters. When new experiences are integrated into existing schemata, learning occurs (Kaufman, 2004).

The fundamentals of social constructivism, on the other hand, are shaped by Vygotsky's work and puts the emphasis on social interaction and cooperative learning. Vygotsky proclaims that children's thinking and understanding is socially constructed and materializes out of their social exchanges with their environment. Shifting this concept to the classrooms, and therefore, teachers and peers facilitate students' learning (Kaufman, 2004). Vygotsky characterized Zone of Proximal Development (ZPD) as the separation between the learners' real development level and the level of their potential growth. ZPD is exceptionally prevalent and is a noteworthy characteristic of social constructivism, as it depicts tasks that a learner cannot fulfill alone. Although,

the learner is easily able to execute the assignment if they receive help, referred to as scaffolding -internal or external- from someone with higher knowledge and capability. External scaffolding supports “learners' acquisition of knowledge by separating tasks into intelligible segments, demonstrating, coaching, providing feedback, and appropriating responsibility for learning to learners.” (Kaufman, 2004:304). To help students learn effectively, internal scaffolding provides students with reflection and self-monitoring. Educators attempt to recognize students' ZPD and create a reasonable, real, and meaningful learning environment. They also empower learning by offering instructional support and scaffolding to allow students to gain higher levels of knowledge (Kaufman, 2004; Brown, 2007).

Constructivist perspectives have been reflected on and integrated into language education in numerous instructional models. Examples of this include the centrality and assorted types of learners, their dynamic contribution in authentic and important assignments as an individual and a community member. Constructivism has contributed to language education curriculum, assessment dimensions, instructional practices, cooperative learning, alternative assessments, and learner independence (Kaufman, 2004). In 1999, Egbert and Hanson-Smith (referred to in Swamp, 2012:1) recognized and characterized that the constructivist point of view is reflected in ideal conditions for successful language learning. The most cited ideal conditions for successful language learning are as follows:

1. Learners interact in the target language with an authentic audience.
2. Learners are involved in authentic tasks.
3. Learners are exposed to and encouraged to produce varied and creative language.
4. Learners have opportunities to interact socially and negotiate meaning.
5. Learners have enough time and feedback.
6. Learners are guided to attend mindfully to the learning process.
7. Learners work in an atmosphere with an ideal stress/anxiety level.
8. Learner autonomy is supported.

There exists great difficulty in achieving this environment in foreign language classes. Often, students have inadequate exposure to the target language they are trying to learn. According to Marsh (2012), there is limited instructional time, therefore, it must

be efficiently utilized. Using technological tools such as video players, newspapers, VCD-DVD players, recording devices, overhead projectors, and language laboratories, language instructors attempt to create an environment resembling genuine and authentic use of the target language. Instructors, knowingly or not, utilize 'a blend of teaching approaches' to provide a more enriched and authentic environment by focusing more on the learners (Marsh, 2012:2).

To create optimal learning environments, independent learning should be a prerequisite for the blended learning environment. Marsh (2012:4) lists blended language learning strengths as follows:

- provides a more individualized learning experience
- offers more personalized learning support
- supports and encourages independent and collaborative learning
- increases student engagement in learning
- accommodates a variety of learning styles
- provides a place to practice the target language outside the classroom
- provides a less stressful practice environment for the target language
- provides flexible study, anytime or anywhere, to meet learners' needs
- helps students develop valuable and necessary twenty-first-century learning skills.

Creating the ideal environment for effective language learning can be reached by utilizing blended learning tools. A flexible learning environment is established when learning is combined with blended learning tools. Looking at collaborative learning, particularly collaborative writing, as an example, instructors may use word processing software, wikis, and blogs to encourage learners to become independent and self-directed learners. Additionally, spoken and written authentic language can be accessed via the internet.

Clearly, constructivism, ideal learning conditions for successful language learning, and blended learning frameworks all function to create dynamic learners in the learning process. From this perspective, by its nature, blended learning is student-centered. Encouraging learner-centeredness and learner autonomy are the main focus of blended learning. Students are actively engaged in the learning process, and



therefore dependence on the teacher is minimized. Students learn from and help each other while maintaining communication with the classroom and the teacher. The teacher works to guide, direct, and facilitate the students' learning by helping them take responsibility for their own learning (Marsh, 2012). Blended learning gives students complete flexibility in their learning, allowing them to choose when and where they prefer to study. Graham, Allen, and Ure (2003, as cited in Graham, 2006:8) specify that blended learning is (1) enhanced teaching method, (2) improved access, and (3) augmented effectiveness. The enhanced instructional method is the main objective of the blended learning systems as it is argued that they also increase the level of dynamic learning techniques, peer-to-peer learning strategies, and learner-centered methodologies. Thus, it is a more applicable educational approach compared to the traditional one. Increased access and flexibility are the second goals of the blended learning systems, which gives learners universal learning conditions. With the last goal of increasing cost-effectiveness, educators can contact more individuals who require instruction in a brief time frame at a lower cost.

#### **2.1.4 Types of Blended Learning**

Most blended learning systems occur in four distinct levels: activity-level blending, course-level blending, program-level blending, and institutional-level blending. The learner, instructor, or designer determine the nature of the blend (Graham, 2006).

When learning involves both face-to-face and computer-mediated elements, activity-level blending takes place. In a higher education setting, incorporating innovative devices into exercises in the classroom creates more authentic learning (Graham, 2006).

Blending at the course-level combines computer-mediated and specific face-to-face activities as part of the course. Learners engaged in computer-mediated and face-to-face activities which may overlap or be in blocks separating the activities depending on the blended system.

Program-level blending offers students a choice between face-to-face and online courses. A certain percentage of blended and face-to-face courses is required in some programs while others allow students to select either an online or face-to-face version of the same program.

Institutional-level blending is the last level and is linked to some models designed at the institutional level. Some universities require students to take at least one online course to qualify for graduation. Graham (2006) brings attention to the fact that several organizations, institutions, and universities suggest systems which demand students to start and finish courses with face-to-face instruction and have online activities in between.

### **2.1.5 Relevant Studies on Blended Learning**

Research on blended language learning, in general, has been growing, however, research on blended learning for improving writing skills is limited to some extent. Waddoups, Hatch, and Butterwoth's (2003) study measures the effectiveness of a blended learning environment for a writing composition course by comparing traditional and blended learning environments through student surveys, instructor time surveys, instructor interviews, feedback from student focus groups, completion rates and grades, and student writing samples, given before and after the course. The study concluded that a blended learning course has a time savings of 25% and provides more convenience and flexibility compared to a traditional course. Furthermore, blended courses require independent learners to be familiar with technology, instructors must familiarize themselves with technology, and the blended model leads to more permanent writing skills of the students.

Examining the impact of blended learning on undergraduate academic essay writing, Ferriman (2013) conducted an experimental study with the participation of 30 students, 15 in the experimental group and 15 in the control group. Given the same task, both groups utilized face-to-face communication, but the experimental group additionally used an online bulletin board. The study concluded that in terms of the number of references used, word count, and essay score, there was no statistically significant difference between the groups, although the online bulletin board method for academic writing can be suitable for larger classes.

Arani (2012) incorporated computer technology and the internet into a language classroom to define the attitudes of medical students toward medical writing. There was a significant change in learner's attitude towards medical writing from negative before the integration to positive after the integration, concluding that internet tools and blog-assisted language learning exercises had great potential for improving writing skills. Similarly, Clark and Olson (2010) express that the instrumental format

needed for student mastery of scientific writing competencies is provided by the blended instructional model.

Bahce and Taslacı (2009) analyzed the students' perception of a blended writing class for intermediate level EFL students in a preparatory class. Students initially perceive the writing class negatively, however, this perception dramatically changes after the implementation of blending instruction. Blended writing classes provide meaningful writing opportunities and promote positive viewpoints for writing. Shih (2011) researches the impact of a blended teaching approach of incorporating Facebook and peer assessment with college English writing class instruction. Positive findings were obtained using this approach and it was stated that the blended approach can be interesting and effective so that students can enhance their writing skills through in-class instruction and cooperative learning, as well as students' increasing motivation and interest.

Preferring the term "hybrid" for blended learning, Harrington (2010), remarks on the restrictions of only online courses and suggests researchers concentrate on hybrid courses as a hopeful alternative. She warns that hybrid delivery can be harmful to students who do not have access to technology, computer skills, and good reading abilities, and adds that hybrid delivery is advantageous for developmental students who do not have adequate evidence. Moreover, she suggests that hybrid delivery does not directly attach priority over face-to-face classes.

Miyazoe and Anderson (2010) conducted a study on a university language education classroom in Japan with a learning management system in a blended learning context. Researchers explored the efficiency of using forums, blogs, and wikis simultaneously. It was concluded that wiki was the most preferred tool followed by blogs and forums. Assessed texts of forum and blogs demonstrated improvement in students' writing styles and abilities. Wong, Chen, Chai, Chin, and Gao, (2011) conducted research in China about utilizing wiki-based writing instruction in a collaborative writing setting to enhance students' abilities of writing sub-skills. It was found out that there was a significant development in students' micro skills for writing through wiki-based writing instruction. Another study about blended learning and Common European Framework of Reference was conducted by Shaarawy and Lotfy (2013) with a focus on an EFL undergraduate writing course in Egypt. Using a control group, researchers conducted a quasi-experimental pre and post-test study. Instruction through

asynchronous writing activities was given to the experimental group while traditional face-to-face instruction was given to the control group. Because of that study, a significant change for the experimental group in comparison to the control group was found.

Johnson (2013) conducted a Ph.D. study at The University of Tennessee and compared the opinions of two groups about blended and online courses. Positive feedback towards a blended learning system was collected from the students instructed through online and blended learning exercises. According to Larsen (2012), educators require a minimal amount of educational preparation to employ a blended learning system and it was found that students engaged in studies that are more independent and developed positive attitudes towards blended learning.

## **2.2 Flipped Learning**

### **2.2.1 Background, Definition, and Characteristics**

Flipped learning is a modern technique focusing on using productive class time by modifying the traditional objectives of both teacher and student roles, in and out of the classroom environment. Flipped learning helps students become dynamic members in classroom exercises. In this learning technique, students should watch pre-recorded courses or review notes provided by the instructor, who is just a guide or a director, prior to coming to class and at their own pace by allowing them for note taking or repetition. They can take part in dynamic learning independently or as a group. The main responsibility of the teacher is to direct students and correct their mistakes.

Presentation or lecture, typically taking place in the classroom, becomes a pre-class assignment, hence taking the name Flipped Learning. The flipped model turns traditional homework into classwork and allows students to get instant feedback and clarification while attempting to apply the learned material (Anderson, 2012). Because not every learner has access to the internet, they can access the course materials in various ways with the use of innovative technology such as CDs, USBs, memory cards, tablets, and so forth. The flipped classroom is a means of using educational technology to activate how students are able to access information and get the advantage by being completely involved in the learning process (Anderson, 2012).

Flipped learning goes back to 2007 when Jonathon Bergmann and Aaron Sams (chemistry teachers) started screen-casting as a way to make up for lessons their

students missed. Their Chemistry and Advanced Placement Chemistry classes for the 2007-2008 school year were recorded and uploaded to the internet. Students were required to take notes on these videos and prepare one insightful question for discussion. There were positive results after they flipped their classroom and they stated that their students started communicating more, and the class time was used more effectively and flexibly. They visited other schools, hosted conferences, and recently co-wrote a book called *Flip Your Classroom: Reach Every Student in Every Class Every Day*, published in July 2012.

The flipped classroom is a blended learning approach, currently known as an alternative instructional methodology, and can be considered an educational model utilizing reversal of the lecture and homework course components. Commonly, flipped learning is identified by video lectures and their ease of accessibility and this highlights the benefits of flipped learning.

Bergman and Sams (2013) express that instructor made recordings cannot be the critical factor in blended learning. Its emphasis is on most efficient use of class time. In the flipped classroom concept, dynamic learning, student engagement, hybrid course design, and course podcasting are used. Restructuring class time into a workshop and allowing students to question lecture content, the real motivation of a flipped class is related to testing their abilities in applying knowledge and participating in hands-on exercises. Throughout the class sessions, teachers work as mentors or consultants and empower students individually or as a group.

Bergman and Sams (2013) convey that students finish their homework at home and then attend class prepared with a series of questions; teachers allocate time for the prepared homework questions, new content, guided and independent practice in the traditional model. However, in the flipped classroom, time is allocated for a quick warm-up exercise, questions about the assigned video and extensive time are given for guided and independent practice. Flipped classrooms enable students to have adequate time to use the language with in-depth practical exercises.

Hamdan, McKnight, K. McKnight and Arfstrom (2013), expressed that flipped learning replaces the conventional lecture-centered instructional model with flipping the students' learning needs. Flipped learning provides the students with 'individual learning space.' Hamdan et al. (2013:3) detail as follows:

Eliminating direct instruction in this way allows teachers to reconsider how to maximize individual face-to-face time with students. Time becomes available for students to collaborate with peers on projects, engage more deeply with content, practice skills, and receive feedback on their progress. Teachers can devote more time to coaching their students, helping them develop procedural fluency if needed, and inspiring and assisting them with challenging projects that give them greater control over their own learning.

Clearly, flipped learning focuses on constructing student-centered learning by supporting and providing students with personalized feedback and assistance.

Hamdan et al. (2013) stress flexible environments, a shift in learning the culture, intentional content and professional educators. It is highlighted that flexible learning environments of flipped learning are necessary because of the categorization of learning modes in flipped classrooms. Reordering of the learning space to suit the needs of group work, independent study, pair work, evaluation, performance, and research can be needed. Due to the nature of flipped learning, in contrast to traditional classes, flipped classes appear to be somewhat noisy and loud.

Flipped learning offers a change in learning the culture. Students become the focal point of learning instead of the result of teaching (Hamdon et al., 2013). By developing close interactions with students, teachers can determine their level of readiness. Taking this perspective into consideration, flipped learning coincides with the qualities of constructivism, which concentrates on a students' ZPD as characterized by Vygotsky (1978).

Intentional material is necessary for flipped learning. The student-focused aspect of flipped learning offers teachers flexibility when it comes to preparing course materials.

Professional educators are also a prerequisite for flipped learning models. In such systems, educators must organize the time and method used to change direct instruction into individual learning space, and therefore, their role is more critical compared to the traditional systems. According to Gojak (2012), whether or not to implement the flipped model is not essential, instead, it is about how to effectively organize a face-to-face time to allow for students' conceptual understanding.

The flipped classroom is not actually a new concept, but the expression "flipped" is recent. Some instructors have attempted to flip their classes by giving students the

course topic at home, while in the classroom, working on homework (Springen, 2013). However, as a result of technological advances, especially in the educational field, flipped classrooms are becoming more popular. Bergman and Sams (2012: 19-33) implemented the flipped classroom model for their chemistry course, and have outlined the following reasons why instructors should consider this model:

*Flipping speaks the language of today's students;* since today's students were "born digital," they can use the devices that embrace their world for educational purposes. Flipped learning promotes the use of digital devices, rather than forbidding.

*Flipping helps busy students.* Students today often miss regular classes due to their busy lives. A flipped classroom offers students an escape way in their busy lives, which is impossible in conventional classes.

*Flipping helps struggling students.* Traditionally, the teachers' attention is mostly engaged by the hardworking students, and those who raise hands, eagerly answer or ask questions. Nevertheless, less successful students generally cannot have enough class time to be dealt with intensively. Flipped classrooms give instructors more opportunity to manage these struggling students with face-to-face instruction, in contrast to traditional classes.

*Flipping helps students of all abilities to excel.* Flipped learning mostly benefits students with special education needs because they can take the necessary time to understand important topics. These students continually struggle with note taking while simultaneously attempting to listen to a teacher in traditional class settings.

*Flipping allows students to pause and rewind their teacher.* Teachers have a difficult task of changing the lesson pace. Students learn at different levels and quick learners can become bored with slowly paced lessons. An advantage of flipped learning is that with the option of pause and rewind students can watch videos lectures at a pace that suits their learning rate.

*Flipping increases student-teacher interaction.* Flipped learning concerns some educators, and they debate that it represses them for student-teacher interaction. It should be noted that flipped learning is not completely web-based and educators of flipped classrooms meet their students on a regular basis, as in the traditional class setting.

*Flipping allows teachers to know their students better.* The flipped learning environment increases teacher-student interaction, opening up opportunities for better relationship building. The traditional role of the teacher is changed with the one-on-one interaction between the students and the teacher, and the teacher acts as a guide or counselor.

*Flipping increases student-student interaction.* Student-to-student interaction increases in flipped learning. Students work to achieve the same goal and form collaborative groups, helping each other learn and empowering interaction among them.

*Flipping allows for real differentiation.* As flipped learning allows teachers to reach most students individually, the teacher can identify weaker students and determine each student's abilities. This gives weaker students an opportunity to have more personalized instruction focusing on the core concepts of the class instead of getting lost in more complex ideas.

*Flipping changes classroom management.* Flipped learning turns the classroom into an active environment and eliminates disruptive behaviors that may occur in the passive setting. Students who are usually bored in the traditional setting become eager to 'dive into the learning' (Bergmann and Sams, 2012:29).

*Flipping changes the way we talk to parents.* As a result of flipped learning, students come to class prepared to learn and productive primary and high school parent-teacher meetings are focused on how to foster learning rather than discussing problems.

*Flipping educates parents.* Students watch the lecture videos at home and parents occasionally watch them with their children, informing the parents about the course and allowing them to be active in their child's learning process and offer assistance where needed.

*Flipping makes your class transparent.* Family and friends of the students are able to view and understand the students' coursework satisfying any curiosity they may have.

*Flipping is a great technique for absent teachers.* Teachers post their course videos prior to class. Thus, if the teacher must be absent for any unexpected reason the students will still be able to follow the course by watching the video lecture and will not fall behind.



*Flipping can lead to the flipped-mastery program.* The flipped-mastery model allows students to select their content material, and students are not required to watch the same videos on the same days. Hence, they are able to study at their own pace until they master the relevant content.

In 2010, teachers Jonathan Bergman and Aaron Sams of the Byron School District modified some flipped classroom techniques to suit their classroom needs (Fulton, 2012). According to Fulton (2012:20-24), Byron teachers gave the following reasons to apply the flip:

- Students move at their own pace.
- Doing “homework” in class gives teachers better insight into student difficulties and learning styles.
- Teachers can customize and update the curriculum and provide it to students 24/7.
- Students have access to multiple teachers’ expertise.
- Teachers flip Professional development by watching each other’s videos and learning from each other.
- Classroom time can be used more effectively and creatively.
- Parents have a window into the coursework.
- Student achievement is increasing, so is interest and engagement in higher-level math.
- Learning theory supports new approaches.
- The use of technology is flexible and appropriate for 21st-century learning.
- Last, but certainly not least; Students like the flipped classroom!

Clearly, what the Byron educators conclude from applying flipped learning overlaps with the findings of Bergmann and Sams. In addition, Byron educators stress the correlation between flipped learning and teachers’ professional development.

Clintondale High School is another example of American schools which have recently applied flipped learning. The school progressively used the flipped model beginning with a couple of classes in the 2009-2010 academic year. In 2010, the administration

chose to flip the whole school, attributing the decision to the vast growth of student achievements. According to Rix (2012), Clintondale High instructor Andy Scheel stated that flipping his classroom broke the barriers among teaching and learning hours. Moreover, some teachers stated that unlimited access to the classroom occurs in the flipped model.

The traditional classroom model is replaced by the increasing implementation of flipped learning in the US and its practical methods of learning and teaching in the age of technological innovation. It is demonstrated through the previously mentioned cases that flipped learning can be an efficient technique for merging innovation with face-to-face learning. Stuntz (2012) uses the terms time and attention to describe flipped learning and states that flipped learning greatly adds to blended approaches worldwide. At home, students view a previously recorded video of the teacher's traditional class lecture, which is shortened and focuses on the key points of the content via YouTube or other Learning Management Systems (LMS) such as Edmodo or Moodle. The LMS applications offer students simultaneous chats and they can also rewind the video to any frame and replay it. In essence, the teacher goes home with them for their homework. Homework moves to the classroom, and as suggested by Stuntz (2012), there is a shift in the characteristics of time and attention. Stuntz (2012) similarly refers to McCammon who is acknowledged as another leading figure of flipped learning. McCammon (2013), in his YouTube channel, mentions how flipped learning can render better instructors and students, claiming that better instructors mean a greater student achievement.

Flipped classroom educators are characterized as effective, reflective, and masters at relationships. Their efficiency stems from their effective time use, concentrating on classroom practice and increasing teamwork among students. By regularly monitoring themselves they are reflective, and therefore, cultivate their teaching skills in relation to material and teaching method by positively impacting student success. Close relationships that educators can establish with students and parents, as a result of flipped learning, makes them masters at relationships.

Overall, the texts regarding flipped learning show significantly positive findings, however, there are obviously some other aspects. The next chapter discusses some concerns and past research about flipped learning.

### **2.2.2 Criticism of Flipped Learning**

Previous research on flipped learning is limited because it is a recent method, and despite this, there is a considerable amount of online material emphasizing some of the flipped learning's negative aspects.

Those objecting the flipped model claim that it is necessary to be careful when flipping a classroom due to the lack of access to computers and the internet that students may encounter outside of school. Waddell (2012:7) opposes forcing students to utilize the internet at home:

Making technology use at home mandatory would serve only to increase the academic achievement gap between high and low-income students that is already apparent in education. Until the broadband connection is in every home, the flipped classroom will ignore some of the students, leaving them lacking in necessary instruction while their wealthier peers continue to succeed.

The critics of the flipped model are concerned about the possibility of students not watching the videos prior to class and suggest that for all students lecture is not the ideal teaching method. On the other hand, teachers who use the flipped model already considered that some students may have missed the video and can play it in the first few minutes of class for those who have not viewed it. Furthermore, there is a daily increase in home computer and internet use. Hamdan et al. (2013) report that a study in 2010 indicated that 57% of students aged 3 to 17 use the internet at home, roughly three times the 1997 rate of 22%. 85% of students have computer access at home. This study found that some families of lower income have limited internet access at home.

It is also stated that flipped learning ignores reality. Pettigrew (2012) characterizes its trend and suggests that lecture quality needs improvement not to be flipped. Wheeler (2012) also states that time needs to be focused on lecture improvement, not lecture replacement, furthermore, removing lectures lowers the quality of education. In contrast, the lecture is not removed in flipped learning rather it seeks to improve the lecture and make more effective use of class time.

While watching the video prior to coming to class is a course requirement, students may neglect the video and arrive at class unprepared. At this stage, assigning quizzes related to video could be a solution. Herreid and Schiller (2013) raise concerns about video quality and suggest that it is difficult to find a high-quality video. However,

videos created by educators are authentic and high quality but it requires too much time to prepare.

According to Hamdan et al. (2013), Gary Stager, a teacher, speaker, and columnist, states three concerns in relation to the flipped model, too much emphasis on lectures and homework, excessive course load that cannot be covered during class time, and the possibility of privatization of education and hence no need for educators; teachers will be given positions to post video content and fail to meet the needs of the students.

In conclusion, some negative occasions exist in terms of flipped learning's practicality, with most of criticism focusing on accessibility. Yet, there is a rapid increase worldwide in the computer and internet accessibility rate. Furthermore, courses can be delivered digitally via numerous techniques, including downloading material to a USB device or memory cards, viewing videos via smartphones, iPod, tablets, etc. Lectures can also be copied onto DVDs. It should be noted that flipped learning may not fit with all lessons or course materials and some students may be suitable for traditional settings. Further research on flipped learning must discover its potentials. Existing research is exhibited in the following chapter.

### **2.2.3 Relevant Studies on Flipped Classroom/Learning**

Research about flipped learning is limited, as most of the studies are typically focused on blended learning and its implementation. Specifically, the research on flipped language learning and teaching is minimal. In this section, some research regarding flipped learning and flipped language learning are presented.

Comparing a statistic class in both a flipped and traditional setting, Strayer (2012) found that students were less satisfied with how the classroom structure oriented them to the course tasks, however, they became more receptive to innovative teaching methods and cooperative learning. In a similar way, Wilson (2013) states that student and teacher experience can be negatively impacted by students' capabilities, motivation, math anxiety, and readiness, and additionally, has the potential to impact student learning negatively. In the study, the course was "flipped" moving most of the basic information acquisition out of the classroom, allowing more class time for interactive classroom activities.

In an observational study of a flipped construction management scheduling class, Rogers and Tingerthal (2013) discovered that the teacher stops controlling workflow

and needs to stay flexible to direct the class in different ways when the level of interest decreases in the flipped classroom. Nevertheless, they express that the flipped class provides an opportunity for the teachers to develop personal connections with the students and there is great potential for more effective teaching and student learning.

Mason, Shuman, and Cook (2013) compared a flipped setting's effectiveness with a traditional setting with regards to content coverage, students' test and quiz performance, and the scope of students' observation and impression of the flipped setting. It was found out that in the flipped setting, teachers are able to cover more material, student exam marks are the same or better, and they make a positive swift adjustment to the new setting. Similar findings were reported in a study conducted by Davies, Dean, and Ball (2013). Smith's (2013) research on students' opinions about the flipped classroom determined that while the limited number of students were opposed, most students found the model more successful. In General Chemistry classes, Smith applied flipped learning and students reported that they utilized video lectures for test preparation, an aid for homework, reinforcing concepts, and clarification of concepts. This is in contrast to Missildine, Fountain, Summers, and Gosselin's (2013) study which found that students were not satisfied with the model. There was a comparison of lecture only, lecture and lecture capture back-up, and flipped classroom approach. Based on test results, when compared to the lecture only and lecture capture back-up, the flipped learning method with collaborative classroom exercises resulted in enhanced learning.

Wilson's (2013) study examined the effects of a flipped classroom in terms of students' motivation, anxiety, and attitude. An atmosphere of instant feedback was possible when the lecture part of the course was flipped and students were provided with more in-class opportunities to use their statistical knowledge.

Jonson and Renner (2012) investigated the effectiveness of conventional and flipped course presentation techniques with a mixed-method design. Students' perceptions, academic achievement, and student and teacher questioning were assessed in a flipped high school computer application course. There was not any significant difference with regards to students' perceptions and academic achievement. Teacher questioning did not have a substantial change, but students asked more questions in the conventional setting. An MA study conducted by Schwanki (2013) revealed that three out of six students who took Integrated II Mathematics course and had instruction through

flipped learning had considerably higher scores and all scores in a flipped classroom were higher. Furthermore, in the flipped setting, students generally had a more positive idea about leaning.

Baranovic's (2013) tried to determine whether flipping first-year composition courses encourage students' composition writing skills. Baranovic recorded and uploaded video lectures and preferred writing-style workshops, where collaboration and writing were encouraged, to conventional lectures. As a result of the study, it was suggested that the students' benefit from writing and their writing advanced the university standards.

In two separate college-level introductory statistic courses, Strayer (2007) compared flipped and customary classrooms. It was seen that students were less pleased with the class structure of the learning tasks of the course in the flipped classroom. Despite that, the activities in a flipped classroom vary and contribute to students' learning. Johnson's (2013) other study considers social media, educational technology, mastery learning, and self-pacing in flipped learning environments for three flipped high school math classrooms. The study showed that in traditional learning students did more homework than in flipped learning and students benefitted from viewing lectures in intensive videos and enjoyed the flipped environment. A self-paced instructional setting could be created using technology.

Very few studies examined the effect of flipped classroom on students' achievement and opinions in the EFL environment. Başal (2012) applied the flipped model at Yıldız Technical University, Foreign Languages Education Department in the fall semester of 2012-2013 for an "Advanced Reading and Writing I" class and found that most students had a positive attitude towards the flipped model.

Similarly, Nicolosi (2012) carried out a study focusing on teaching grammar through flipped classroom strategies, stressing that flipped classrooms include a dramatic change in mindset in the way of instruction and student learning process. It was also reported that the flipped model was not just watching videos outside the classroom and being busy with homework in class. After teaching flipped grammar lessons, Nicolosi found that the flipped model opened the door for her to be more conscious of students' metacognitive capacities. The flipped model also offered teacher support to students whenever necessary.

In this chapter, the most vital sources and past research about blended learning and flipped classroom were analyzed. Additionally, an emphasis was given to studies which contributed to the improvement of writing skills through blended learning and the flipped classroom model. In the following chapter, critical thinking and its place in education are discussed in detail.

### **2.3 Critical Thinking**

When the concept of critical thinking is considered, it is seen that it emerged about 2000 years ago by Socrates's search for the truth (Vandenberg, 2009; Carroll, 2004; Thayer-Bacon, 2000; Fisher, 2001). The transfer of Socrates' discourses by Plato and Aristotle contributed to the development of today's critical thinking system. When the dialogues conveyed by Plato are examined, it is seen that the validity, source and validity of the information are discussed in the conversation process (Thayer-Bacon, 2000). In addition to the many recognitions made in the following years, John Dewey defined modern thinking in critical thinking. In his definition of reflective thinking, Dewey defines critical thinking as in the light of active, persistent, opposing views or supporting evidence, and identifies the development of careful thinking, without the prejudice of belief or knowledge (Fisher, 2001).

According to Rudd (2007), critical thinking is a unique way of thinking. An individual who has systematic thinking and habit, intellectual lowbrow, empathy, open-mindedness, and courage, examines the facts in intellectual integrity. To put intellectual standards or criteria in the thought e.g. to define the reasons for the criteria, to give the idea to success or to the evaluation step, to specify precise, accurate, relevant, deep, meticulous, adequate, open standards). To support the structuring of thinking, to be aware of the components of rational thinking, to transform any component into a disciplined process, to bring standards to thinking, to evaluate the process by the continuous review, to use criteria for this purpose are the things to decide on the effectiveness thinking.

### **2.4 Critical Thinking and Education**

It is a fact that critical thinking has been acknowledged as a significant part of all fields of education for many years. Although teaching critical thinking is still not clear (Atkinson, 1997; Collins, 1991; Rfaner, 2006; Wallace, 2003), Wallace (2003) claims that successful teaching of critical thinking can be achieved only when the teachers

understand the concept of critical thinking. Therefore, it is inarguably suggested to form the concept of critical thinking. In other words, Ennis (1991) revised his explanation of critical thinking to mean “reasonable contemplative rational that is concentrated upon determining what to rely on or not”.

## **2.5 Assessment of Critical Thinking**

When the literature is examined, there are tools to measure different dimensions of critical thinking attitude on different age groups. In Turkey, although there is no standard measurement tool for measuring critical thinking, critical thinking disposition scales developed by different researchers are used (Akar- Vural, 2005; Özdemir, 2005). It can be said that “California Critical Thinking Dispositions Inventory” is the most frequently used measurement tool for determining trends both in Turkey and abroad. The adaptation study of the California Critical Thinking Dispositions Inventory was carried out by Kökdemir (2003). After this study, the scale consisting of 7 factors and 75 items was reduced to 6 factors and 51 items. This type of measurement tool has been used as a valid-reliable data collection tool in many studies. Thinking Dispositions Inventory was developed in 1990 by P. A. Facione and N. Facione as a result of the Delphi project organized by the American Philosophical Society in 1990. The validity and reliability studies of the scale were repeated on the nursing education graduate students. After factor analysis, the items in the scale were collected in 7 sub-dimensions (Facione, Facione and Giancarlo, 2000).

“Critical Thinking Attitude Scale” was developed within the scope of the research. It is aimed that each item, which is not skill oriented, is able to measure the basic efficiency of critical thinking independent of the age variable. In addition, it was tried to include different definitions and perspectives of critical thinking about the dimensions discussed in the scale. The report prepared by the American Association of Psychologists, studies in the field of critical thinking, improved scales, definitions in the context of philosophy and sources of dialectic thinking were analyzed.

## **2.6 Research on Critical Thinking Teachability of Critical Thinking**

Zoller, Ben-Chaim and Ron (2000) examined the critical thinking tendencies of university students in the intercultural level in the micro-sample. Critical thinking tendencies of a total of 60 Italian students studying biology and 42 Israeli students studying environmental science were compared. A similar comparison was made



among high school students. In this comparison, the high school and university form of the California Critical Thinking Disposition Scale was used. Research findings showed differences in high school and university sample. In general, however, the critical thinking tendency was significantly differentiated in favor of students studying in science. The trends of university students did not differ according to the nation. This situation is explained by the fact that both groups study in the field of science.

Hermann (2002) conducted an experimental study at the University of Erfurt with the participation of 70 students studying in different departments such as human sciences and social sciences. In this study, the differences between the effectiveness of critical thinking in supported web environment and giving in a traditional classroom environment were examined. The findings gathered through data collecting instrument which was the California Critical Thinking Disposition scale. Students were expected to “learn” four instructional activities in 60 minutes. In the research findings, it was concluded that the mean score of the experimental group where critical thinking was given in web supported environments was higher than the average rating of the traditional classroom environment.

Zhang (2003) examined the relationship between critical thinking disposition and thinking styles. For this purpose, two groups were selected from the University of Beijing and Nanjing. The Thinking Style Inventory was used to determine the students' thinking styles, and the California Critical Thinking Inventory was used for the critical thinking dimension. According to the results of the study, it was seen that thinking style contributed to students' critical thinking skills statistically.

Osana and Seymour (2004) evaluated the prospective teachers' ability to create arguments and statistical reasoning about complex educational problems with a rubric. The measurement tool was developed as a result of the literature review. It aims to measure how teachers use their views and the way they use evidence, the concepts of research, and how these concepts can be used to evaluate complex social problems and to observe different perspectives. The measurement tool was applied as pre-test and post-test. In the research conducted at the University of Missouri-Columbia, a class was intervened between two measurements. The text called Crowson was studied. During this five-week implementation process, discussions and writing activities were conducted to improve the pre-service teachers' discussion skills. During this procedure, teachers were given information about the strength of the evidence they

presented and the acceptability of their arguments. In the second stage, teacher candidates were coached and asked to discuss new cases in groups of 3 or 4. In the last step, the students worked individually and prepared their defenses. Following the completion of the experimental process, two forms of 4 open-ended questions were given to the prospective teachers, and they were asked to answer in 30 minutes. In these two forms, the rubrics were formed with the encodings, and the critical thinking skills of the teacher candidates were evaluated. After the analyses performed according to the qualitative analysis steps, it was observed that the prospective teachers benefited more from the research findings in making decisions about complex school-community problems, and reached the level of being able to distinguish the value of evidence. It was observed that teacher candidates developed in terms of analyzing the concepts about a situation, perceiving the relationship between them and providing evidence to support their views.

Daud and Husin (2004) examined the role of computer-aided activities in the development of critical thinking skills. The research was conducted with the students of the Department of Foreign Language (English) of the International University of Malaysia ( $n = 40$ ) and it was in a semi-experimental model. In the experimental group of the study which included an experimental control group, the same text was manually analyzed in the control group while the Othello literary text was used in the analysis of the computer program. Lessons from the experimental group were processed in the computer lab and the control group in the classroom. Data were collected by the Cornell Critical Thinking Test. Besides, the lectures were occasionally observed by the researchers. Observations for the class were made to ensure the progress of the process rather than contributing to the findings of the research. Observations were made with the aim of eliminating the problems of the students with different ethnic identities while working on the text. In statistical analyses, post-test scores of the Cornell Critical Thinking Test were compared. There was a significant difference between the posttest scores in favor of the experimental group.

Chan, Ho and Ku (2011) examined the relationship between university students' epistemological beliefs and critical thinking levels. The data on the research conducted with the participation of 138 Chinese university students were collected using the Epistemic Beliefs Inventory and the Halpern Critical Thinking Assessment. It was aimed to measure students' cognitive ability and thinking tendencies. After analyzing

the data obtained, it was seen that thinking performance was related to beliefs about knowledge rather than cognitive ability. In addition, critical thinking levels of individuals differed according to their epistemological beliefs.



## **CHAPTER III**

### **METHODOLOGY**

In this chapter, the experiment method, the administration of the experiment in groups, context, participants of the research, research design, statistics collection, and their analysis procedures are presented. The aim of the study is to account for the reason whether there is a relationship between the implementing flipped-classroom and students' critical rational skills and EFL writing achievement for the present study's conduction.

#### **3.1 Context**

This study was conducted in a school of languages of a foundation institution in Istanbul, Turkey. There are five levels in the preparatory program which follow a curriculum based on GSE (Global Scale of English). The curriculum is based on four skills. Receptive skills and productive skills are integrated into A1, A2 levels. But in B1, B2 and C1 levels, skills are separated as reading, writing, speaking, and listening. This study was conducted in Upper-Intermediate Reading and Writing Course which is described in the following section.

#### **3.2 The Reading and Writing Course**

The reading and writing course has been designed for the objectives of CEFR and GSE. The course is three hours weekly and it is compulsory to take this course to be able to finish upper-intermediate level and pass to pre-faculty. The overall objectives of the course are to teach students the argumentative essay and opinion essay types and show them different types of text genres. The assessment consists of three timed writing essays, three reading and writing quizzes and two process writing essays. Students submit their draft version of the process writing essays and, they revise it and submit the last version according to the teacher's feedback. Their essays are evaluated according to subskills of essay such as coherence, content, accuracy and lexis.

### **3.3 Participants**

The study was conducted in the English language preparatory program, where there were 6 intermediate level groups. Two classes were randomly chosen from six classes to be able to carry out the study. There are 20 participants whose ages range from 17-19, and 16 of them were native speakers of Turkish. None of them had been in English speaking countries. 10 of them graduated from Anatolian high schools (50.0%), 5 of them graduated from regular high schools (25.0%) and 5 of them graduated from religious vocational high schools (25.0%). They had been studying English for 4 months and they had started from Elementary level according to CEFR. Reading and Writing Course was offered to the randomly assigned experimental group (N=15: Female=7; Male=8) and control group (N=15: Female=9; Male=6), both of which were taught by the researcher.

### **3.4 Instruments**

Quantitative and qualitative data had been gathered to carry out the research and analyze its different aspects. By means of the Turkish version (Kökdemir, 2003) of the California Critical Thinking Disposition Inventory (Facione & Facione, 1992), PTs' argumentative essays, and the closed items of the Flipped Classroom Opinion Survey developed by Ekmekçi (2014) were used as the quantitative data. The qualitative data came from semi-structured interview questions.

#### **3.4.1 CCTDI-T**

California Critical Thinking Disposition Scale consists of 51 items and 6 sub-dimensions. The items in the scale are answered in Likert-type scale of 6, from 1 to 6. The scoring of the scale is 1,2,3,4,5,6 from "totally disagree" to "totally agree." For each subscale of the scale, the scores obtained between 10-29 are low, between 30-39 moderate, between 40 and 49 high, and between 50 and 60 excellent. When evaluated as a whole, the scores between 70-209 were low, between 210-279 medium and 280-420 higher (Facione and Facione 2010).

The Turkish version of the survey (CCTDI-T) translated by Kökdemir (2003) was used. In the CCTDI-T, there are several categories such as Truth-Seeking, Open-Mindedness, Analyticity, Systematicity, Self-Confidence, Inquisitiveness.

Truth-Seeking (items 6, 11, 20, 25, 27, 28, 49): The search for truth is the habit of seeking to understand a particular situation in the best way. The point is to trace the

motives wherever they arrive, even if it means to question one's beliefs, and the things one loves, which one is attached to. People who seek the truth ask hard questions, and sometimes they struggle with questions, do not ignore the relevant details, they try not to allow prejudices. The opposite of searching the truth is prejudice.

Open-Mindedness (items 5, 7, 15, 18, 22, 33, 36, 41, 43, 45, 47): Open minded people are tolerant of the ideas of others. Open-mindedness is essential to live in harmony in societies with different religious, political, social, family and cultural backgrounds. The opposite of open-mindedness is not to be open to new ideas and not tolerating the opinions of others.

Analyticity (items 2, 3, 12, 13, 16, 17, 24, 26, 37, 40, 46, 50): Being analytical is to be cautious about situations that may cause problems. Analyticity is also to deal with the estimation of possible good or bad consequences of situations, choices, plans and proposals. The opposite of this situation is to misbehave. Those people who misbehave do not care what happens when they make a choice or accept an idea.

Systematicity (items 4, 9, 10, 19, 21, 23): Systematicity is the habit of trying to approach problems in a regular, disciplined, and organized manner. Irregularity is the opposite of systematicity.

Self-Confidence (items 14, 29, 35, 44, 48, 51): Self-confidence requires using reason and relying on the reason for solving problems. The opposite is not to rely on reason.

Inquisitiveness (items 1, 8, 30, 31, 32, 34, 38, 39, 42): Curiosity or intellectual curiosity is the reflection of a person's tendency to learn new things without any gain or interest prospects. It is to be willing to obtain further information and to learn the explanations of new things. The opposite of the curiosity is indifference.

### **3.4.2 The Flipped Writing Class Attitude Questionnaire**

The Flipped Writing Class Attitude Questionnaire which was 5-point in Likert-type response format was administered to the experimental group participants at the end of the study in order to find out the participants' opinions about the Flipped Learning Supported Critical Thinking Instruction. There are 25 items and response scale range from 1 (strongly disagree) to 5 (strongly agree). Cronbach's Alpha is ,926.

### **3.4.3 Focus Group Interviews**

Qualitative data were taken from focus group interviews at the beginning and end of the study. Participants in the experimental group were asked to give the description of critical thinking; explain the characteristics of a critical thinker and whether critical thinking is a teachable concept. In the post-focus group discussions, both before and after the interview, participants were given some information about their thoughts regarding flipped learning - supported Instruction. More specifically, they were asked to say whether they found Flipped Classroom as a useful learning method; whether Flipped Classroom supported teaching would improve critical thinking levels and /or L2 writing performance. Thereafter, the interviews were translated into English by the researcher, and translations were confirmed by two referees currently working as English teachers in the department.

### **3.4.4 PTs' Argumentative Essays**

Participants in the experimental and control groups were asked to write an argumentative essay about capital punishment as a requirement of the course at the end of the term to find out whether there was a significant difference between the participants who received traditional learning and Flipped-Learning assisted critical thinking instruction in terms of L2 writing performance. As evaluation, argumentative paragraph rubric developed by Dişli (2012) was used. There are six parts which are organization and structure, relevance and content, lexical range/word choice, grammar/sentence structure, mechanics, and overall section in the rubric. As to the distribution of points out of 100, 30 points are allotted to organization and structure, 30 points for relevance and content, 10 is for lexical range/word choice, 10 for grammar/sentence structure, 10 for mechanics, and 10 for the overall success of the paragraph.

### **3.5 Procedure**

The study was carried out in the second term of the 2018-2019 academic year and lasted for 6 weeks. In the study, while the experimental group received Flipped Learning-Supported critical thinking instruction, the control group's writing lessons were held based on traditional lecture-based instruction. Considering the background of the students in terms of their proficiency of writing skill in the EFL context in Turkey and as a part of the language teaching policy of the School of Foreign

Languages, a writing pack covering the basic knowledge about writing skill was compiled by the researcher prior to study on paragraph types. From the first week of the research process, lecture parts of the writing lessons in the experimental group were replaced with the related section homework. The students started to watch the video lectures created by the researcher and videos from other sources which the researcher provided beforehand. The pre-selected course book for writing lessons was only used for the related exercises. On the other hand, the students in the control group received traditional lecture-based instruction from the first week of the semester. The lectures were based on the content of the pre-selected course book. The students followed lectures based on the course book in the classroom, as in the case of all traditional lessons and they were assigned homework.

### **3.5.1 Instruction in the Control Group**

In the control group's lectures text-only method was used during the study. Because the argumentative essay was being taught, the texts were provoking as it was aimed to make students to think in different dimensions and show it in their essays. That is why the topic the capital punishment was chosen, and the syllabus was designed, and some articles related to capital punishment was added. The articles which were chosen were about how the different groups of people such as victims' families, human rights activists, wrongfully convicted people's families, and religious functionaries have an attitude on capital punishment.

### **3.5.2 Instruction in the Experimental Group**

Aforementioned, the lesson was reading and writing for upper-intermediate group, and for six weeks, the reading lessons were designed regarding the topic of capital punishment. The objective of the writing lessons was teaching argumentative essay. The controversial topic of capital punishment was chosen purposefully to make students to think critically and implement as a treatment in the experimental group. The construction process of the Flipped Learning-Supported critical thinking instruction is explained in the following part.

#### **3.5.2.1 Flipped Classroom Construction**

The flipped learning is also called flipped classroom. In order to apply this method there should be a platform that keeps the communication between the students and the teacher after class. The Google Classroom was preferred to meet that need. The videos



would be uploaded, the feedback was given to students, and the homework was assigned and submitted by means of it. Flipped Learning was explained to the participants by means of a presentation prepared by the researcher in the experimental group. The (GC) Google Classroom was also introduced to the participants. During the first lesson, they brought their laptops and were instructed to sign up for GC with a special code. All participants signed up the system with their e-mails that the university provided, passwords, and the group code. The researcher uploaded the writing and reading lesson videos to the GC.

### **3.5.2.2 Implementation of the Flipped Classroom**

The experimental group received 6 weeks Flipped-learning-supported critical thinking instruction while the control group received text-only education. Regardless of this difference, they were expected to write an argumentative essay on the capital punishment as a final project which was process-oriented, and the students were expected to work in groups in the classroom and individually after class. The six-week syllabus of Flipped-learning-supported critical thinking instruction was designed on capital punishment and writing an argumentative essay on it. The following steps were followed weekly:

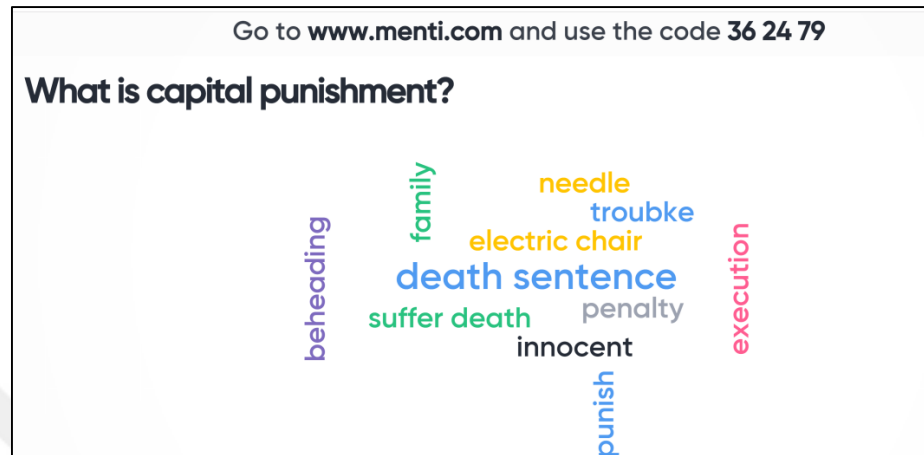
#### ***a) Week 1***

The researcher explained the Flipped Learning and critical thinking in the first lesson and gave details in the following five weeks by showing the syllabus. Students signed up for Google Classroom and were showed how they would use it, watch the videos, write comments on them, and submit their homework before the deadline. The researcher talked about the effects of Flipped Learning-Supported instruction to promote critical thinking levels. In addition, it was explicitly stated that the following 5 weeks were allocated to a Flipped Learning-Supported modeled teaching on the topic of capital punishment.

Following the introduction part, the researcher tried to activate the background knowledge of the students by using the Mentimeter which is a platform that helps people contribute to show their opinion about a topic by creating a word cloud. The students used their mobile phones to type what came to their minds when they were asked about capital punishment. They wrote one word related to capital punishment. Participants felt involved by enabling them to contribute to the lesson with real-time

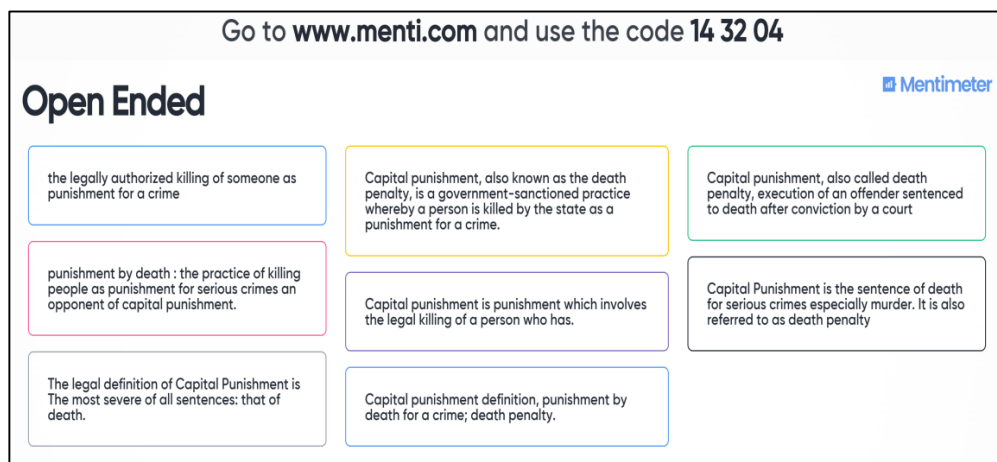
feedback (see Figure 3.1). The researcher asked some question by focusing on the word that appeared on the Mentimeter.

**Figure 3.1: Mentimeter Word Cloud**



After this activity, students were asked the definition of capital punishment. They were given ten minutes to search on the web to find the definition and shared it on new Mentimeter page every student was able to see what their friends found (see figure 3.2 Mentimeter Capital punishment definition).

**Figure 3.2: Mentimeter Capital Punishment Definition**



On the second day of the first week, students had watched the video about basics of the argumentative essay. In the video, the general organization of the argumentative essay and the introductory paragraph were explained in detail. Additionally, the second video on the article related to the victim's family and the history of capital punishment was summarized to make students ready to get in the detail in the topic. The students had a quiz related to the article online before coming to the lesson, and they were supposed to write a summary for the article. In this way, when they came to the lesson, the researcher was sure that they were ready for the discussion and thinking critically.

The discussion started with the chalk activity. It is a silent activity in which all students are provided with the opportunity to show what they have learned from the previous lessons. In addition, they share their ideas and wonderings on the effects of capital punishment on victims' family with their classmates. Following the discussion, they were supposed to answer some questions prepared to develop their higher order thinking skills (i.e., analysis, synthesis, and evaluation) and share their answers with their pairs. Example questions included "What hasn't the article persuaded me with?" (analysis), "If you had the chance to suggest two things to the author of the article regarding modification, what would you suggest? Why?" (synthesis), and "Do you think this article is worth reading to get the gist of the topic? Why (not)?" (evaluation).

After the lesson, the teacher informed students that they were supposed to watch the videos for the following week and do the quiz.

### ***b) Week 2***

The researcher recorded two videos, one of which was on body paragraphs, and the latter one is about the articles that were on the wrongfully convicted person's family and human rights on capital punishment. The videos highlighted the important parts of the articles and summarized the general overview of them. Students had the quiz online on the articles that they had watched. When they came to the lesson the teacher started the lesson with brainstorming or generating new ideas through Open Space Activity which is a way of organizing meetings where students self-organize their conversation based on topics they choose to discuss. Students came to class to discuss what they had read by taking in consideration that questions were prepared to develop their higher order thinking skills (i.e., analysis, synthesis, and evaluation) and shared their answers with their pairs and wrote their individual opinions on a big paper on the wall (see Figure 3.3: Space Activity).

**Figure 3.3: Space Activity**



After this activity, students stood up and were asked to do the think-pair-share activity on the articles that they read. This strategy helped students build confidence, encouraged greater participation, and resulted in more thoughtful discussions. It was significant that the perspective discussions enabled the participants to understand and internalize the perspective they had chosen. The researcher helped students first and formed new groups with peers. The groups had been arranged according to what they focused on the topic and whether they look it from the same perspective, and as a group of students with the same opinion, they shared what they thought and understood from the articles; in addition, they were supposed to objectively focus on the issue to share their personal views on the issue regarding the article (see the figure 3.4 Think-Pair and Share Discussion Activity).

**Figure 3.4: Think, Pair and Share Discussion Activity**

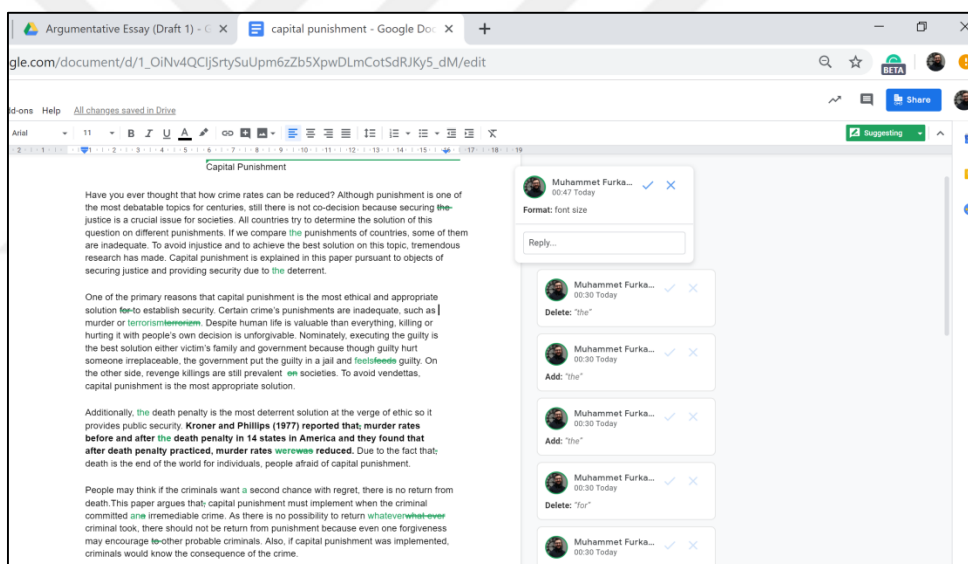


The researcher gave an outline of the argumentative essay and provided the example essays to boost their knowledge of argumentative essay writing. Therefore, an outline of their own essay on “whether governments should consider capital punishment as a legal punishment instrument or not” was shaped.

### c) Week 3

Students uploaded their first writing homework on Google Classroom, and they got feedback online by using the Google Document. They wrote the introduction and body paragraphs as they had learned these two parts up to then. By means of the immediate feedback, before students come to the class, they could internalize all the details of the argumentative essay (see Figure 3.5 Capital Punishment Immediate Feedback).

**Figure 3.5: Capital Punishment Immediate Feedback**



The participants in the experimental group had watched a video on how to improve the writing by taking the argumentative essay into consideration. They completed a task online before coming to the lesson. When students came to the lesson, the researcher focused on the weak points of the argumentative essays that students had uploaded to the Google Classroom. After that, students showed their writing to their peers so that they got feedback from their peers as peer feedback plays a crucial role in students' improvement in terms of cognitive change in students' mind. It is shown in Richer's (1992) comparison on the effects of two kinds of feedback, peer-directed and teacher feedback, on first-year college students' writing proficiency in an

experimental study with 87 participants. It can be understood from the result of that comparison that using peer feedback provides a feasible method for the college students to enhance their writing skills and improve their learning achievement.

On the second day of week 3, students came to the lesson having watched the video of the conclusion paragraph of the argumentative essay. The researcher asked some questions related to the general organization of the argumentative essay and asked students to write the conclusion paragraph of their previous week's half-finished essay in 30 minutes. While students were writing their paragraphs, the researcher checked the paragraphs and gave feedback during the lesson. After this lesson, students were ready to write a full argumentative essay. The researcher informed students that they were supposed to start to write the first draft of the assessed argumentative essay on the topic that "Should capital punishment be legal in the law by considering wrongfully convicted person's family, human rights on capital punishment, victim's family and the history of the capital punishment?".

#### ***d) Week 4***

In the fourth week, in the classroom, the students had a quiz which was prepared by the researcher for both the experimental and control group on argumentative essay. The quiz was not used as a data collection instrument for this research because it was based on theoretical knowledge rather than a practical one. In addition, it was just a part of the testing and assessment policy of the School of Languages. After the quiz, the second lesson on the first day was just for the self-feedback, peer feedback by checking each other's first drafts accordingly in the class, and gave feedback according to the argumentative essay rubric. Based on the feedback they received from their peers, PTs wrote the second draft of their essays at home. On the second day of the fourth week, Four Corners activity in which the students were supposed to stand in the corner of the room to show their position about capital punishment (strongly agree, agree, disagree, strongly disagree) was done. Then they got engaged in a discussion about their opinions and that played a crucial role for students in looking at the different perspective of each other. By means of this activity, students activated their critical thinking and reached the high skills of Bloom's taxonomy.

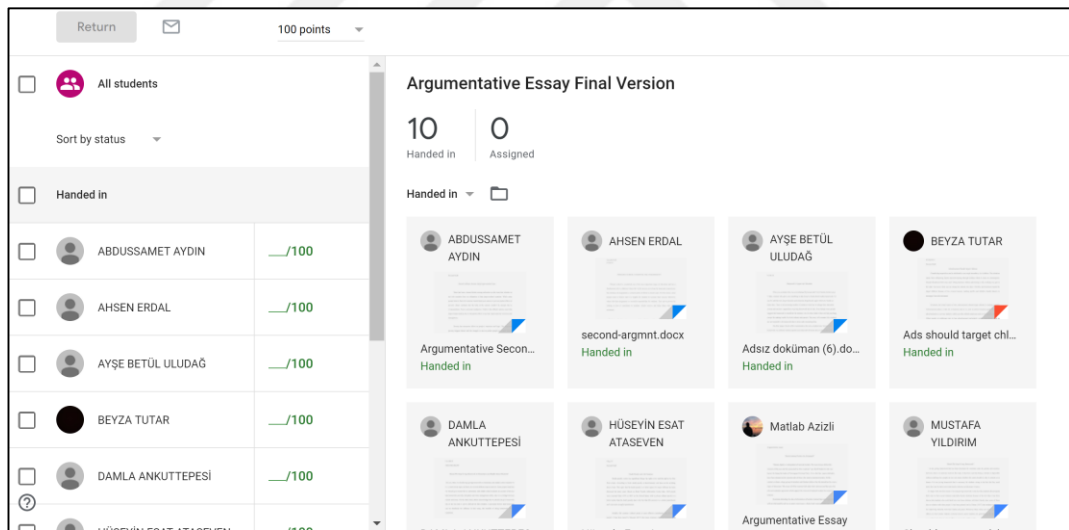
### e) Week 5

Week 5 was the last week of the module of the School of languages and the current research before they submit their final homework. Before the lesson, students submitted the second draft of their essays. They uploaded it on Google Classroom as they used to, and they received teacher feedback through Google Document. When they came to the classroom, they finalize the last version of their essay in the classroom by taking the researcher's feedback into consideration and uploaded them to the Google Classroom (see the figure 3.6 Final version of Argumentative essay homework).

### f) Week 6

The students submitted the final version of their essays to the Google Classroom, and they received the teacher feedback during the lesson.

**Figure 3.6: Final Version of Argumentative Essay Homework**



The table below gives a rundown of the instructions of the experimental and control groups (see Table 3.1 Instructions in the Experimental and Control Groups)

**Table 3.1: Instructions in the Experimental and Control Groups**

Week/ Hours	Groups	
	Experimental	Control
<p><b>Week 1</b></p> <p><b>3 Hours</b></p>	<p><b>In-Class:</b></p> <ul style="list-style-type: none"> <li>-Introduction to Flipped Learning and Critical Thinking</li> <li>-Showing how to use Google Classroom</li> <li>- Activating the background knowledge of the students by using the Mentimeter</li> <li>- Discussing questions by focusing on the word that appeared on the Mentimeter.</li> <li>-Web search on Capital Punishment and sharing what they found</li> <li>-Chalk Talk discussion activity to develop their higher order thinking skills</li> </ul> <p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>- Watching the video of basics of the argumentative essay, the general organization of the argumentative essay and the introductory paragraph were explained in detail</li> <li>-Watching the second video on the article related to the victim’s family and the history of capital punishment</li> </ul>	<p><b>In-Class:</b></p> <ul style="list-style-type: none"> <li>-Brainstorming on capital punishment</li> <li>- Analyzing a text on the history of capital punishment</li> <li>-Reading an article on capital punishment from the perspective of victims’ families.</li> <li>- Answering comprehension questions of the reading text.</li> </ul> <p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>-Reading the article on the history of capital punishment</li> </ul>



	<ul style="list-style-type: none"> <li>-Reading the articles on the victim's family and the history of capital punishment</li> <li>-Having a quiz related to the article online before coming to the lesson</li> <li>-Writing a summary of the article</li> </ul>	
<p><b>Week 2</b></p> <p><b>3 Hours</b></p> <p><b>Week 2</b></p> <p><b>3 Hours</b></p>	<p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>-Watching the video on body paragraphs of argumentative essay</li> <li>-Watching the video on the articles that were on the wrongfully convicted person's family and human rights on capital punishment</li> <li>-Having the quiz on the wrongfully convicted person's family and human rights on capital punishment</li> </ul> <p><b>-In-class</b></p> <ul style="list-style-type: none"> <li>- Generating new ideas through Open Space Activity based on topics they choose to discuss</li> <li>- Doing think, pair and share activity on the articles that they read to help students build confidence, encouraged greater participation, and result in more thoughtful discussions</li> <li>- Giving outline of the argumentative essay and provided the example essays to</li> </ul>	<p><b>In-class</b></p> <p>Exercising vocabulary items and answering comprehension questions of the assigned reading text</p> <ul style="list-style-type: none"> <li>- Reading an article on capital punishment from the perspective of the human rights activists</li> </ul>

	boost their knowledge on argumentative essay writing	
<b>Week 3</b>  <b>3 Hours</b>	<p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>-Uploading their first writing homework on Google Classroom</li> <li>-Getting feedback online by using the Google Document</li> <li>-Writing the introduction and body paragraphs as they had learned these two parts up to then</li> <li>- Watching a video on how to improve the writing by taking argumentative essay into the consideration</li> <li>-Completing a task online before coming to the lesson</li> <li>- Watching the video of the conclusion paragraph of the argumentative essay (second day)</li> </ul> <p><b>In-class</b></p> <ul style="list-style-type: none"> <li>-Writing the conclusion paragraph of their previous week's half-finished essay in 30 minutes (second day)</li> <li>-Students were ready to write a full argumentative essay</li> <li>-Assigning to write the first draft of the assessed argumentative essay</li> </ul>	<p><b>In-class</b></p> <ul style="list-style-type: none"> <li>-Reading an article on capital punishment from the perspective of the wrongfully convicted people's families</li> <li>- Exercising vocabulary items and answering comprehension questions of the reading text</li> <li>-Receiving instruction on how to write an argumentative essay</li> <li>- Working on an outline</li> <li>- Receiving teacher feedback on the outlines</li> </ul>
	<p><b>In-class</b></p> <ul style="list-style-type: none"> <li>-Having a quiz which was prepared by the researcher for</li> </ul>	<p><b>In-class</b></p> <ul style="list-style-type: none"> <li>- Having a quiz which was prepared by the researcher for both</li> </ul>

<p><b>Week 4</b></p> <p><b>3 Hours</b></p>	<p>both the experimental and control group on argumentative essay</p> <ul style="list-style-type: none"> <li>-Guiding to have self-feedback and peer feedback by checking each other's first drafts accordingly</li> <li>-Doing Four Corners activity show their position about the capital punishment (strongly agree, agree, disagree, strongly agree) to enable students to activate their critical thinking and reached the high skills of Bloom's taxonomy.</li> </ul>	<p>the experimental and control group on argumentative essay</p> <ul style="list-style-type: none"> <li>-Writing the first draft of the essay.</li> </ul>
<p><b>Week 5</b></p> <p><b>2 Hours</b></p>	<p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>-Submitting the second draft of their essays,</li> <li>-Receiving the teacher feedback through Google Document,</li> </ul> <p><b>In-class</b></p> <ul style="list-style-type: none"> <li>-Finalizing the last version of their essay by taking the researcher's feedback into consideration and uploaded them to the Google Classroom,</li> <li>- Evaluating the whole process</li> </ul>	<p><b>In-Class</b></p> <ul style="list-style-type: none"> <li>- Receiving the teacher feedback for the first draft,</li> <li>-Writing the second draft of the essay and submit the teacher,</li> </ul> <p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>- Finalizing the last version of their essay by taking the researcher's feedback into consideration,</li> </ul>
<p><b>Week 6</b></p> <p><b>2 Hours</b></p>	<p><b>Out-of-class</b></p> <ul style="list-style-type: none"> <li>-Submitting the final version of their essays</li> </ul> <p><b>In-class</b></p> <ul style="list-style-type: none"> <li>-Receiving the teacher feedback</li> </ul>	<p><b>In-class</b></p> <ul style="list-style-type: none"> <li>-Submitting the final version of their essays</li> </ul>

It can be easily seen from the table that both the experimental and control groups studied the same topic from different perspectives even though the groups differed in the following ways: the control groups' instruction is limited to classroom setting, and instruction could not be taken to the outside of the classroom, lacked the guidance provided in Flipped classroom through Google Classroom and Google Document. The participants in the experimental group had studied the argumentative essay earlier than the control group through the videos and tasks and studied the essay on their own at home. However, the control group studied the argumentative essay during the lesson and could not have time to get in detail because it was not a process teaching method, just in one lesson the argumentative essay was taught. During the study, the control group participants read specific articles on the topic and answered comprehension or discussion questions, which was led by the researcher. On the other hand, the participants in the experimental group watched the summary of the articles to activate their knowledge and increase their readiness to read them at home, which enabled the instruction to get in detail open to discussion. Various discussion activities which promoted critical thinking skills were applied thanks to this way, and students were asked to answer not only comprehension questions but also analyze the questions which they were required to formulate inferences, make decisions.

### **3.6 Data Analysis Procedure**

Not only quantitative but also qualitative methods were applied to collect data through previously mentioned instruments to serve the purpose of the study. According to Lynch (1996), this combination is called a mixed study design and claims that data are validated via triangulating of different instruments, which makes research problems understood completely.

#### **3.6.1 Quantitative Data Analysis**

Through SPSS 20 (Statistics Package for Social Sciences) data analysis, the average writing scores and the data obtained from Flipped Writing Class Attitude Questionnaire which composed the quantitative data were analyzed.

##### **3.6.1.1 California Critical Thinking Disposition Inventory**

As it was mentioned previously, the California Critical Thinking Disposition Scale consists of 51 items and 6 sub-dimensions. The items in the scale are answered in Likert-type scale of 6; 1 (strongly disagree) to 6 (strongly agree). The scoring of the

scale is 1, 2, 3, 4, 5, 6 from "totally disagree" to "totally agree". For each subscale of the scale, the scores obtained between 10-29 were low, between 30-39 moderate, between 40 and 49 high and between 50 and 60 excellent.

Quantitative data obtained from CCTDI-T were analyzed by using Statistical Package for the Social Sciences (SPSS) 20.0. The CCTDI-T were given to the participants in both groups once at the beginning, was administered at the end of the study. To find the differences between the experimental and control groups regarding their critical thinking disposition levels, the independent samples t-test was applied before and after the study. The significance level was set at  $p < .05$

### **3.6.1.2 PT's Argumentative Essays**

Two raters gave the scores through Argumentative Paragraph Rubric for each student initially. After they were calculated by averaging the points, they were analyzed in Microsoft Excel, and they were transferred to the SPSS 20.0 software. Independent samples t-test was applied to determine the significance level of Pre-tests and post-tests between the experimental and control groups. The significance level was accepted as  $p < 0.05$ .

### **3.6.1.3 Flipped Classroom Attitude Questionnaire**

As mentioned before, the Flipped Writing Class Attitude Questionnaire which was 5-point Likert-type response format was administered to the experimental group participants at the end of the study in order to find out the participants' opinions about the Flipped Learning-Supported Critical Thinking Instruction. There are 25 items and response scale range from 1 (strongly disagree) to 5 (strongly agree).

## **3.6.2 Qualitative Data Analysis**

Also, strategies like categorizing, coding, and interpreting were used for qualitative data. The semi-structured interview was used to collect qualitative data, and they were first recorded and transcribed by the researcher (See Appendix X for a sample transcription of the interview). The researcher categorized the data in line with the content of the interviewees' responses.

### **3.6.2.1 Focus Group Discussions**

As previously mentioned, focus group discussions were conducted, both before and after the study, with a randomly selected group of 5 volunteered participants who were

members of the experimental group. The aim here was to identify any potential changes in PTs' initial perceptions of critical thinking as well as their reactions to the intervention. In the following section, each topic covered in the focus discussion will be discussed in detail.

#### ***a) Definition of Critical Thinking***

One of the conclusions of the interviews prior to the focus group is that PTs have difficulty in defining what critical thinking is. While the definitions they provide do not present any clarity, the phrases they use most include what is needed for critical thinking. To be open-minded against different opinions, to tolerate different or opposing views and to be impartial are amongst the common statements of the PTs interviewed. A few of their responses are as follows:

-Critical thinking is of great importance and it must be constructive, not destructive (before the study).

-Being open-minded and respecting the views of others is essential for critical thinking (before the study).

However, when the interviews conducted after the focus groups were examined, it was observed that the PTs could make a better definition of critical thinking. PTs, who only manage to state different aspects of the term in the interviews before the focus groups, were now able to explain what critical thinking exactly meant.

-Critical thinking means evaluating multiple perspectives objectively and, as a result, producing one's own views (after the study).

We can call it an opinion-making process. In other words, synthesizing two different ideas to obtain a third, of course, open-minded and with firm grounds (after the study).

In short, according to the responses of PTs in the interviews conducted after the focus groups, the definition of critical thinking was accepted as a process involving objective evaluation and synthesis for acceptable reasons when making a final decision.

#### ***b) What Are the Features of an Ideal Critical Thinker?***

The characteristics listed by the PTs in their definition of an ideal critical thinker revealed similar results both before and after the group interviews. Examples of these features are objectivity, open-mindedness, tolerance and lack of prejudice. Some

quotations from pre- and post-group interviews refer to these features. Let's see some examples:

-People should respect each other. As a result, they should be open to different views if they have critical thinking skills. So, in short, before deciding on a subject, it should be ensured that the issue is dealt with in every respect. In this way, we can become more broad-minded and tolerant individuals instead of uncultured personalities (before the study).

-When criticizing someone else's work or commenting on something, we need to put our own feelings or past experiences aside. The only thing to consider in this process is the facts. This is a way of expressing what we think in the fairest way possible. However, it should be accepted that it is not possible to adopt new or opposing views without a critical stance (after the study).

In the post-group interviews, the PTs listed the characteristics that would be required for a first-time critical thinker. The most obvious features are being knowledgeable, curious and skeptical. Here are some examples of their answers:

-Having adequate and background information is essential for critical thinking. If these two are missing, it cannot be possible for the individual to defend or rethink the situation in which he/she is or to be against or support the claims of others (after the study).

-For someone who does not have enough knowledge, it is not possible to criticize the views of himself/herself or others. Even though he/she may do, it is better not to do it. Any criticism that is not based on a foundation will not mean much (after the study).

-The critical thinker is generally curious. Curiosity is an important feature in order to have multiple perspectives on the subject (after the study).

-The first condition of being a critical thinker for a person is to have a curious personality. It is very likely that a person who does not wonder what others are thinking is obsessed with his/her own ideas that are potential killers of critical thinking (after the study).

In the post-group interviews, skepticism was discussed by PTs in two aspects: being skeptical about one's own views and being skeptical about the opinions of others. Some of their answers are presented below:

-Critical thinking, in fact, involves a critical approach to one's own ideas. In other words, if one cannot be skeptical about his/her own ideas or cannot question them, it is not correct to say that he/she is a true critical thinker (after the study).

-A critical thinker should question all existing ideas. It can be said that he/she wants to be a true critical thinker if he/she not only questions opposing views, but also supportive ideas (after the study).

### ***c) Is Critical Thinking Teachable?***

In the interviews conducted before and after the group, it was understood that the opinions of PTs on the teachability of critical thinking did not show any significant difference.

While most of the respondents participating in the pre-group interviews agreed that critical thinking could be taught, only a few of them expressed the opposite view. PTs, who think that critical thinking is teachable, see it as a result rather than something that has a recipe. On the contrary, according to them, critical thinking only emerges when two conditions are met. These conditions are: encouraging the characteristics of critical thinkers in the environment they grow up and providing enough opportunities to use these characteristics. Some of the answers given are as follows:

-I believe that the environment in which a person lives his/her childhood is of great importance in the development of critical thinking. In other words, it is possible to teach critical thinking skills to a person if he/she is encouraged to express his/her ideas in a tolerant environment. Thus, he/she could become an improved person with more respect for the views of others and much more sense of appreciation (after the study).

-For a person to learn to think critically, it is sufficient to live in an environment where his/her objectivity, open-mindedness and tolerant attitude are appreciated (after the group).

-The family and the immediate environment should accept the fact that either the views of those who do not have the same physical appearance may not be the same or they may be different from each other's. It is not possible to teach critical thinking in environments where this acceptance does not take place. The environments in which people do not tolerate others enough and where they cannot judge their own prejudices are not healthy for critical thinking (after the study).



-In my opinion, critical thinking is not inaccessible. I believe it can be achieved in the long run. It is, therefore, necessary to create the appropriate conditions for the person to practice the required features (after the study).

Age, another factor that emerged in pre-group interviews, is considered as a very important point, according to PTs, who believe that critical thinking is a teachable concept. The most appropriate time for teaching this skill is thought to be pre-school and primary school years. Some of the answers given by the respondents are as follows:

-I believe that critical thinking can be taught, but I think the timing is very crucial. The sooner we start teaching, the better results we will get (before the study).

-I cannot give you an exact age, but if we can teach a child how to respect and be objective about the views of others, preferably in primary school years, he/she will be able to think critically in his/her later life (before the study).

The opinions of PTs on the age factor differed between pre- and post-group interviews. In the post-group interviews, unlike the previous interview results, PTs stated that critical thinking is not possible to teach at early ages, but either during university years or if possible, at a later age in life. Some of their answers are given below:

-Before the study, I thought that critical thinking should be taught in pre-school years or elementary school years and it was too late if it was left to high school years. However, I learned that it is possible to teach people to think critically even during their university years (after the study).

-Before participating in this study, I would think that the families of all victims wanted criminals to be sentenced to death. From what I've learned from some sources, it may be the opposite in some cases. I must admit that I was very surprised. I mean, I'm thinking deeper and more critical now. If I could do it while I was in college, why couldn't others? (after the study).

These views of the participants indicate that the experiences of the PTs throughout the project have an impact on the views about the starting age for teaching critical thinking.

The PTs, which claim that critical thinking is not teachable, support this idea with the assumption that critical thinking is congenital and that some hereditary factors are the cause for it. Some of the answers on the subject are:

-Critical thinking is either present or absent in a person. Some people are capable, others are not. That's it! (before the study).

-I don't believe that critical thinking is teachable. I think it's something innate. A person can think critically or not! This is not something that can be changed by education (before the study).

Although it was accepted as a reason to prove contrary to the possibility of teaching critical thinking in pre-group interviews, mental capacity stands out as a condition that determines the level of learnability of critical thinking in post-group interviews. The response of one of the PTs makes this clear:

-We can, of course, teach critical thinking to a person on the condition that the requirements are considered. However, how much a person can achieve this skill is purely determined by his/her mental capacity. In other words, although critical thinking can be taught, learnability is directly proportional to one's own cognitive maturity (after the study).

As a result of their experience during the project, some PTs have become more positive about the teachability of critical thinking. One of the participants' answers is as follows:

-During the previous interview, I had said that critical thinking is not a teachable concept, but I don't think so anymore. Even I can think critically after this project or at least I can look at things more critically. All this happened in a very short time. If I could, everybody can (after the group).

While the teacher factor was first emphasized by PTs in post-group interviews, this factor was never mentioned in pre-group interviews. According to them, teachers were both obstacles and facilitators to teach critical thinking. Examples of these two contrast views can be seen in the following quotes:

-The idea that critical thinking can be achieved through instruction is contradictory. In my opinion, no one can be sure that the teacher conveys a neutral and pure understanding of critical thinking (after the study).

-The teacher, who is not a critical thinker himself, is not capable of teaching critical thinking. In such a case, how would it be possible to create the necessary conditions and to guide the student correctly? (after the study).

All but one of the PTs stated several reasons for specifying the Flipped Classroom as a useful learning tool. These include practicality, in-class and out-of-class collaboration with teachers and friends of the same age, improving active learning and English proficiency levels, promoting critical judgment skills, and improving Internet and research skills. The only participant who did not agree with the Flipped Classroom as an effective learning tool said the following:

-I agree that Flipped Classroom is a complementary material for students like us. But I don't think it will contribute to my overall performance in the long run because I don't consider it as an effective learning tool. In other words, the Flipped Classroom learning is contextual.

-When I am asked to write a paper about another subject other than capital punishment, I still try to write a well-organized article.

#### ***d) The Relationship between the Flipped Classroom and Critical Thinking***

PTs were asked in the post-group interviews whether the use of Flipped Classroom improved their critical thinking. While all the PTs responded positively to this question, they stated that access to multiple resources from different perspectives allowed more critical thinking. Here are some of their answers:

-In my opinion, people become more critical as they read. Thanks to the Flipped Classroom, which provides many different sources of reading, we had the opportunity to review the topic from different perspectives before writing an article. This allowed us to collate the information presented and consider the issue with a more critical point of view.

-Thanks to the Flipped Classroom, I became aware of the different opinions about capital punishment. So, I could understand what both sides thought about the issue by empathizing. In the end, I became a more tolerant person, and I appreciated their stance.

-No one can deny the fact that being objective is the key to critical thinking. To be objective, it is necessary to examine all available sources and to learn about the subject.

I believe Flipped Classroom is an effective tool that allows students to access to the presented information, as well as accessing others through links to different websites.

*e) The Relationship between the Flipped Classroom and L2 Writing Performance*

Another question that was asked to PTs in post-group interviews was whether using Flipped Classroom improved their L2 writing performance. In the sub-text of the question that all respondents answered positively, the advantage of access to course materials/slides and web sites have been highlighted. These details are presented below:

-While I was studying, I constantly visited the websites listed in Google Classroom and learned how to write a discussion article. Now I know how to edit my article correctly. Therefore, I can say that I developed my English writing skills following the study.

-I think the Flipped Classroom contributes a lot to my writing performance. For example, I had the chance to review all the important points that were specified by the teacher with the help of the lesson materials and slides shared on Google Classroom.

### **3.7 Conclusion**

In the current research, California Critical Thinking Disposition Inventory, Flipped Writing Class Attitude Questionnaire, semi-structured interviews, and participants' argumentative essays were used to gather data. Both the experimental and the control group studied the reading and writing course for 6 weeks. The students who were in the experimental group received Flipped Classroom-supported critical thinking instruction while the control group received traditional instruction. However, both groups learned the argumentative essay type and read various texts on capital punishment. In Chapter IV, the results of the data which were gathered through the experiment, and the significance of it will be discussed.

## CHAPTER IV

### RESULTS AND DISCUSSIONS

In this chapter, the research findings gathered through the California Critical Thinking Disposition Inventory, PTs' argumentative essays, and Flipped Writing Class Attitude Questionnaire and semi-structured interviews are presented. Research questions of the study are answered according to these data collected in the inquiry.

#### 4.1 Quantitative Data Results

##### 4.1.1 The Results of the CCTDI-T Scores

At the beginning of the study, independent sample t-test was employed for the pre-CCTDI-T scores to learn if the experimental and control groups were homogenous. The results showed that there are no major differences between the groups in terms of their CCTDI-T overall scores, which are ( $p=.671$ ;  $t=-.48$ ) and CCTDI-T sub-scales, i.e. inquisitiveness ( $p=.838$ ;  $t=.22$ ), analyticity ( $p=.689$ ;  $t=-.37$ ), systematicity ( $p=.909$ ;  $t=.12$ ), open-mindedness ( $p=.488$ ;  $t=-.65$ ), truth-seeking ( $p=.290$ ;  $t=-1.02$ ), and self-confidence ( $p=.660$ ;  $t=-.40$ ). After the research, post-test was applied to post-CCTDI-T. The table below shows the differences between experimental and control groups regarding their critical thinking disposition levels.

\* $p<.05$

**Table 4.1: Differences between the Groups (N=20) in terms of their Overall CCTDI-T Scores**

Scale	Group	Test	M	SD	t-value	Df	P
CCTDI-T	Experimental	Pre	221.33	16.15	-2.43	56	.017*
		Post	229.00	20.88			
	Control	Pre	220.07	21.86			
		Post	222.40	26.61			

The results of the study show that the experimental group performed better than the control group since there is a significant increase in the critical thinking disposition of them compared to the control group. Furthermore, the table below shows the differences between the CCTDI-T sub-scales after the research regarding the groups' critical thinking disposition levels at the end of the study.

#### 4.1.2 Findings and Discussion about Flipped Writing Class Attitudes Questionnaire

The five-factor Flipped Writing Class Attitude Questionnaire was applied to the participants in the experimental group to find their attitudes toward CMS (Course Management System in Google Classroom), video lectures, flipped classroom, preparing for the exams in flipped learning environment, and opinions about flipped versus traditional learning through frequency analysis by means of SPSS software.

**Table 4.2: Percentage of Students' Attitudes towards Course Management System (CMS)**

Statements	SA	A	ND	SD
24- Course Management System (Google Classroom) is a useful tool for following the course requirements.	70,0	20,0	10,0 -	-
25- CMS (Google Classroom) is an important part in my learning.	60,0	30,0	-	10,0

**SA: Strongly Agree A: Agree N: Neutral D: Disagree SD: Strongly Disagree**

As Table 4.3 shows, most of the participants in the group agreed that the Course Management System (Google Classroom) was beneficial for their learning process. 70,0% of the participants strongly agreed, 20,0% agreed, and 10% was neutral to the statement. This data approves that Course Management System has been found effective.

When the participants are asked whether “CMS (Google Classroom) is an important part of [their] learning”, they consented that it is. 60,0% of the students strongly agreed, 30,0% agreed; yet, merely 10,0% of the participants disagreed with the statement. This might be because students experienced a connection problem to the internet a few days.

#### 4.1.2.1 Findings and Discussion about Students' Attitudes towards Video Lectures

In the research, videos played a crucial role in moving from the traditional teacher-based instruction to the flipped classroom. Thanks to them the education went beyond the class since students are made study at home. Therefore, participants' attitudes toward video lectures are greatly significant. To emphasize the importance of it, participants' responses to seven statements concerning the video lectures were analyzed by employing the frequency analysis.

**Table 4.3: Percentage of Students' Attitudes towards Video Lectures**

Statements	SA	A	N	D	SD
1-I like watching the video lectures.	40,0	30,0	20,0	10,0	-
2-I regularly watch the video lectures.	30,0	20,0	30,0	20,0	-
6-I am able to follow the lesson through videos even if I miss a lesson in the actual class.	60,0	30,0	10,0	-	-
9- Videos uploaded in Google Classroom by the teacher are very useful.	40,0	50,0	10,0	-	-
10- Videos uploaded in Google Classroom are informative enough to understand the features of the argumentative essay.	40,0	40,0	10,0	10,0	-
15-I can watch the videos anywhere, anytime I want by downloading the videos.	20,0	50,0	20,0	10,0	-
21-Videos are too boring to watch.	10,0	20,0	10,0	40,0	10,0

Table 4.3 illustrates that 40,0% of the students strongly agreed, 30,0% agreed that they liked watching the video lectures. Yet, only 10,0% responded that they were undecided, which means that 70% of the participants liked watching the video lectures while 20% was neutral about it. In line with the high percentage of enjoying watching the videos, 50,0% of the participants in the experimental group agreed that they regularly watched the video lectures and 30,0% of the participants were unsure if they watched the lecture videos regularly. These results make it evident that most of the

students regularly watched the video lectures while 20% of the students reported that they did not watch the videos regularly. 60,0% of the students strongly agreed, and 30,0% agreed that they were able to follow the lesson through videos even if they missed a lesson in the actual class. Through this process, students are always updated for the lessons, and they accessed the lessons anywhere they wanted without any restrictions. It should be noted that if they do not understand something in the video, they can re-watch it until they grasp the objective of the lesson. Still, only 10% of the participants were unsure about this statement. Another statement is interrelated to the aforesaid statement that participants found videos uploaded in Google Classroom by the teacher are very convenient. 40,0% of the students strongly agreed with this statement, and 50,0% agreed, which verified the mainstream of the students believed video lectures were effective. Nonetheless, 10,0% of the students were unsure about this statement. Although there were some participants who thought that the video lectures were not effective, 90% came to an understanding the video lectures were beneficial.

40,0% of the students strongly agreed with the fact that the videos uploaded in Google Classroom were informative enough to understand the features of the argumentative essay, and 40,0% agreed, which substantiated the majority of the students were qualified enough to grasp and internalize the argumentative essay. Yet, 10,0% of the students were unsure about this statement, and 10% of students considered videos were not informative enough to understand argumentative essay type.

The other statement in this questionnaire was regarding ever-present learning and downloadable feature of the videos. 20,0% of the participants strongly agreed, 50% agreed that they could watch the videos anywhere and anytime they wanted by downloading them. 10% of the students disagreed with the statement, while the remaining 20% were undecided. The result shows that the majority of the students are aware that learning is beyond the borders of the classroom, and they can learn anywhere and anytime with the help of technology.

The last statement of the video lectures, which is related to the quality of the videos. Questioning whether they were boring according to the students, was a reverse item in the questionnaire. 50,0% of the students reported that the lecture videos were not boring. 10,0% were neutral, while 20,0% stated that the video lectures were boring.



This result shows that some participants in the experimental group found the video lectures tedious. By varying the content of the videos, the boredom can be eliminated.



#### 4.1.2.2 Findings and Discussion about Students' Attitudes towards Learning and Writing through Flipped Classroom

Students' attitudes towards learning writing by applying the flipped classroom were noteworthy for the effectiveness of the research. In this part, students responded to the statements related to flipped learning. The table shows the frequency analysis below:

**Table 4.4: Percentage of Students' Attitudes towards Learning Writing through Flipped Classroom**

Statements	SA	A	N	D	SD
3-1 feel that Flipped Writing Class has improved my writing skill.	45,0	44,0	11,0	-	-
4-1 am more motivated to write argumentative essays in the Flipped Writing Class.	35,0	55,0	5,0	5,0	
5-1 believe that Flipped Learning is an effective way of improving writing skill.	45,0	55,0	10,0	-	-
8- Watching the analysis of several sample paragraphs helps me produce more organized paragraphs.	44,0	46,0	10,0	-	-
12-When I watch writing course through videos, I enjoy writing more.	33,0	47,0	10,0	10,0	-
14-Thanks to Flipped Writing Class Model, we have more time to practise writing in class.	44,0	36,0	10,0	10,0	-
16-1 would not recommend the Flipped Writing Class to a friend.	-	-	10,0	30,0	60,0
18-I think that Flipped Learning is a waste of time for improving my writing skill.	-	10,0	10,0	30,0	50,0
19-If were a teacher, I would not prefer a Flipped Writing Class.		-	20,0	30,0	50,0
20-I believe that Flipped Writing Class didn't contribute much to my writing skill		-	17,4	52,2	30,

**SA:** Strongly Agree **A:** Agree **N:** Neutral **D:** Disagree **SD:** Strongly Disagree

Table 4.4 shows that 89,0% of the students conveyed that their writing skill improved by means of flipped learning while 11,0% of the participants were not sure about this statement. In other words, students were happy with their improvement in writing skill, which was achieved through the flipped writing class model. In addition, it could be attributed to their motivation for writing class. 90,0% of the students agreed that they

were more motivated to write the argumentative essay in the Flipped Writing Class. 5% were neutral and other 5,0% thought that they were not motivated in the flipped classroom. It should be noted that at the beginning of the study, it was stated that EFL students' attitudes to writing skill are generally not positive, but there was a great motivation improvement by using this model as it decreased the difficulty and complexities of writing skill. The students' answers to the following statements validated this change. For instance, 80,0% of the students reported that they enjoyed writing more through watching the video lectures. 10,0% were undecided about the statement, and 10,0% were not in the opinion of enjoying the flipped writing class. The students who reported that that flipped learning was an effective way of improving writing skill was 90,0%. Similarly, it can be seen that 90,0% of the students stated that watching the analysis of several sample essays helped them produce more organized paragraphs, which verifies that the content of the video lectures was very effective. Great satisfaction in the students' answers with the content point presents that the video lectures enabled students to improve their writing performances. Furthermore, 80% of the students helped to verify it that the video lectures provided extra opportunity to have time to practice more in class thanks to the flipped writing class model.

There are some reverse items in this dimension of the questionnaire, one of which was *'I would not recommend the flipped writing class to a friend.'* 90,0% of the students stated that they did not agree with the statement. Although there were not any positive responses, 10,0% of the students were undecided. It is highly essential for the research that students were satisfied with the new model. In parallel with this question, 80% of the students reported that Flipped Learning was not a waste of time for improving their writing skill, and 10% were undecided about this statement. 10% of the students agreed that they could not improve their writing skill by Flipped learning. Also, the last phrase of this statement regarding this dimension yielded similar results compared to the previous statement. 80% of the students disagree with the report that *'If they were a teacher, they would not prefer a Flipped Writing Class,'* while 20,0% of the students were undecided about this statement. It can be deduced from the findings that because of the high percentages of responses on behalf of flipped writing class that it is an effective method, and negative attitudes of some students can be bettered by restructuring some small parts of the flipped writing class. Thinking the overall results,

about learning writing through flipped classroom, it can be inferred that a great majority of students have positive attitudes toward flipped writing classroom.

#### 4.1.2.3 Findings and Discussion about Students' Attitudes towards Preparing for the Exams in Flipped Learning Environment

Exams are critical in the learning process because of the washback effect. Bulut (2018) puts forward that the washback effect embodies the idea that examinations enhance teaching, thus learning, and vice versa. Thus, almost all students attach importance to preparation for the exams. Flipped classrooms present a kind of convenience to the students when they prepare for the exams; therefore, students' opinion about the flipped classroom in relation to the exams were very important for this research.

**Table 4.5: Percentage of Students' Attitudes towards Preparing for the Exams in Flipped Learning Environment**

Statements	SA	A	N	D	SD
7- Flipped Learning helps me prepare for the exams since I can watch all related videos before the exams.	55,0	35,0	10,0	-	-
13-1 can study for the exams by re-watching the videos.	34,0	66,0	-	-	-

**SA: Strongly Agree A: Agree N: Neutral D: Disagree SD: Strongly Disagree**

90,0% of the students stated that flipped learning helped them to prepare for the exams watching the videos before the exams, they could watch all related videos as table 4.5 shows. 10,0% of the students were undecided with the item. All of the students reported that they could study for the exams by re-watching the videos. The efficiency and advantages of Flipped Learning were verified about preparation for the exams.

#### 4.1.2.4 Findings and Discussion about Students' Attitudes towards Flipped versus Traditional Learning

After the application of the research process, the participants' preferences for whether the flipped or traditional classes were fundamental. Hence responses regarding students' attitude towards both class types were studied statistically with a frequency analysis which is shown in the following table.

**Table 4.6: Percentage of Students' Attitudes towards Flipped versus Traditional Learning**

Statements	SA	A	N	D	SD
16-1 feel more motivated when I watch the videos rather than listening to the teacher in the class.	24,0	55,0	11,0	10,0	-
17-1 would rather watch a traditional teacher-led lesson than a video lecture.	-	10,0	20,0	45,0	25,0
22- Traditional classes are always more enjoyable.	-	10,0	20,0	60,0	10,0
23- Traditional classes are always better than Flipped Classes.	-	-	30,0	40,0	30,0

**SA: Strongly Agree A: Agree N: Neutral D: Disagree SD: Strongly Disagree**

As Table 4.6 clearly shows, 79% of the students were more motivated while they were watching the videos outside of the class rather than listening to the teacher in the class. While 11,0% of the students were neutral towards this statement, 10,0% of the students disagreed with it. This result can be interpreted in the way that, after the research application, flipped writing class was preferred rather than the traditional lecture-based class by the majority of the class.

The favor of the traditional class was defined through three reverse statements, too. Students' preference for flipped or traditional classes was the first one. 60,0% of the participants reported that they would not favor traditional teacher-led lesson, so, it can be inferred as it is satisfactory for the research as the majority of the students would prefer flipped class. Likewise, the other two reverse items about the comparisons of two types of instruction yielded similar results. The percentage of students who think that traditional classes are not more enjoyable than flipped classes is 65,7. Similarly, 70,0% of the students reported that they were not in favor of traditional classes compared to the flipped classes. All in all, the flipped writing class has noteworthy effect on students in relation with their attitudes towards the new instructional model, which can be understood from high percentages of the students' preferences for the flipped class.

#### 4.1.3 The Results of the PTs' Argumentative Essay Scores

Before starting the research, whether there is a difference in terms of writing proficiency between the experimental and control group was analyzed, the same pre-test was administered to both groups in the first week of the fall semester. Independent samples t-test in SPSS 25 software analyzed the results.

**Table 4.7: Comparison of the Experimental and Control Groups' Pre-Test**

Group	N	Mean	SD	t	p
Experimental	15	44,02	6,57		
Control	15	45,40	6,61	-,680	<b>,500</b>

\*p>,05

As the significance level is, 500 ( $p>0,05$ ) in the pre-test, it can be inferred that there is not a noteworthy difference between the experimental and control groups considering the proficiency in writing. It should be noted that the mean score of the control group is a little bit higher compared to the score of the experimental group.

**Table 4.8: Comparison of the Experimental and Control Groups' Post-Test**

Group	N	Mean	SD	t	p
Experimental	15	70,02	6,57		
Control	15	57,30	8,01	7,01	<b>,000</b>

\*p>,05

As it can be inferred from the table that there is a significant difference between the post-test scores (70,02-57,30) of the students in the experimental and control groups, which means that students in the experimental group were more successful than the students in the traditional writing class in terms of writing proficiency. Hence, flipped writing class model seems to be an effective way of improving writing skill. It should be noted that, although the experimental group outperformed the control group, there is still an improvement in the control group's writing proficiency.

## **4.2 Discussion**

In this part, the research questions are presented and discussed according to the findings of the research.

### **4.2.1 Research Question 1**

Is there a major change concerning the Turkish EFL learners who take traditional instruction and those who receive critical thinking instruction which is supported with Flipped Classroom about their critical thinking levels?

As it was mentioned at the beginning of the study, CCTDI-T was conducted to both the experimental and control group and it was found that both groups' critical thinking disposition levels were similar. When the same questionnaire was applied again, it was indicated that the experimental group outperformed notably comparing the results with the control group.

Johnson (2013) carried out research similar to the current study and concluded that Flipped Learning-supported instruction enabled students to think critically.

Zeren (2016) also conducted a study in line with the current research and found that flipping lectures promote independent learning for university students. However, Saunders (2014) conveyed through her research that the flipped classroom was not an essential factor in increasing student critical thinking skills.

### **4.2.2 Research Question 2**

Is there a significant difference between the Turkish EFL learners who receive traditional instruction and those who receive Flipped Classroom-supported critical thinking instruction regarding L2 writing performance levels?

The success of the experimental group in the argumentative essay was notable when both groups' essay scores were analyzed. In other words, the experimental group was more successful than the control group concerning writing performance. Zeren (2016) who carried out research and concluded from the findings that flipped classroom-supported instruction improved students writing more than traditional instruction. Ekmekçi (2014) stressed that the flipped classroom played a significant role in improving writing skill in a short time compared to conventional teacher-led instruction. Yet, Ahmed (2016) stated that the experimental group was not more successful than the control group in terms of writing skill in the flipped-supported

writing classroom. It should be noted that the students' achievement in writing could be the extensive reading and extensive writing, as the load of the class hours was shifted to homework. There was a great opportunity to read, write, and discuss more through this advantage. Krashen (1985) stated that inclusive and rich reading is a necessity to write better.

#### **4.2.3 Research Question 3**

Will there be an alteration in the EFL students' perception of critical thinking at the end of the study?

As it can be inferred from the qualitative data gathered through the interviews, although participants had not known anything related to critical thinking, they indicated awareness of the critical thinking and delivered more exact descriptions at the end of the study. It can be understood that participants were aware of the significance of impartial evaluation and synthesis of numerous standpoints with all-encompassing rationalizations for thinking critically. In the interviews, the participants reported that it may not be possible to support one's perspective and contradict entitlements of others without being curious and skeptical. Turuk-Kuek (2010) conducted a study on Sudanese university students of their views about critical thinking, and the study was applied by adopting the reading and writing approach in an EFL writing classroom. The result was very similar to the results gathered through the current study. The experimental group had the opportunity to discuss the articles by examining numerous sources shared on the Google Classroom, and they were constantly encouraged to defend their choices throughout the study.

#### **4.2.4 Research Question 4**

What do the EFL students think about the instruction which is supported with the Flipped Classroom?

They think about it positively, which was verified through not only in the interviews but also Flipped Classroom attitude questionnaire. The Flipped Classroom instruction enabled students to cooperate in the class by means of several discussions which were held in group work. The new model increased the student's autonomy, and this made learning more meaningful. Because students had an excellent opportunity to share ideas and listen to their peers, they understood each other and conveyed their opinions about articles that they read. In addition, there are several studies (e.g., Fulton, 2012;



Huereca, 2015) which had similar results as the current research found. The most significant point that should be highlighted from the students' responses was that they liked feeling the responsibility for own learning outside of the class, which is mentioned in O'Flaherty & Phillips' study (2015), too.



## **CHAPTER V**

### **CONCLUSION AND SUGGESTIONS**

Initially, in this part of the study, inferences drawn from the findings are reported. Finally, recommendations for further studies are presented.

#### **5.1 Introduction**

In this research, it was aimed to make research on the possible results of critical thinking education through following the Flipped Classroom on achievement of EFL writing skill. In addition, another dimension of the research is to learn whether the current instruction model causes any change in students' perception of critical thinking and attitudes towards the Flipped Learning integration were examined.

#### **5.2 Conclusion**

The idea of this research comes from to advance a contemporary teaching method for writing classes in an EFL environment so as to make the teaching writing easy and more meaningful for students. Integration technology to education is not enough; there must be a reason for preferring technology to traditional education. That is why it was thought that technology could enable students' critical thinking skills to stimulate, so in this study, the Flipped Classroom and critical thinking education were integrated for the reading and writing course.

During the Spring semester of the 2018-2019 academic year, students in upper-intermediate level who were studying in the School of Languages received the reading and writing course. The new method, which is the Flipped Classroom, was employed, and it was also aimed to increase the critical thinking level of the students. As it was an experimental study, there were two groups which were experimental and control group. Both groups received six weeks of instruction from the researcher, and there were 15 students in each of the group, and they were chosen randomly. The aim of the course was to teach argumentative essay type and show different types of article to the students. The different topics of the capital punishment issue were chosen for the articles to promote critical thinking.

As it was mentioned previously, both experimental and control groups studied the same topic from different perspectives even though the groups differed in the following ways: the control groups' instruction is limited to the classroom setting, and instruction could not be taken to the outside of the classroom, lacked the guidance provided in the Flipped classroom through Google Classroom and Google Document. The participants in the experimental group had studied the argumentative essay earlier than the control group through the videos and tasks and studied the essay on their own at home. However, the control group studied the argumentative essay during the lesson and could not have time to get in detail because it was not a process teaching method, just in one lesson the argumentative essay was taught. During the study, the control group participants read specific articles on the topic and answered comprehension or discussion questions, which was led by the researcher. On the other hand, the participants in the experimental group watched the summary of the articles to activate their knowledge and increase their readiness to read them at home, which enabled the instruction to get in detail open to discussion. Various discussion activities which promoted critical thinking skills were applied thanks to this way, and students were asked to answer not only comprehension questions but also analyze the questions which they were required to formulate inferences, make decisions.

Not only quantitative but also qualitative data collection instruments were used in the research, and for the former one; California critical thinking level inventory survey and the Flipped Classroom questionnaire, for the latter one, interviews for critical thinking and the Flipped Classroom were applied in the study. When students' responses to the California Critical Thinking Level Inventory survey were analyzed, it can be put forward the experimental group performed better than the control group, which means that there was a momentous increase in the critical thinking skill of the experimental ones. It can be understood from findings gathered through the Flipped Classroom questionnaire; the flipped writing class has a noteworthy effect on students in relation to their attitudes towards the new instructional model, and high percentages of the students' preferences for the flipped class verified this, too.

### **5.3 Suggestions**

As can be concluded from the previous part, it can be stated that teaching critical thinking by using the Flipped Classroom method while teaching a writing course had voluminous benefits for both students and teachers. Firstly, schools should have a

policy about integrating technology to their curricula because it will be easier for the teachers to handle the difficulties in the teaching process. The technological equipment in the classroom and the technological devices that students used outside classrooms can be improved. Secondly, it is highly important that flipped classroom opens a space for using the class time more meaningfully and enabled students to increase their autonomy for learning on their own outside the classroom. Video is just a small piece of learning equipment which cannot be replaced with traditional teaching on its own. There should be a reason to integrate technology into the curriculum so that it can upgrade the quality of the education. Thirdly, teachers ought to be well-informed about how to use Course Management Systems such as Moodle, Google Classroom, or Canvas to make use of it. In addition, teachers should be qualified in terms of editing, designing video lectures. The aim of applying the Flipped Classroom should be to reach the higher levels in the class as most of the things are done at home by students. The activities which are in line with the higher levels in Bloom's Taxonomy should be included in the curriculum as it was done in this study. The last but not the least, the video lessons can be prepared ahead of time so that the activities which can be used in the class can be revised and improved.

#### **5.4 Limitations**

There are some limitations of the present study, which are the limited number of students in both groups, length of the study, and lack of pilot study. The number of students was restricted as the policy of the institution was to make the classrooms with a small number of students. It might seem to be disadvantages for the present study, but it allowed students to have more opportunity to talk and discuss during lessons. In addition, the researcher could take care of each student individually, which increased the efficiency of lessons. The length of the study was limited as the institution applied modular system which consisted of 7-week modules. Every module, students have module exit exams and groups are mixed according to their situation. In other words, if they pass the exit exam, they deserve to start the following level. Thus, the study could not have continued with the same students if a longer period of the study had been applied in the same institution. In this study, the course was reading and writing lesson but the main focus was on writing. For further studies, the Flipped Classroom can be applied in both all receptive and productive skills. Because this method plays a vital role to boost the efficiency of the language lessons. In addition, teaching critical

thinking through Flipped Classroom can be applied to the different courses such as social sciences and natural sciences.

Finally, the current study which focuses on both Flipped Classroom and critical thinking for reading and writing course will be an inspiration for further researches in the language teaching field regarding language learning skills and other skills such as interpret, analyze, synthesize, evaluate, and reflect on the information.



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## CV

Muhammet Furkan Alpat earned his B.A. from Marmara University, Department of Foreign Language Teaching with an honor degree. After working as an assistant student at Marmara University, he taught English at different institutions. He has given consultancy service to many institutions on curriculum design, teaching languages via technology, and testing and assessment. After completing the training by Cambridge University on Management of Foreign Language Teaching, he worked as the director of several institutions. He works as a coordinator of Ibn Haldun University, English Language Preparatory Program. He is in the process of completing Delta training (Diploma in Teaching English to Speakers of Other Languages) by Cambridge University.



## APPENDIX-A

### The Sub-scales of the CCTDI-T

Analyticity

1	2	3	4	5	6				
<i>Hiç</i>		<i>Kısmen</i>	<i>Kısmen</i>		<i>Tamamen</i>				
<i>Katılmıyorum</i>	<i>Katılmıyorum</i>	<i>Katılmıyorum</i>	<i>Katılıyorum</i>	<i>Katılıyorum</i>	<i>Katılıyorum</i>				
2. İnsanların iyi bir düşünceyi savunmak için zayıf fikirlere güvenmeleri beni rahatsız eder.				1	2	3	4	5	6
3. Cevap vermeye kalkışmadan önce, her zaman soruya odaklanırım.				1	2	3	4	5	6
12. Kişisel harcamalarımın dikkatlice kaydını tutmak benim için önemlidir.				1	2	3	4	5	6
13. Büyük bir kararla yüz yüze geldiğimde, ilk önce, toplayabileceğim tüm bilgileri toplarım.				1	2	3	4	5	6
16. Diğer insanların çeşitli konularda neler düşündüklerini anlamak benim için önemlidir.				1	2	3	4	5	6
17. İnanıklarımın tümü için dayanaklarım olmalı.				1	2	3	4	5	6
24. İnsanların, bir başkasının fikrine karşı çıkacaklarsa, nedenlere ihtiyacı vardır.				1	2	3	4	5	6
26. Ortaya yaratıcı seçenekler koyabilmekten gurur duyarım.				1	2	3	4	5	6
37. Beni mantıklı olarak tanımlayabilirsiniz.				1	2	3	4	5	6
40. Elimizdeki sorun hakkında açık bir fikir edinmek ilk önceliklidir.				1	2	3	4	5	6
46. Öğrenebileceğin her şeyi öğren, ne zaman işe yarayacağını bilemezsin.				1	2	3	4	5	6
50. Diğerleri kendi fikirlerini ortaya koyarlar ama benim onları duymaya ihtiyacım yok.				1	2	3	4	5	6

Open-mindedness

5. Dört lehte, bir aleyhte görüş varsa, lehte olan dört görüşe katılırım.	1	2	3	4	5	6
7. Sadece ezberi değil düşünmeyi gerektiren sınavlar benim için daha iyidir.	1	2	3	4	5	6
15. Açık fikirli olmak neyin doğru olup olmadığını bilmemek demektir.	1	2	3	4	5	6
18. Okumak, mümkün olduğunca, kaçtığım bir şeydir.	1	2	3	4	5	6
22. Yabancılar sürekli kendi kültürlerini anlamaya uğraşacaklarına, bizim kültürümüzü çalışmalılar.	1	2	3	4	5	6
33. Görüşlerimi destekleyecek gerçekleri ararım, desteklemeyenleri değil.	1	2	3	4	5	6
36. Benzetmeler ve analogiler ancak otoyol üzerindeki tekneler kadar yararlıdır.	1	2	3	4	5	6
41. Çelişkili konulardaki fikrim genellikle en son konuştuğum kişiye bağlıdır.	1	2	3	4	5	6
43. Sorunları çözmenin en iyi yolu, cevabı başkasından istemektir.	1	2	3	4	5	6
45. Farklı dünya görüşlerine karşı açık fikirli olmak, insanların düşündüğünden daha az önemlidir.	1	2	3	4	5	6
47. Her şey görüldüğü gibidir.	1	2	3	4	5	6

Inquisitiveness

1. Tüm hayatım boyunca yeni şeyler çalışmak harika olurdu.	1	2	3	4	5	6
8. Diğer insanlar entelektüel merakımı ve araştırmacı kişiliğimi takdir ederler.	1	2	3	4	5	6
30. Zorlayıcı şeyler öğrenmeye istekliyimdir.	1	2	3	4	5	6
31. Yabancıların ne düşündüklerini anlamaya çalışmak oldukça anlamlıdır.	1	2	3	4	5	6
32. Meraklı olmam en güçlü yanlarımdan birisidir.	1	2	3	4	5	6
34. Karmaşık problemleri çözmeye çalışmak eğlencelidir.	1	2	3	4	5	6
38. Her şeyin nasıl işlediğini anlamaya çalışmaktan gerçekten hoşlanırım.	1	2	3	4	5	6
39. İşler zorlaştığında, diğerleri problem üstünde çalışmayı sürdürmemi isterler.	1	2	3	4	5	6
42. Konu ne hakkında olursa olsun daha fazla öğrenmeye hevesliyimdir.	1	2	3	4	5	6

Self-confidence

14. Kurallara uygun biçimde karar verdiğim için, arkadaşlarıma karar vermek için bana danışırlar.	1	2	3	4	5	6
29. Diğerleri, kararların uygulanmasında mantıklı standartlarını belirlenmesi için bana başvururlar.	1	2	3	4	5	6
35. Diğerlerinin düşüncelerini anlama yeteneğimden dolayı takdir edilirim.	1	2	3	4	5	6
44. Karmaşık problemlere düzenli yaklaşımımla tanırım.	1	2	3	4	5	6
48. Diğer insanlar, sorunun ne zaman çözümleneceği kararını bana bırakırlar.	1	2	3	4	5	6
51. Karmaşık problemlerin çözümüne yönelik düzenli planlar geliştirmede iyiyimdir.	1	2	3	4	5	6

Truth-seeking

<i>6. Pek çok üniversite dersi ilginç değildir ve almaya değmez.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>11. Ben dahil herkes kendi çıkarı için tartışır.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>20. Üniversitedeki zorunlu dersler vakit kaybıdır.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>25. Kendi fikirlerimi tartışırken tarafsız olmam imkânsızdır.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>27. Neye inanmak istiyorsam ona inanırım.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>28. Zor problemleri çözmek için uğraşmayı sürdürmek o kadar da önemli değildir.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>49. Ne düşündüğümü biliyorum, o zaman neden seçenekleri değerlendiriyor gibi davranayım.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>

Systematicity

<i>4. Büyük bir netlikle düşünebilmekten gurur duyuyorum.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>9. Mantıklıymış gibi davranıyorum, ama değilim.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>10. Düşüncelerimi düzenlemek benim için kolaydır.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>19. İnsanlar çok acele karar verdiğimi söylerler.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>21. Gerçekten çok karmaşık bir şeyle uğraşmak zorunda kaldığımda benim için panik zamandır.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>23. İnsanlar benim karar vermeyi oyaladığımı düşünürler.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>

## APPENDIX-B

### FLIPPED WRITING CLASS ATTITUDE QUESTIONNAIRE

Please rate how strongly you agree or disagree with each of the following statements by putting a check mark in the appropriate box. There are no right or wrong answers in this list of statements. Your sound and sincere responses will contribute to my study a lot. The results of the survey will be used only in this research and kept confidential. Thanks for your cooperation in advance.

Furkan ALPAT  
Instructor of English  
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12	When I watch writing course through videos, I enjoy writing more.					
13	I can study for the exams by re-watching the videos.					
14	Thanks to Flipped Writing Class Model, we have more time to practice writing in class.					
15	I can watch the videos anywhere, anytime I want by downloading the videos.					
16	I would not recommend the Flipped Writing Class to a friend.					
17	I would rather watch a traditional teacher led lesson than a video lecture.					
18	I think that Flipped Learning is a waste of time for improving my writing skill.					
19	If were a teacher, I would not prefer a Flipped Writing Class.					
20	I believe that Flipped Writing Class didn't contribute much to my writing skill.					
21	Videos are too boring to watch.					
22	Traditional classes are always more enjoyable.					
23	Traditional classes are always better than Flipped Classes.					
24	Course Management System/ <del>Leaming</del> Learning Management System (CSM/LMS) (Google Classroom) is a useful tool for following the course requirements.					
25	CMS/LMS) (Google Classroom) is an important part in my learning.					

## APPENDIX-C

### SAMPLE STUDENTS ESSAYS

Abdulkadir DUR

“ Should capital punishment be legal in the law by considering wrongfully convicted person’s family, human rights on capital punishment, victim’s family and the history of the capital punishment?”

In the period of ancient civilizations, it had to be a regular state system to manage the public in order to provide a safety area. It is crucial for the goodness of management. A regular system in bureaucracy, law, management and punishment is a needing for a government to cope with some challenging issues that leaders face during the progress or decline of civilizations. It is normal to come across problems in state control in terms of controversial cases because it is all about humanity to understand the nature of human creation and move according to these predictions. Predictions because I do not think there would be a comprehensive analysis of human creature despite lots of studies in the field of psychology. In that case, psychology can be called as a new term. As you know, it has been established in Leipzig University in a couple of centuries ago. Before that time, is it possible to talk about the role of psychology in terms of social and governmental relationships among people? Of course, humanity was the same, nothing has changed after the foundation of psychology. Then, what is the measurement? It is a bit controversial issue. Therefore, ancient people have set up some rules to manage this issue that is to prevent crime rates among people. In that case, we have some samples as emperors who are rulers and come up with some social rules such as Urukagina and Hammurabi. These rules are one of the first samples in their field. Some of the rules are capital punishment. It is an old way to give people up crimes. However, I am against capital punishment in terms of two reasons.

Capital punishment is against human rights. It can be a debate topic in terms of the dimension of the crime but it needs to evaluate well. It is so little time period without wars. Even if there is no war, always it is possible to face crime issues. There is no stability in that case. Some reasons and crime types in the field of crime are continuing to changing every single day according to the current mood of the world. However, it is important to note that every single creature deserves to live.

The law systems of current countries are not well-organized yet. It has some controversial issues still. Even it is hard to judge a person for his or her crimes that are claimed by other people. When it comes to life or death issue, it is so challenging. So, there should be a well-organized law system and association in these countries who support and apply capital punishment. It needs a good historical background and experience in terms of the life of humanity because even one life is crucial as the potential of being a key to humanity. Also, It is a punishment system so it has a big impact on people’s life. Furthermore, It needs a deeply consider and I do not think the humanity ready for it.

In conclusion, the punishment issue keeps its controversy. It is important to note that being aware of the importance of human life, safety and liveable area in a country is so crucial for a person. Humanity is a bit complex creature. It is hard to evaluate and examine it in terms of its behaviors, emotions, and

attitudes. However, it is needing the existence of a state. States are evidence of our contract among us. So, it is crucial to provide safety in countries besides several punishment types but one of them that is capital punishment against human rights and the lack of a suitable system and atmosphere. Perhaps, thanks to the improvement of technology and science, it seems it is possible to explore some innovative and constructive punishment systems.

Abdüssemi Aydın

In many countries, capital punishment is legally in operation. Especially in theocratic states, lots of people still have been punishing by courts for rape, pedophilia, homosexuality, murder, betrayal, etc. Sometimes, malevolent people can commit these terrible crimes because of not having a disincentive and fair justice system. On the other hand, these harsh law rules are able to be abused and used by radical ideologies, unfair judges or other bad people. In my opinion, death punishment ought to be legal and presence in a constitution but people should not be judged wrongfully for simple crimes.

Firstly, capital punishment should be in operation for preventing some sorts of terrible crimes and giving an object lesson to people. Some people commit lots of unimaginable, intolerable and unethical crimes such as sexual abuse, treason or murder. In this case, it is not enough to judge and punish these guilty people with life imprisonment. Furthermore, people ought not to pay taxes for caring these ignominious people in jails. Consequently, capital punishment has to be feasible for people who commit terrible crimes.

Secondly, people become judged for unnecessary crimes wrongfully and punished with this irrevocable punishment unfairly. In some countries such as the Islamic Republic of Iran, the People's Republic of China or North Korea judicial system is not developed and the justice system is not fair. For this reason, some people were killed because of misunderstandings, favoritism, partisanship and etc. These problems cause irrepressible decisions and death of an innocent person. In the end, death punishment should not be legal in third world countries and less developed ones.

All in all, it is possible to observe that capital punishment is necessary but also might cause huge problems and ends up with the death of a blameless person, unfortunately. I am able to state that, capital punishment has to be in operation under the control of a strong judicial system. I believe, if all countries



have a fair justice system one day, capital punishment could be a practical application. In conclusion, states ought to work for having better judgment systems and making capital punishment feasible.

Ayşe Rumeysa Keser

In the past, there were different kinds of punishments according to laws. Ancient civilizations used to punish people, who had crime such as theft, destroying one of their limbs. If they had a crime with their right hands, they lost their right hands. For big crimes, such as murder, rape; they faced capital punishment. Capital punishment has been maintaining for many years in different countries but some of them are not using capital punishment for punishing the people. There are lots of doubt in terms of human rights, their families or being equal and fair to the criminal people.

Capital punishment used to use for an example to be a lesson to local people. It is an indisputable truth that when people saw someone die because of what did before, it is intimidation for not happen again. Governments used to do this method for organizing society. Some people think that citizens feed criminal peoples with taxes while they are living and even they are in jail. Thus, saying this is my money and I do not want to feed these monsters. People are supporting the idea of capital punishment from that perspective.

On the other hand, according to human rights, people should live whatever they did. Finishing their life is not a way for punishment to stop criminal events. Law systems that governments have are not the same. When it comes to human life, the same laws should be implemented for all countries. In some conditions, there might be unfair judgment and the results effect so many people.

To conclude, capital punishment is a controversial issue for the modern age. There must not be even a little mistake in that system. People think the religious approach to capital punishment sometimes. However, they should consider all conditions in terms of families, human rights, peace of society.

Bilal Utku KARAKOÇ

“Should capital punishment be legal in the law by considering wrongfully convicted person’s family, human rights on capital punishment, victim’s family and the history of the capital punishment?”

Every government has a different policy to decline crime rates. There many ways to punish the people but capital punishment is a controversial topic for years. People discuss the legality of capital punishment. According to research, it is one of only 56 nations in the world that still practice capital punishment. In my view, capital punishment should be legal in particular areas, on the other hand, it should not be because many innocent people might die wrongfully.

First of all, capital punishment should not be legal because people can be punished wrongfully, so, innocent people can die. If the justice system is not good in the country, there will be some problems. The authority can kill many people wrongfully and people may protest against the government. For instance, in Egypt, the government has executed 301 innocent dissident people, and a lot of protests have occurred around the world. Also, in the U.S many blameless people have been executed, and their families have been fighting for justice. Furthermore,

governments can create new solution ways, such as chemical castration. Therefore, they prevent from wrongful execution.

Secondly, capital punishment should be legal for heavy crimes, such as murdering, sexual abuse and etc. because criminals steal people's fundamental rights. When they kill a person, they violate their living right and nobody has a right to do it. If we look at history, usually this kind of heavy crimes was punished by capital punishment. For example, in the period of Rashidun Caliphate, murderers especially were executed. Also, treason should be castigated by capital punishment because it treats all citizens of a country. For example, FETÖ in Turkey will punish but people do not think put in prison is justice.

In conclusion, despite the good effects of capital punishment, such as intimidation, it should not be legal because any country has a completely equal justice system. Thus, lots of innocent people may die. For this reason, they should have different deterrent punishments.

#### Mukerrem

The number of crimes rates and every kind of criminals' portion is increasing along with the injustice law system and are not being taken significant measure about it worldwide. Many people claim that criminals must be punished with capital punishment and it should be legal because they do not get their lesson with ordinary punishment. However, some people hold the opinion that capital punishment should not be legal since it does not bring benefits for anything.

First of all, being legal capital punishment is a very controversial issue around the world and there are some countries that capital punishment is legal, such as Saudi Arabia China and others. If we look at these countries, we can see that they are at the top of with their crime rates. Thus, it proves us, giving capital punishment is not a solution for reducing the crime portion and solving the problem. Actually, death is resting for many criminals. To more elaborate on it, most of the criminals know that they will be encountering punishment and take risks when committing a crime and it does not affect them so much. Furthermore, If the government give them capital punishment other criminals, such as the criminals' peers would violate and it influences their psychology as doing more bad things. So, capital punishment should not be legal and instead of it, strict punishment can be spread.

On the other hand, supporters of being legal the capital punishment look the issue on a far and jitter way. For example, they do not research how much capital punishment effective and can solve your problems with it. Have their sound reasons, their claim is that just giving lessons for criminals giving Capital punishment. Actually, it is a little bit superficial minded approach that we can also give the criminals by giving strict punishment.

To sum up, capital punishment should not be legal because it does not have not only influential solution but also have negative outcomes when we look at the countries which capital punishment is legal. In my opinion, strict punishment can be effective for diminishing crime portion because dying is very easier maybe nothing than punishing very strict for everyone.



Sumeyye Oyan

Should capital punishment be legal in the law by considering wrongfully convicted person's family, human rights on capital punishment, victim's family and the history of the capital punishment?"

Capital punishment means the killing of villain people because of their crime by legal law. In the today's world, while approximately 60 countries are still using this kind of punishment, the other 100 countries are not accepting it. However, some people claim that the punishments are for either breeding or deterrence and they refuse the capital punishment, I strongly believe that the capital punishment ought to be used; because the only recompense for the great crimes such as betrayal of the state is the capital punishment and the through the execution, potential criminals cannot find the brave in themselves to commit a major crime.

First of all, as in period of Ottoman Empire, the only punishment is possible against the betrayal for leader of country is capital punishment. To illustrate, during the reign of Sultan Abdülhamit, a lot of pasha, agents and political men who cooperated with Jon Turks and wanted to demolish the state were executed for betrayal. It is quite meaningless to expect them to be corrected after such a great crime. In addition, their executions may discourage the potential criminal who about to commit a crime. Therefore, in some very sensitive cases the death penalty is inevitable.

The second thing, although sometimes innocent people are killed by capital punishment, this punishment should be kept as a legal punishment in countries' law system for an-innocent and extremely dangerous people. For instance, in Turkey Adnan Menderes was killed by capital punishment but he was innocent, and after this event in 2014 the capital punishment was forbidden. Unfortunately, Turkey today even towards Fethullah Gulen or such kinds of bad people cannot apply this penalty because of forbidding. It is true that the justice in some situations can be against the blameless people, but it does not mean the law completely might give up this.

To sum up, whereas some negative result of capital punishment the positive result are more than disadvantages of this crime. Avoiding from major crime and spring out the scary between potential criminals are more essential cause of applying capital punishment. In a nutshell, I tend to say if my fair and great grandfather used it, we should keep on use this punishment.