

REPUBLIC OF TÜRKİYE
ÇUKUROVA UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
ENGLISH LANGUAGE TEACHING DEPARTMENT

**THE EFFECTS OF FLIPPED LEARNING PRACTICES ON THE CRITICAL
THINKING DISPOSITION LEVELS OF EFL LEARNERS AND THEIR
ATTITUDES**

Aylin Ayan EV

MASTER THESIS

ADANA / 2025

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MASTER THESIS

ADANA / 2025

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Aylin Ayan EV

ABSTRACT**THE EFFECTS OF FLIPPED LEARNING PRACTICES ON THE CRITICAL
THINKING DISPOSITION LEVELS OF EFL LEARNERS AND THEIR
ATTITUDES****Aylin AYAN EV****Master Thesis, Department of English Language Teaching****Supervisor: Prof. Dr. Yasemin KIRKGÖZ****February 2025, 135 pages**

The fast changes occurring in every aspect of life have forced people to take new actions and resolutions. One of the areas, which witnesses constant changes is education in the era we are going through. In this regard, innovations in technology and teaching and learning approaches in foreign language education have also encouraged educators and practitioners to improve the quality of education to make the best of learning outcomes. The endeavours for converting classrooms to more student-oriented environments by implementing active learning strategies reversing the transfer of knowledge through flipped learning (FL) have helped learners to practice language skills as well as analytical thinking skills better at schools. In line with this, higher education institutions have also aimed to adopt a manner, which equips individuals with critical thinking (CT) and required language skills in foreign language education despite the information overload the university students are exposed to. Therefore, FL has come up with solutions to cater for these necessities.

On this account, this study aimed to improve critical thinking dispositions (CTDs) and academic writing performance of the first year English Language and Literature students by integrating FL approach and to investigate their perceptions on this implementation over a six-week period. For this purpose, a single-group experimental design was adopted including 22 participants. Their progress in critical thinking disposition sub- scales was assessed through the Turkish version of California Critical Thinking Disposition Inventory (CCTDI-T) which was developed by Kökdemir in 2003 as pre-test and post-test. Their academic writing performance was evaluated by means of the analytical rubric designed by Jacobs et al. (1981) before and after the treatment to

reveal any progress if any. Lastly, their attitudes towards this 6-week treatment were explored through Flipped Learning Attitude Scale by Fauzan and Ngabut (2018). To gain a deeper understanding in relation to the treatment, a semi-structured interview was conducted with eight participants through open-ended questions incorporating the variables investigated in the study by the researcher and to back up the findings obtained through quantitative data collection tools. Consequently, the quantitative data was analysed using Wilcoxon- Signed Rank Test and the qualitative data were subjected to content analysis.

The findings uncovered that participants' CTDs towards using CT skills were varied. The disposition self- confidence was increased meaningfully in addition to their writing performance and attitudes towards FL in a positive way thanks to the inverted instruction of the writing course in which students studied and practiced lesson materials theoretically outside the classroom, thus making it possible for the instructor to immerse the participants into a more thought-provoking environment in the classroom. This new instructional method was also found interactive, engaging, intriguing by the participants as they were encouraged to take the charge of their learning in a guided way through weekly assigned tasks and in class and after class processes they were involved in. These inferences have been made based on the findings of the study.

Keywords: Flipped learning (FL), critical thinking disposition (CTD), academic writing performance, attitudes, single group experimental design, English language and literature (ELL).

ÖZET

TERS YÜZ ÖĞRENME UYGULAMALARININ YABANCI DİL OLARAK İNGİLİZCE ÖĞRENENLERİN ELEŞTİREL DÜŞÜNME EĞİLİM DÜZEYLERİ VE TUTUMLARI ÜZERİNDEKİ ETKİLERİ

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Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı

Tez Danışmanı: Prof. Dr. Yasemin KIRKGÖZ

Şubat 2025, 135 sayfa

Hayatın her alanında meydana gelen hızlı değişimler, eğitim dahil olmak üzere birçok alanda yenilikçi stratejiler benimsemeyi zorunlu kılmıştır. Yabancı dil eğitiminde, teknolojik gelişmeler ve aktif öğrenme yaklaşımları, öğrenciyi merkeze alan öğrenme ortamları yaratarak hem dil becerilerini hem de eleştirel düşünme becerilerini geliştirmeyi amaçlamaktadır. Bu stratejiler, yükseköğretimde öğrencilerin maruz kaldığı bilgi yükünü yönetebilmek için gerekli olan becerilerin kazandırılmasında önemli bir rol oynamaktadır.

Bu çalışma, birinci sınıf İngiliz Dili ve Edebiyatı öğrencilerinin eleştirel düşünme eğilimleri, akademik yazma performansları ve ters yüz öğrenme uygulamalarına yönelik tutumları üzerindeki etkilerini incelemektedir. Altı hafta süren çalışmada, 22 katılımcıyla tek grup deneysel desen kullanılmıştır. Katılımcıların eleştirel düşünme eğilimlerindeki değişimler, Kökdemir (2003) tarafından geliştirilen California Eleştirel Düşünme Eğilimi Envanterinin (CCTDI-T) Türkçe versiyonu ile ölçülmüştür. Akademik yazma performansları ise Jacobs ve ark. (1981) tarafından geliştirilen analitik rubrik kullanılarak uygulama öncesinde ve sonrasında değerlendirilmiştir. Ayrıca, Fauzan ve Ngabut (2018) tarafından geliştirilen Ters Yüz Öğrenme Tutum Ölçeği ve sekiz katılımcıyla yapılan yarı yapılandırılmış görüşmeler, öğrencilerin ters yüz öğrenme uygulamasına yönelik algılarını derinlemesine anlamak için kullanılmıştır.

Nicel veriler, Wilcoxon İşaretli Sıralar Testi ile analiz edilirken, nitel veriler içerik analizi yöntemiyle değerlendirilmiştir. Bulgular, katılımcıların eleştirel düşünme eğilimlerinde farklılıklar olduğunu ortaya koymuş ve özellikle özgüven eğiliminde anlamlı bir artış gözlemlenmiştir. Ayrıca, katılımcıların yazma performansları ve ters yüz

öğrenmeye yönelik tutumları da bu yeni öğretim yöntemi sayesinde olumlu bir şekilde gelişmiştir. Ders materyallerinin teorik olarak sınıf dışında çalışılması ve uygulamalı öğrenim için sınıf içinde daha fazla zaman ayrılması, öğrencilerin daha düşünce tetikleyici bir ortamda yer almalarını sağlamıştır. Katılımcılar, haftalık görevler ve sınıf içi ile sınıf sonrası süreçlerle desteklenen bu yöntemi etkileşimli, ilgi çekici ve merak uyandırıcı bulmuş ve öğrenme süreçlerinin sorumluluğunu planlı bir şekilde üstlenmeye teşvik edilmiştir. Bu çıkarımlar araştırmanın sonuçlarıyla da desteklenmektedir.

Anahtar Kelimeler: Ters yüz öğrenme, eleştirel düşünme eğilimi, akademik yazma performansı, tutum, tek grup deneysel tasarım, İngiliz dili ve edebiyatı.



ACKNOWLEDGEMENT

I would like to express my deepest gratitude to all those who have supported and encouraged me throughout the course of MA studies and this research.

First and foremost, I would like to thank my thesis supervisor Prof. Dr. Yasemin Kırkgöz for her invaluable guidance, expertise, and unwavering support in shaping this research and making this thesis possible.

I am also thankful to the members of the examining committee of this thesis, Assoc. Prof. Dr. Abdurrahman Kilimci and Assoc. Prof. Dr. Muhammet Baş for their constructive feedback and thoughtful suggestions, which significantly enhanced the quality of this work.

I also would like to extend my special thanks to the participants of this study, first year English Language and Literature students whose dedication and motivation made this research possible. I am deeply grateful to Assoc. Prof. Dr. Kerimcan Yazgünoğlu, the director of ELL department and Mehmet Burak Ev, the instructor of this academic writing course for their support and endless cooperation with me throughout the implementation.

Lastly, I wish to express my appreciation to my husband Mehmet Burak Ev and my dearest son Mehmet Tuna Ev, my close family and friends for their utmost belief, heartfelt support, understanding, and knowledge to complete this thesis. I am the luckiest person to have all of you.

Aylin Ayan Ev

Adana/2025

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ABBREVIATIONS

AACC	: American Association of Community Colleges
BL	: Blended Learning
CT	: Critical Thinking
CTD	: Critical Thinking Disposition
CCTST	: California Critical Thinking Skills Test
CCTDI	: Critical Thinking Disposition Inventory
CCTT-Z	: Cornell Critical Thinking Test Level Z
EFL	: English as a Foreign Language
FL	: Flipped Learning
GPA	: Grade Point Average
iNACOL	: International Association for K-12 Online Learning
NACE	: National Association of Colleges and Employers
STEM	: Science, Technology, Engineering and Mathematics
WGCTT	: Watson Glaser Critical Thinking Test
WVS	: World Values Survey

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CHAPTER I

INTRODUCTION

1.1. Introduction

This chapter presents a general overview of the background to the study, and proceeds with the statement of the problem, purpose of the study, research questions, significance of the study, and ends with limitations.

1.2. Background to the Study

The advancements in technology and digitalization have affected the educational arena leading to drastic changes such as the implementation of teaching and learning activities in various ways. One of these is Flipped learning (FL), which has been on agenda widely thanks to Bergmann and Sams since 2007. Their pre-recorded lessons to help absent students due to the sports events to catch up with the chemistry classes first grabbed the attention of other teachers and schools, which resulted in public recognition on a TV interview. Its approval has spread across all educational institutions around the world due to the advantages it holds. In addition to the opportunities brought about by rapid technological changes, the need to transform the educational paradigm from teacher-centred to learner-centred learning where learners construct meaning and knowledge on their own rather than solely struggling to absorb and memorize what an instructor transmits themselves in the classroom has been apparent for a long time (Li et.al., 2021).

Also known as “inverted classroom” (Lage & Platt 2000; Lage et al. 2000), or “classroom flip” (Baker, 2000), FL means that the traditional instruction takes place outside the classroom through pre-recorded videos or other sources, students study them anytime and anywhere while more active, engaging activities are carried out in the classroom to consolidate the outside learning (Bergmann & Sams, 2012a). In this regard, Bergmann and Sams (2012a) also assert that to involve every student in the learning process is achievable no matter what the subject content or personal differences are, if they watch pre-class materials before the class, time spent in class is allocated to debates instead of listening to a lecture. Mok (2014) expressed that in FL “the teacher ‘delivers’ lectures before class in the form of pre-recorded videos and spends class time engaging

students in learning activities that involve collaboration and interaction” (p. 7). As can be understood from the definitions, FL approach is not just the re-ordering of learning activities before class and in class (Cheng et. al., 2019). Bishop and Verleger (2013) explained FL as “a new pedagogical method, which employs asynchronous video lectures and practice problems as homework, and active, group-based problem-solving activities in the classroom” (p.2). Hence, various components are involved in the achievement of the FL pedagogy.

The use of digital technology, collaborative learning activities (Låg & Sæle, 2019), active learning strategies all make FL favourable. From this perspective, FL can also be traced back to 1980s, when active learning appeared in the educational communities underscoring the notion “learning by doing” (Ryback & Sanders, 1980). Active learning has long been believed to affect student learning positively when compared to passive, teacher-directed instruction by making the learning process more meaningful, self-directed for the learners in all levels (Abeysekera & Dawson, 2015; Prince, 2004). In this sense, FL also shifts students to the heart of learning (Li et. al., 2023). In the book, ‘From Sage on the Stage to Guide on the Side’, King (1993) also highlighted the significance of allocating class time for formation of meaning as opposed to mere instruction of knowledge. One of the aims of bringing FL into various educational settings from K-12 to universities has been to cultivate active learning (Şahin & Kurban, 2016; Hamdan & Mcknight, 2013). Thus, classroom activities grounded in communication, problem solving, CT, and collaboration are highly favoured in both active learning and thus in FL.

Li et. al (2023) also interpret the increase in the implementation of FL, especially in higher education, as one of the reasons for employing higher order thinking skills. Along with it, others are boosting student engagement, lifelong learning skills, the aim for the growth of skills required by the employers (e.g. ‘twenty-first century skills’, which encompass CT, collaboration and self-direction) (Framework for twenty-first Century Learning, 2010; Overmyer, 2015).

When this pedagogical innovation and its benefits are considered, another issue, which has gained importance in every domain of education is the integration of CT skills and dispositions. Global and technological changes have also transformed education system from solely delivering subject specific contents to empowering learners to be critical thinkers to practice and adopt logical thinking, decision-making, problem solving

in every phase of their lives, which are desirable skills for academic, professional, individual fulfilment (Oliveri & Markle, 2017).

Regarding the emergence of CT skills, the first practices of the concept are traced back to 2500 years ago when Socrates suggested that one could not depend upon those in authority to have sound knowledge and insight. He underlined the significance of searching for proof, evaluating beliefs; examining one's thought process to reach sound conclusions. His worldwide questioning technique to teach CT is called Socratic Questioning. Then, his teachings inspired other philosophers for CT such as Plato, Aristotle and Greek sceptics. They defended that everything what we see around is very different from what they seem to be, so only trained intellects can perceive what is beneath the surface. The concept and implementation have kept on growing throughout the Middle Ages, Renaissance, ongoing years with the names of Thomas Aquinas, Colet, Erasmus, Moore, Descartes, Robert Boyle, Newton, Galileo, and Kepler and with many others who supported the idea of examining and critiquing thoughts, various aspects of life to reach the reality.

Over the last 30 years, numerous higher education institutions have regarded the concept "as a 'generic skill' that is central to most, if not all, subjects" (Davies, 2011, p. 255) only their graduates can acquire. In this regard, several scholars have contributed to the refinement of it differently. For instance, Ennis (1993) clarifies it as "reasonable reflective thinking that is focused on deciding what to believe or do" (p.166). Elder and Paul (2010), Facione (1990), and Wade (2009) stated it more precisely as a group of thinking skills gained by comprehending an issue, assessing the proof, and analysing false beliefs and arguments incorporating the dispositional aspect of CT. Therefore, Halpern's explanation (1998) also includes this dimension saying, "... CT is more than the successful use of a particular skill in an appropriate context. It is also an attitude or disposition to recognize when a skill is needed and the willingness to apply it" (p.452).

All these discussions bring us to the issue of embedding flipped pedagogy and CT instruction into foreign language education, especially in the instruction of writing skill, which has academic and professional value for undergraduates and graduates of higher education. Writing entails formulating ideas, which challenges students the most, which also means that they need to activate their CT skills (Trang & Anh, 2020). Weigle (2002) also points out this notion stating, "writing and CT are seen as closely linked, and expertise in writing is seen as an indication that students have mastered the cognitive skills required for university work" (p.5). In line with this statement, an experimental

study to closely investigate the impacts of dialogic CT instruction on Iranian EFL students conducted by Fahim and Mizraii (2014) highlights the strong link between the skills for writing argumentatively is mostly dependent on cognitive skills of EFL learners. In addition to this, the fact that active and learner-centred strategies, namely pair or group works, debates, role plays, concept mapping, problem-based learning influence the growth of CT is put forward in the literature, as well (Brown et al., 2014). On the other hand, the class hour cannot be dedicated to such kind of activities as teachers have to keep up with what is in the curriculum (Von Colln-Applying & Giuliano, 2017). Consequently, FL approach can be regarded as a promising solution to foster CT (Alsulami, 2016; Boucher et al., 2013) as it eases the use of these strategies in the class hour for teachers who can monitor, assist students more thanks to the lectures delivered outside the classroom (Bergmann & Sams, 2012; Missildine et al., 2013; Prokhorova et al., 2021).

1.3. Statement of the Problem

CT is regarded as a ‘must have’ skill to be integrated into educational domain in the 21st century (Din, 2020). To this end, Moore (2011) advised educators to redesign courses, which will spark meaningful, and CT to enable their students to learn better. Within the sphere of language education, as a productive skill, writing has held the significance for encouraging students to reflect their thinking from a critical standpoint by analysing, evaluating, discerning the credibility and applicability of sources and ideas in their end products. On the other hand, writing classes necessitate students to implement both CT skills and understanding genres, employing the right techniques for various essays, all of which require time and effort to progress. The absence of appropriate course design and guidance along with comprehensive knowledge and skills in the curriculum may prompt students to feel overburdened and disconnected from these classes (Chang et. al., 2023). When all these are taken into account, Chang et. al. (2023) also state that teachers end up with anxiety and stress of organizing classes in a well-balanced way including all the teaching and learning activities within a busy curriculum.

Regarding these obstacles, FL approach can release the burden on teachers and students in EFL writing classes as this kind of a pedagogical approach permits teachers to “shift the delivery of lecture-based instructional content to self-paced learning out of class, while higher order thinking and other active learning activities are conducted in class with peers and under the instructor's guidance” (Bergmann & Sams, 2016; Chen &

Hwang, 2020, as cited in Chang et. al., 2023). In alignment with this, Hwang et. al. (2021) state that flipping a class is referred to embedding active learning strategies into every stage of FL procedure (before class, during class, and/ or after class) to exploit its pedagogical gains to the utmost extent, rather than just change the order of a course. In this respect, this research aimed to investigate the impact of a FL supported academic writing course on the CTDs, writing performance, and attitudes of freshman students in the English Language and Literature department.

1.4. Significance of the Study

We have seen the positive impacts of the technological advancements in every aspect of our lives from the ways people travel, communicate, correspond, to the way they learn new skills and receive education. One advantage of technological developments on our English language teaching practices is flipped classroom, which originated in the 1990's as the result of endeavours of Eric (Yavuz & Ozdemir, 2019). In traditional language teaching settings, teachers are the quite responsible ones who transmit the knowledge to learners by covering all the necessary issues given in the syllabi and in the course books and help, learners establish the knowledge and the required skills assigning homework or tasks which learners are expected to carry out outside the classrooms. However, flipped classrooms reverse this tradition. Through the digital sources such as videos, power point slides, podcasts created by teachers or available on the internet, other multi-media materials and online interactions, teaching content is presented to learners, and they are asked to watch and acquire the knowledge outside the classroom. This way, learners are able to construct their own learnings and able to review and revise such kind of sources anytime and anywhere. When the teacher meets the learners back in the classroom, they are engaged in collaborative tasks in which they can practice the knowledge and the required skills actively and meaningfully all together with the guidance of the teacher. Thus, while students apply what they learn by means of digital sources into classroom activities, they also improve collaboration and CT skills. Since the tasks in which students engage in require discussing, debating, creating and so on, their way of thinking critically is expected to flourish effectively. Hence, this study aims to shed light on to the effects of FL practices on the CTDs of EFL students through academic writing tasks which enormously involve analysing, evaluating, creating which are the top three components of Revised Bloom's taxonomy (Anderson, Krathwohl, &

Bloom, 2001). In this regard, it is evident that the research conducted on the effectiveness of the FL approach on CTD in EFL settings at tertiary level in Türkiye, and across the world is inadequate. It is believed that the results, which will be obtained from this research, will contribute to the educators, future researchers and the students who will benefit from this approach the most in Türkiye and in the world specifically in teaching English as a foreign language.

1.5. Research Questions

The purpose of this study is to explore the impacts of FL approach on the CTDs and attitudes of learners of English. As fostering CTDs and expressing oneself competently in a foreign language, especially in English, are of great importance in the age we are, we as educators should be open to trying new approaches, which will benefit university students, as universities are the places where not only the theoretical but also very practical knowledge and skills are acquired. In an alignment with the notion that the universities have adopted certain requirements for their students to attain along with language learning, the research questions of this study are as follows:

1. What is the impact of flipped supported writing courses on the critical thinking dispositions of EFL learners?
2. What are the attitudes of learners towards flipped learning?
3. Does flipped learning affect participants' writing performance? If so, to what extent?

1.6. Limitations

Despite the contribution of this study to the field of English Language Teaching, certain limitations are listed below:

1. The researcher works at a state university and normally she was planning to actualize this study with a group of students she teaches. However, she has changed the setting and the participants the research would be conducted due to the unexpected changes in the delivery of education across the country from face to face to online as a result of the devastating earthquake in Kahramanmaraş and inadequate attendance in online classes and the changes in the syllabus which restricted the researcher in terms of implementing FL approach. While the research was going to be held in 2022-2023 spring

term with the students at the preparatory school, now she administered it in the 2023-2024 fall term with the freshman students who studied at ELL department in the Academic Writing Course.

2. The Academic Writing Course takes place in a three-class hour period once a week. The researcher prepared the lesson materials herself and explained the implementation stages of the targeted research to the instructor of the course in detail. The instructor of the Academic Writing Course and the researcher were in close contact for any clarification and assistance.

3. There were around 60 students approximately and since the course hours could not be held at different hours and on two different days, the students were not divided into two groups as experimental and control to conduct quasi-experimental or true experimental research designs, which yield results that are more generalizable. Moreover, to provide sound implications, only the students who could attend and carry out the assigned tasks regularly for six weeks were included in the study, and in this case, the number of the participants largely decreased. Consequently, the conditions forced the researcher to employ a single group experimental research design with mixed methods research approach to be able to analyse the quantitative and qualitative findings of the research tools. Hence, it is unlikely to generalize the results to larger populations in its nature.

4. At the time this treatment was implemented, the participants were familiarized with paragraph writing first and then essay genres in 14 weeks. The researcher had to incorporate at least three essay structures considering the requirements in the syllabus as suggested by the department of ELL. Therefore, to make a reasonable comparison of pre-test and post-test results, there had to be one essay structure instructed before the treatment started. As a result, a six-week duration could be allocated for the research for the rest of the term.

CHAPTER II

LITERATURE REVIEW

2.1. Introduction

This chapter opens by reviewing the relevant literature in three sections respectively: blended learning (BL), flipped learning (FL), and critical thinking (CT) first in a general context and then in the context of English as a foreign language (EFL).

2.2. Blended Learning

2.2.1. Definition of Blended Learning

BL, which is also called interchangeably hybrid learning, mixed mode, or flexible learning (Müller et al., 2021), has started to gain popularity since the beginning of 2000s. Through the emergence of internet in 1990s, education has undergone certain changes in its implementation to facilitate teaching and learning experiences. It was evident that the advancements in technology were going to encourage individuals to utilize this emerging phenomenon (BL) more and more which led it to be ‘the new normal’ or ‘the new traditional model’ (Dziuban, Graham, Moskal, Norberg, & Sicilia, 2018). This innovative, technology-supported pedagogical approach has been still a field of interest catching the attention of researchers and institutions in various domains including education, computer science, nursing, engineering, and psychology at various levels of education resulting in many studies to shed light on to its future applications across the world (Chen et al., 2023). Hence, the concise definition of BL as always played an important role in guiding practitioners to design successful blended environments. Consequently, in this section of the literature, it is highly critical to touch upon the emerging discussions and definitions of this teaching and learning mode put forward by various scholars in the domain of BL recently.

First, while much concern was raised on defining BL by Oliver and Trigwell (2005) in their influential article ‘Can Blended Learning Be Redeemed?’, resulting from the varieties of the definitional issues, Hrastinski (2019) characterized it as an “umbrella term” while Dziuban and his colleagues (Dziuban, Shea, & Moskal, 2020; Norberg et al., 2011) portrayed it as a “boundary object” that is, “plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a

common identity across sites ...weakly structured in common use ...strongly structured in individual site use” (Star & Griesemer, 1989, p. 393) which means that BL can be tailored to any local settings while holding a joint identity across these environments reflecting the concept of flexibility and structure.

First, Graham (2006, 2013, and 2019) who is one of the prominent scholars in this field, defined BL as ‘learning experiences which combine face to face and online instruction’. Graham (2021) in his article in the book ‘Blended Learning: Research Perspectives’ revised and developed its definition as ‘the strategic combination of online and in-person learning’ drawing the attention to the relationship of BL with three fundamental areas; 3Ms – media, method, modality which are also crucial to define any teaching and learning practices, referring to the media as ‘the physical or technological tool to deliver an instruction’, method as ‘teaching strategies employed in instructional settings’, modality as the ‘online and in person classroom environment’ respectively. In this explanation, media and modality constitute the physical dimension of BL, while method forms the pedagogical dimension which entails active learning strategies, teacher-led instruction, interactions which take place as community in in-person classes and online. The design related issues within the pedagogical dimension of a BL course impact learning while the physical dimension impacts access and cost. Graham (2021) also pointed out that the varieties in defining BL were associated with understanding it in terms of the fusion of media, method, and modality, which can be concluded that any kind of learning is possibly called BL. In the early Sloan-C BL workshops (now the Online Learning Consortium), BL was articulated as "courses that integrate online with traditional face-to-face class activities [modality] in a planned, pedagogically valuable manner [method]" (Picciano, 2006, p. 97).

Table 1.

Descriptions and Examples for Media, Method, and Modality

3 Ms	Description	Examples	
Modality	The physical instructional setting or environment	• Online environment • In-person classroom environment • A mix or blend of online and in-person learning	
Media	Physical tools or technology used to deliver or mediate instruction	Digital • Computer • Mobile device • LMS, software	Non-digital • Books • Whiteboard • paper/pencil
Method	Teaching strategies and practices used in instruction	General • Case studies • Class discussion • Simulations • Lecture • Group work	Content-specific • Writer's workshop • Primary source • Documentary creation • Scientific inquiry • Math manipulatives

In an alignment with above-mentioned definitions, Liu et al. (2024) also pointed out that BL goes beyond the pure fusion of in-person and online learning settings; it requires systematic reconstruction of several components incorporating learning resources, teaching strategies, learning environments, learning tools, and teaching and learning models. In addition to this, various other scholars have made similar definitions of BL. For instance, Azizi et al., (2020) and Chaeruman et al., (2020) highlight BL, as not simply an integration of technology, pedagogy, and tasks, it is also an efficient mix of relevant learning settings and teaching strategies. The principal constituents of an efficient BL encompass interaction, class duration, online sources (Li et al., 2021). Cronge (2020) advocates that the explanation of BL should be grounded in learning theory. Behaviourism, cognitivism, and social constructivism, which comprise the learning theories highly, influence the design and strategy of instructions, and assessment (Ertmer & Newby, 2013; Picciano, 2021).

In order to facilitate the understanding of the physical and pedagogical aspects of BL and other types of courses such as pure in-person, web-facilitated and pure online, Allen, Seaman, and Garret (2007) categorized them in terms of the proportions required to deliver online content for each and provided precise descriptions to guide us in

designing proper BL environments. In this classification, online learning covers the 30% to 79% of all the instruction and BL entails online interactions and face to face meetings.

Table 2.

Classifications of Blended Learning

Proportion Content Delivered Online	of Type of Course	Typical Description
0%	Traditional	Course with no online technology used - content is delivered in writing or orally.
1 to 29%	Web Facilitated	Course, which uses Web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or Web pages to post the syllabus and assignments, for example.
30 to 79%	Blended	Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has some face-to face meetings.
80+ %	Online	A course where most or all the content is delivered online. Typically have no face-to-face meetings.

As per Lanham, Augar, and Zhou (2005), BL integrates both traditional in-person learning with online learning as well as merges asynchronous and synchronous online learning technologies. Similarly, another study regarding BL displayed that INACOL, (the International Association for K-12 Online Learning) elucidated that B.L. integrates online delivery of educational content with the most effective dimensions of in-person instruction and classroom interaction. Thus, the aim is to personalize learning, accomplish reflective thinking, and tailor instruction for each student within a varied group of learners (Watson, 2008).

It can be understood from these definitions that BL is ‘the thoughtful integration of classroom face to face learning experiences with online learning experiences’ to optimize the educational process at its most basic. The challenge is derived from the rich

varieties in its application and models in a plethora of contexts (Garrison & Kanuka, 2004). Therefore, as Ross and Gage (2006) indicated “what will differentiate institutions from one another will not be whether they have BL, but rather how they do the blending and where they fall on the BL spectrum” (p. 167). Graham (2021) specifies that there exist myriad teaching models in blended environments, and the efficiency of learning is reliant on the nuances of the model and its application rather than the modality only. Therefore, to define the exact BL model is of great importance for researchers and practitioners.

2.2.2. Blended Learning Models

In this section, six popular models of BL in higher education identified by Farmer (2020) will be introduced, briefly. The reason for choosing these models is that they account for the pedagogical aspects rather than only physical aspects of BL which is distinguishing from the other BL models such as supplemental, replacement, emporium, and buffet determined by Twigg (2003) as these models highlight the physical affordances of BL rather than the pedagogical ones (Graham, 2021).

Model 1: Flipped Classroom

In this model, learning concepts and skills are initiated in an asynchronous environment through instructional videos, readings, online assignments, exercises, and quizzes. All activities are carried out prior to synchronous face-to-face courses. Learners work with their instructors and peers collaboratively and are encouraged to delve into deeper thinking and to solve problems together in the time spent in person. This model is advised to be implemented in the first study period of programs as it sets the ground for standard behaviours and study habits.

Model 2: Guided Lab Time

In this model, learning is coached and supervised by faculty across a whole class. Whether students are involved in individual and group projects or exercises, they are given feedback on their tasks by the faculty on a regular basis. It is widespread at all academic levels. However, guidance and supervising might be needed more periodically in the early stages.

Model 3: Integrated Lab Time

In a studio or lab, sessions begin in person through debates and the concepts and skills are displayed. In the later stage, students are involved in individual or group tasks asynchronously. Instructors end the courses by providing guidance and feedback on the tasks completed with a review synchronously. This model is closely similar to a high-level project, studio or lab course.

Model 4: Capstone/Independent Learning

In this model, asynchronous sessions have open access to faculty support. First, students are involved in individual or group tasks, and they can access the faculty staff for aid if they need. Even though it seems similar to the second model, guidance by the faculty is provided only when students see it necessary while in the guided lab time, they are always supervised and coached. They can later meet in person at a scheduled time. This model is preferred ideally for students that are more autonomous with basic skill set.

Model 5: Project-Based Course

In the first half of this model, students engage in real-world issues either individually or in a group asynchronously. In the other half, which is held synchronously, they come together and inform their instructors and peers on the progress of their projects and exchange ideas or take part in classroom activities. This model is also good for students who are more autonomous.

Model 6: Self-Directed Course

In this model, all sessions can be conducted asynchronously. Students are flexible to do their tasks at their own pace. They take part in discussions, complete assignments and do research independently or in groups. Online sessions are combined with face-to-face meetings where instructors provide additional support and feedback through activities.

2.2.3. Research Studies on Blended Learning

The advancements in Information and Communication Technologies (ICT) have also led to compulsory transformation of education in every level from basic education to higher education in terms of materials, content delivery, teacher qualifications and learner needs to enable them to become more competitive members of a world, which is constantly progressing. It is evident that the emergence of BL has been a contribution to this purpose through the research studies conducted in this regard, as well. When

literature is scrutinized, we can identify countless research focusing on various aspects of BL in diverse subjects and disciplines in higher education. One of these domains is language teaching. Therefore, the purpose of this section is to provide some former empirical research concerning blended language learning specifically referring to the development of writing skill to stay aligned with one of the goals of the current research topic.

To begin with, Chen (2023) as the teacher-researcher of a study, aimed to design a one-year EFL writing course for the majors of English comprised of 23 participants employing BL in a Taiwanese university. Based on findings of a pilot study and a thorough literature review, a blended writing course was designed and implemented. He examined the efficacy of the writing course in three aspects: written proficiency, their understanding of the course, the components which made the course successful. For these purposes, the researcher employed pre and post writing tests, a questionnaire and a semi-structured interview, observation records to unveil the perceptions of the participants. The findings indicate that participants could gain writing proficiency in terms of complicated sentences in structure, felt positive about the overall course, they perceived the instructor as facilitator, and free writing activities on a blog helped them to write better. The instructor's coaching and the diversity of writing tasks, digital writing, writing-oriented digital sources, a useful course design, and positive feelings in the classroom atmosphere contributed to the favourable results in the study.

Alrouji (2020) investigated the effectiveness of BL in enhancing Saudi students' competence in paragraph writing at a university. The study was conducted with the participation of 70 students in a six-week period of blended writing instruction through an experimental design in 2019. Writing pre-test and post-test were administered to control and experiment, which revealed the positive impact of blended instruction for the latter group due to the possible benefits ascribed by the author, BL provided flexibility in the learning setting in addressing varied learning habits and styles and the learning atmosphere in making learners more confident and motivated to study the course content and correct their mistakes.

Another study by Aksak and Kömür (2021) aimed at measuring English writing skills and students' perceptions of BL environments at a high school. A mixed method was adopted. While an online questionnaire with 5 closed questions and writing exam scores as pre-test and post-test were conducted for the quantitative data, semi-structured interviews were performed with 8 volunteers out of 92 to 11th grade participants who took

part in the study, which lasted whole fall semester. The findings displayed that writing skills were affected positively by this way of teaching and participants did better in writing exams through BL. They also developed positive attitudes and opinions towards BL. For these reasons; the study holds significance in guiding other practitioners of BL to design curriculums for future English lessons.

Utami and Zaim (2022) examined students' perceptions of BL in an essay-writing course as well as its impact on their writing skill at a university. The research instrument was a questionnaire with six indicators such as time, outcomes, effective and efficient, process, shifting from offline to online, facilities and communication to receive insights into these aspects of BL implementation from 83 participants. The findings of this research uncover that the majority had approving manners regarding the implementation of BL, which helped their essay writing skills improve. They also expressed advantages of BL in terms of time, outcomes, effectiveness, efficiency, and communication while it also encompassed some disadvantages encountered such as shifting from online to offline to online class and accessing virtual classes.

Another study by Hosseinpour, Biria, Rezvani (2019) investigated the effect of BL on the achievement of participants' academic writing proficiency and their perceptions at a university employing EDMODO. A quasi-experimental study followed by mixed method was carried out with 53 participants whose English proficiency was determined as intermediate through Oxford Placement Test. The quantitative data were obtained through pre-test and post-test essays by analysing each using analytic writing rubric by Hedgcock and Leftkowitz (1992). The qualitative data were gathered through a structured interview with 14 participants after the intervention. The findings of this study uncover that blended essay writing course enhanced using EDMODO helped learners' proficiency in writing and they reflected positively on this kind of instruction.

Dousti and Amirian (2023) aimed at analysing and comparing the strength of web mediated, blended and purely online learning on EFL students' writing performance in the Iranian context. A total of 49 participants were placed into three groups and each group was instructed by one mode of course delivery. Students performed four types of argumentative essays as pre-tests and post-tests and other tasks assigned by teachers on the WebQuest platform and they were engaged in pair/group works. The findings of paired samples t-test reveal that each group performed better from pre-test to post-test when their essays and tasks were examined. However, the findings of one-way ANOVA between groups unveil that the groups in web mediated and BL surpassed the group in

purely online learning in terms of general writing accomplishments, which can be interpreted by taking the technology aspect, interaction aspect and the traditional understanding of educational aspect into account.

Sujannah et al. (2020) investigated the effect of BL using Google Classroom on writing ability of EFL students across autonomy levels in an Indonesian University with 53 participants through a quasi-experimental study in an essay-writing course. Writing tests as pre-test and post-test on varied topics such as Types of Bags, Types of Transportation, Types of Education etc. and a learner autonomy questionnaire to assess the autonomy levels of the participants were administered. For the writing tests, students were asked to pick one topic and write an essay in a given period. The topics were verified by an expert in the field of English Department of Negeri Malang University. Out of class activities for the experimental group were to complete learning logs to observe learners' self-learning, to meet other learners and teacher, to join online debates, to send and receive online feedback. In addition, the treatment took 8 weeks including pre-test and post-test. The findings of the study demonstrated an increase in overall writing ability of learners in the experimental group. According to the authors, BL also stimulated learners to take part both in and out of class practices and to maintain interaction outside the classroom through the extra exposure to class materials and exercises provided online. These benefits of BL also led to better writing skills (Adas & Bakir, 2013).

2.3. Flipped Learning

2.3.1. Background Information and Definition of FL

FL practices can be traced back to the late 1990s when Mazur implemented a method known as 'peer instruction', which involved assigning students some readings and questions prior to lessons and guiding them to have discussions with their peers based on those readings and questions in lessons. He realized that students learnt more effectively when an instructor enabled support rather than lecturing them directly. However, the method was named differently from FL at the time, so grounding it on FL proved to be futile. Then, in 2000, Lage, Platt, and Treglia employed the term 'inverted classroom' at Miami University by designing economics classes following the procedures in FL. They favoured this method as it put emphasis on the personalized aspect, enabling lecturers to address varied learning needs of students. The full established version of FL was initiated by Bergmann and Sams in 2007 who are still chemistry teachers when they

recorded lessons for students who missed their classes using the technology ‘screen casting’, which is a process of recording an audio with visuals on a computer screen especially for educators who aim to explain any course content through video recordings.

Since then, FL has gained eminence and has been implemented at all levels of education. First, it appeared as a classroom model with the name of ‘flipped classroom’ or ‘inverted classroom’ which was considered as a student-centred classroom model, where in class instruction is substituted by extracurricular activities and students are able to reach course content outside the classroom, until 2012 (Bristol, 2014; Sams, 2011; Bergman and Sams, 2012; Thong Koo et al., 2019a). As its popularity grew in academic publications, it evolved into ‘an educational approach’, which requires engaging, advanced level of thinking activities (Karariga and Knox, 2012; Parslow, 2012; Thoms 2012; Birgili et al., 2021). Now, with the names of FL or inverted learning, the definition of FL has been made variously by some researchers and practitioners focusing on differing issues such as whether to use video recordings as pre-learning materials and emphasize ‘active learning’ component. (Li et al, 2023; Lee, 2023). Before examining those aspects, in a general sense, Bergman and Sams (2012) explained FL as an educational method “where work that was traditionally done in the class is now done at home and what was traditionally homework is now completed in class” (p. 13). Flipped Learning Network (2014) also explained FL as an instructional approach where the introduction of the new information shifts from ‘group space’ to ‘individual space’, transforming ‘group space’ into a lively, engaging atmosphere the instructor monitors and helps learners to actively involved in the new content. Talbert (2023) elaborates on the terms ‘group space’ and ‘individual space’ in the definition of FL referring that ‘space’ is not confined to any ‘physical space’ instead it covers ‘physical’, ‘emotional’, ‘intellectual’ and ‘psychological’ environments. Therefore, he depicts the ‘group space’ where learners apply the new concept with other learners in a formal meeting in the classroom while the individual space means where learners study the assigned task on their own or with an informal group of learners out of a classroom. On the other hand, Bush (2020) stated that ‘in FL pedagogy, the introduction of concepts occurs outside of the classroom which leaves students more class time to clarify, solidify, and expand on the concepts.’ Vitta and Al-Hoorie (2023) developed a definition based on the latest FL analyses in which “A flipped intervention first involves presentation of new content to learners to be independently studied before class, and then class time is devoted to reinforcing and engaging with the ‘flipped’ content” (p.1270). Milman (2012) signified

that in FL the goal is to enrich the time spent in the classroom through interaction and collaboration while an instructor guides students after transmitting basic concepts required for course objectives using technology outside the classroom.

As these descriptions address only an overall structure of FL regarding how to design a course, some researchers provide more profound insights into the definition highlighting issues like pre-lesson materials with various means and active learning component, which contributes to the effective implementation of FL. Pre-class materials, hold a great importance in conveying the subject matter outside the classroom. Some researchers have developed various definitions based on this integral part of FL and diverged from others. Some of them incorporate video along with readings, problem-based questions, and Power Point presentations which serve as pre-lesson materials (Giannakos, Krogstie, & Sampson, 2018; Lai & Hwang, 2016; Lee & Choi, 2019). Some also reported more advanced materials such as ‘interactive simulations, animated readings, and intelligent tutoring systems’ as pre-lesson sources (Davies, Dean & Ball, 2013). Brewer and Movahedazarhouli (2018) while defining FL. also put modules, videos, and readings forward as pre-lesson materials. Other scholars such as Lo and Hew (2017), Bishop and Verleger (2013) developed a more dedicated stance depicting FL as drawing on purely video recordings as an essential part of the out of class materials. The reason for this belief is that pre-recorded video courses are considered to operate better than readings for students as they can stop, rewatch or adjust the speed (Akçayır & Akçayır, 2017; Lo, 2020). However, Lee and Choi (2019) expressed that providing comprehensive experiences, which take learners to the centre by any of the sources other than only video courses is what matters in FL. Consequently, Lee (2023) summarizes FL as a pedagogical approach, which integrates pre-lesson materials such as video and other similar sources to help students acquire the subject matter at their own speed and engaging and collaborative classroom activities to put what is learnt prior to lessons into practice. Another issue, which is discussed and highlighted frequently, is the use of active learning strategies in defining FL. As Bishop and Verleger (2013) stated without active learning, it would not be FL. Active learning is a widespread theme throughout the descriptions employed in FL (Li et al., 2023). After watching or reading pre-lesson materials and carrying out the homework in their individual space, students go through active learning experiences by doing research, sharing their opinions, assessing their hypotheses, assumptions, making inferences and suggesting opposing ideas in the group space to help them build up knowledge collaboratively in a meaningful way while their instructor

guides or monitors them (Bush, 2020; Birgili et al., 2021). Therefore, as stated by Krathwohl (2002), in a course setting, students experience the higher order thinking stages such as application, analysis, evaluation and creation of knowledge other than just remembering and understanding which can be only achieved in a traditional classroom. Consequently, as Sams and Bergman (2013) emphasized FL is beyond merely providing sources prior to lessons for students to acquire the content knowledge as it was considered in the past.

2.3.2. The Benefits and Drawbacks of Flipped Learning

FL as a student-centred educational model has been implemented in several domains such as social sciences, science, math, engineering, arts and humanities, health, business and others (Cheng et al., 2019). Its exponential adoption can be understood through the numbers of the peer-reviewed articles regarding FL research on the databases Eric, Scopus, Web of Science and Medline between 2000 and 2021 (Lee J., 2023). Therefore, this increase in the body of research literature has also resulted in the exploding number of systematic reviews, scoping reviews, and meta-analysis to shed light on to the future practices and research studies of FL (Birgili et al., 2021; Hew et al., 2021). For instance, in line with the results of meta-analyses of almost 500 studies in total conducted between 2012-2019, FL has been proven to be successful in boosting learning outcomes such as increase in academic achievement (Tutal & Yazar, 2021; Zheng, Bhagat, Zhen, & Zhang, 2020; Strelan, Osborn, & Palmer, 2020).

Moreover, one of the most frequently reported outcomes of FL is learner engagement or motivation. Positive sense of FL, self-regulated learning, competence in technology use, problem-solving, collaborative learning, academic proficiency are some of the promising findings which emerged based on conducted studies (Lee, 2023). Apart from those outcomes, another benefit of FL is the flexibility for individualized learning as resources provided prior to in class sessions enable learners to go through them at their own pace and at any time and to review those materials later, as well (Birgili et al., 2021; Brewer & Movahedazarhouli, 2018; Cheng et al., 2019; Hew et al., 2021; Lo & Hew, 2017). In accordance with the individualized learning, self-regulated and self-directed learning skills are also believed to develop as students can determine when to study their pre-lesson materials on their own by taking responsibility for it through FL (Lee, Park & Davis, 2022). It is also revealed that students' active and interactive learning experiences

increase by engaging them in interactive activities in the courses designed in the light of FL pedagogy (Birgili et al., 2021; Bond, 2020).

As in every educational method, FL has some drawbacks regarding its implementation. Lo and Hew (2017) divided FL related obstacles into three sections: student challenges, educator challenges, and technical challenges. Student centred issues are linked to being unprepared and resistant for the pre-class lessons due to their lack of motivation or autonomy which results in disengagement in class activities and impacts the success of FL correlatively in a negative way (Lee & Choi, 2019). Some students may feel reluctant and nervous to study in this new approach at the beginning (Brewer & Movahedazarhouli, 2018; Giannakos et al., 2018).

As Lee (2023) asserted, educator-related issues are directly affected by student challenges such as the phase of preparing pre-class materials for novice educators in FL to create interesting and technically high quality content to keep their students immersed. He maintains that the preparation of in class materials should be engaging to provide enough active learning experiences. Above all, pre-class and in-class materials should complete each other, which may entail teachers to completely restructure their lessons (Lee & Choi, 2019).

Another crucial issue to be adopted by educators is to change their thinking and teaching practices to replace their role as deliverers of the information with the role as facilitators. As Hew et al. (2021) state this also challenges educators and some switch back to their former roles as in lecture-based courses.

The last challenge is technology related issues, which incorporates both educators and students. These are infrastructure, tools, and technical abilities. For this case, as Lee (2023) states educators are required to follow any students who fall behind.

A set of solutions can be listed under the guidance of the related literature as such; to ask students to take notes while studying pre-class materials and to check them later, pre-class assignments, quizzes integrated into pre-class materials, in class quizzes, study plans can be implemented to ensure and improve self-regulation skills (Cheng et al., 2019). Students should be reminded that pre-class materials are constituents of FL approach, not an additional duty or assignment (Lee, 2023). In addition to this, to overcome the problems of self-resistance and low motivation towards FL, clear expectations of teachers are to be set at the very beginning of this implementation (Lee et al., 2017). For teachers who have trouble creating videos for pre-class materials, they can be guided to choose a wide range of educational platforms and videos, audio recordings

available(e.g., Coursera, Udemy, edX, Courseware, MIT, MOOC ; YouTube, TED-Ed, Khan Academy, video lectures, Vodcast, animation, podcasts) (Birgili et al., 2021, Lee, 2023). Moreover, as some educators are used to ‘being a sage on the stage’, and do not know what to do in classrooms. Lee (2023) suggested various in class activities such as discussions, small group activities, feedback, Q&A exercises, group projects based on empirical studies in the literature in addition to task-based learning (Michaelsen, Knight & Fink, 2004), and peer instruction (Mazur, 1997).

2.3.3. The Benefits and Obstacles of FL in Teaching English as a Foreign or Second Language

As highlighted in the former section, the research in FL has increased rapidly but the research investigating FL for teaching English as a foreign language has fallen short to address its effectiveness in this field (Vita & Al-Hoorie, 2023). It is also asserted that further research is needed to clarify the adoption rate of FL in teaching English despite its prevalent acceptance in research and practices in this field (Wang, An, & Wright 2018; Tsai & Wu 2020; Arslan 2020; Turan & Akdağ-Çimen 2020). Therefore, to recognize the core features of this approach is highly significant to avoid the possible problems, which may appear while teaching and learning English when FL is integrated (Tsai & Wu, 2020). As a result, this section will unveil the potential benefits of FL in teaching English as a foreign language. For this purpose, the findings in a set of literature reviews recently published will be presented.

Firstly, a group of researchers Fisher, Tran and Verezub (2024) conducted a content analysis focusing on 40 articles which were primary studies regarding FL in teaching English as a foreign language encompassing the years between 2015-2022. They examined the research topics studied most in those articles. Student perceptions of FL within their experiences were the most investigated issue, and it was followed by the influence of FL on writing, speaking skills and academic performance, respectively. In the light of these studies, FL approach created a positive sense in students encouraging active participation, teamwork, motivation, responsibility, and a meaningful learning environment. While mixed methods research designs investigated, unfold a counter idea on student perceptions confirming a choice for traditional model due to the enhanced task load, qualitative research designs unveil mostly positive comments from students such as immediate feedback, effective learning environment, development of analytical thinking,

autonomy. When language skills were analysed, the literature review revealed that FL fosters writing performance, enhances motivation and involvement to write. It is also noted that to boost the effectiveness of FL on writing, employing the right technological tools is crucial for students with different learning styles. This thorough analysis of FL in teaching speaking skills examining eleven articles uncovered that in every research design utilized, FL works very well to improve this skill as the evidence implies that FL has a crucial role in enhancing participation, knowledge acquisition, enhanced participation in pre class tasks, responsibility, and the flexibility in the development of speaking. Progress was also observed in listening and listening comprehension skills. Lastly, one study on FL and reading skill put forward that FL activities helped linking reading with writing.

In one systematic review conducted by Lingling and Abdullah (2023) on the benefits and challenges of FL for EFL classes, the frequently reported advantages include increased level of involvement, autonomy, interactions between learners and increased speaking skills, a decrease in speaking anxiety and increased reading skills, and self-confidence based on the empirical evidence collected from articles (Cheung Ruby, 2017; Karaoglan, 2022; SteenUtheim & Foldnes, 2018). The provision of flexible learning environment via FL enabling students to study without any temporal or spatial constraints out of the classroom is another common benefit the researchers drew from their investigations (Moffett, 2015). As a result, this helps them to reach and study pre-class materials at their own pace (Chuang et. al., 2018; Wanner & Palmer, 2015). However, this review study does not only express the positive findings, but it also reveals some problems. For instance, in the studies examined by Lingling and Abdullah, internet and technology driven obstacles were frequently reported, and Ghuftron and Nurdianingsih (2021) stated that scarcity of internet and data package was an important issue, which should be successfully handled by practitioners who intend to implement FL. In addition to this, students' resistance to FL as a new approach overwhelmed its smooth implementation were also expressed as a general obstacle in other disciplines (Li & Li, 2022; Shooli et al., 2022). Additional workload for instructors and students was also addressed in this review, which is also another similar problem in other domains. Considering the aforementioned information, it can be stated that FL is an effective approach in both EFL and other disciplines regardless of a few undesired problems pertaining to the characteristics of practitioners, students and technology involved in FL, which can be prevented to some extent, when solutions are taken into consideration.

2.4. The Research Studies on Flipped Learning and Writing Performance in EFL

Fathi, Rahimi and Liu (2022) conducted a study primarily to delve into the effect of flipped writing classroom on the writing performance of EFL students (i.e. writing content, writing organization, and language use) and their motivation to write. Coming up with worthy recommendations to expand the quality of writing courses was the secondary objective of the researchers. For this purpose, two timed writing tasks, a writing motivation scale, and a semi-structured interview were employed within a sequential explanatory mixed methods approach to collect data. There were two groups with 27 students in the flipped writing classroom and with 24 students in the non-flipped writing classroom. The traditional writing instruction in the non-flipped writing setting took more than 16 class hours while flipped writing instruction was completed in 10 class hours. The results displayed that flipped writing group surpassed non-flipped writing group at writing organization, language use and writing motivation. However, there were no statistically significant differences in the writing content between the two groups. The semi-structured interviews revealed that students had positive insights into FL, which were in line with the quantitative results. Video clips and electronic sources were the suggested materials through FL approach in writing classes by the researchers.

In 2024, Muluk and Dahliana carried out research on the impact of a Web 2.0 based FL teaching to analyse writing achievement and attitudes of a group of students involved in this implementation. The investigation was conducted in three Indonesian State Universities with the participation of 198 EFL students and 12 English instructors in a mixed methods research design. Survey questionnaires were administered to the students as pre-test and post-test to find out their ideas on the use of web based educational materials as the quantitative measurement. Semi-structured interviews were done with the lecturers to explore what their experiences with FL approach were like, their students writing performances in this new context, and the problems throughout the implementation. The findings revealed that most of the students (169) shared positive feedback regarding this flipped writing instruction. Based on the data collected through semi-structured interviews, teachers had positive insight into the use of FL and reflected that it helped their students to be more autonomous and productive in generating ideas in class discussions thus resulted in being more active in class activities. When it comes to students' writing achievements, instructors could not decide whether this approach helped

improve students' writings as they used both conventional and flipped classroom writing instructions together.

In 2021, Challob scrutinized the impact of adopting FL approach on students' writing achievement, autonomy, and motivation in a writing course along with the factors affecting the model's contribution. A case study research design was conducted with 15 participants who were purposefully chosen out of 62 students, and they had no experience of FL in their English learning process before. Pre and post study writing tasks, interviews, observation and learning diaries were the instruments to gather in depth data. The selection criteria were based on some pre-requisites such as their writing capability, their competence in using computers, internet, and internet-related applications. The study explored that this instructional approach has cultivated writing skills in students in addition to their being autonomous and motivated learners. The use of teacher and peer feedback and a wide range of sources both in pre class and in class stages of FL, interactive and collaborative atmosphere in the classes, the temporal and spatial flexibility to cover pre class materials prior to in class meetings are considered to be components affecting the variables in question.

Khosravi, Dastgoshadeh and Jalilzadeh (2023) aimed at exploring the influence of teaching meta-cognitive strategies for writing courses through flipped classroom on the students' performance, anxiety, and self-efficacy. Forty-five participants were divided into two groups. The students in the intervention were instructed metacognitive strategies via PowerPoint presentations or videos over the course of ten gatherings. The following writing assignments were done prior to class meetings. Moreover, extra activities linked with a particular strategy were carried out to consolidate students' learning in the classroom, while all the instruction and exercises were done in the classroom with the control group. Second Language Writing Self-Efficacy Scale, two intermediate writing tasks, and the Second Language Writing Anxiety Scale were administered to both groups. The results indicated that the students in the flipped classroom group outperformed the students in the non-flipped classroom in writing skill. In addition to this, a reduction in writing anxiety and an increase in writing self-efficacy were observed in the flipped group, which aligns with other empirical studies examining technology-supported instruction.

In another study conducted by Rahimi and Fathi (2022), the influence of FL on global writing achievement, complexity, accuracy, and fluency dimensions were measured through a quasi-experimental study in which 24 and 27 EFL students were

placed in the control and treatment groups in an Iranian university context. Two timed writing tasks were assigned to compare the two groups, which were taught via FL and traditional writing courses. The instructions for the flipped and non-flipped groups lasted 75 and 90 minutes respectively for each meeting every week. There were almost 16 meetings in total, which covered a whole term for the advanced English writing class. Participants were involved in practicing essay structure. The findings indicated that participants in the flipped instruction were better than the participants in the other group in terms of global dimensions of an essay such as content and organization and writing fluency even though each group demonstrated progress in these aspects across pre and post writing tasks. When it comes to accuracy and complexity dimensions, there was no progress even in the flipped group. The reason for this is attributed to some factors by various scholars, which will be elaborated on in the following chapters.

Andujar et al. (2020) examined the perceptions of 84 high school students whose ages ranged between 14 and 16 and proficiency level was B1 regarding the use of FL in an English course as a foreign language course. Three-to-five-minute videos were created and uploaded to YouTube for the participants to reach the lesson content, and their participations were tracked on ED puzzle. In class, sessions were designed around students' questions related to the video contents, role-plays, discussions and games, projects. Reviews on the formerly recorded videos were also collected from students. The FL Experience Questionnaire consisting of 14 items was administered to gather data on four aspects regarding student perception. These are motivation, engagement, satisfaction and effectiveness. The findings indicated sufficient degrees of these four constructs, which proved students developed a positive understanding of FL instruction.

Abuhmaid and Abood (2020) carried out a study concerning the impact of FL on procrastination and students' attitudes towards FL in a course named 'computer in education' provided by the faculty of education in Jordan. Eighty students registered for this course in the first semester of 2018/19 academic year were equally placed in experimental and control groups. Attitudes questionnaire with 10 items was held at the end of the semester. As the current thesis does not relate to procrastination, no information is covered pertaining to the details of the relevant tool and its results. Regarding the attitude scale, even though positive findings were revealed in general, it pointed out that FL was a new pedagogy for them, and they were uncertain whether it really helped their understanding the course content.

In 2018, Chung and Lee aimed to understand the impact of FL on learning motivation and attitudes of college students majoring in physical therapy. The intervention lasted 6 weeks. The students studied musculoskeletal examination and assessment, and practice which was obligatory for three hours per week at the 1st grade. The focus on motivation is excluded from the explanations, as it is irrelevant to our current concern. A learning attitudes scale was utilized as pre-test and post-test to figure out if any change in students' attitudes occurred in a positive way throughout the intervention. There were 40 items in the questionnaire and three sub dimensions with varying item numbers. These were 10 on self-concepts about physical therapy, 15 on attitudes about physical therapy, and 15 on learning habits about physical therapy. When the results were examined comparatively, there was no significant difference between the two tests except for the attitudes on physical therapy.

A similar study was conducted by Yalçın (2023) at a state university in Türkiye with English language teacher trainees. Seventy-two participants took part in the flipped instruction and then their viewpoints were analysed through two instruments in detail. One was a perception survey, and the other was a set of semi-structured interview questions. On the other hand, there 42 participants in the control group, their midterm exam scores for the Linguistics 1 course and Teaching English Vocabulary were only put into analysis to compare the achievements of both groups. Throughout the treatment, participants in the experimental group were asked to rate the pre class materials in terms of being understandable, voice of the instructor, her appearance and they also supplied some information on the overall flipped course qualifications such as “*informative, clear, fluent, didactic, well-explained, efficient, too many terms, complicated, calm, useful, exemplified, extremely interesting, intriguing, catchy, gripping, fruitful.*” In general, the findings showed that there was a positive propensity towards a FL approach. However, very little negative feedback was also raised such as lecture-based videos which were considered as boring, lack of interaction in the pre-class session, being obliged to watch the pre class videos, the system being difficult to get used to, having peers who did not prepare enough for the in-class sessions.

In 2017, Ekmekçi conducted an experimental research design to explore the effectiveness of flipped oriented writing course on the 23 ELT preparatory students' writing performance and attitudes. To yield sound findings, the researcher assigned another group as the control group in which the participants here were given a traditional writing instruction. This treatment lasted 15 weeks. An argumentative writing rubric was

employed as pre-test, post-test, and semi-structured interviews were held to elicit participants' insights into flipped instruction. The findings of the first tool indicated that students' writing performance in the experimental group was statistically proved to be better than the other group, and statistically significant progress was observed between the pre-test and post-test results of treatment group in terms of writing achievement. Concerning their attitudes, students found this new approach more engaging and motivating than the traditional method. In terms of negative beliefs on writing in a foreign language, FL helped them to overcome those beliefs.

2.4.1. Background and Definition of Critical Thinking

Socrates' renowned statement, "The unexamined life is not worth living" (Plato, sec. 38a) has proved to be true in his teachings in which he utilized a kind of CT strategy called 'Socratic Questioning' to question beyond what is seen and to understand and make judgements of various standpoints on a certain issue 2500 years ago. His way of exploring the universe and examining one's ideas to differentiate what is logical and evidence-based from what is not was also adopted by other Greek philosophers such as Plato, Aristotle and other sceptics by contributing to the foundation of CT for the first time in history (Paul, Elder & Bartell, 1997).

Consequently, CT has gained recognition through the appreciation of the skill 'reasoning' over 'intuition' since Ancient Greece. The word 'critical' is rooted in the language Proto-Indo-European which included the word "krei", 'to sieve' meaning 'to discriminate, distinguish'. The Greek word "krinein", 'to separate, decide' led to the formation of "kritikos" which means "able to make judgments". Then, the Latin word 'criticus' which meant 'judge, censor, estimator' first emerged as 'critique' in French in the 14th century, and later critic in English in the 1580s (Online Etymology Dictionary). Therefore, originally, this word lets us know the significance of "examining something/someone to judge their /its qualities, success, or needs" (Postic, S. et al., 2023; Online Cambridge Dictionary, 2024).

In the 17th century, with the emergence of rationalism and empiricism, the demand for the definition and systematization of CT expanded persistently. As a result, varied definitions of CT have been put forward. The prominent philosopher and educator, Dewey defines CT as "an active, persistent, careful consideration of a belief or supposed form of knowledge in light of the grounds that support it and the further conclusion to

which it tends” (Dewey, 1933). Glaser (1941), American psychologist gives the definition for the concept CT as “an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one’s experience”, “knowledge of the methods of logical inquiry and reasoning,” and “some skill in applying those methods”.

In 1990, a more concrete framework was developed with the contribution of over 40 experts from various disciplines such as humanities, sciences, social sciences and education to define CT in the form of Delphi Report as well as a set of dispositions were presented which are requisites to become a critical thinker (Facione, 1990). They agreed that CT is the “process of purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgement is based” (Facione, 1990, p. 2) and they formulated “6 Core Critical Skills”.

Table 3.

Core Critical Skills (Facione, 2015)

SKILL	Experts' Consensus Description	Subskill
Interpretation	“To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria”	Categorize Decode significance Clarify meaning
Analysis	“To identify the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other belief, judgment, experiences, reasons, information, or opinions”	Examine ideas Identify arguments Identify reasons and forms of representation intended to express claims
Inference	“To identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to reduce the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation”	Query evidence Conjecture alternatives Draw logically valid or justified conclusions

Evaluation	“To assess the credibility of statements or other representations that are accounts or descriptions of a person’s perception, arguments that were made experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions, or other forms of representation”	Assess credibility claims Assess quality of
Explanation	“To state and to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological, and contextual considerations upon which one’s results were based; and to present one’s reasoning in the form of cogent arguments”	State results Justify procedures Present arguments
Self-Regulation	“Self-consciously to monitor one’s cognitive activities, the elements used in those activities, and the results deduced, particularly by applying skills in analysis, and evaluation to one’s own inferential judgments with a view toward questioning, confirming, validating, or correcting either one’s reasoning or one’s results”	Self-monitor Self/correct

The Delphi report also explains the traits of a thinker as “a person disposed towards CT has positive "critical spirit, “a probing inquisitiveness, a keenness of mind, a zealous dedication to reason, and a hunger or eagerness for reliable information.” (Facione, 1990, p. 11).

Paul and Elder make one of the notable definitions of CT (2006) who express it as self-directed, self-disciplined, self-monitored, and self/corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their

use. It entails effective communication and problem-solving abilities and a commitment to overcome our native egocentrism and sociocentrism. The scholars underscore that it is essential to leave the individual and group prejudiced thinking behind for one to acquire one of the most crucial dimensions of CT. They also outline the stages while judging the information and formulating conclusions:

A well cultivated critical thinker:

- raises vital questions and problems, formulating them clearly and precisely.
- gathers and assesses relevant information, using abstract ideas to interpret it effectively.
- comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards.
- thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- communicates effectively with others in figuring out solutions to complex problems.

Another prominent scholar in developing a definition for CT, Ennis (1985), defined “CT as reasonable, reflective thinking that is focused on deciding what to believe or do” (p.6). Ennis (1987) incorporated two aspects of CT, which are required to call a person as the ideal critical thinker; skills and disposition. The first requires concentrating on a question, examining arguments, asking and answering questions of clarification and challenge, judging the credibility of a source, observing and judging deductions, inducing and judging inductions, making and judging value judgments, defining terms and judging definitions, identifying assumptions, deciding on an action, and interacting with others.

Watson and Glaser (1994) elucidate CT as a blend of attitudes, knowledge, and skills, which require (1) attitudes of inquiry that involve an ability to recognize the existence of problems and an acceptance of the general need for evidence in support of what is asserted to be true; (2) knowledge of the nature of valid inferences, abstractions, and generalizations in which the weight or accuracy of different kinds of evidence are logically determined; and (3) skills in applying the above attitudes and knowledge. (p. 9)

Inference, recognition of assumptions, deduction, interpretation, and evaluation of

arguments are accepted as key components of CT (Watson & Glaser, 1994). On the other hand, as AACU (2020) defined CT as a way of thinking involving a thorough analysis of issues, ideas, artefacts, and events before forming an idea or conclusion.

As seen so far, the definitions of CT are varied. The variance of definitions stems from several reasons. One reason is that CT is covered diversely in disciplines like philosophy, psychology, and education (Lai, 2011; Thonney & Montgomery, 2019). The philosophical method sheds light on the standards of CT, characteristics of a real critical thinker, reasonable thinking instead of the process of CT. Bailin et al. (1999) describe the philosophical approach clearly as CT is goal-directed and purposive, thinking aimed at forming a judgment.’ Contrary to philosophy, the psychological method enlightens the thinking process people go through, the descriptions underscore the manners and actions of critical thinkers. It encompasses both the skills and dispositions critical thinkers display (Lai, 2011). The educational method is grounded in Bloom’s taxonomy (r.v., 2001), and analysing, evaluating, and creating stages characterize CT based upon Bloom’s taxonomy, learner skills, and the way s/he employs these skills (Altun & Yildirim, 2023).

To sum up, CT is not merely an issue of gathering data. An individual who remembers well and is knowledgeable is not regarded as a good critical thinker. Someone endowed with CT is capable of drawing conclusions from what they have as evidence, or information, employing them to find solutions to problems, and looking for pertinent information to keep themselves informed (Okstate.edu, 2024).

2.4.2. Critical Thinking Disposition

Despite the plethora of definitions regarding CT in literature, the two aspects most of which have in common are skill and disposition. In a general sense, CTD refers to a persistent set of mindsets and / or behaviours, which must be gained by a critical thinker or inner incentive and enthusiasm to engage in intriguing and sophisticated thinking acts (Bailin et al., 1999; Facione et al., 1995; Fisher, 1995; Halpern, 1998; Swartz & Parks, 1994). To back up the dispositional dimension, Halpern (1998) says “...Critical thinking (CT) is more than the successful use of a particular skill in an appropriate context. It is also an attitude or disposition to recognize when a skill is needed and the willingness to apply it” (p.452). In an instance of CT, one goes through, skill and disposition go hand in hand. In other words, it means that an individual may have CT skills, but s/he may not consider them necessary to use, or s/he may not have adequately developed CT skills but

may feel enthusiastic about applying them in a given context. In each case, this individual cannot be regarded as a quality critical thinker. CT skills and dispositions are inseparable dimensions, so one should have both to go through an appropriate level of CT (Halpern, 1998; Lai, 2011). On the other hand, Beyer (1987) and Facione et al. (1995) consider that disposition aspect is more significant than skill aspect as being inclined to practicing CT is more essential and engaging than intellectual capabilities. In addition to this, King and Kitchener (1995) articulated concurrently that CT skills and CTDs are mutually reinforcing; and, hence, they should explicitly be taught and modelled.

The disposition aspect first received attention through Ennis' CT definition (1985) which was also mentioned above, as "CT is reasonable, reflective thinking that is focused on deciding what to believe or do" (p. 450). Wegrzecka (2018) explains that such kind of formulation of CT stresses the essence of CT as "being open to change one's position upon deeper examination of one's thought process, or in Ennis' terms, 'self-regulation.'" (p.15). Ennis also summarizes issues relevant to disposition as such: seeking a statement of the thesis or question, seeking reasons, trying to be well-informed, using credible sources and mentioning them, taking into account the total situation, keeping their thinking relevant to the main point, keeping in mind the original or most basic concern, looking for alternatives, being open-minded, taking a position and changing a position when the evidence and reasons are sufficient to do so, seeking as much precision as the subject permits, dealing in an orderly manner with the parts of a complex whole, employing their CT abilities, and being sensitive to feelings, level of knowledge, and degree of sophistication of others are the dispositional issues which is characterized as "critical spirit" by Ennis (1987, p.56).

In 1990, Facione stated that the scholars in Delphi Project explained the characteristics a critical thinker must have as follow:

"The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgements, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused on inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit." (p. 3).

Then, experts developed more distinguishing personal traits under seven headings. These are presented and elaborated in detail as follow:

- **Open-mindedness** is the disposition of “being tolerant of divergent views and sensitive to the possibility of one's own bias”.
- **Systematicity** is the disposition of “being organized, orderly, focused, and diligent in inquiry”.
- **Analyticity** is the disposition of “prizing the application of reasoning and the use of evidence to resolve problems, anticipating potential conceptual or practical difficulties, and consistently being alert to the need to intervene”.
- **Truth-seeking** is disposition of “being eager to seek the best knowledge in a given context, courageous about asking questions, and honest and objective about pursuing inquiry even if the findings do not support one's self-interests or one's preconceived opinions”.
- **Self-confidence** is the disposition of “the trust one places in one's own reasoning processes”.
- **Maturity** is the disposition of “being judicious in one's decision-making”.
- **Inquisitiveness** is the disposition of “one's intellectual curiosity and one's desire for learning even when the application of the knowledge is not readily apparent”.

In conclusion, the concept of CT is not solely about skills a person displays, it first entails having the characteristics of a critical thinker as dispositions so that someone can get willing and dedicated to acquiring the required skills and put them into action in the necessary contexts. In this regard, one of the research aims in the current study is the dispositional aspect, thus, to measure if an academic English writing course designed based on FL approach and CT concept affects learners' CTDs is the main concern of this research. Therefore, the next session will deal with the relationship between CT and education, and language instruction.

2.4.3. The Importance of Critical Thinking in Education and Language Teaching

Developments in technology, knowledge and skill have also led to a considerable shift in education from solely preparing learners in academic issues to nurturing their personal and real-life skills to help them operate productively (Oliveri & Markle, 2017). As Ennis (2018) asserted, CT is one of the essential 21st century skills that education system should encompass. Ho et al. (2018) also defend that cultivating CT skills is of great value for institutions of all levels to empower students to be autonomous individuals in the current age we live. The National Association of Colleges and Employers states

that CT is ranked as the most needed qualification when employing people (NACE, 2017). Furthermore, according to the World Economic Forum, CT ranks first among the ten fundamental skills up to 2025 (World Economic Forum, 2020). Due to the notable cognitive benefits of CT skills and dispositions to humans in their social, academic and work lives such as reflecting and being inquisitive when problems pop up, deciding efficiently, discriminating between facts and thoughts, being self-sufficient and engaged consequently while discovering and reaching their goals (McPeck, 2016, Ennis, 1985, D'Alessio et al., 2019; Utriainen et al., 2016), to integrate CT into the domain of education and teaching English as a foreign or second language has become ultimate endeavour everywhere (Heidari, 2020; Kamgara & Jadidi, 2016; Larsson, 2017; Liu & Stapleton, 2018; Romero & Bobkina, 2021; Soufi & See, 2019; Zare & Biria, 2018).

Beyer (1997) articulates that meaningful learning is achieved through purposeful thinking. In line with this, Yue Lin (2018) asserts that mastering CT skills for students facilitates arranging pertinent information, knowledge construction, evaluation of the information, exploring practical strategies for their goals, becoming better problem solvers and decision makers which will lead to purposeful thinking and result in meaningful learning. Facione (1992) thinks that teaching how to judge and make better decisions enables individuals to construct a better tomorrow to keep away from bad and unwanted results of poorly made decisions and inappropriate behaviours.

In addition to the abovementioned thoughts, there is a wide range of justification as to why CT instruction should be a concern of educational domain at all levels (Kurnaz, 2011). They are displayed in detail as follows:

- to develop democratic, unbiased, inquisitive minds,
- to help individuals handle an argument from different perspectives, see things from different angles, evaluate others' views of point,
- to help learners make purposeful and reasonable decisions,
- to create active doers and thinkers rather than passive receivers of knowledge,
- to help learners evaluate the credibility of what they read and hear, and see because, in today's world, there is a rapid increase of published information in visual and written media.

Students should select what information is relevant, trustworthy, and useful.

- to help learners deal with a problem they face and produce practical solutions.

(as cited in Taraf, 2022, p.64)

In addition to the contributions of incorporating CT in education, concerning the importance of learning a language and practicing CT skills. At the same time, it is believed that language and mind are intertwined as “the processes of perception, memory, concept formation, language and symbolization are the basic cognitive skills that underlie the ability to reason, to learn and to solve problems” and “... to study thinking is to study these processes...”, as stated by Fisher (1995, p.1). Puchta (2012) highlights the connection between language and brain saying that learners’ cognitive abilities can be flourished with their foreign language skills and competencies simultaneously. Additionally, Lin (2018) hypothesizes that integrating thought provoking tasks into L2 environments enables valuable interaction among learners as they can catch chances of exchanging their insightful thoughts in a meaningful way.

Communicative competence has been the utmost concern of language educators for a long time. To produce oral and written language and understand various language inputs such as stories, debates, interviews, documents, also to be able to maintain interactions despite limited language capacity are all aspects of communication skills (Harizaj & Hajrulla, 2017). It is possible to teach a language without paying attention to CT, however what is taught will remain limited to lower level of a foreign language. As Negoescu (2023) stated, when foreign language learners are exposed to real life situations requiring research, problem-solving skills, they will need CT skills to use and to communicate critically, creatively, and smoothly. She also asserts that national and international exams, which assess learners’ language competency in four skills, require using CT to comprehend and generate elaborate ideas. Besides this, Shirkhani and Fahim (2011) report some other benefits of drawing on CT skills in language education in their study as such. First, foreign language learners can monitor and evaluate their learning skilfully when they regulate their own thinking processes. Secondly, CT opens new opportunities for students to learn better and enables them to gain a richer understanding of the language. Third, research shows that there is a positive correlation between CT and student achievement. Several empirical studies also are in favour of integrating these skills in language education due to the contributions to reading, writing, speaking skills. In this regard, language experts advise discussions, role-plays, oral communication, presentations on captivating topics, project-based, problem-solving and decision-making activities, essays as effective strategies, which aligns with actual proficiencies of language learners to cultivate CT (Marin & Pava, 2017).

Furthermore, Hughes (2014) contends that as of an early stage of language acquisition, appropriate authentic texts (newspaper articles, short stories, poems, journals, essays, interviews) should be incorporated into language instruction by taking into account the level of learners so that they can distinguish between facts and opinions, relate arguments to corresponding evidence, and then react to the oral or written content defending their points of view. To gain a critical eye through these activities is the main issue. In this respect, he introduces a series of activities encompassing each level of learners. Hughes (2014) mentions implementing exercises of expressing opinions, agreements and disagreements and refutations with reasons, asking information questions, talking about an issue in various contexts to see how things can change in different settings and influence our perspectives, as well as a specific activity which uses every stage of CT and covers important issues at a time are useful in promoting CT and language skills. For the same purpose, Hughes (2014) provides additional interesting activities such as “generating arguments and opinions, and critical questioning; understanding context; determining the validity of the sources; highlighting key points and supporting details; making predictions about the text’s substance; planning a group conversation; scoring presentations” (Negoescu, 2023, p.306). There is a strong link between CT and academic and professional success in the future. Practicing CT enables learners to adopt study skills, which will stimulate them to achieve their future goals. The more language learners use these capabilities, the better they will defend their views and emotions. They will be more confident in expressing themselves as they practice language in an unbiased classroom setting, which represents an ideal critical context as well, by seeing their weaknesses and strengths in a foreign language which will improve their linguistic competence as well as cognitive competence.

As can be understood, teachers have a pivotal role in empowering linguistic and questioning skills of their learners. For this reason, they need to create a comfortable classroom setting which will contribute to the growth of those skills for their learners’ academic and professional development. There is also agreement on this issue among many educators and researchers (Khodadady & Ghanizadeh, 2011; McGuinness, 1999). To this end, teachers also should be open to new methods to integrate CT into their classrooms. In this regard, the following section will provide former research conducted in various domains along with language instruction.

2.4.4. Research Studies on Critical Thinking across Disciplines

Rn (2020) aimed to examine three major issues regarding mainly CT in her doctoral dissertation published on ProQuest: to uncover whether cultural values differed in Thailand and the United States utilizing the World Values Survey (WVS), whether CTDs differed between baccalaureate nursing students in Thailand and the United States utilizing the California Critical Thinking Disposition Inventory (CCTDI) and to reveal the link between cultural values and CTDs among baccalaureate nursing students in Thailand and the United States. The researcher also created a demographic questionnaire. There were 200 participants in total, 101 from Thailand and 89 from USA respectively for CCTDI. Nursing students registered for the third- and fourth years during spring term in 2019 were included in the study. A cross-sectional, comparative non-experimental study design was adopted. The findings exhibit that out of the three variables (age, GPA score and cultural values), cultural values had the most impact on CTD. In addition, Overall CTD levels of nursing students in the USA were higher than CTD levels of nursing students in Thailand. Out of the seven subscales, there was not statistically difference only in the subscale ‘inquisitiveness’ between Thai and American nursing 3rd and 4th year students. For the rest of the subscales, American students outperformed their Thai peers.

Başak and Yücel (2024) conducted a research study to unveil the CTDs of freshman and senior students majoring in Art Education and History in a Turkish university context in 2019-2020 academic year. The sampling size was 120 participants, with groups of 30 freshmen and 30 seniors in each discipline. The variables such as gender, age, year of study were taken into consideration while evaluating their CTDs. Cornell Critical Thinking Test Level Z was utilized, and the study was grounded in relational screening model as the researchers aimed to depict the associations between various variables through quantified results. Consequently, the results revealed that there were no statistically significant differences between the overall CCTT-Z scores and subscale scores between the majors with respect to gender. It can be concluded that gender has no impact on CT skills and subskills. However, in relation to age variable, there was a positive correlation between the age groups of 25-30 and CCTT-Z scores and ‘deduction’ and ‘semantics’ subscale scores. A low level of positive correlation was found between ‘induction’ and ‘identification of assumptions’ subscales and the year of

study. However, there was no meaningful correlation between the overall score of CCTT-Z and the year of study.

Way (2022) investigated the influence of asynchronous online discussions on CT skills of students studying language arts at a high school through action research as a doctoral dissertation, which was later published online. The study was conducted with 46 students situated in two classes in which the researcher taught English actively. The ratio of female and male students was equally distributed. It lasted six weeks based on instructions of a unit regarding argumentation. The goal was to cultivate argumentation skills in students such as ‘to create well supported arguments, analyse the arguments of others, look at issues from multiple perspectives, and think critically’. Oral and written examples of argumentation were shown to them. Upon completion of 6-week period, students were encouraged to contribute to asynchronous online discussions through thought provoking activities. Cornell Critical Thinking Test was administered as pre-test and post-test. The Holistic Critical Thinking Scoring Rubric was utilized to estimate the extent of CT available on asynchronous online discussion boards. Focus group interviews and a Student Survey were conducted to obtain ideas of students on the implementation and CT. The quantitative findings revealed a notable increase in overall CT and subscales such as induction, observation, deduction, and assumption. Additionally, positive feedback was obtained from students on the effectiveness of this new implementation in relation to their CT skills and their perceptions through qualitative measurement.

Bilki and İrgin (2022) conducted a qualitative research design to explore viewpoints of 51-second year ELT students regarding their experiences enriched with critical reading and writing practices, which entailed evidence of CTD at a Turkish foundation university. The initial goal of Critical Reading and Writing Course was to teach students to evaluate and outline texts of different genres from various sources such as ‘academic journals, books, opinion columns, websites’, to produce their own writings searching for and selecting the required information, and to help them use critical reading skills and cultivate their higher-level CT skills at the same time. First, each student reflecting on the three main issues delivered a paper to the instructor: thinking, writing, reading in the light of a guideline. In the first half of the course, students took part in debates on CT, critical reading and carried out independent and cooperative reading activities inside and outside the class to implement critical and active reading strategies, identifying arguments, examining the validity and reliability of arguments in the texts covered, synthesizing a critical examination of an argumentative passage, etc. Then, an

assignment was given to students in which they could evaluate a written text with a critical eye. This assignment included three parts – introduction, summary, and analysis. The second half of the lesson was designed with an aim of improving students' critical writing skills covering various strategies. At the end of this session, the students were asked to write an argumentative task they would form a strong argument through research unveiling their perceptions on reading, writing, and CT. When the intervention was over, students were asked to deliver a final reflective paper with the guidelines. All the reflections were examined through thematic analysis. Three themes came out. These are as such: '1. Turning into critical readers: Reading with a critical eye, 2. Turning into critical writers, 3. Fostering critical reading and writing with improved CT'. The last theme, which also sheds light on to our current study as well, reveals insightful findings on students' CT experiences. They reported that the reading and writing tasks helped them to get a thorough understanding of texts rather than just seeing and comprehending the surface, and to analyse them more deeply.

Moghadam et al. (2023) implemented a CT-oriented instruction based on Bloom's original and revised Taxonomy (1956, 2001) in a reading course in which forty ELT students took part. They aimed to see whether this kind of implementation-improved students' CT levels, reading comprehensions, and attitudes towards the classroom atmosphere in in a four-month period, in 2021-2022 academic year. The researchers divided the participants into two groups and assigned one group as the experimental and the other as control group. Their ages varied between 23 and 34. Three kinds of research tools were employed to gather the necessary data. One critical thinking questionnaire by Honey (2004) was applied before and after the implementation, a classroom climate questionnaire named WIHIC (What is happening in This Class?) by Fraser et. al. (1986) and reading comprehension tests from the British Council Website were applied. In the experimental group, CT-based activities were embedded into reading passages using Bloom's Taxonomy Stages: Exposure, Exploration, and Evaluation. In the exposure stage, students' prior knowledge was activated through pictures and questions on the topic, then diverse passages were introduced to widen their understanding and to draw their attention to the presence of different perspectives on a given topic. In the exploration stage, students responded to questions after the readings, and were asked to restate the information, analyse it through WH-questions in each text. The teacher aimed to trigger their inquisitiveness and to get them to gain a deeper understanding of the issues at hand. Throughout this stage, they worked either individually or collectively. In the evaluation

stage, the students got involved in a more critical process. They were encouraged to evaluate the information from a critical and unbiased perspective to get a much deeper overview and yield valid reasons on the topic. This part corresponds to analysis and synthesis stages in Blooms' Taxonomy. When it comes to the analysis of research tools after the implementation, a meaningful progress was identified in terms of students' CT, reading comprehension, perceptions of a constructive classroom atmosphere in the experimental group in contrast to the control group.

Genç (2017) conducted a study with 280 students from varied disciplines such as medicine, engineering, international relations, philosophy, ELL and ELT studying at the school of foreign languages of a state university in the academic year 2015-2016. She aimed to investigate participants' CTDs in relation to their gender, subject areas, reading habits and academic achievement. For this purpose, the researcher drew on the Turkish version of CCTDI. In this inventory, a score of 240 is considered to have low CTD for a person, while a score between 240 and 300 is medium in disposition level of a critical thinker, and a score above 300 is considered as high in disposition level (Kökdemir, 2003). Regarding the six subscales in the inventory, a score below 40 is low and a score above 50 is referred to as high disposition for each variable (Facione, Facione, Giancarlo as cited in Kökdemir, 2003). The findings of the study revealed intriguing information. Firstly, regarding gender variable, there was only statistically meaningful difference in analyticity and open-mindedness subscales between female and male students, which demonstrated that female students were more inclined to perform as analytical and open-minded individuals. Even though there was no statistically meaningful difference in other subscales between female and male students, the results of the first group were higher than the latter. Another variable, which was investigated was academic achievement. What the researcher meant with it was the language achievements the students performed throughout the academic year. The only subscale, which had statistically meaningful difference, was open-mindedness. More successful EFL students were more open-minded. Regarding the analyticity subscale, even though there was no statistically meaningful difference, successful EFL students were more analytical thinkers than those unsuccessful EFL students. For the rest of the subscales such as inquisitiveness, self-confidence, truth seeking, and systematicity, all the EFL students were nearly the same. The analysis on the participants' subject areas and reading habits relating to CTDs unfolded that their disciplines were not the determining factor for any of the subscales, while reading habits influenced the subscales positively.

Akatsuka (2020) investigated the impact of an online EFL course on the CT and skill of their expressing themselves in English with 31 Japanese undergraduate students. The implementation took place in the first academic semester of 2020 in 13 hours. The courses were designed through a wide range of analytic and evaluative questions integrated into authentic texts. Students were asked to answer the assigned questions on an online discussion board with more than 60 words. Following this, they were also asked to respond to their peers' ideas with more than 40 words. In every three weeks, students posted argumentative essays on an LMS with more than 150 words. Finally, they scored each other's essays from one to six using a standardized rubric and provided comments. Each student had to submit two assignments as pre and post writing on a certain topic. The researcher employed Stapleton's Rubric (2001) to assess the CT. Accordingly, the criteria for being able to measure the CT skills displayed in students' writing were to meet the requirements such writing a conclusion, writing an argument, providing evidence, recognition of refutation and opposition, fallacies. The results showed that CT-based course designs implemented online especially benefitted the students with middle and high English proficiency levels. The low-level proficiency students show resistance to answering higher order thinking questions and lacked interactive attitudes with their peers.

Zalani and Yousofi (2024) researched the impact of integrating Instagram into courses in a language school on EFL students' CT. To this end, 98 participants were equally divided into experimental and control groups. The two groups studied the same course books; additionally, they were given CT instruction via two books by Halpern (2014) and Corey (2010). The implementation continued for 12 weeks, and two-hour sessions were held each week. The experimental group followed some news accounts on Instagram on political and social issues, discussed them in the classroom and they also signed up for an account created by the researchers and watched some videos shared by less known accounts in line with the previous contents on news accounts. The participants were asked to analyse the information and make comments here, and then they held live meetings on Instagram and at least five of the participants were also required to express their opinions on the issues reported and others were to make written comments to form an interactive environment in these meetings while the control group only watched certain news channels on the same topics and discussed them in the classroom prior to each class session. CCTST and CCTDI were conducted online as pre-test and post-test. Almost the same results were obtained between the two groups in the pre-tests, which highlighted

the fact that the groups were homogenous in the required skills and dispositions. However, in the pre-tests, experimental group outperformed the control group. Moreover, the progress control group made between pre-test and post-test was very little.

Dissen (2023) conducted a quantitative study to examine the CT skills and dispositions of 125 senior level students participating in a health science program at an American state university and aimed to compare the results with national student population to find out how effective higher education system was in instilling these skills in future generation of the labour market. CCTST and CCTDI were employed for this purpose. As these tests are nondomain specific, they can be administered to populations of any majors. Findings demonstrate that Numeracy skills and Truth-Seeking were the most underdeveloped and changing along with less improvement in overall CT skills in comparison to the national student population.

Orhan (2023) sought to uncover the influence of online, flipped, and in-class CT instruction on CT skills and dispositions of 95 students who studied at the school of foreign languages of a state university in Türkiye. The participants were almost equally placed in three experimental groups and one control group. The first, second, third experimental groups had online, flipped and in-class CT instruction in addition to their ongoing language instruction respectively. On the contrary, control group did not receive any CT instruction; it continued to get traditional language instruction. The treatment lasted 8 weeks, pre-test and post-test administrations included in this timeframe. “Critical Thinking” online course by Dr. Tom Chatfield on SAGE Campus was employed in each experimental group as the lesson material.

WGCTT and CTDs Scale (Sosu, 2013) were administered as pre and post-tests. Findings regarding the CT skills showed that there was an important difference between the pre-tests and the post-tests of WGCTT for each experimental group backing posttest results, while there was not an important difference between pre-test and post-test results in control group. Additionally, participants in flipped classroom performed better than the others in fully online and face-to-face classrooms when WGCTT post-test results were compared. The posttest results of control group were highly low in terms of critical thinking skills. Findings regarding the CTDs displayed that the willingness of participants towards critical thinking improved in all groups. However, their dispositions were ranked from highest to lowest as detailed, flipped critical instruction, online critical instruction, in class critical instruction and the control group with no critical instruction.

Alsarayreh (2021) investigated the effect of practicing CT skills on the attitudes of the tenth-grade female students towards biology courses. Sixty participants were randomly situated in two experimental in which they were instructed biology through active learning strategies; the directed investigation strategy and discussion strategy, and thirty were put in the control group in which they were instructed conventional biology course. After the two-month treatment, the data were compiled using CCTST and Attitude towards Biology Scale. The results showed important differences in terms of critical thinking skills and attitudes towards the course in favour of the experimental groups. The research approved the advantage of implementing active learning strategies in science and biology classes and suggested carrying out more research in different contexts.

Morais et al. (2023) examined the degree of CTDs of 1017 Portuguese undergraduate students taking into account their sociodemographic and academic backgrounds such as age, gender, field of study (Biomedicine: Veterinary Medicine, Nursing, Psychomotor Rehabilitation; Social Sciences: Management, Psychology, Social Services, Socio Cultural Animation, Languages and Business Relations, Basic School Teaching; and STEM: Science, Technology, Engineering and Mathematics) employing Portuguese version of CTDS consisting of 7 subscales as listed; truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, cognitive maturity. According to the analysis of the data collected, there was statistically meaning difference between “truth-seeking”, “open-mindedness”, “analyticity”, “inquisitiveness”, “cognitive maturity” and in the “total CTDS” scores in favour of female students. However, female and male students were nearly similar in the subscales of “systematicity” and “self-confidence”. Regarding the “age” variable, there were low positive correlations between age and “systematicity”, “self-confidence”, the total CTDS score. Finally, there were differing findings between each subscale and the total subscale based on the academic field of the students. In total CTDS score, Biomedicine students were highly better than the ones in other fields. In four dispositions (truth-seeking, open mindedness, inquisitiveness, cognitive maturity), students in Biomedicine and Social Sciences yielded statistically higher scores than others. In analyticity and self-confidence, Biomedicine students were better than STEM students were. In the subscale, systematicity, Biomedicine and STEM students were significantly better than Social Sciences students were.

Meral et al. (2021) conducted a study to find out the CTD levels and argumentation skills of 94 seventh grade students based on an argumentation-based instruction method in social sciences course, in Türkiye. The researchers employed the University of Florida Engagement, Maturity and Innovativeness Critical Thinking Disposition Instrument, which was adapted to Turkish students by Ertaş (2012), and Argumentation Evaluation Rubric by Erduran, Simon and Osborne (2004). There were one experimental and two control groups in which the students in the first group practiced argumentation-oriented activities and followed the stages of 5E model (i.e., Engage, Explore, Explain, Elaborate, and Evaluate) while the other groups received traditional instruction for the same subject contents for 6 weeks. The findings of the study revealed that prior to this specific teaching approach, there was not statistically significant difference between the experimental group and the control groups. However, after the implementation, both their argumentation skills and CTDs showed progress based on the findings. There was a meaningful difference between the post-tests of experimental and control groups. Additionally, they concluded that variable ‘argumentation skills’ was a strong indicator of critical thinking disposition.

Akdağ and Kırkgöz (2020) investigated whether CT can be promoted using infusion model embedded into redesigned lessons through CT tasks. The participants were 130 tenth grade students in an English course within the entire academic year of 2017-2018. A critical thinking questionnaire and a structured interview were administered. The first tool was applied as pre and post-tests targeting the progress of the perceptions related to critical thinking strategies of the participants. The latter was held at the completion of the intervention. Upon the analysis of the required data, it was revealed that there was a statistically significant difference between the pre-test and the post-test, which indicates that the students enhanced their critical thinking skills. Lastly, their responses to the interviews highlighted that their understanding regarding the importance of critical thinking and the lessons advanced their critical thinking skills.

Sireerat et. al. (2022) studied the critical thinking dispositions of 279 Thai dental students employing CCTDI and an online questionnaire reporting demographic information and Grade Point Average (GPA) of the participants. According to the analysis of the gathered data, second year students got the maximum and the fifth-year students got the minimum overall CCTDI mean scores, but there was no meaningful difference between the overall CCTDI mean scores and program years. Concerning the overall seven subscales, the maximum mean scores were obtained from ‘inquisitiveness’.

There were meaningful differences between the overall mean scores on ‘inquisitiveness’ and the program year of the participants. The overall mean score for truth seeking, systematicity, and maturity of judgment, were in the uncertainty. The overall mean scores of CCTDI were not importantly correlated with the GPA scores and most of the subscales. The two subscales ‘systematicity’ and ‘confidence in reasoning’ correlated weakly with GPA scores.

Park (2022) examined the impact of problem-solving activities on Korean young learners’ critical thinking dispositions and productivity in English. Thirty-one sixth grade students took part in this study of 7-week period. According to the researcher, participants were quite experienced, and they held a good competency in English based on the scores of two tests; one was a nation-wide English test, and the researcher developed the other. To this end, as materials and sources covered in-class and online sessions were literary products which were in line with real life problems they could encounter such as climate change, race, poverty, or internet addiction. A set of data collection tools were used such as worksheets, journals, a critical thinking disposition test, a questionnaire, interviews, and transcripts to elicit students’ progress in critical thinking, their understanding from problem solving related literary sources, their emotions and opinions regarding this instructional design. The tool KCTDT; K Critical thinking Disposition test by the Korea Curriculum and Evaluation Institute revealed that difference between the pre-test and post-test scores were statistically significant which can be concluded that problem solving based English classes were effective in improving children’s overall critical thinking dispositions. Of all the subscales, open mindedness had the highest score, while inquisitiveness had the lowest. Independence and objectivity were found to be the subscales, which were improved the most.

CHAPTER III

METHODOLOGY

3.1. Introduction

This chapter presents the research design adopted in the study, its participants, and setting. Furthermore, implementation procedure of the study is elaborated. Finally, the chapter ends with the detailed account for data collection tools and procedures. It also illustrates the methods to analyse the quantitative and qualitative data compiled through the instruments to yield answers to the researcher's questions.

3.2. Research Design

Experimental design is classified into three fundamental categories: (1) pre-experimental designs, (2) true experimental designs and (3) quasi-experimental designs for social sciences by various scholars, along with by widely recognized texts in several domains (Campbell & Stanley, 1963; Davies & Francis, 2018; Shadish et al., 2002; Bernard, 2017). Campbell and Stanley (1963) offered 13 subcategories for each general category mentioned based on the research questions and availability of research setting. In an alignment with the limitations in terms of the setting and participants in the current study which will be delved into in the upcoming sessions, the researcher adopted one group pre-test post-test design to conduct the research which is a subcategory of pre-experimental designs to conduct the research. A mixed methods approach was assigned for the study since a semi-structured interview was administered in addition to quantitative research tools to acquire in-depth findings into the participants' perceptions regarding this treatment. In its core meaning, mixed methods is an approach which requires compiling, examining, blending quantitative and qualitative data in the course of research process in a single study to better understand an issue in a research (Creswell 2005; Tashakkori & Teddlie 2003). When the two kinds of data are merged, quantitative and qualitative designs support each other, and enable more sound examination benefitting from the strengths of both (Green, Caracelli, & Graham 1989; Green & Caracelli 1997; Lotto, Miles & Huberman 1986; Tashakkori & Teddlie 1998).

3.3. Setting and Participants

The participants in this study were first year ELL students at a state university located in the central Anatolia. There were 60 students in total, but only 22 of the students who took part in the FL treatment regularly were included into the study. The majority of the participants studied at the preparatory school for a year to get the required language competency of B1+ a year before the research started. The rest of them could manage to pass the proficiency exam administered by the school of foreign languages, which is based on CEFR at the beginning of 2023-24 academic year, fall term. Therefore, all the students involved in the study are considered to be between B1+ and B2. In this regard, as there was one group of students who took the Academic Writing Course all together, the sampling adopted was convenience sampling, as the participants were the easiest to access for the researcher.

3.4. Academic Writing Course

Academic Writing is one of the compulsory courses which is offered to freshman students in the ELL department, and it holds great significance for the students majoring in this field as their courses and exams involve various skills in reading, writing, analytical thinking, communicating, researching, creativity etc. to gain the literary identity. This course takes place in the fall term of the first academic year three hours a week and at first, students learn the fundamentals of academic writing such as brainstorming, writing a topic sentence, developing supporting sentences, a concluding sentence to write cohesive and coherent paragraphs proceeding with practicing thesis statement, and different types of essay structures such as opinion, cause and effect, compare and contrast, and argumentative essays which will be necessary for them in their overall academic lives. The students are informed with the theoretical aspect of the writing genre and the following week, they write a paragraph then an essay on a topic given by the instructor and are given feedback on their papers. A term consists of 15 weeks during which a midterm week is also applied. In the first week, the course instructor introduces the syllabus and talks about the nuances between written and oral communication. In the first half of the term, they lean on the issues regarding paragraph and opinion essay structures, after the midterm week, they focus on other issues mentioned above. At the completion of the term, they take a final exam on an essay genre.

3.5. Data Collection Tools

Both quantitative and qualitative data collection tools were used in this study to answer the research questions. In this respect, considering the instruments involved in the study, it has adopted a mixed methods approach.

To answer the first research question, California Critical Thinking Disposition Inventory- Turkish (CCTDI-T) by Kökdemir (2003) was implemented as pre-test and post-test to find out if there was a progress in the participants' CTDs throughout the treatment. Afterwards, a writing rubric coined as Analytic Rubric by Jacobs et al. (1981) was held as pre-test and post-test to figure out the impact of the treatment on the writing performance of the students. Lastly, Flipped Learning Attitude Questionnaire (Fauzan and Ngabut, 2018) was conducted along with a semi-structured interview to lay out the students' insights on the treatment.

3.5.1. California Critical Thinking Disposition Inventory-Turkish (CCTDI-T)

As stated above, Turkish version of the CCTDI was applied before and after the implementation to see whether the treatment affected students' eagerness to use critical thinking skills.

The original CCTDI was created by Facione and Facione in 1992 as an outcome of the Delphi Project led by the American Philosophy Association. As mentioned earlier, 46 experts involved in various disciplines collaborated to form a basic concept of CT and its constituent parts. This instrument aims to evaluate critical thinking dispositions of graduate and undergraduate students through a 6 point Likert scale varying from 1 (strongly disagree) to 6 (strongly agree) with 75 items and seven subscales as listed: Analyticity (11 items), maturity (10 items), truth-seeking (12 items), open-mindedness (10 items), self-confidence (9 items), systematicity (12 items), inquisitiveness (11 items). The Cronbach alpha coefficient of this inventory is .90 and the internal consistency reliability for the subscales varies from .57 to .78.

The original CCTDI was redesigned by Kökdemir (2003) and adapted to Turkish context as 19 items in the inventory (3, 4, 5, 7, 8, 11, 13, 14, 17, 19, 24, 29, 41, 42, 45, 68, 71, 72, and 75) had lower correlation coefficient as less than .20. The first CCTDI-T with 56 items was transformed into its latest version by excluding five more items from the inventory as they did not conform to the any subscales. Consequently, the final version of the scale has correlation coefficient between .32 and higher than .32. The subscales

were also narrowed into 6 dimensions as open mindedness, self-confidence, analyticity, truth-seeking, inquisitiveness and systematicity as the ‘maturity’ dimension incorporated into ‘open-mindedness’. Besides this, the Cronbach alpha coefficient of the CCTDI-T was determined to .88 and the internal consistency reliability score for each subscale is detailed as such: Truth-seeking; .61, analyticity; .75, inquisitiveness; .88, open-mindedness; .75, self-confidence; .77, systematicity; .75.

Kökdemir (2003) also concludes that a score higher than 300 is an indicator of having strong critical thinking disposition, while a score which is 240 or lower than 240 indicates lack of strong critical thinking disposition. Scores between 240 and 300 are considered vague in critical thinking disposition.

Table 4.

California Critical Thinking Disposition Inventory – Turkish Subscales

Truth-seeking	6-11-20-25-27-28-49
Analyticity	2-3-12-13-16-17-24-26-37-40-46-50
Inquisitiveness	1-8-30-31-32-34-38-39-42
Open-mindedness	5-7-15-18-22-33-36-41-43-45-47
Self-confidence	14-29-35-44-48-51
Systematicity	4-9-10-19-21-23

3.5.2. Students’ Opinion and Argumentative Essays and Analytic Rubric

One of the goals of this study was to see how flipped supported writing course affected students’ writing performance. Before the treatment began, the class had finished covering opinion essay structure and students had delivered their opinion essays written in the class hour to their instructor. After the six-week flipped supported writing course, argumentative essays were also gathered. Two raters, one is the researcher and the other is the instructor evaluated students’ writing performance using ‘Analytic Rubric Scale’ designed by Jacobs et al. (1981). There are five subscales, which are content, organization, vocabulary, language use, and mechanics. The reason for choosing this rubric is the fact that it has been employed by various ESL and EFL programs across the world (Connor-Linton & Polio, 2014; Janssen, Meier, & Trace, in press) and it is known as one of the prominent multi-dimensional rubrics in ESL (Lee, Gentile, & Kantor, 2010).

Demirbüken and Ulu (2023) who employed the same rubric scale as in the present study as one of the rubrics in their own study concluded that this kind of rubrics yielded more in-depth and reliable results in terms of taking a better picture of writing performance of the subjects and giving feedback.

3.5.3. Flipped Learning Attitude Questionnaire

Another goal regarding the study in progress was to search for how the students felt themselves in the FL supported writing course, what their opinions were on this approach. For this aim, an FL attitude questionnaire, which was developed by Fauzan and Ngabut (2018), was conducted at the end of the treatment. The questionnaire includes 10 items on a 5-point Likert scale ranging from one (strongly disagree) to five (strongly agree). Under each item, there was a space for students to reflect on the reason for choosing that specific number related to the statement. The statements were in English and easy to understand and to reflect for the participants.

3.5.4. Semi-Structured Interviews

Semi-structured interviews were held at the end of the interview. Seven interviewees were selected based on the criteria of having the top, average and low critical thinking dispositions among all participants after the results of CCTDI-T were analysed. The questions were written by the researcher and implemented in Turkish. Each interview took between 20-25 minutes. They were conducted on the Zoom. Prior to each interview, interview protocol was read aloud to clarify the aim of the researcher and create a reliable rapport between the interviewer and interviewee. The interviews focused on whether the students found this implementation effective in receiving and studying a specific subject matter, and it helped improve their writing skills. Answers were transcribed by the researcher and translated into English.

3.6. Data Analysis Procedure

As for the data analysis procedure, both quantitative and qualitative instruments provided information on the implementation, students' understanding of FL, their CTD levels and writing performance. Quantitative data gathered were analysed through Statistical Package for the Social Sciences (SPSS), version 22.0. Qualitative data were analysed through content analysis.

3.6.1. Quantitative Data Analysis Procedure

Firstly, the results for subscales in CCTD-T and in the Analytic Rubric pre-test and post-test scores and Attitude Questionnaire were entered to a Microsoft Excel for sorting and coding before being transmitted to SPSS statistical software for analysis. Pre-test and post-test scores of CCTDI-T and Analytic Rubric were analysed through the Wilcoxon signed-rank test, a non-parametric test which is equivalent to the dependent/paired t test employed to compare the two sets of scores received from the same test and indicate whether there is a change in the scores after a treatment. Furthermore, two raters evaluated students' writing performance, before and after the treatment. To ensure the inter-rater reliability in the essay scoring process, a Kappa Correlation test was executed. Kappa analysis is a statistical analysis method, which establishes the reliability between the two observers (Cohen, 1960). Kappa (κ) Coefficient Criteria are listed below:

Table 5.

Kappa (κ) Coefficient Evaluation Criteria (Landis and Koch, 1977)

Kappa(κ)	Interpretation
< 0	No Agreement
0.0 — 0.20	Slight Agreement
0.21 — 0.40	Fair Agreement
0.41 — 0.60	Moderate Agreement
0.61 — 0.80	Substantial Agreement
0.81 — 1.00	Almost Perfect Agreement

The results revealed a significant positive correlation between the raters regarding their essay ratings (Kappa (κ) =0,622; $p=0,000<0,05$).

The findings of CCTDI-T, Analytic Rubric Mean and Standard Deviation scores and maximum and minimum levels regarding the Attitude scale will be elaborated in the following chapter.

3.6.2. Qualitative Data Analysis Procedure

After the data collection process through semi-structured interviews, the researcher employed content analysis methods in accordance with the stages put forward by Creswell and Creswell (2018).

1. Organizing the raw data: The transcribed and reviewed data taken from the audio-recorded interviews was arranged for the analysis.

2. Going through all the data: Bearing the research questions in mind, the researcher read the transcriptions and any pieces of information or meaning, which were considered to shed light on to study, were underlined.

3. Labelling all the data: Highlighted patterns were reviewed a few more times by the researcher and keywords and relevant parts were grouped in the coding phase and then they were categorized based on being similar or different, lastly the researcher ended up with categories refined through consistency of the emerging codes by eliminating overlapping ones.

4. Producing themes: Depending on the emerging codes, the researcher developed themes

Finally, in the light of interview analysis, the researcher aimed to draw findings, which would confirm the findings attained by the 5-point Likert type attitude questionnaire and would contribute to attitudinal issues related to the FL approach implementation in the study.

3.7. Implementation of a 6-Week Flipped Learning Supported Writing Course

This implementation lasted six weeks in the academic writing course, in which freshman students majoring in the ELL department participated, and it was conducted in the first semester after the midterm exam week. Academic writing is a compulsory first grade lesson in this department and as stated earlier, the aim is to improve writing skills, to familiarize students with different types of writing genres. It is held for three hours successively once a week, and students fail in the course if they do not attend the classes for more than nine hours or do not succeed to get the mean score which is 60 out of 100 in total including midterm and final exams. The required lesson plans were prepared for this course by the researcher, and they were shared with the actual instructor. Both of them were always in contact for any assistance and support in favour of the instructor. The instructor determined the lesson content. On his request, cause and effect, compare

and contrast and argumentative essays were incorporated into the implementation. For each essay genre, two weeks were allocated respectively. The necessary permissions were taken from the ethical committee, and formal correspondence was carried out with the dean's office of the Science and Letters Faculty and the head of ELL Department. A week before the implementation, students were informed of the implementation procedure regarding FL approach by the researcher, the CCTDI-T were administered, and their opinion essays were collected to evaluate based on the analytic rubric.

Throughout the implementation, the actual writing instruction and assignments on each essay style were conducted prior to in class meetings through Google Classroom except for the first week. There was a WhatsApp group the students and the where the instructor exchanged information, the students were kept informed on any class issues, and the researcher also joined that group for the first week.

In class, activities were designed based on reviewing the instruction and assignments given on Google Classroom and covering Numrich's Sequence of Critical Thinking Tasks using audio, visual and written texts on various topics, which would catch the attention of adult learners such as social media, technological devices, and gaming. The reason for embedding such kind of texts into in class sessions was to get students informed on various topics and get them to explore different perspectives on a topic, help them discuss their experiences and opinions so that they could reflect their thoughts from a critical point of view.

Therefore, in this part of the methodology, the instructional stages will be presented in detail. However, before we delve into them, a strategy for practicing critical thinking, which is named 'Numrich's Sequence of Critical Thinking Tasks' will be explained.

3.7.1. Numrich's Sequence of Critical Thinking Tasks

As Beaumont (2010) stated, Carol Numrich from California University who is the creator of the sequence of Numrich's critical thinking tasks guides language instructors in nurturing their students' CT and language skills through a framework of engaging, and doable tasks. In addition to functioning as a guideline in that regard, it also helps teachers to be conscious of what they need to require their students to manage by encouraging them to think out of the box without making decisions or drawing conclusions based on their personal experiences and intuitions solely. This framework also enables language

teachers to adjust their lesson materials to the needs of students across all ages and proficiencies by demanding the use of critical thinking and language skills the students will be involved in progressively.

There are seven tasks in this sequence, and they are categorized into three groups, which are carried out before and after the texts (audio, visual, or written) are covered as illustrated in the following table.



Table 6.

Numrich's Sequence of Critical Thinking Tasks (Beaumont, 2010)

<i>Perspective</i>	<i>Critical Thinking Tasks</i>	<i>Skills Practiced</i>
<i>Focus on the students' world</i>	1. Observing 2. Identifying assumptions	Looking, Listening, Sharing background, Expressing opinions, Clarifying values
<i>Focus on the text</i>	3. Understanding and organizing 4. Interpreting	Summarizing, Distinguishing relevant details, Ordering, Classifying, Comparing and contrasting, Explaining cause and effect, Making inferences, Interpreting meaning, Hypothesizing, Theorizing.
<i>Focus beyond the text</i>	5. Inquiring further, 6. Analysing and evaluating, 7. Making decisions	Surveying the public, Interviewing a specialist, Researching, Synthesizing information, Critiquing Reflecting on related ideas, Making logical conclusions, Re-evaluating assumptions, Proposing solutions, Problem solving, Taking action, Participating.

Beaumont (2010) explains *Observing* as the beginning stage of the sequence as well as it introduces basic level of analysis for the given text as it requires students to “to identify or name what they see or hear in a piece of audio or visual text”. It aims to activate the necessary vocabulary and grammar for students to actively engage in the topic, they are also familiarized with the topic. Finally, students associate what they know with the information discovered here in this stage. He continues to elaborate on the second stage, which is *Identifying Assumptions*. Here is where students share their experiences, opinions and existing beliefs on the topic with their peers. The goal is to stimulate them to turn back to those ideas and revise them as they explore more on the topic. These two stages also enable students to be more exposed to the language and use it purposefully.

The third stage as Beaumont (2010) emphasizes is *Understanding and Organizing*. This task type switches the focus of the students from their own experiences to the main text. They show their understanding by watching or listening to an extract from an interview or news, looking at a visual, reading a text from a magazine or website etc. which is believed to be the basis for CT by the author. The cognitive processes students practice are ‘distinguishing relevant details, classifying and categorizing or comparing and contrasting a piece of information, ordering the details’. Then, we move on to the fourth task, which is *Interpreting*. Students are stimulated to handle a text from the point of an inspector by looking for any clues to make inferences, interpreting meanings and hypothesizing in response to questions or tasks. Another important issue is that students should remain anchored in the main text while drawing ideas. The question ‘How do you know?’ may trigger enthusiasm for students to engage in and think more critically. *Inquiring Further* is the following stage where students expand their understanding with the text through activities such as ‘surveying the public, identifying and interviewing a specialist on the topic, and conducting library or Internet research’. In *Analysing and Evaluating* task, students search for various other texts in different forms, such as a short talk, an article etc. in line with the topic they study to explore various perspectives on the topic and then they are expected to write a piece of text or give a short talk making associations between all the texts, highlighting similarities and differences. The last task type is *Making Decisions*, with the skills they have accumulated so far, they are expected to be put into action in real life settings by students.

By far, the CT tasks have been explained, which the researcher employed in the study in general. In the upcoming session, instruction process will be illustrated cautiously week by week by linking the activities to the tasks already mentioned above.

3.7.2. The Flipped Instruction Process

3.7.2.1. Week 1 & 2 – Cause and Effect Essay

The first week, a ready-made video provided on YouTube and a short digital handout prepared by the researcher with regard to how to structure 'cause and effect essay' was shared with the students in addition to the two example cause and effect essays requiring them to analyse each in terms of organization, introduction to the essay, figuring out the thesis statement, topic sentences, supporting ideas for each body paragraph, concluding paragraph, and the audio, visual and written materials, which the students would exercise aforementioned CT skills and collect information to generate a cause and effect essay at the end of this two week essay instruction. Students were asked to check the first two tasks based on observation, identifying assumptions. They were given various visuals and a video to trigger their prior knowledge and relevant experiences linked to gaming. When the students came back to the class, the instructor first summarized the structure of the cause-and-effect essay briefly and asked whether they had any questions necessary for clarification, then they went over the example essays by analysing the related issues. In the following phase of the course, the instructor and the students talked about the visuals, answered the questions (Describe what you see in the photos?, What do you know about video games or online games?, Which online games are you familiar with?, What do you think makes online games appealing to gamers?, Do you know anyone who plays online games to make a living/ as a professional career?, Have you ever made friends through online games? / does any of you have a community in any online games?)

Then, they stepped into the next stage in which students practiced the tasks 'Understanding & Organizing'. Here they read a text on the history of gaming and its evolution over the years. They answered some questions to make sure that they understood the text, and they described or explained any issues to contribute to their organization skills, lastly made inferences, interpreted meaning from the text (How did the introduction of home video game consoles like the Atari 2600 and the NES change the gaming landscape during the late 1970s and early 1980s, Explain the "Mobile Gaming Boom" and provide examples of popular mobile games that contributed to its success. What made mobile gaming so accessible and appealing to a broad audience? How do virtual reality (VR) and augmented reality (AR) technologies hold the potential to

transform the future of gaming? What are some expectations for advancements in gaming technology?)

Next, they watched a short video on gaming, popular online games for the task ‘Interpreting’, and answered some more questions to elicit their interpretations. (*Do you think people in the video are addicted to gaming? How do you know? Do you think gaming is a good way of building social bonds with family members or friends? Why do you think so? Explain it using the examples in the video*). Then, students read two more texts and answered questions again based on the effects of gaming on people. Finally, they came to the end of the course. For the following week, a ready-made video on YouTube regarding the transitions and connectors in the cause-and-effect essay and a digital handout were shared and asked to the students to study before coming to the class, identify the connectors and transition words in the example essays sent a week before. Additionally, the instructors asked the students to interview or do searches on the internet as to the effects of gaming on people or reasons, which made gaming popular around the world to notes. Next lesson, the instructor started the lesson by going over the exercises first, answering any questions from students. Then, they shared their interview and research results, discussed varying perspectives and expressed their agreements or disagreements with the reasons. In the last hour, they wrote an essay as an Analysing and Evaluating task, implementing what they learnt in terms of essay structure and the information they gathered.

3.7.2.2. Week 3 & 4 – Compare and Contrast Essay

The same procedure was implemented for this instruction, as well. Prior to the in-class meeting, a PowerPoint presentation created by the researcher and a short video available on YouTube were shared. They were about the structure of the compare and contrast essay. An assignment incorporating two model essays and asking students to analyse them in terms of organization was also given on the Google Classroom, and the students were asked to upload them to this platform. In addition to this, a sequence of texts was shared on the platform so that the students could check an image and an interview on the innovative technologies with the questions they needed to think for Observing and Identifying Assumptions tasks (*Look at the photo. What might the device do? How could it improve people’s lives? Have you ever experienced a time without electricity? How did it affect your activities? Marcus focuses on technology as one way*

that science can improve lives. What does Sophy focus on in her answer?) When they met with the instructor in the classroom, first, they reviewed how to write a compare and contrast essay, then they went over the assignments. Then, they read a review on five innovative technologies and answered a set of questions which involved Understanding and Organizing tasks (*How does Gravity Light operate, and what makes it an attractive alternative? What design features make the Window Socket user-friendly? What are the common features of these innovative devices?).* They also underwent a categorization task, which required filling two charts related to the features of these technologies. Following this, students answered some more questions requiring interpreting task based on the review (*What challenges might be associated with extending power grids to remote areas, and how do the innovative devices overcome these challenges? Evaluate the potential long-term effects of replacing kerosene lamps with SOCKETs in schools. How might this impact education and community development?)* They read another article on a different innovation and conducted similar tasks.

For the following week, as they did earlier, they were required to interview a friend and an acquaintance about technological innovations or conducted a search on a different device which eases our lives, and report what they found in the classroom. Before the following week, students were provided a handout and a short video on the transition and connectors used in compare and contrast essays and an assignment on the use of these phrases on Google Classroom. Following week, when they met again, they shared what they did and presented, discussed their thoughts and findings with each other for the *Inquiring Further*. A short review of the last instructional content was also made. In the last class hour, students wrote a compare and contrast essay benefitting from what they found out about the latest innovations for the Analysing and Evaluating task.

3.7.2.3. Week 5 & 6 – Argumentative Essay

As in previous weeks, before our class meeting, the required PowerPoint presentation and a short video including an assignment regarding the analysis of two essays in terms of the fundamental components of an argumentative essay were uploaded to the Google Classroom platform in addition to the activities related to observing and identifying assumptions tasks on social media use.

In the class hour, the instructor reviewed the instructional content and the assignment and answered any questions confusing students' minds. Then, the class answered the questions relating to the first two tasks based on images and a video. Then, the instructor showed a video which was a Ted Talk on the effect of social media on the youth and discussed the questions relevant to the Understanding and Organizing, Interpreting (*What does Social Currency refer to? How do social media users receive it? How does it affect them? How can people use social media to make a difference in society? What might be the ever-lasting effects of social media on young people? What does the speaker mean by the phrase 'epidemic'? How do you know?*)

Then, students were asked to read two more news articles on the negative and positive effects of social media on society and discussed the questions requiring Understanding & Organizing and Interpreting tasks. For the following week, a handout on the transition and connectors for argumentative essays and an assignment involving analysing an article in terms of the required phrases and words in an argumentative essay was shared with the students on Google Classroom. Additionally, they did the Inquiring Further section by either interviewing someone on the given prompts or carrying out research on other affecting factors of social media. Upon returning to the classroom, the instructor shortly reviewed the transitions and connectors and checked the assignments all together. Following this stage, they reported and discussed what they found from either the interviews or research they carried out with one another. In the last class hour, for the Analysing and Evaluating task, they wrote an argumentative essay synthesizing and reflecting on the gathered information and discussions they engaged in.

To conclude, the researcher here aimed to give a detailed portrait of the flipped instructional process. More details pertaining to the visual, audio, written texts and questions, the instructional materials for the essay structures and activities assigned to the students will be displayed at the end of this thesis.

CHAPTER IV

FINDINGS

4.1. Introduction

This chapter will introduce the findings of the quantitative and qualitative data instruments implemented in the study respectively through a series of data collection techniques. Data driven from the tools will be presented in the order of their administration. Excerpts will be also provided to give concrete examples and verify both quantitative and qualitative data.

4.2. Findings from the Quantitative Data Tools

4.2.1. California Critical Thinking Disposition Inventory – Turkish

This section reveals the findings obtained from this quantitative tool which aimed to indicate the extent to which a group of first grade ELL students were able to improve their CTDs – open-mindedness, truth-seeking, analyticity, systematicity, self-confidence and inquisitiveness.

This inventory was conducted as a pre- and post-test to figure out whether any changes were observed in each sub-skill after the 6-week implementation. The data were analysed via the Wilcoxon signed rank test, which is a non-parametric test employed to make a comparison between the two sets of scores, to identify whether there was a progress or not in the scores after this 6-week implementation of FL supported writing course.

Table 7.

Wilcoxon Signed-Ranks Test Results for the Students' CCTDI-T Pre- and Post-Test Sub-Scale Scores (N=22)

Sub-scale	Pre-Test		Post Test		Z	P
	M	SD	M	SD		
Truth-seeking	36,548	8,423	37,773	10,622	-0,161	0,872
Open-mindedness	47,616	5,353	44,167	8,242	-2,957	0,003
Analyticity	49,748	4,949	48,984	5,366	-1,422	0,155
Systematicity	38,278	8,608	41,118	6,984	-1,903	0,057
Self-confidence	39,762	8,249	43,277	6,187	-2,259	0,024
Inquisitiveness	45,313	8,174	46,140	7,571	-0,196	0,845

When the table is analysed, truth-seeking dimension of CTD shows a slight increase in average scores of the participants (M) across pre- and post-tests which means that there is a bit of improvement while the increase in the standard deviation (SD) means that scores obtained from the participants varied for truth seeking in a great extent across the pre- and post-tests. Secondly, for the open-mindedness aspect, there is a decrease from pre-test to post-test in terms of mean scores, while the variability of the scores for SD shows an increase. Analyticity is another dimension, which shows a decrease in the average scores of the participants throughout the two tests, while the minor increase between the SDs shows a small variation in the scores of the participants. Fourthly, systematicity, self-confidence, and inquisitiveness aspects indicate a rise in these scores of the participants, in addition to a slight decrease in SDs in terms of variance based on the participants' scores signalling more consistency in the scores of the participants between the two tests.

On the other hand, in the context of Wilcoxon signed ranks test, when open mindedness ($Z=-2,957$; $p=0,003<0,05$), and self-confidence ($Z=-2,259$; $p=0,024<0,05$) are examined, statistically meaningful differences are found between the pre and post-tests. However, there were no statistically significant differences between the pre-and post-tests in the other sub-skills ($p>0.05$).

According to the results driven from the data through descriptive statistics and Wilcoxon test, there was a significant increase at the 0.05 level signalling that the result did not occur by chance in the self-confidence dimension, while there was a significant decrease in open-mindedness. Additionally, there were no important changes in other sub-scales. Therefore, the intervention seems to have provided various effects on the CTDs of the participants.

4.2.2. Opinion and Argumentative Essays and Analytic Writing Rubric

A standardized analytic rubric by Jacobs et. al. (1981) was adopted and implemented before and after the FL supported writing course to find out the extent to which participants were able to improve their writing skills such as content, organization, vocabulary, language use, mechanics. A pre-test, in the form of an opinion essay, and a post-test as an argumentative essay were evaluated based on the criteria given in the rubric to figure out whether the participants involved in the study could progress in mixed sub-skills. The evaluation phase was done by two raters to ensure the inter-rater reliability using Cohen's Kappa as stated before, and a significant positive correlation was found (Kappa (κ) = 0,622; $p=0,000<0,05$). The data obtained from their writing tasks through the rubric were analysed employing Wilcoxon signed ranks test to compare the differences in writing skills prior and after the implementation. Results are presented in the descriptive and Wilcoxon signed-ranks test contexts respectively.

Table 8.

Wilcoxon Signed-Ranks Test Results for the Students' Writing Performance Pre- and Post-Test Sub-Scale Scores (N=22)

Scales	Pre-test		Post-test		Z	P
	M	SD	M	SD		
Content	21,470	5,299	24,650	5,704	-3,013	0,003
Organization	14,440	3,277	16,970	5,126	-3,252	0,001
Vocabulary	15,470	2,246	16,910	3,630	-3,144	0,002
Language Use	17,440	4,473	18,650	5,181	-1,987	0,047
Mechanics	3,850	0,857	4,180	0,968	-1,612	0,107

Firstly, regarding the first sub-scale of writing rubric, content formation, a statistically significantly meaningful difference was revealed between the two tests according to WSRT ($Z=-3,013$; $p=0,003<0,05$). Content Formation skill pre-test mean score ($x=21,470$) is lower than post-test mean score ($x=24,650$). The second sub scale is organization skill which WSRT yields a statistically significantly meaningful difference between the pre-test and post-test ($Z=-3,252$; $p=0,001<0,05$), and the pre-test mean score ($x=14,440$) is found lower than post-test mean score ($x=16,970$). The use of vocabulary is another dimension, which is an indicator of an overall writing skill. In this regard, WSRT shows that the difference between the two tests is statistically meaningful, and pre-test mean score ($x=15,470$) is lower than post-test mean score ($x=16,910$). When language use is examined, the difference is found statistically significantly meaningful between pre-test and post-test based WSRT, and the pre-test mean score ($x=17,440$) is lower than post-test mean score ($x=18,650$). Lastly, last dimension of the rubric is mechanics, and WSRT indicates that there is not a statistically significantly meaningful change between the pre-test and the post-test ($p>0,05$) even though a minor increase can be attributed to progress to a small extent, it is not regarded as important statistically.

To conclude, the data drawn from the analysis means that the implementation was successful in improving writing performance of the participants except for the aspect of mechanics (spelling, punctuation, capitalization etc.).

4.2.3. Flipped Learning Attitude Questionnaire

This attitude scale developed by Fauzan and Ngabut (2018) was administered at the end of the 6-week implementation of FL supported writing class to elicit participants' ideas and feelings regarding a new style of writing class experience. The scale consists of 10 items and a 5-point Likert attitude scale with responses ranging from 'strongly disagree' to 'strongly agree'. The first three items focus on participants' experiences related to outside learning part of FL. The items between four and seven relate to participants in class learning experiences, which constitute the second part of FL. The items 8 and 9 align with the effectiveness of FL implementation. Lastly, the 10th item questions the effectiveness of FL for EFL students from the point of participants.

Considering the data provided in the table below, the first item which says '*I can adjust the time of learning when I have to learn outside of the classroom*', mean score (3,909) implies that participants are in general agreement on adjusting their time of

learning outside the classroom when they have to, although standard deviation (1,065) indicates average variability, which means that some participants find it difficult to adjust their time, while others do not based on the minimum and maximum scores provided. In addition to the numerical data, some participants made comments as follows:

I learned to be more planned with the homework given to us. (P5)

I can manage my time, but sometimes I procrastinate. (P3)

I know how to use my time effectively. (15)

Sometimes, I can adjust the time, but often-outer factors distract me. (P11)

I have some learning issues. (P20)

The second item is 'Learning outside of the classroom is convenient'. When mean score (3,773) is considered, participants are positive on the convenience of learning outside to a degree as the standard deviation shows great variability (1,193), there is a combination of varied answers which means some participants found it difficult to learn outside the classroom. Again, some of the participants added comments in relation to this issue as follows.

I totally agree because the learning process is individual. (P14)

Strongly agree. The classroom makes me so nervous, so I cannot focus on anything. (P21)

Strongly agree. I am a self-learner so doing the learning before the class makes me focused during the class. (P13)

Disagree, sometimes I come home very tired and find no energy to study. (P2)

Neutral, it is convenient, but not in every situation. (P12)

The third item is 'Learning outside of the classroom requires my commitment to improve myself'. As the mean (4,182) and standard deviation (0,795) scores suggest, many of the participants either agreed or strongly agreed on the necessity of personal commitment for learning outside with lower standard deviation, which corresponds to responses that are more similar. Additionally, they commented as such.

Strongly agree. Learning outside the classroom demands personal commitment because individuals take the initiative to adjust their time, engage with the material, and persist in their efforts. (P1)

I agree because there are many things that can disturb your study outside of the classroom. (P8)

It motivated me to come to class and to learn more enthusiastically. (P17)

Strongly agree, because I am interrupted by my phone. (P7)

The fourth item is '*Classroom activity was used effectively for exploring materials*'. The high score of mean (4,409) and quite low score of standard deviation (0,666) support the fact that most of the participants strongly agreed on the effective use of classroom time to explore materials with low variability in responses. The participants elaborated on their responses as such.

It helped me learn more about the course and understand it better. (P16)

We had the opportunity to talk and debate about the materials. (P3)

Yes, because we were learning others' opinions on a subject during class activities. (P9)

The materials were helpful. (P6)

Class activities promote active engagement, and interaction allowing us to explore materials through practical activities. (P3)

I could learn more about the topic. (P9)

The fifth item is '*Classroom activity was used effectively for creating richer learning opportunities (individual work, group work, analysis, presentation)*'. A mean of 4,318 signals a strong agreement on this item though the standard deviation of 0.946 indicates variance in responses including a participant who rated this as 'strongly disagree'.

Participants' opinions are presented as such:

Classroom activities improved us in terms of writing and speaking. (P1)

Strongly agree. We learned to work together even though sometimes we had different points of view and gained more experience. (P5)

Yes, because we had different ideas to say. (P13)

Disagree, working alone is more comfortable. (P7)

We learned from each other in-group discussions. (P9)

Neutral, I could not express my thoughts very well. (P14)

The sixth item is '*Classroom activity allowed me to write well*'. As can be deduced from the mean score (4,455) and relatively low standard deviation score (0, 671) most of the participants believed that activities done in the classroom helped their writing performance in general. Some of their additional ideas are also listed below:

Strongly agree. I have developed my writing in different genres. (P3)

I am better at writing than before. (P19)

Yes, because teachers show us many different ways to write well (grammar and vocabulary). (P2)

The seventh item is 'Classroom activity allowed the lecturer to give feedback to my writing/Project'. With the highest mean score (4,545), and low standard deviation (0,510), participants either agreed or strongly agreed that classroom activities helped the lecturer to provide feedback on participants' writing tasks. Their extra comments are provided here:

Agree, we corrected our mistakes through the feedback given by the teacher. (P7)

Strongly agree. Feedback helped me to improve my writing. (P6)

Thanks to the lecturer, I realized my mistakes and could focus on them to do better. (P18)

'FL was effectively implemented in writing class' is the eighth item in the questionnaire regarding the effective implementation of FL and the high mean score (4,455) and the low standard deviation (0,671) reveal including the lowest score 3, participants commonly share the idea that it was effectively administered in this writing class. In addition to numerical data, participants' written comments were as follows:

Strongly agree. It helped me to improve my individual working skills. (P21)

The materials were clear and understandable. We prepared before the class. (P16)

Explanations and materials were clear, and the tasks were doable most of the time. (P5)

Sometimes, I felt challenged by the questions related to the texts and by the discussions in the classroom to contribute. (P9)

The ninth item is 'FL requires lecturer's professionalism'. The scores obtained imply that the general tendency (4,091) is FL requires being professional from the perspective of the participants. However, with responses varying slightly differently (0,811), a few participants showed their disagreements signalling they differ in their responses. For this part, some of the participants' ideas are as follows:

Yes, the lecturer should be experienced enough to maintain classes smoothly. (P18)

Agree, there are many things a lecturer must do to organize a smooth lesson. (P4)

Neutral, maybe, but it can be achieved by the lecturer's motivation, though. (P12)

Its success depends on students. (P8)

The tenth item is 'FL is effective for EFL classrooms'. FL is perceived effective for EFL classrooms by the majority with high mean (4,364) and low standard deviation (0,658), and minimum 3 scores implying absence of strong disagreement on this item:

Strongly agree. We could practice the language both inside and outside the classroom. (P10)

Agree. Reading materials, writing, listening to each other and speaking improved my language skills in general. (P12)

Neutral, if the topic is not interesting, students may not be motivated to engage in class activities. (P17)

Lastly, the average mean score of 4,250 and a low standard deviation of 0,494 for overall attitude towards FL implementation signifies that participants approved this pedagogy in general.

In conclusion, participants were highly positive about the classroom activities, feedback and support given for their writing skill, while they slightly diverged in the opinion of inconvenience of learning outside. Their overall perceptions concerning FL approach in the context of EFL were favourable.

Table 9.

Attitude Questionnaire Results

	N	M	SD	Min.	Maks.
1.I can adjust the time of learning when I have to learn outside of the classroom	22	3,909	1,065	1,000	5,000
2. Learning outside of the classroom is convenient.	22	3,773	1,193	1,000	5,000
3.Learning outside of the classroom requires my commitment to improve myself	22	4,182	0,795	2,000	5,000
4. Classroom activity was used effectively for exploring materials.	22	4,409	0,666	3,000	5,000
5.Classroom activity was used effectively for creating richer learning opportunities (individual work, group work, analysis, presentation)	22	4,318	0,946	1,000	5,000
6. Classroom activity allowed me to write good.	22	4,455	0,671	3,000	5,000
7. Classroom activity allowed the lecturer to give feedback to my writing/Project.	22	4,545	0,510	4,000	5,000
8. Flipped learning was effectively implemented in Writing class.	22	4,455	0,671	3,000	5,000
9. Flipped learning requires lecturer's professionalism.	22	4,091	0,811	2,000	5,000
10.Flipped learning is effective for EFL classrooms.	22	4,364	0,658	3,000	5,000
Overall Attitude	22	4,250	0,494	3,500	5,000

4.3. Findings from the Qualitative Data Tool

4.3.1. Semi-Structured Interviews

Eight participants who were involved in the treatment for 6 weeks regularly were interviewed, and their detailed explanations were examined closely to reveal confirmatory data to back up the findings of attitude scale, and to provide further information concerning the research questions.

Emerging themes and categories are illustrated in the table below to portray their perceptions and insights drawn from the semi-structured interviews in general by taking into account the research questions investigated in the study, and the extracts from the participants are presented in detail.

Table 10.

A Summary of the Findings Drawn from the Semi-Structured Interviews

Themes	Categories
Efficiency of FL	Increased preparation and engagement, improved writing performance, enhanced studying behaviours, comparison with traditional method
Attitudes towards FL	Favourable and unfavourable attitudes
Growth of CT Skills	Exposure to varied viewpoints, use of analytical thinking
Future Application of FL	Convenience for adopting FL in future teaching

Based on the table above, firstly, the data obtained through open-ended questions display the participants' understandings as to whether FL is effective in certain issues as shown in the corresponding category. In this regard, participants reported the ideas below.

P1. I consider it as a very useful learning approach, especially in language courses. Being prepared for a class has increased my participation and confidence, as I know what to do in that class, therefore it was effective for me ...

P2. Being prepared for a class helped me to better learn and feel more comfortable in class activities

P6. It also helped me with my engagement since I know what to study before class and what to do in class, I got more enthusiastic. Even listening to the discussions made more sense to me thanks to studying in advance

P8. ...Brainstorming was very good, when students prepare for the topic at home, the class becomes more effective as they know what they will encounter. It saves time, enhances writing....

P2. Materials you shared with us, for example, the ones on the social media helped me to write better as I gained knowledge through the content provided, and I managed to develop my essay ...

Participants expressed their fulfilment on the FL instruction in general. They stated that it helped motivate them to take part in more classroom discussions as they studied before coming to class and conducted tasks assigned to them earlier; all the process helped them to write better. One participant expressed her contentment about FL as it improved her studying skills for other courses, as well.

The second theme emerging from the interviews were the participants' attitudes towards FL. Positive and negative attitudes were the underlying categories coming out. They reported the responses as follow:

P2. I liked this approach as it encouraged us to do research outside the class, for instance I read some articles even if I did not read all of them. I liked doing research especially on the advantages and disadvantages of social media ...

P4. I liked the fact that materials were presented on time every week. This method is reachable for us, I liked it most

P5. I favoured your assistance in all the stages. You informed us of what to do regularly and the teacher gave feedback to us that is what I liked most about this method

P7. I liked it most when teacher asked questions that was joyful. It was not a boring lesson, I could benefit from others' opinions, and the answering session was the best...

P8. The discussion of the pictures was excellent. There were plenty of ideas, people had different views, it enabled me to face different opinions and widen my perception....

Most of the affirmative ideas were centred on the research they liked doing which helped them to explore other people's thoughts beyond the classroom. They also expressed their contentment on the guidance the instructor and the researcher provided each week. Knowing what they were expected to do prior to the class, in the class, and after class motivated them to carry out their tasks better and they felt more secure when they knew what to do. The discussion sessions held in the classroom sparked their

curiosity and engagement. The feedback part was also quite helpful in improving their writing. On the other hand, their discontentment was also expressed in the extracts as follow.

P2. One of the materials was about technology; I was challenged to study that content since I am not interested in it ...

P7. In one lesson there was too much info, I guess it was about technology....

P4. ...The fact that I could not receive feedback immediately was what I disliked much....

The topic on technology was found uninteresting by most of the participants interviewed. They expressed they felt disconnected with the topic even though the researcher thought it would be engaging to study and talk about innovations while preparing that lesson. One outstanding idea given by one participant was that he could not receive immediate feedback from the instructor whilst studying the pre-class material himself.

The third theme, which emerged was the development of CT skills. Exposure to diverse viewpoints and use of analytical thinking were the corresponding categories, and in line with them, participants reported ideas as such:

P2. ... In one of the classes, we commented on an image, my friends came up with different ideas and I noted down what they said and used them in my essay later. We exchanged our ideas each time we met in class hours ...

P4. ...when we had discussions in groups, each had a different idea, thanks to them, I was able to develop my writing better, but sometimes hearing lots of ideas may also affect badly...

P8. ...After this approach when I saw the video or the pictures I started to think very deeply. I could read between the lines, I asked questions to the teacher about the materials and the answers helped me develop my critical thinking skills. Comparing our opinion with the others' opinions also contributed to our critical thinking skills.

P7. Firstly, there were sample essays where the questions helped me focus on the paragraph better and moreover videos and photos helped me develop critical thinking skills and thanks to the interviews, I could exchange my ideas with the others on certain topics.

The time allocated for thought provoking activities helped them to analyse issues differently, to improve their essays better with the help of each other's thoughts. The

questions directed to the participants also stimulated them to think deeply according to the participants' responses.

The last theme is the future application of FL approach by the participants in case they instruct any skills of English. Based on the responses given, they consider it feasible for teaching English. In this regard, they reported as follows:

P1. .. I would use this method, as it is useful for students to learn better and it eases teachers' instruction, they are less challenged as students come to classes prepared...

P3. in this method there is a constant interaction between students and teachers, which is why I would use it in my future career.

P4. I want to be an academician, and I would like to use this model, because I think that the more students digest a topic, the easier it is for a teacher to teach.

P7. I am already a teacher and will use it to teach some tenses. If they wish, they can revise what I share. It makes my role easier. It saves me time.

In this respect, participants expressed a positive stance in implementing this approach in their future careers as they thought that FL is good to make students get prepared for in class activities, thus helping teachers with workloads in terms of delivering content knowledge, as well as the increased interaction between teacher and learners is another issue explaining why they would adopt this approach.

Overall, participants who took part in this treatment for six weeks were able to develop some insights in FL method's applicability, its strengths in increasing engagement, consolidating their writing through the materials they were exposed to, discussions and various ideas they were engaged in to improve their thinking, except for few negative issues which should be developed in future FL practices such as the contents chosen, the assistance learners may need while studying pre-class materials offline.

CHAPTER V

DISCUSSION

5.1. Introduction

This section will discuss the findings in detail drawn from the analyses of the data collection tools in line with the data in the related literature based on research questions of the current study.

5.2. Discussion of Findings for Research Questions

This study primarily aimed to investigate the impact of flipped supported writing course on the CTDs, writing performance, and attitudes of the students who were recruited for an academic writing course in the department of ELL towards FL approach. For this aim, a mixed methods research design was administered through various data collection tools such as CCTDI-T by Kökdemir (2003), an analytic rubric by Jacobs et al. (1981), a FL attitude questionnaire by Fauzan and Ngabut (2018), and a semi-structured interview. The analyses revealed valuable insights into the implementation of FL approach in a writing course. They will be presented and discussed thoroughly via other research findings in the literature.

5.2.1. R.Q.1: What is the impact of Flipped supported writing courses on the critical thinking dispositions of EFL learners?

The Turkish version of California Critical Thinking Disposition Inventory was administered to reveal whether the participants in the study showed any progress in any of the subscales of the inventory throughout the intervention. The varied results regarding the dispositional dimensions came out because of this 6-week intervention. In line with this, it can be concluded that the intervention influenced the participants' dispositional aspects differently. While there is a significantly meaningful increase in the self-confidence scale, there is a decrease in open-mindedness, in addition to no significant changes in other sub dimensions. The reason for this limited progress may have been associated with some factors such as treatment duration, the content density covered in

in-class and out of class sessions to cater for the course requirements determined for this course by the department.

First of all, this comprehensive writing course was mainly based on delivering theory and practice aspects of teaching a writing genre outside the classroom, and then reviewing these issues with the students in the classroom along with readings and questions designed based on Numrich's sequence of CT tasks, which would provoke their thinking so that they could obtain the basic knowledge and awareness on a topic and practice thinking and questioning deeply to reflect their thoughts in their final products. It aimed to improve both their writing skills and attitudes towards CT. Therefore, FL approach provided a space to engage students in active learning exercises regarding writing and CT in the classroom. Even though the study intended to achieve the abovementioned goals related to the intervention, some unexpected results, which may have resulted from the possible reasons above, occurred. As for the first reason which is the treatment length explaining the small improvement in CTD, as Halpern (2001) suggests for the development of cognitive skills, it requires an ongoing and accumulative period to foresee a moderate progress. Niu et. al. (2013) also draws this conclusion from the empirical studies on the impact of instructional treatments on college students' critical thinking skills in their meta-analysis as the prominent factor, which affects the growth of CT skills since it solely evolves through long term practices to see significant progress. Liu and Pasztor (2022) also find out in their meta-analysis investigating the effects of problem-based learning instructional treatment in higher education regarding the link between the duration of a treatment and the CTD that short term implementations are deemed inefficient, while medium length treatments hold more critical impact than longer treatments. This finding is coherent with that of Liu et al. (2020). As longer treatments may drain motivation, and shorter ones cannot foster the tendency for CT (Liu & Pasztor, 2022).

The second factor, which may have led to a limited change in the disposition dimensions, can be related to the fact that even though there was an abundance of materials and critical thinking tasks which were designed for three different writing genres every two weeks within this six-week duration in addition to the topics considered intriguing such as social media, technology, online gaming, this variety of lesson contents for in class and out of class sessions may have affected participants' tendency in a negative or neutral way. When the literature is reviewed concerning the impact of FL approach on writing and critical thinking, or critical thinking disposition, it is seen that

much of the research is on either the impact of FL on writing performance or critical thinking disposition, or the limited research uses one genre mostly argumentative essay on a specific topic spread onto a six week or longer period, and an increase in critical thinking skills or dispositions is reported. For instance, Alpat (2019) confirmed this with a research study integrating argumentative writing and the topic '*Capital Punishment*' in a six-week treatment in a higher education institution and found an increase in critical thinking disposition of the participants. Jageer and Raja (2021) investigated FL and critical thinking performance of a group of 120 ESL participants at a teacher education university in an argumentative essay writing course for seven weeks involving the participants in the topic '*Media is an educational tool*'. The researchers also integrated peer instruction (pair work and group work) into the classes, which is favoured in FL approach. As seen, there was plenty of time to cover one topic from different perspectives and to form an awareness on the topic among the students so that they could get the gist of an argument and assess it deeply from different points of views in their final products.

As the only dimension of the disposition inventory which marks a noteworthy improvement from pre-test to post-test, 'self-confidence' might have been fostered through the activities such as readings supported by various perspectives, discussions, research done outside the classroom which enabled students to get self-confident as they delved deeply into the three topics. Even though inquisitiveness, analyticity, truth-seeking aspects, which are interconnected to each other, were expected to evolve in the same degree with self-confidence, students' dispositions in these aspects might require some more time to progress. The systematicity as the disposition of "*being organized, orderly, focused, and diligent in inquiry*" (p. 7) as described by Facione (1995), and the other experts in Delphi Report, is another aspect which showed no important change may also require a lot more time for the participants to cultivate as they are always distracted by outer factors in their academic and social lives. As mentioned before, all these outcomes can be linked with the limited length of the treatment and dense content, which possibly could result in decrease of motivation and prevent the participants from digesting the topics properly.

One striking and unexpected finding which came out of analysis of the inventory is the meaningful fall in the disposition of '*open-mindedness*'. When the participants' responses to the items related to this specific sub-scale are analysed, some possible conclusions can be drawn. Firstly, low pre-test scores can be one reason to explain the participants' limited capacity for improving this disposition in this short-term

implementation. When the participants' initial responses were examined, it came out that their tendency for open mindedness was low. Secondly, slight score changes across the intervention can be another reason affecting the decrease in the open-mindedness. When the pre-test and post-test results concerning this sub-scale were compared, even though there was a slight change in most of the participants' disposition, this consistent but limited improvement could contribute to statistically significant results when some of the participants' reversed way responses were also added. Thirdly, the potential resistance of this sub-scale is another factor, which implies that open-mindedness might be a durable disposition to change over a short period. In an alignment with this finding, Facione (2000) and Pennycook et. al. (2020) state that CTDs are natural and persistent rather than unstable, therefore it is more proper to analyse them in a longitudinal intervention.

5.2.2. R.Q. 2: Does flipped learning affect participants' writing performance? If so, to what extent?

In relation to the writing performance of the participants, there was a statistically significant improvement in most of the skills such as, content formation, organization, language use, vocabulary and mechanics, which reflect an overall trajectory between their pre and post writings based on the findings. The findings are consistent with the findings of other studies, as well (Tuna 2017; Özkurkudis & Bümen 2019; Qader & Arslan 2019; Alkhoudary, 2019), even though the research designs, methods, participants in those studies ranged differently. For instance, a FL model conducted by Hidayat and Praseno (2021) is reported to have refined the engagement of the participants in class activities and their writing performance with 78 average score out of 100. Atlas and Mede (2020) also concluded that FL approach improved writing in general. In two other studies conducted by Rahimi et. al. (2022) and Rahimi and Fathi (2022) respectively, the researchers indicated that there were significant differences between the flipped and non-FL treatment groups in terms of writing organization, language use even though there was no statistically significant difference between them in writing content, while in the latter study, there was a meaningful improvement in content, organization, and writing fluency which is contrary to the accuracy and complexity of writing performance of the participants.

The crucial positive impact of flipped supported writing course on the writing performance of the participants in the current study might have a two-fold attribution.

The first can be the materials provided to the participants for the writing genre instruction, they covered videos or power point presentations and did some assignments which involved the application of the writing structures such as identifying thesis statements, topic sentences, supporting sentences, answering various questions requiring the analysis of different essays. These activities made the students ready for the in-class discussions. These preparations might have helped them to study better at their own pace without missing any issues they might normally do in the classroom environment, as they feel insecure or unconfident to speak out in the classroom for some reason. In addition, being prepared might have helped them to be more active and engaged in the classroom, as they knew what they were going to cover that week, as well. This aspect of the flipped instruction might have contributed to organizational issues in their essays as the abovementioned practices are directly associated with how to organize an essay structurally.

Second attribution can be related to the rich contents through readings, images, and video recordings to widen the students' insights on the certain topics and to contribute to their language use by reading, listening and discussing certain things. They might also have gained some content specific vocabulary through these materials. All these activities might have improved content, vocabulary, and language use aspects of their writings. The notion '*reading for writing approach*' is also justified by Krashen (1985) arguing that extensive and meaningful reading is essential to learn to write.

5.2.3. R.Q. 3: What are the attitudes of learners towards flipped learning?

Regarding the third research question, the participants in the study took a questionnaire through which they evaluated the implementation of the flipped supported writing course and expressed their opinions on this approach. The current findings align with former research by Mireille (2014), Ahmed (2016), Ekmekçi (2017), Esfahani et. al. (2022), Challob (2021) who examined the impact of FL on writing skills and attitudes of learners towards FL.

When the items of the questionnaire are probed, some of statements aim to explore whether the participants involved in a course designed based on FL approach can adjust their time effectively for outside class activities, and whether learning outside is appropriate for the participants. As indicated in the findings chapter, the participants revealed a range of attitudes, most of which were positive. What literature reveals on the

results of outside learning in FL is associated with self-regulated learning, self-directedness, autonomy referring to the idea that learners can manage to control their own learning and get involved in learning process purposefully. Zimmerman (1990) explains self-regulation as being engaged in one's learning process metacognitively, motivationally and behaviourally. Samadi et. al. (2024) note that FL leads students to 'summarize, revise, organize, and comprehend' through pre-assigned activities, thus it strengthens their theoretical understanding outside the classroom, which activates their self-regulation in return. However, as stated in some of the comments made by the students in the study, it also causes problems to low self-regulated students (Ahmad Uzir, et al., 2020). In addition to this, FL enabled them the flexibility to study lesson materials any time and any place. To sum up, even though it was challenging some participants to focus and study the pre- assigned tasks, they thought that this kind of instruction was well suited for them.

Another dimension of the questionnaire was related to the effectiveness of classroom activities in terms of creating richer learning opportunities, exploring the materials deeply and enabling writing better. The participants were mostly positive on this issue according to the responses given to the questionnaire. The revision of the pre-class materials, feedback given to the students' questions, visuals, video and audio recordings, charts, authentic reading materials to trigger curiosity, and discussions in groups all aimed to enrich the in-class activities for students' development in writing and critical thinking dispositions. The positive environment and the thought-provoking content contributed to their awareness on the chosen topics. These objectives were also reflected in the participants' comments and responses, as well. Afrilyasanti, Cahyono, and Astuti (2016), Dörnyei (2003), Sohrabi, and Mohammadi (2019) also support that when various instructional approaches are employed to cater for the different learning needs of students, positive outcomes will come out. AlAdl (2023) also states that FL fosters interaction in the classroom by its nature incorporating different teaching methods.

The participants also evaluated the instructor's professionalism in FL through one item in the questionnaire. Their beliefs were mostly in favour of it. Even though students' perspectives on this issue are not discussed in the literature, the challenges for designing smooth, engaging lessons for pre-class, in-class and even after class stages on the part of instructors are put forward in terms of creating extra workload. Instructors' adjustment to the pedagogy is very significant in this sense to eliminate any problems, which may occur throughout an implementation of FL to enable students to get the utmost benefits of

learning outcomes. In that sense, the importance of instructors' adaptation and motivation is in alignment with the findings of other studies, (Kirvan et al., 2015; Zuber 2016), and training for both instructors and students before embarking on this pedagogy is often stressed in previous research studies (Kirvan et al., 2015; Zuber 2016).

Lastly, the participants were asked to rank the item 'FL is effective for EFL classrooms.' Their responses ranged between 'strongly agree' and 'neutral'. When their follow-up comments were also taken into account, it is concluded that FL did not only increase their writing achievement, but it also boosted other language skills such as reading and speaking. Through the pre-class tasks, one participant reported that they could practice language both in-class and out of class environments. The audio recordings also provided listening practices. Therefore, even if the whole course seemed a writing course on the outside, the participants were involved in the skills mentioned above, as well. In this respect, a study carried out by the Research Group for College English Teaching in Japan displayed that a majority of university graduates considered that English courses at the university level should depend on communication more, they felt that their listening comprehension, speaking skills should also be advanced, and English was important for their professions (Koike et al., 1983). To conclude, the questionnaire reveals that FL supported writing course was found effective and helpful in improving their writing skills and other language skills.

Finally, the analyses of the semi-structured interviews conducted with the aim of triangulating and establishing the validity and reliability of the data acquired from other measurements reflect the insights of the participants into different aspects of the treatment in line with the research questions and verify the findings of the quantitative tools. For instance, regarding the attitudinal aspect, overall result of the attitude scale ranged between 3 and 5 points, which pointed out that the lowest score on average was not so low, and they were not completely against this new approach. When the analysis of the qualitative data is also considered, two categories came out as positive and negative attitudes. Despite few unfavourable ideas stemming from a chosen topic on technology, participants felt content and intrigued about the contents they dealt with, and they found pre-class activities informative and easy to study in general. In meticulous examination, this implies that the findings of the qualitative and quantitative tools overlap. When the writing rubric's results in a positive way were compared with participants' beliefs on their writing performance, it can be inferred that they also realised the progress in their writing skills as they knew what to write and how to expand their essays through the topics they

covered and how to present their thoughts in a structurally correct way. Another issue they came to the realisation was that they dealt with the questions, which enabled them to think more comprehensively and deeply. Even though they did not show a great amount of growth in their critical thinking dispositions, they were made aware of the significance of using analytical thinking skills and they might have been guided to have a critical stance in every stage of their lives when their comments were also taken into account.



CHAPTER VI

CONCLUSION

This chapter of the study presents the conclusions and implications established from the data acquired from CCTDI-T, writing rubric, and attitude questionnaire along with semi-structured interviews. Recommendations for future researchers and practitioners will be also listed to guide future research and practices in the field of FL and BL.

6.1. Conclusions

The purpose of the study was to expose the impacts of a flipped supported writing course on the CTD, writing performance and attitudes of the first-year freshman participants majoring in ELL towards this new pedagogy. A six-week course plan was designed in accordance with the requirements proposed in the curriculum by the department. Consequently, the study intended to foster the participants' academic writing skills both structurally and pragmatically through inside and outside tasks carried out. To gather data in relation to the current study in order to arrive at some conclusions, the CCTDI-T, an analytical writing rubric as pre and post-tests, and an attitude questionnaire were administered. The answers to these questions were investigated in this study

The first research question aimed to address whether flipped supported writing courses also improved CTDs while the learners were engaged in a series of tasks, which would benefit their academic writing practices in forming various essay genres and providing and arguing different perspectives in them. Any changes in truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, and inquisitiveness subscales were aimed to be brought out after the treatment. To this aim, CCTDI-T constituting 51 items, the participants rated a Likert type questionnaire before and after the treatment. The tool revealed that their improvement in the abovementioned aspects was limited. The possible reasons for limited progress were discussed, in detail.

The second research question sought to answer whether the participants developed positive attitudes towards FL approach. A 5-point Likert scale constituting 10 items searched the effectiveness of this approach from different perspectives such as the effectiveness of in and out of class stages and the instructor's professionalism. It revealed

that they were in favour of this new pedagogy even though they got familiar with this kind of instruction in a short period. The findings were also supported by the findings obtained from semi-structured interviews.

The third question interrogated the impact of FL on the writing performance of the participants. For this purpose, various subskills were considered such as content, organization, vocabulary, language use and mechanics. Two writing tasks were evaluated to figure out any progress in their writings. First was done before the treatment, and the last was administered after the treatment. Except for the mechanics, participants performed better in the post-test.

In conclusion, FL approach influenced learners' attitudes and writing skills positively, and their self-confidence in the CTDs. Participants cultivated positive feelings towards FL, it nurtured their writing skills in terms of organization, vocabulary, content and language use. They fostered their inner motivation towards being open – minded through the interactions and the exposure to different standpoints they discovered in the texts provided, and the tasks conducted by them outside the classroom.

6.2. Implications

This study was designed to examine closely the influence of FL approach on the writing performance, critical thinking dispositions and lastly insights of a group of participants, whose major was ELL, into this instructional method in an academic writing course. With this intention in mind, the course was redesigned including web-based materials, hands-on activities, discussions, which would cater to the needs of the participants in fostering their writing skills and CTDs in return as pre-class and in-class stages in addition to their attitudes towards flipping the classroom.

In this regard, the findings also inform that FL supported writing course stimulated ELL participants to study assigned materials outside the classroom before coming to the school on a learning management system (Google Classroom) which enabled them to construct theoretical and practical knowledge through content related web-based sources and assignments they could practice the application of theory in different exercises. These pre class activities also encouraged them to take the control of their own learning, which resulted in the reinforcement of self-regulated learning skills while in the former method they were passive recipients of the knowledge without ample time to practice writing. The revision of the pre-class materials in the class environment

and answers given to students' questions, and the feedback provided after each writing task helped consolidate their understanding and writing performance. Alghasab (2020) also confirms this finding in his study stating that the embedding FL in to writing courses enhanced the motivation and affected written products of the participants in a positive way. The emphasis on the meaningful teacher learner and learner- learner interaction to clarify misunderstandings carried out in the class environment signifies the importance of communication between less experienced learners and more experienced ones which is underscored by various scholars (Long, 1996; Nyikos & Hashimoto, 1997; O'Donoghue & Clarke, 2010).

Secondly, this study provides the evidence that CT tasks can be incorporated into writing courses more effectively through FL approach as it creates more space for in class time, thus it can enhance the thinking dispositions towards thinking critically. CT as one the 21st century skills is one requirement for university students, even though there are various factors affecting CT and dispositions, FL environment establishes spaces where active learning strategies such as problem solving, case studies are employed by engaging learners with each other and working collaboratively (Herreid, 2013; Kloppers et al., 2016; Stayers et al., 2018).

6.3. Recommendations for Future Research

When all the advantages, challenges, and the limitations concerning the treatment are taken into consideration, some suggestions and recommendations can be given to future researchers who are willing to design and to research language courses based on FL approach.

1. This study was conducted with one group due to the circumstances occurring unexpectedly. Therefore, another study can be conducted with more than one group with higher numbers to be able to make comparisons between the groups and to generalize findings to larger populations.
2. The study could not be conducted through random sampling, as it was not applicable due to the limited number of participants at hand. Therefore, future researchers can adopt random sampling to enhance the validity of the findings.

3. The study adopted FL, which is a kind of BL model. Future researchers can compare FL to traditional learning methods and/ or BL models in similar settings to better understand the influence.
4. The study was limited to six weeks. Hence, future researchers can design longer treatments to better see the effects of FL on writing skills, CTDs.
5. Even though research in FL in EFL contexts evolves extensively, FL oriented studies conducted in English Language and Literature departments are scarce. Therefore, future research can be implemented in similar majors at higher education institutions to find out the impacts of FL on EFL contexts.



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APPENDICES

Appendix A. Anket Uygulama İzni

Evrak Tarih ve Sayısı: 08/11/2023-436492

T.C.



NIĞDE ÖMER HALİSDEMİR ÜNİVERSİTESİ
REKTÖRLÜĞÜ

Öğrenci İşleri Daire Başkanlığı

Sayı: E-69972237-302.08.01-436492

08/11/2023

Konu: Anket Uygulama İzni (Öğr. Gör. Aylin AYAN EV)

YABANCI DİLLER YÜKSEKOKULU MÜDÜRLÜĞÜNE

İlgi : a) 01/11/2023 tarihli ve E-18686360-299-433428 sayılı yazınız.

b) Fen-Edebiyat Fakültesi Dekanlığının 06/11/2023 tarihli ve E-27182961-399-435727 sayılı yazısı. Yüksekokulunuz Yabancı Diller Bölümü öğretim elemanı Öğr. Gör. Aylin AYAN EV' in "Ters Yüz Edilmiş Öğrenme Uygulamalarının İngilizceyi Yabancı Dil Olarak Öğrenen Bireylerin Eleştirel Düşünme Eğilimi ve Tutumlarına Etkisi" konulu yüksek lisans tezi kapsamında Üniversitemiz Fen Edebiyat Fakültesi İngiliz Dili ve Edebiyatı Bölümü öğrencilerine anket uygulama isteğinin gönüllülük esasına bağlı olarak uygun görüldüğüne dair ilgi b)' de kayıtlı yazı ekte gönderilmiştir.

Gereğini rica ederim.

Prof. Dr. Nafiz TOK

Rektör

Yardımcısı Ek: İlgi b) Yazı (1 Sayfa)

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Adres: Merkez Yerleşke Bor Yolu 51240 Niğde Bilgi için: Alişan KOYUNCU

Telefon:3882252707 Faks:3882252701 Unvanı: Bilgisayar İşletmeni e-Posta:

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Evrak Tarih ve Sayısı: 06/11/2023-435727

T.C.



NİĞDE ÖMER HALİSDEMİR ÜNİVERSİTESİ

Fen-Edebiyat Fakültesi Dekanlığı

Sayı: E-27182961-399-435727

06/11/2023

Konu: Anket Uygulama İzni (Öğr. Gör. Aylin AYAN EV)

REKTÖRLÜK MAKAMINA

(Öğrenci İşleri Daire Başkanlığı)

İlgi : 02.11.2023 tarih ve 434008 sayılı yazınız.

İlgide kayıtlı yazıda Fakültemizde tez çalışması kapsamında yapılmak istenilen anket uygulama isteği gönüllülük esasına bağlı olarak uygun görülmüştür.

Bilgilerinize arz ederim.

Prof. Dr. Orhan YALÇIN Dekan V.

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Adres: Merkez Yerleşke Bor Yolu 51240 Niğde Bilgi için: Berna ÖZKALE
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Appendix B. Flipped Learning Attitude Questionnaire

QUESTIONNAIRE

You have received this survey as part of a research study. The purpose of this study is to investigate student perceptions of the implementation of Flipped Learning in EFL classroom. This survey was designed to gather your beliefs about the benefits and disadvantages towards Flipped Learning and how its implementation has influenced your learning experience. Your responses are confidential and will not be shared with anyone in any way that identifies you as an individual. Only aggregated data will be presented in the final report. Your participation in this survey is completely voluntary and will not affect your grades. Your time and cooperation are greatly appreciated. If you have any questions regarding this survey or the study in general, please contact me.

Please give tick mark (√) to options that fit your beliefs and provide reasons.

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I can adjust the time of learning when I have to learn outside of classroom.					
	Reason:					
2	Learning outside of the classroom is convenient.					
	Reason:					
3	Learning outside of the classroom requires my commitment to improve myself.					
	Reason:					

4 Classroom activity was used effectively for exploring materials.

Reason:

5 Classroom activity was used effectively for creating richer learning opportunities (individual work, group work, analysis, presentation).

Reason:

6 Classroom activity allowed me to write good.

Reason:

7 Classroom activity allowed the lecturer to give feedback to my writing/project.

Reason:

8 Flipped Learning was effectively implemented in Writing class.

Reason:

9 Flipped learning requires lecturer's professionalism.

Reason:

10 Flipped Learning is effective for EFL classrooms.

Reason:

Appendix C. Interview Protocol

1. Do you find Flipped Classroom a useful learning approach? Why? Why not?
2. Do you think using Flipped Classroom has improved your attitude towards lessons? How?
3. Do you think using Flipped Classroom has improved your engagement in writing courses?
4. Would you use Flipped Classroom in your future teaching career? Why? Why not?
5. What do you like most about F.L.? Why?
6. What are the things you do not like about F.L.?
7. How did studying in a planned and guided way affect your learning?
8. How did flipped learning help you to use critical thinking skills?
9. Did the approach help you to learn theoretical and practical aspects of writing course? How?

Appendix D. The Sub-scales of the CCTDI-T

1	2	3	4	5	6
Hiç Katılmıyorum	Katılmıyorum	Kısmen Katılmıyorum	Kısmen Katılıyorum	Katılıyorum	Tamamen Katılıyorum

Analyticity

2. İnsanların iyi birdüşünceyi 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 yüzyüze 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. İmandıklarımın 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 birşeydir.	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 çözenin en iyiyolu, 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, arkadaşlarım karar vermek için bana danışırlar.	1	2	3	4	5	6
29. Diğerleri, kararların uygulanmasında mantıklı standartların belirlenmesi için bana başvurular.	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 tanınırım.	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

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

Systematicity

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

Appendix E. Analytical Writing Rubric

SCORE	LEVEL	CRITERIA	COMMENTS
CONTENT	30-27	EXCELLENT TO VERY GOOD: knowledgeable • substantive • thorough development of thesis • relevant to assigned topic	
	26-22	GOOD TO AVERAGE: some knowledge of subject • adequate range • limited development of thesis • mostly relevant to topic, but lacks detail	
	21-17	FAIR TO POOR: limited knowledge of subject • little substance • inadequate development of topic	
	16-13	VERY POOR: does not show knowledge of subject • non-substantive • not pertinent • OR not enough to evaluate	
ORGANIZATION	20-18	EXCELLENT TO VERY GOOD: fluent expression • ideas clearly stated/ supported • succinct • well-organized • logical sequencing • cohesive	
	17-14	GOOD TO AVERAGE: somewhat choppy • loosely organized but main ideas stand out • limited support • logical but incomplete sequencing	
	13-10	FAIR TO POOR: non-fluent • ideas confused or disconnected • lacks logical sequencing and development	
	9-7	VERY POOR: does not communicate • no organization • OR not enough to evaluate	
VOCABULARY	20-18	EXCELLENT TO VERY GOOD: sophisticated range • effective word/idiom choice and usage • word form mastery • appropriate register	
	17-14	GOOD TO AVERAGE: adequate range • occasional errors of word/idiom form, choice, usage <i>but meaning not obscured</i>	
	13-10	FAIR TO POOR: limited range • frequent errors of word/idiom form, choice, usage • <i>meaning confused or obscured</i>	
	9-7	VERY POOR: essentially translation • little knowledge of English vocabulary, idioms, word form • OR not enough to evaluate	
LANGUAGE USE	25-22	EXCELLENT TO VERY GOOD: effective complex constructions • few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions	
	21-18	GOOD TO AVERAGE: effective but simple constructions • minor problems in complex constructions • several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions <i>but meaning seldom obscured</i>	
	17-11	FAIR TO POOR: major problems in simple/complex constructions • frequent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions and/or fragments, run-ons, deletions • <i>meaning confused or obscured</i>	
	10-5	VERY POOR: virtually no mastery of sentence construction rules • dominated by errors • does not communicate • OR not enough to evaluate	
MECHANICS	5	EXCELLENT TO VERY GOOD: demonstrates mastery of conventions • few errors of spelling, punctuation, capitalization, paragraphing	
	4	GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalization, paragraphing <i>but meaning not obscured</i>	
	3	FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing • poor handwriting • <i>meaning confused or obscured</i>	
	2	VERY POOR: no mastery of conventions • dominated by errors of spelling, punctuation, capitalization, paragraphing • handwriting illegible • OR not enough to evaluate	
	TOTAL SCORE		READER COMMENTS

**Appendix F. Sample Material Employed In Pre Class, In Class and Post Class Stages
For Cause-And-Effect Essay**

Numrich's Sequence of Critical Thinking Tasks for Cause-and-Effect Essay:

1.Observing & Identifying Assumptions:







1. Describe what you see in the photos?
2. What do you know about video games or online games?
4. Which online games are you familiar with?
5. What do you think makes online games appealing to gamers?
6. Do you know anyone who plays online games to make a living/ as a professional career?
7. Have you ever made friends through online games? / Does any of you have a community in any online games?

<https://www.youtube.com/watch?v=NOET4REGjIM>

8. What do you think about the best video game of all time? Are you the same as any of the people in the video? Or totally different? Why do you find it the best?

2. Understanding & Organizing – Interpreting

2.1. Read the following article to gather information on the emergence and progress of gaming throughout the years.

The Evolution of Gaming: From Pong to Pop Culture Phenomenon

Gaming has come a long way since its humble beginnings in the **arcades** of the 1970s. Today, it is a massive global industry, deeply embedded in popular culture. This article will explore the emergence and evolution of gaming, from its early days to its current state of popularity. We will also discuss some of the potential directions gaming might take in the future. Let's explore its fascinating journey!

The Early Days of Gaming

Video games originated as scientific experiments and educational tools. In the late 1950s, "Tennis for Two" and "Spacewar!" emerged in university labs, offering basic interactive experiences. These were the pioneers of the video games we know today. However, it was in the 1970s that the gaming industry **truly took off**. One of the earliest commercial video games was "**Pong**," a tennis simulation game created by **Atari**. Players controlled paddles and tried to bounce a ball back and forth. It may seem very simple now, but at the time, it was revolutionary.

The Rise of Home Consoles

The late 1970s and early 1980s brought the advent of home video game consoles, most notably the **Atari 2600** and later, the **Nintendo Entertainment System (NES)**. These consoles allowed people to enjoy gaming in the comfort of their homes, marking a significant shift in the industry. Gamers can now play a wide variety of games without needing to visit arcades.

The Golden Age of Arcade Games

While home consoles were growing in popularity, arcades experienced their own golden age during the 1980s. Games like **Pac-Man**, **Donkey Kong**, and **Space Invaders** captivated players worldwide. The thrill of competing for high scores in public places became a cultural phenomenon. Gamers rushed to arcades to challenge their skills and set high scores, creating an energetic gaming subculture.

The 3D Revolution

The 1990s brought about a significant shift in gaming with the introduction of **3D graphics**. Games like **Super Mario 64** and **Final Fantasy VII** set new standards, paving the way for a new era in gaming. This period also saw the rise of more advanced home

consoles, including **the Sony PlayStation** and **the Sega Saturn**. These systems offered engaging experiences with more realistic visuals and complex narratives(stories).

The Era of Online Gaming

The late 1990s and early 2000s witnessed the emergence of online gaming, connecting players from around the world. Titles like **World of Warcraft** and **Counterstrike** revolutionized how people interacted with games. The concept of multiplayer gaming and online communities transformed gaming into a social activity, fostering friendships and rivalries across the globe.

The Mobile Gaming Boom

With the advent of smartphones, the gaming landscape expanded once again. Mobile games, easily accessible and often free to play, became a global sensation. Titles like **Candy Crush** and **Pokémon Go**, **Angry Birds** demonstrated the potential of gaming on mobile devices, attracting a wide audience, including people who had never considered themselves gamers.

The Current State of Gaming

Gaming has evolved into a diverse industry with numerous genres, platforms, and communities. Esports, known as professional video gaming, has gained global recognition, with professional players and massive tournaments offering profitable career opportunities. Popular streaming platforms like **Twitch** and **YouTube** have further contributed to gaming's visibility and influence.

The Future of Gaming

Looking ahead, the future of gaming seems promising. **Virtual reality (VR)** and **Augmented reality (AR)** technologies are on the rise, offering engaging and inclusive experiences that could transform how we play and interact with games. Moreover, as technology continues to advance, we can expect even more realistic graphics, deeper narratives, and innovative gameplay.

In conclusion, gaming has come a long way since the days of Pong, evolving into a global phenomenon and being an integral part of modern life. Its journey has been marked by technological advancements, shifts in gaming culture, and the development of diverse platforms. They offer not only fun but also opportunities for social interaction, competition, and even professional careers in esports. The future holds even more exciting possibilities, as gaming continues to shape and reflect the ever-changing world around us.

What was the significance of the game "Pong" in the early days of gaming, and how did it contribute to the industry's growth?

How did the introduction of home video game consoles like the Atari 2600 and the NES change the gaming landscape during the late 1970s and early 1980s?

Can you explain the concept of the "Golden Age of Arcade Games" and mention a few iconic games from that era? How did this era influence gaming culture?

How did the introduction of 3D graphics in the 1990s, exemplified by games like Super Mario 64 and Final Fantasy VII, impact the gaming industry?

Describe the key developments in gaming during the late 1990s and early 2000s related to online gaming. What games revolutionized the online gaming experience, and how did they change the way people interacted with games?

Explain the "Mobile Gaming Boom" and provide examples of popular mobile games that contributed to its success. What made mobile gaming so accessible and appealing to a broad audience?

What is the current state of gaming, and how have esports and streaming platforms like Twitch and YouTube influenced the industry's dynamics?

How do virtual reality (VR) and augmented reality (AR) technologies hold the potential to transform the future of gaming? What are some expectations for advancements in gaming technology?

2.2. Watch the short video to gather information for the task at the end of this lesson and answer the questions below by taking notes.

<https://www.youtube.com/watch?v=sX6Acp-8Nqc&t=91s>

Explain what kind of video or online games people play and the reasons why they play?

1. Do you think people in the video are addicted to gaming? How do you know?
2. Why do you think some people enjoy playing every game they come across like the man at the beginning of the video?
3. Do you think gaming is a good way of building social bonds with family members or friends? Why do you think so? Explain it using the examples in the video.

2.3. Read the article and answer the questions to guide you for the task you will write at the end of this lesson.

Minecraft can increase problem solving, collaboration and learning - yes, at school.

Published: April 21, 2019 2.46pm CEST / <https://theconversation.com/minecraft-can-increase-problem-solving-collaboration-and-learning-yes-at-school-113335>

A video game like [Minecraft](#) in schools might trouble some parents. As a [Canada research chair in technologies and education](#), my hope is both parents and educators take the time to learn about how using Minecraft at school could be beneficial.

Firstly, parents and teachers are right to ask questions about video gaming, particularly given sometimes conflicting messages about its impact. Some researchers warn about the possible impacts of child and youth exposure [to violence](#) or problems of gaming addiction or [screen saturation](#), while others say [fears may be exaggerated](#) and it's a matter of balance.

Parents' potential skepticism of Minecraft is understandable, given its immense appeal among youngsters. It is one of the [most popular video games of all time](#), with more than [150 million copies sold](#).

But I've learned through my research that many are largely unaware of the enormous educational potential of Minecraft. Many people also don't know [Minecraft Education Edition](#) was released in the fall of 2016 and this version has been rapidly catching on at schools.

Since 2013, [American](#) and [Swedish](#) schools have been systematically integrating Minecraft into their schools, and it is being used around the world to [teach science](#), [urban planning](#) and [foreign languages](#). Masses of educational applications and experiences using Minecraft are available on [online sites](#) and forums.

In Montréal, a number of schools joined a contest in which students use Minecraft to reproduce historic sites and events in celebration of the city's 375th anniversary, called [Mission 375](#). With my team at the University of Montréal, we felt it important to investigate the educational potential of Minecraft to provide a deeper understanding of the impacts on young learners.

Gaming for learning

So why all the interest in video games? Compelling research exists about the benefits of gaming for learning. Educational technology researchers have found that

video games capture children's attention and provide particularly favorable conditions for learning and have shown positive effects on cognitive, affective and psychomotor functioning.

When players are fully engaged in a gaming task, they enter what psychologist Mihaly Csikszentmihalyi calls the "flow state," also known as "the zone," a state highly useful to learning.

While becoming deeply absorbed in gaming is sometimes described in a negative light or only associated with addiction, in fact this state can be used to support or advance learning goals. For example, in this task-focused state, players are highly receptive to learning embedded in the game scenario. **Creativity, student engagement and collaboration** between users are just some of the aptitudes that are known to be developed through gameplay.

In addition, video games can help today's youngsters cope with a future world requiring more and more digital literacy. In other words, they will need 21st century skills.

Minecraft to teach curriculum.

My team and I adopted an exploratory research design to highlight the main uses of Minecraft in a school setting and to identify any benefits of using Minecraft at school. We developed a program called Minecraft Master where students had to complete more than 40 different tasks. Tasks were closely linked to the school curriculum; for example, students must create a navigable map, making use of language, mathematics and spatial design, something we asked them to do with Minecraft.



Students were encouraged to progress through levels. Thierry Karsenti, Author provided.

We formed a partnership with one Montréal school. Participation was open to 118 Grade 3 to 6 students in an after-school program based on computers available. Registration took place during recess, on a first-come-first-served basis and parental consent was compulsory. Most of the students took four blocks of six weeks of Minecraft during the school year (an equivalent of about six months).

With the support of a program facilitator, students worked individually and in teams to digitally build structures such as impressive houses, a soccer stadium, a spaceship, a railroad track to the Titanic and the Titanic itself.

Researchers also attended some sessions. We studied the main impacts on learning to investigate how gamified learning interventions may increase student engagement and enhance learning. We used a combination of data collected from surveys, interviews, “think aloud” protocols (where students speak their problem-solving strategies out loud), journals, tracking of student progress and digital footprints. Using these various methods allowed substantial data triangulation and validation.

The educational impacts we found were encouraging. The students showed a heightened motivation towards school, stronger computer skills, greater problem-solving skills, expanded reading and writing skills, a development in creativity and autonomy and increased collaboration with classmates.

The results of the studies we conducted confirm that Minecraft has real educational value. Notably, gaming allowed the students to fully engage in activities that were both educational and fun.

Planned, supported, purposeful.

However, it is important to understand that the use of any game should be planned, supported and purposeful. This structure is crucial for successful educational use of the game. Without such boundaries, students might not want to stop playing and learning advantages could be wasted.

Technologies, games and other “screen-related” activities can be a fun experience for students. But it is important to balance screen time with other activities that are essential for students’ development such as physically active play, reading, etc. Both parents and teachers can help students find this balance by working together on some rules about technology use.

1.What are some concerns raised by parents and educators about using video games like Minecraft in schools, and how do researchers view these concerns?

2.According to the text, what is Minecraft Education Edition, and when was it released?

3.How have American and Swedish schools integrated Minecraft into their educational practices, and what subjects or areas is Minecraft being used to teach?

4.What does the text say about the potential benefits of video games for learning, and what is the "flow state" in the context of gaming?

5.How does the text suggest that video games, like Minecraft, can help students develop 21st-century skills?

6.Can you explain the research program called "Minecraft Master" mentioned in the text and the type of tasks students were required to complete as part of this program?

7.What is the author's main argument in this text regarding the use of Minecraft in schools, and why is it important for parents and educators to consider?

3.Inquiring Further, Analyzing and Drawing Conclusions

Inquiring Further

Interview a friend or a family member either on

a. the reasons why gaming has been so popular in the society for years OR

b. the positive effects of gaming on individuals and society

NOW

Make a search on the internet on the reasons/ positive effects of gaming on society, it might be any article from a magazine, a news website or a talk.

Analyze the information obtained, take notes and report them to your friends in the classroom. Evaluate the ideas in terms of credibility, practicality, or effectiveness, being generalizable. Do you agree or disagree? Why? Critique the ideas you disagree on. Create questions to evoke ideas or interest in your friends' minds as well as include them in your speech.

What are your conclusions when all the information and research are considered?

TASK

Write an essay on the reasons which make gaming popular OR /positive effects of gaming on people?

CAUSE & EFFECT ESSAY

<https://www.youtube.com/watch?v=mBSr7fjMeCA> (a video on how to write a cause-and-effect essay) (1st week's video)

A **cause-and-effect essay** analyzes the causes (reasons) **OR** effects (results) of a situation, an action or event. A cause-and-effect essay includes **an introductory paragraph, body paragraphs, and a concluding paragraph.**

There are many ways to structure a cause/effect essay.

One effect (result) with several causes (reasons)

REASONS

Balanced diet

Plenty of exercise

Enough sleep

RESULT

good health

One cause(reason) with several effects(results)

RESULTS

learn to plant and harvest vegetables

REASON

Children work in gardens.

learn to clean and prepare vegetables

learn healthy eating habits

ORGANIZATION:

1.The introduction describes the event, situation, or action that you are examining. It includes the thesis statement (main idea). The thesis states the cause(s) and effect(s) you will examine or give opinion.

2.Each body paragraph examines a cause OR effect that you have chosen in a topic sentence and provides supporting information, such as facts, examples, and descriptions. A strong body paragraph contains one main point and at least two pieces of information to support it.

3.The conclusion summarizes the cause(s) and effect(s) of discussed. It may also predict what will happen in the future or give advice.

https://www.youtube.com/watch?v=wJO_ImJ9ePQ (Transitions and connectors for cause-and-effect essay) (2nd week's video)

TRANSITIONS AND CONNECTORS IN CAUSE-AND-EFFECT ESSAY

Transitions and connectors are important in cause-effect essays because they help indicate causation or effect regarding the topic. Perhaps the most familiar cause-effect transition word is **because**: “**X happened because Y happened.**” Precise use of transitions helps the reader to follow the writer’s reasoning about cause-effect relationships.

The transitions for both a focus-on-causes essay and a focus-on-effects essay are the same because both kinds of essays discuss one or more causes or one or more effects.

TRANSITIONS AND CONNECTORS FOR CAUSE/EFFECT WRITING

The first/second/final cause of this is . . .

Because of . . .

As a result of . . .

As a consequence of

. . . results in . . .

. . . the result of . . .

. . . is due to . . .

. . . is the effect of . . .

. . . is the consequence of . . .

. . . has an effect on . . .

Since . . .

The first/second/final effect of this is

As a result, . . .

As a consequence, . . .

Consequently, . . .

Therefore, . . .

. . . causes . . .

The effect of . . . is . . .

. . . is the reason for . . .

There are consequences of/that . . .

Running reduces stress. (cause + effect)

- Because of . . .
 - Because of running, stress can be reduced.
- As a result of . . .
 - As a result of running, stress can be reduced.
- As a consequence of
 - As a consequence of running, stress can be reduced.
- . . . results in . . .
 - Running results in reduced stress.
- . . . the result of . . .
 - Reduced stress is the result of running.
- . . . is due to . . .
 - Reduced stress is due to running.
- . . . is the effect of . . .
 - Reduced stress is the effect of running.
- . . . is the consequence of . . .
 - Reduced stress is the consequence of running.
- . . . has an effect on . . .
 - Running has an effect on stress.
- Since . . .
 - Since I started running, my stress levels have gone down.
- The first/second/final effect of this is
 - The first effect of running is that it reduces stress.
- As a result, . . .
 - I run every day. As a result, I have low stress.
- As a consequence, . . .
 - I run every day. As a consequence, I have low stress.
- Consequently, . . .
 - I run every day. Consequently, I have low stress.
- Therefore, . . .
 - I run every day. Therefore, I have low stress.
- . . . causes . . .
 - Running every day causes lower stress levels.

- The effect of . . . is . . .
- The effect of running is low stress.
- . . . is the reason for. . .
- Running is the reason for lower stress.
- There are consequences of/that . . .
- There are consequences of running, and they are lower stress levels.

ANALYZE THE TWO ESSAYS IN TERMS OF ESSAY ORGANIZATION, CONNECTORS, ESSAY SPECIFIC LANGUAGE.

Red words and phrases refer to the connectors and transitions

Blue words and phrases refer to cause and effect specific language.

Why are Cities Becoming Overcrowded? (A CAUSE ESSAY)

General
idea

The fact that the world's cities are getting more and more crowded is well-known. Cities such as Tokyo, Sao Paolo, Bombay, and Shanghai are now considered 'mega-cities', **because of** their enormous size and huge populations. **There are two main reasons why** these and other cities are becoming so crowded: one economic, the other socio-cultural. (Thesis Statement)

First, the primary cause of cities becoming so crowded is economic. (1st Topic Sentence) As a country develops, its cities become the engines of development, **thus** jobs are available in these areas. Frankfurt, Istanbul, Bombay, and Sao Paolo are all the economic centers of their countries. **For example**, Tokyo was the motor for Japan's rapid economic development in the 1960's and 70's; **as a result**, its population increased rapidly. People moved to Tokyo **because** they could find employment and establish economic security for themselves and their families there.

Second, another factor in the huge increase in urban populations is the socio-cultural factor. (2nd Topic Sentence) Thousands of people migrate to the cities **not only** for jobs **but also** for educational and personal reasons. The better universities are always located in big cities, and this attracts thousands of students every year, and these students stay on and work in the city after they graduate. **Moreover**, young people will move to the city as the villages and rural areas are more custom and tradition oriented. **Therefore**, young people believe this is an obstacle to their personal freedom.

Final
Thought

In conclusion, economic and cultural factors are the major causes of huge urban population. (3rd Topic Sentence) People will always move to the areas which provide opportunity and to the places which can give them the freedom they desire.

**DO THE SAME THING DONE FOR THE ESSAY ABOVE FOR THIS EFFECT
ESSAY TYPE TO FIGURE OUT THE ESSAY ORGANIZATION, ESSAY
SPECIFIC LANGUAGE AND TRANSITIONS.**

What effects has the computer had on our lives?

The twenty-first century is already turning out to be the century of the computer. The computer revolution that started after the Second World War is now developing exponentially and computers are beginning to influence and take over nearly every aspect of our lives. Computers are clearly changing and affecting society in many ways. The two main areas in which computers have brought about a profound change in our lives are in the economic field and in the field of communications.

The computer has led to immense changes in economic and business life. First, businesses now have to be computerized, or they risk failure. Every big corporation bases its operations on computing, regardless of which sector they are in. For example, Coca-Cola, the BBC and Levi's market and sell different products and services, yet they all share one basic property – without computers their operations would collapse. Second, computing is an economic dynamo. Japan, China, India and many other countries have large IT sectors which drive their economies upwards. Furthermore, the developed world is moving from an industrial-based economy to a computer and IT-based one.

It is not just in business that computers have affected us so profoundly; communication has been revolutionized totally. Firstly, whereas before, people wrote letters, which would often take weeks to reach their destinations, or speak on the phone, which was terribly expensive, now they e-mail. For instance, instead of waiting weeks for a letter now, we can read it instantly, seconds after it's been written. Secondly, many people use computers to communicate with people all around the world using chat rooms and chat programs, this was impossible before the computer became widespread. As a result, now people who live thousands of kilometers away from each other can communicate as much as they want and whenever they want using e-mail and/or chat rooms.

In conclusion, computers have had a profound effect on our lives in many ways and it is in business and communication that they have had the greatest influence. In the future, if the computer continues evolving at such speed, our business practices and methods of communication will undergo even more radical changes.

