

T.C.
BAHCESEHIR UNIVERSITY
GRADUATE SCHOOL
THE DEPARTMENT OF FOREIGN LANGUAGES EDUCATION
MASTER’S PROGRAM IN ENGLISH LANGUAGE EDUCATION

**THE IMPACT OF AI-ASSISTED TRANSLANGUAGING PEDAGOGY ON
ENGLISH AS A FOREIGN LANGUAGE LEARNERS’ WRITING
COMPETENCE**

MASTER’S THESIS

NURAY İPEK

ISTANBUL 2025

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ABSTRACT

THE IMPACT OF AI-ASSISTED TRANSLANGUAGING PEDAGOGY ON ENGLISH AS A FOREIGN LANGUAGE LEARNERS' WRITING COMPETENCE

NURAY, İPEK

Master's Program in English Language Education

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Although English as a Foreign Language teaching approaches mostly focus on English-only policy, a multilingual perspective, translanguaging pedagogy, took the attention on the dynamic and fluid characteristics of languages utilized naturally among bilinguals. This approach supports language and content learning by drawing on learners' prior linguistic knowledge through the creation of a translanguaging space (Li, 2011), enabling them to incorporate their cultural identities and cognitive strengths. While translanguaging practices have been explored in all four language skills, limited research exists on its impact on writing in the Turkish EFL context, particularly, taking writing skills into consideration together with AI-assisted tool (ChatGPT) utilized for feedback purposes. In this study, AI-assisted translanguaging pedagogy was embedded into an existing curriculum to show its applicability without disrupting instructional flow. A quasi-experimental mixed-method design was utilized, combining pre and post-test writing scores with qualitative data from focus group interviews, reflective sheets, and field notes. Quantitative results revealed that the experimental group using AI-assisted translanguaging pedagogy outperformed the control group (EoP) in both content and overall writing scores. Qualitative findings

revealed that AI-assisted translanguaging facilitated a sense of ease in meaning making and comprehension of the content; boosted participants' confidence and engagement in learning; and created a relaxing atmosphere in their social relationships. These findings highlight the promise of integrating AI tools like ChatGPT into translanguaging pedagogy to enhance writing competence. Future longitudinal studies, with extended sample size, setting and levels, following delayed post-tests are recommended to explore long-term impacts, including AI's potential in generating ideas and writing models.

Key Words: Translanguaging, AI-assistance, Integration, Writing



ÖZET

YAPAY ZEKA DESTEKLİ DİLLER ARASI GEÇİŞ PEDAGOJİSİNİN İNGİLİZCE'Yİ YABANCI DİL OLARAK ÖĞRENENLERİN YAZMA YETERLİLİĞİNE ETKİSİ

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Yabancı Dil Olarak İngilizce öğretim yaklaşımları çoğunlukla yalnızca İngilizce kullanımına odaklansa da, çok dilli bir bakış açısı olan dillerarası geçiş pedagojisinin, iki dilli bireyler arasında doğal olarak kullanılan dillerin dinamik ve akışkan özelliklerine dikkat çektiği görülmektedir. Bu yaklaşım, öğrencilerin önceki dilsel bilgilerini harekete geçirerek dil ve içerik öğrenimini destekleyen dillerarası geçiş alanları oluşturarak onların kültürel kimliklerini ve bilişsel güçlü yönlerini sürece dahil etmelerine olanak tanır (Li, 2011). Dillerarası geçiş uygulamaları dört temel dil becerisinde incelenmiş olsa da, Türkiye bağlamında yazma becerisine ve yapay zekâ destekli geri bildirim aracı (ChatGPT) kullanımıyla birlikte etkisine yönelik sınırlı sayıda araştırma bulunmaktadır. Bu çalışmada, yapay zekâ destekli dillerarası geçiş pedagojisi, mevcut müfredat yapısını bozmadan uygulanabilirliğini göstermek amacıyla mevcut öğretim planına entegre edilmiştir. Araştırmada, yazma becerisine yönelik ön ve son test puanlarının yanı sıra odak grup görüşmeleri, yansıtıcı formlar ve gözlem notlarından elde edilen nitel verilerin bir araya getirildiği yarı deneysel karma yöntemli bir desen kullanılmıştır. Nicel veriler, yapay zekâ destekli dillerarası geçiş pedagojisinin uygulandığı deney grubunun, içerik ve genel yazma puanlarında kontrol grubunu geride bıraktığını ortaya koymuştur. Nitel veriler ise, bu uygulamanın anlam kurma ve içerik kavrama süreçlerinde kolaylık sağladığını; öğrencilerin özgüvenini ve öğrenmeye katılımını artırdığını; ayrıca sosyal ilişkilerde rahatlatıcı bir

atmosfer oluřturduėunu g stermiřtir. Bulgular, yazma yeterliliėini geliřtirmek i in ChatGPT gibi yapay zek  ara larının dillerarası ge iř pedagojisi ile entegrasyonunun potansiyelini vurgulamaktadır. Uzun vadeli etkileri deėerlendirmek amacıyla gecikmeli son testleri i eren, daha geniř  rnekleme, ortam ve d zeylerde y r t lecek ileriye d n k  alıřmalar  nerilmektedir.

Anahtar Kelimeler: Dillerarası Ge iř, Yapay Zeka, Entegrasyon, Yazma Yeterliliėi.





To my beloved husband and son

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LIST OF ABBREVIATIONS

EFL	English as a Foreign Language
ELT	English Language Teaching
FL	Foreign Language
HL	Home Language
AL	Additional Language
EMI	English as Medium of Instruction
AI	Artificial Intelligence
CUP	Common Underlying Proficiency
SLA	Second Language Acquisition
ZPD	Zone of Proximal Development
CALL	Computer Assisted Language Learning
MT	Machine Translation
EoP	English-only Policy
TEFL	Teaching English as a Foreign Language
EAL	English as an Additional Language
WT	Weak Translanguaging
ST	Strong Translanguaging
TP	Translanguaging Pedagogy
L1	First language (Mother Tongue)
L2	Second Language (Additional Language)
TL	Target Language

Chapter 1

Introduction

This chapter provides an overview of the current study that explores how translanguaging pedagogy supports English as a Foreign Language (EFL) learners' writing competence with the assistance of AI tool (ChatGPT) in a tertiary education. Additionally, this chapter delves into the purpose of the study, research questions, and its significance. Finally, it briefly defines the key terms utilized in the study.

1.1 Theoretical Overview

Foreign language (FL) learning programs have traditionally been carried out by grouping language learners according to their language levels to have more comprehensible input and by isolating their home language (HL) in giving instructions to focus on the additional language (AL) (Howatt, 1984; Yu, 2000). In the 20th century, language education followed the steps of the direct method, where lessons were totally conducted in the AL while grammar was taught inductively, similar to how children naturally learn their HL (Garcia & Li, 2014). This method was later replaced by the audio-lingual method, which was based on behaviourist principles and focused on the repetition of linguistic structures (Garcia & Li, 2014). Then, it was followed by the communicative method, which emphasized interaction in AL and focused on the productive skills (mostly on speaking). All these pedagogical strategies discouraged the use of HL and promoted the exclusive use of AL regarded as foreign (Garcia & Li, 2014). In monolingual language instruction learners perceive different languages as separate structures (Garcia & Li, 2014). Cook (2001) advocates this concept by stating that using HL is the indicator of failure because the ideal classroom requires "as little of L1 as possible" (p. 404). Cummins (2007) refers to this strategy as "two solitudes" (p. 224) since it addresses the strict separation of languages. Consequently, the process of learning and teaching AL should employ only the target language (TL) while minimizing the use of the learners' HL to prevent any interference or mixing between the languages (Cummins, 2009). However, this can be detrimental and cause challenges in learning because it limits the available resources of multilingual speakers while learning AL. Ortega (2019) explains this view as paradox because if the aim is to develop bi/multilingualism, the focus turns out to be

monolingualism. This monolingual focal on multilingualism and language learning, which is supported in many contexts, has been questioned recently (Cenoz & Gorter, 2022; Yuzlu & Dikilitas, 2022; Parmegiani, 2022; Kelly & Hou, 2022; Akkuş & Ataş, 2023; Rafi & Morgan, 2023; Selim, 2024; Dikilitaş & Öztüfekçi, 2024) acknowledging that the boundaries between languages need to be softer (Canagarajah, 2013; Cenoz & Gorter, 2014).

Although teaching methods and approaches concentrate mostly on AL, a multilingual perspective has emerged in second language acquisition (SLA), took the attention on the dynamic and fluid characteristics of languages used among bilinguals and multilinguals. Furthermore, research conducted in classroom settings show that learners acquiring an AL challenge language separation perspective imposed by monolingual teaching practices (Makalela, 2015). Indeed, as Cenoz and Gorter (2022) stated that students can develop proficiency in the AL by getting benefit what they have in their linguistic repertoire. In other terms, Hornberger and Link (2012) clarify this notion that language learners can utilize their linguistic resources by incorporating and blending the characteristics of the existing and learning languages to have an effective language acquisition.

In this regard, translanguaging pedagogy softens these language borders (Garcia & Li, 2014). The term translanguaging, coined originally by Williams (1994) in a Welsh context, refers to a teaching technique that actively moves between languages for input (reading and listening) and output (speaking and writing). This strategy seeks to strengthen both languages (Welsh and English) and improve comprehension. Following the original definition, many scholars defined translanguaging in different ways. For instance, García (2009) defines translanguaging as “an approach to bilingualism that is centred not on languages as has been often the case, but on the practices of bilinguals that are readily observable” (p.44) and “multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds” (p.45). Blackledge and Creese (2010) focuses on flexible bilingualism and states “Both languages are needed simultaneously to convey the information, . . . each language is used to convey a different informational message, but it is in the bilingualism of the text that the full message is conveyed” (p.108). Baker (2011) defines translanguaging as: “To read and discuss a topic in one language, and then to write about it in another language, means that the subject matter has to be

processed and digested” (p. 289). Canagarajah (2011) defines the term translanguage as “the ability of multilingual speakers to shuttle between languages, treating the diverse languages that form their repertoire as an integrated system” (p. 401). Otheguy, García and Reid (2015) explain translanguage as “the deployment of a speaker’s full linguistic repertoire without regarding for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages” (p.3).

Translanguage has been defined in terms of pedagogy by many scholars, as well. Cenoz and Gorter (2020) explain translanguage pedagogy as “instructional strategies which integrate two or more languages” (p.2). This approach supports comprehension and the development of language and content by activating learners’ prior linguistic knowledge through the creation of translanguage spaces. They also described translanguage pedagogy as a planned and systematic pedagogy functioning the use of all languages in a bilingual or multilingual classroom, with the aim of supporting comprehension and the development of language and content (Cenoz & Gorter, 2020). Furthermore, Garcia (2009) defines translanguage as a novel pedagogy using learners' entire linguistic repertoire to improve meaning-making and understanding (Garcia & Li, 2014). Li (2011) points out the natural transformative function of translanguage pedagogy by stating “it creates a social space for the multilingual language user by bringing together different dimensions of their personal history, experience and environment, their attitude, belief and ideology, their cognitive and physical capacity into one coordinated and meaningful performance and making it into a lived experience. He calls this space “translanguage space” (p.1223). He further clarifies this space as transforming of identities, principles and beliefs through flexible borders. Li (2011) conceptualized the translanguage space as creativity and criticality. While criticality relies on examining and reconsidering cultural and linguistic concerns using evidence, creativity includes investigating and questioning conventional standards and restrictions (Li, 2011). Akkuş and Ataş (2023) state that by welcoming language diversity and integrated with translanguage pedagogy, learners can better articulate themselves, which results in creativity and engaging with a larger audience.

When EFL components are considered, writing skill is crucial for FL learners, as it allows them to articulate their ideas effectively in academic and professional settings (Cancino & Panes, 2021; Lee & Evans, 2019; Poehner & Yu, 2022; Sasaki et al., 2018). Therefore, writing practices particularly in classroom environments can also be regarded as an opportunity for translanguaging pedagogy as it enables diverse language interaction (Akkuş & Ataş, 2023). Embedding translanguaging pedagogy into writing lessons helps learners convey their ideas more effectively and also enables teachers to create more welcoming atmosphere in the classroom (Horner et al., 2011). Fu (2003) advocates this notion indicating its effect on Chinese students' writing abilities by stating that when students are free to express themselves utilizing their HL, they have the opportunity to enhance their creative thinking abilities without having any interruptions, which leads to a development in their AL proficiency.

In similar vein, technology can help learners utilize their various linguistic resources and interact with their TL in different ways such as using iPad to extend semiotic and spatial repertoires of learners in physical and virtual classroom settings (e.g. Tai & Li, 2023); using digital tool, Google Translate, for EFL learners' writing competence (e.g. Tsai, 2022); composing digital multimodal products like digital storytelling (e.g. Prada, 2022); using social media outside of digital classroom (e.g. Wang et al., 2022).

Not only have translanguaging stretched linguistic resources of bi/multilingual students in today's classrooms, but also technological advances, such as Artificial Intelligence (AI) enables learners go beyond their boundaries. AI is described as a sophisticated system combined with human input, assisting in completing of different learning tasks (Aldosari, 2020). The rapid expansion of digital technology over the last decade has opened new opportunities for teachers and students to implement digital technologies into their teaching. Therefore, learning together with digital resources leads students to create new repertoires while interacting with each other (Canagarajah, 2013). This perspective has taken the attention of linguistic experts' interest in investigating this phenomenon through the perspective of translanguaging (Lu & Gu, 2024).

The integration of AI-assisted tools and programs in language learning has been investigated in recent studies stating that these tools strengthen language teachers' strategies for teaching while also having a positive impact on students' performance

and enhancing their learning opportunities (Lee, 2020; Sun et al., 2021; Zhang & Zou, 2020; Kelly & Hou, 2022; Barrot, 2023; Fathi & Rahmi, 2024). Studies have shown that AI can enhance EFL learners' communication skills, especially writing, by providing personalized and interactive learning experience. Yan (2023) emphasizes that second language learners' performance and engagement have greatly benefited from technology-enhanced language learning. For instance, AI-powered tools can offer real-time feedback and suggestions on grammatical accuracy, vocabulary usage, and overall writing structure, enabling learners to refine their skills and develop a stronger command of the language (Teng, 2024; Barrot, 2023; Hockly, 2023; Woo & Choi, 2021). AI tools like ChatGPT offer affordances that align with translanguaging pedagogy by enabling multilingual input/output, scaffolded writing support, and personalized language feedback. The increasing integration of AI tools in education calls for investigating their effects on academic writing abilities of EFL learners as well as their impact on pedagogies and the implementation in AI-assisted learning environments (Fathi & Rahimi, 2024).

Translanguaging, as a pedagogy, is closely tied to the multilingual approach since it utilizes multilingual speakers' resources to facilitate language acquisition. (Cenoz & Santos, 2020). Consequently, this study is grounded in translanguaging theory as conceptualized by Garcia and Li (2014) and aims to investigate how Turkish EFL university students engage in translanguaging pedagogy throughout various writing activities and examine its effects on their writing achievement. Additionally, it seeks to determine whether the implementation of AI-assisted translanguaging pedagogy, particularly using ChatGPT, influences the development of their writing skills.

1.2 Statement of the Problem

The central problem to be researched by the study is the instructional pedagogy implemented for language learners in terms of FL learning, especially in writing competence. In Turkey, English is taught as a FL with EoP while giving instruction (Yuzlu & Dikilitas, 2022). Rigid separation of languages in bi/multilingual classrooms and focusing on the AL (Howatt, 1984), limit foreign or second language learners not to get benefit from their full linguistic repertoire. HL and AL are inherently linked in their minds (Druce, 2012; Weijen, Bergh, Rijlaarsdam, & Sanders, 2009), and this

cognitive process should be utilized rather than rejected (Leonardi, 2010). This viewpoint is consistent with the translanguaging approach, which indicates that multilingual individuals have the ability to adopt and combine multiple language resources to create their own expression (Canagarajah, 2011). English language learners usually generate ideas in their artifacts with their own experience or knowledge which they gained with their HL. A common challenge for EFL learners is the potential impact of their HL. However, limiting their HL leads students to a difficulty in their productive skills (especially in writing) as they are supposed to use their limited AL (Akkuş & Ataş, 2023). More specifically, during EFL learners' writing practices, especially in brainstorming stage, they generate ideas in their HL utilizing their experience and cultural background and organize their thoughts accordingly; however their AL is limited to express their ideas properly (Al-Ahdal & Aljabr, 2023), so they are dragged along to a dead end where their existing repertoires get stacked and they are unable to articulate freely.

Despite being exposed to English for long years with monolingual perspectives and EoP in instruction, English language learners in Turkey mostly have problems in writing because of limited competence in the AL. Lemke (2002) raises an important question about this issue as: "Could it be that all our current pedagogical methods in fact make multilingual development more difficult than it need be?" (p.29). Therefore, it is time to reconsider the existing monolingual approach in language teaching because it might be the ground of the problem which is needed to be investigated and challenged with new perspectives in language learning, specifically for emergent English language learners.

Another problem is that although there is a great number of studies reporting the pedagogical benefits of AI integration in language learning (e.g. Selim, 2024), there is limited trust on using AI tools for various reasons such as their quality (e.g. Çelik, 2013) and the effectiveness in FL learning, especially technical challenges, overuse of AI (e.g. Kim, 2023), and generating incorrect and illogical responses when the given prompt is unclear. These challenges affect the creativity and critical thinking of the learners when they are not trained how to get benefit from it. So, it might weaken the objectives of writing pedagogy (Barrot, 2023). However, AI -assisted tools may also be used to enhance writing competence for various purposes such as translation, vocabulary knowledge, error correction, brainstorming and instant feedback

opportunities (Teng, 2024; Fathi & Rahimi, 2023; Barrot, 2022; Nazari et al., 2021). Consequently, in line with the above-mentioned facts, instant feedback opportunities of AI tool, ChatGPT, is utilized in this study for EFL learners' first outputs. Therefore, current research aims to explore whether the implementation of AI-assisted translanguaging pedagogy enhance EFL learners writing competence, facilitate knowledge construction and improve their understanding of a particular content given under the EoP in the context of Higher Education.

1.3 Purpose of the Study

The primary purpose of the current study is to investigate the potential impact of AI-assisted translanguaging pedagogy, using ChatGPT, on EFL learners' writing competence by creating translanguaging spaces for their meaning making, and supports them with ChatGPT's instant feedback opportunities with a purposefully designed lesson plan grounded on translanguaging practices.

1.4 Research Questions

This study integrates AI-assisted translanguaging pedagogy into writing lessons for tertiary level students in a foundation university in Turkey. Along with the integration, the study examines how students perceive the AI-assisted translanguaging strategies in their writing lessons. Therefore, this research aims to address the following research questions:

1. To what extent does AI-Assisted translanguaging pedagogy improve the writing competence of EFL learners in a Turkish university context?
2. What are the impacts of AI-assisted translanguaging pedagogy on EFL learners' perceptions in writing instruction?

1.5 Significance of the Study

Although translanguaging practices have been explored across four language skills such as reading (Qureshi & Aljanadbah, 2022), speaking (Nkhi & Shange, 2024), listening (Robillos, 2023) and writing (Sun & Lan, 2020), its application in EFL writing within Turkish context (Yuzlu & Dikilitas, 2022) remains under-searched, particularly in combination with AI-assisted tools like ChatGPT reflecting a research gap in the literature. As translanguaging embraces multisemiotic, multimodal and multisensory resources (Gracia & Li, 2014) of EFL learners, it supports them to enhance their creativity and critical thinking (Yang, 2023). Writing, which is one of the multimodal resources of the learners, is considered as “the repository of meaning and hence, knowledge that leads Western culture to value writing and literacy as the *sine qua non* condition for education and culture” (Menezes de Souza, 2007, p.155). It is a significant skill to explore in relation to translanguaging and AI, because it involves more time for reflection and could showcase the translanguaging process more clearly.

In addition, in some studies investigating the impact of the translanguaging pedagogy (e.g. Kiramba, 2017), lesson plans are designed and implemented for the purpose the study. They mostly focus on the instructional language used in the classroom rather than the objectives of the lessons (Adinolfi & Astruc, 2017). Therefore, more pedagogical implications of translanguaging should be promoted to be integrated in EFL classrooms. In line with the mentioned perspective in pedagogical use of translanguaging, in this study, the concurrent curriculum stays the same, and translanguaging pedagogy is embedded meticulously into the existing modular plan. So, this study shows that AI-assisted translanguaging pedagogy could be integrated easily without changing the existing flow of the school.

Moreover, the implementation of AI-assisted translanguaging pedagogy might shed a light for stakeholders and teachers that translanguaging pedagogy should not be considered as an issue (Wach & Monroy, 2020) but rather as a valuable resource for students to articulate their ideas more effectively. Akkuş and Ataş (2023) support this notion by stating that recognizing and appreciating learners’ linguistic assets and practices to facilitate their language acquisition can foster a more inclusive and impactful learning experience in language development. From this viewpoint,

stakeholders might design their existing curriculum with translanguaging pedagogy taking the diverse linguistic backgrounds of the learners into account.

1.6 Definitions

Bilingualism: a singular fluid linguistic system rather than two distinct or interrelated languages (Garcia, 2009) “where the boundaries between languages disappeared” (Garcia & Li, 2014, p.14).

Emergent Bilinguals: ‘any person who is actively in the process of acquiring knowledge of a second language and developing bilingual language skills for use in a given situation relevant to their individual needs to learn the TL’ (Turnbull, 2018, p:1043).

Translanguaging: the fluid use of bilingual individuals’ whole linguistic resources and repertoire to make meaning and communicate with no regard to named language categories (Garcia, 2009).

Monolingualism: the concept that language learners perceive different languages as separate structures (Garcia & Li, 2014).

Heteroglossic: coexistence of multiple voices, languages, and meanings within a communicative context (Bakthin, 1981).

Sine qua non: something absolutely indispensable or essential (Merriam-Webster Dictionary, reached at 04.05.2025)

Chapter 2

Literature Review

This chapter provides a comprehensive overview of translanguaging, including its theoretical framework and relevant research conducted in this area. Moreover, significant academic studies are referenced and undertaken in this domain are presented accordingly.

2.1 The Concepts of Bilingualism, Translanguaging and Monolingual Approach in English Language Teaching

2.1.1 The concept of bilingualism. Bilingualism has been defined in diverse ways throughout history. Firstly, Haugen (1956) described bilingualism as a general term for individuals having various language abilities, which is the indication of not being monolingual. Weinreich (1974) elaborated on bilingualism by identifying it as the alternative use of two languages. Expanding upon these notions, Cummins (1979) suggested that bilinguals' skills in both languages are interconnected within the brain, instead of being stored independently. He introduced the idea of Common Underlying Proficiency (CUP), which explains that despite having differences, the cognitive mechanisms that support both languages are interrelated, facilitating the transfer of linguistic skills between them. Additionally, neurolinguistic studies have strengthened this theory, and stated that even when one language is actively employed, the other remains available (Hoshino and Thierry, 2011). Building on Cummins' research, García (2009) presented the notion of dynamic bilingualism, which perceives bilingualism as a singular linguistic system rather than two distinct or interrelated languages. García advocates that the language practices of bilingual individuals are adaptable and influenced by social norms and challenge the traditional views of bilingualism which consider it simply the addition of another language (Garcia & Li, 2014, p.11-15). The following figure shows the difference between views of traditional bilingualism, linguistic and interdependence and dynamic bilingualism.

although Cummins' interdependence model offers some interaction, and the dynamic bilingualism model moves further by proposing a single, fluid linguistic system where the boundaries between languages disappeared (Garcia & Li, 2014, p.14).

2.1.2 The concept of translanguaging. The term *translanguaging* originates from the Welsh term *trawsieithu* and was introduced by Cen Williams in 1994; it initially describes a teaching method in which students intentionally switch between the languages available to them for both comprehension and expression in bilingual classrooms (Lewis, Jones, & Baker, 2012). Later on, Baker (2001) interpreted the term in English as *translanguaging*. Baker (2011) defines translanguaging as “the process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages” (p. 288), which is the combination of two languages that is used for cognitive process.

While the concept of translanguaging began to be explored in the academic field, the widely acknowledged notion was that bilingual individuals possess two independent languages in their minds, utilizing these distinct languages separately. Consequently, translanguaging was originally viewed as “the planned and systematic use of two languages for teaching and learning within the same lesson” (Lewis et al., 2012, p.3), as outlined by Williams (1994).

However, Garcia (2009) used the term translanguaging to refer to bilingual individuals' fluid use of their whole linguistic resources and repertoire to make meaning and communicate with no regard to named language categories. In order to clarify its meaning, it can be described that the emphasis of *trans*-in translanguaging is interpreted as the transcendence of named languages, since the languages are constituted socially, translanguaging is conceptualized beyond named languages (Li, 2018; Otheguy et al., 2015)

Consistent with Garcia and Li (2011) describes translanguaging practices as ‘creative’, ‘critical’, ‘flexible’ and ‘strategic’ in his study regarding moment analysis of multilingual Chinese language learners in the UK. He further describes the term referring to a space he called *translanguaging space* – a space where language users “break down the ideologically laden dichotomies between the macro and the micro, the societal and the individual, and the social and the psychological through

interaction” (Li, 2011, p.13). Consequently, Li (2011) describes translanguaging spaces as:

For me, translanguaging is both going between different linguistic structures and systems, including different modalities (speaking, writing, signing, listening, reading, remembering) and going beyond them. It includes the full range of linguistic performances of multilingual language users for purposes that transcend the combination of structures, the alternation between systems, the transmission of information and the representation of values, identities and relationships. The act of translanguaging then is transformative in nature; it creates a social space for the multilingual language user by bringing together different dimensions of their personal history, experience and environment, their attitude, beliefs and ideology, their cognitive and physical capacity into one coordinated and meaningful performance and make it into a lived experience. (p. 1223)

Li (2011) states that translanguaging involves more than just switching between different languages or modes of communication, it creates something new that goes beyond ‘the combination of structures’ and provides a ‘translanguaging space’ by blending different aspects of a person's history, beliefs, and cognitive abilities into a unified experience.

Furthermore, Garcia and Li (2014) extended the concept of translanguaging and defined the term as:

Translanguaging is an approach to the use of language, bilingualism and the education of bilinguals that considers the language practices of bilinguals not as two autonomous language systems as has been traditionally the case, but as one linguistic repertoire with features that have been societally constructed as belonging to two separate languages (p. 2).

Garcia (2012) also conceptualized translanguaging as “the discourse practices of the bilinguals, as well as pedagogical strategies that use the entire linguistic repertoire of bilingual students flexibly in order to teach both rigorous content and language for academic use” (p. 2).

2.1.3 Monolingual approach in English language teaching. Auerbach (1993) defines monolingual approach, in other words the EoP, as the attempt of institutions to identify English as the only mediator in classroom interactions and instruction giving. This policy has gained popularity in language teaching as it is commonly believed that “the more students are exposed to English, the more quickly they will learn; as they hear and use English, they will internalize it and begin to think in English; the only way they will learn it is if they are forced to use it” (Auerbach, 1993: 14-15). It seems like putting both feet in a shoe.

EoP maintains its position in teaching contexts where both students and lecturers avoid using the students’ HLs in classrooms (McMillan & Rivers, 2011) and continues to dominate education policy and practices of emergent bilinguals (Gort, 2015). Cummins (2007) outlined monolingual principles of Howatt (1984) under three categories: “(a) the target language (TL) should be used exclusively for instructional purposes without recourse to students’ first language (L1); (b) translation between L1 and TL has no place in the language classroom; and (c) within immersion and bilingual programs, the two languages should be kept rigidly separate” (p. 221)

With the emerge of communicative approach by the 1970s, English language classrooms has started to be occupied with its principles. The notion in this approach is to teach English through communication in AL with monolingual instructional pedagogy. Most scholars supporting communicative approach (Halliday, 1973; Hymes, 1972; Canal & Swain, 1980; Galloway, 1993; Ellis, 1996; Nunan, 1999; Brown, 2000; Larsen-Freeman, 2000) believe that interference, comparing and contrasting of HL with AL, hinders acquisition; however, the dominance of EoP has started to lose its dominance at the beginning of 21st century and many scholars have perceived HLs of language learners as a crucial resource to mediate for learning AL (Cummins, 2007; Garcia, 2009; Butzkamm & Caldwell, 2009; Creese & Blackledge, 2010; Baker, 2011; Canagarajah, 2011; Macaro, 2014; Makalela, 2015). Moreover, studies in literature indicate that use of HL can enhance significant cognitive, communicative and social aspects of learners in FL learning (Turnbull and Dailey O’Cain, 2009; Butzkamm & Caldwell, 2009). Dearden (2014) research on bilingual students show that when their bi/multilingual practices are strictly prohibited, their chance to ask questions, their discourse comprehension and note-taking skills can be restrained, as well (Sert, 2000; Airey & Linder, 2006; Zok, 2010; Hellekjær, 2010).

Various studies have conducted on the use of HL in the FL learning classrooms. For instance, Storch and Wigglesworth (2003) states that “the use of L1 may provide learners with additional cognitive support that allows them to analyse language and work at a higher level than would be possible where they restricted to sole use of their L2” (p.760). In the same vein, Brookes-Lewis (2009) emphasizes that the use of HL in AL learning is inevitable, it has a contribution to the learning of AL. Moreover, in the study of Rodrigues and Oxbrow (2008), language learners perceive that using their HL in AL learning contributed to enhance their understanding and comprehension, and they prefer their teachers to instruct grammar rules by giving similarities and differences between HL and AL. This supports the notion of Cummins (2007) with the following statement:

If students in bilingual/immersion programs spontaneously focus on similarities and differences in their two or three languages, then they are likely to benefit from systematic encouragement by the teacher to focus on language and develop their language awareness. Unfortunately, rigid and complete separation of languages makes this kind of cross-language instructional focus impossible (p.229).

Lin & He (2017) point out the “pedagogical scaffolding function” (p.232), of bilingual practices and the use of HL in language learning classrooms. They believe that HL is a valuable tool which helps learners clarify the complex points and increase their engagement and improve their comprehension. McMillian and Rivers (2011) conducted research with 29 native-English speaker teachers at a Japanese university where EoP is applied strictly, and it is believed that using the AL in giving instruction is essential to foreign language learning. The findings of the study revealed that, in contrast to the monolingual policy, most of the teachers perceived that the preference of the students for using their HL could positively impact on their AL acquisition.

Along with the above-mentioned studies, similar recent research in literature have investigated the perspectives of both students and teachers regarding the use of translanguaging in FL teaching in classroom settings, highlighting its positive contributions and supportive role (Dikilitaş & Öztüfekçi, 2024; Muguruza et al.; 2023; Rafi & Morgan, 2023; Akkuş & Ataş, 2023; Karakaş, 2023; Yuzlu & Dikilitaş, 2022; Cenoz et al.; 2022; Cenoz & Santoz, 2020; Yuvayapan, 2019; Kiramba, 2017;

McMillan & Rivers, 2011) however, the dominance of the monolingual approach in language education remains widespread.

2.1.3.1 Monolingual approach in English language teaching in higher education in Turkey. In Turkey, Turkish is the mother tongue, the official language and the language of teaching. However, factors caused by globalization, internalization and competitiveness (British Council, 2014), over the past two decades, there has been a notable increase in private universities in Turkey as they increasingly adopt English as a Medium of Instruction (EMI) in their academic programs, whether fully or partially. The introduction of EMI in Turkish institutions has attracted international students and faculty, particularly from neighbouring countries, which has promoted bilingual practices in EMI courses and enriched linguistic diversity on campuses (O'Dwyer & Atli, 2018).

After graduated from high school, students are required to take a national university exam before being admitted to university programs in Turkey. Some of these programs implement EMI, either fully or partially. Once students have been admitted to EMI programs, they are required to demonstrate their English language proficiency by taking university proficiency tests. If they do not meet the minimum score requirements on these assessments, they are obligated to register for a year-long intensive English preparatory program provided by universities to enable them to comprehend the lectures in their major departments. These preparatory programs implement English-only policy in their instructions, disregarding the preferences of students who have been admitted either partially or entirely into EMI programs.

Nonetheless, English-only policy leads to some problems in EMI contexts. There are several studies questioning EoP in EMI contexts in Turkey. Cankaya (2017) outlined the disadvantages of EMI by reviewing Kırkgöz (2014) research as: “the difficulty in understanding disciplinary knowledge”, “the difficulty in understanding specific details”, “the time-consuming nature of EMI” and “the difficulty in understanding examination questions”. Moreover, Gökmenoğlu and Gelmez (2013) conducted a study on the perceptions of instructors on EMI implications and the main findings were “lack of confidence among local students, inconsistency between course contents and unmotivated students” (Çankaya, 2017).

Ozer (2020), for instance, conducted a study in a university located in the southern of Turkey among 109 university lecturers. The study examined the

difficulties of instructors while implementing their lectures under EoP in an EMI setting and investigated their teaching practices, perceptions and how the effectiveness of EMI can be developed through in-service training. The data were collected through a questionnaire and the results show that lecturers use different pedagogical implications in their classes. Moreover, using HL in their instructions help students comprehend the content easier and there should be a collaboration between academic lecturers and language teachers in preparatory programs.

Ekoç (2018) investigated the students' perceptions towards EMI course at a technical university in Turkey. The study was conducted between March and April 2018 among 252 students studying at different departments and data were collected via questionnaires. The results show that students in favour of EMI focusing on the instrumental benefits of it such as employment opportunities and prestige in national and international contexts but there is a necessity to make changes in the way how EMI is delivered emphasizing the need for qualified lecturers in the delivery of course. Therefore, 115 students (45.6%) stated that the lecturers should teach the content of the course first in English and then in Turkish.

On the contrary, Turhan and Kırkgöz (2018) investigated the motivation of students and lecturers in an EMI context. The results demonstrated that students perceive that EMI would enhance their English abilities and improve their communication skills. On the other hand, the research also highlighted that lecturers indicated their worries regarding students' language proficiency; actually, they opted to use English resources rather than Turkish ones, viewing them as more appropriate and useful.

2.2 Translanguaging Pedagogy

Translanguaging pedagogy originally refers to “a pedagogical practice where students were asked to alternate between languages for the purposes of receptive or productive use” (Garcia & Li, 2014, p. 20). As Garcia & Li (2014) claims that as translanguaging pedagogy builds up on learners' linguistic strengths, it has utmost importance on language-minorized students either emergent bilingual or not. Translanguaging pedagogy can be used strategically as a scaffolding approach to enable emergent bilinguals to comprehend the difficult content and produce additional language with practice and gain new knowledge (Garcia & Li, 2014).

As Garcia & Li (2014) mention, translanguageing pedagogy can be utilized for different goals with different strategies, which is mentioned at the following at table.

Table 1

Teaching To Learn Content And Language Through Translanguageing

Why? GOAL	What? POSSIBLE STRATEGIES
1 Differentiate and adapt	Translation
2 Build background knowledge	Collaborative dialogue Collaborative grouping Reading multilingual texts Multilingual listening/Visual resources Project learning Thematic units Research
3 Deepen understanding, develop and extend new knowledge, critical thinking	All of the above + Inner speech Multilingual writing
4 Cross-linguistic transfer and metalinguistic awareness	Word walls Sentence starters Cognates Comparing multilingual texts Multilingual vocabulary inquiry Multilingual syntax/Morphology inquiry
5 Cross-linguistic flexibility	Alternating languages and media Translating Translanguageing in writing Translanguageing in speaking
6 Identity investment and positionality	All of the above
7 Interrogate linguistic inequality	All of the above

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(Garcia & Li, 2014; p. 120)

Garcia & Li (2014) mention that the goals of translanguageing pedagogy along with its strategies (see Table 1) that can be implied either in monolingual or bilingual education. The translanguageing strategies are described in three categories:

1. Teacher attentiveness to meaning making, by:
 - Translanguageing when appropriate for understanding.
 - Encouraging students' translanguageing in inner speech.
2. Teacher use and design of classroom resources for translanguageing, which include:
 - The availability and production of multilingual and multimodal texts, including fiction, informational texts and reference resources.
 - The availability and production of technologically enhanced media, including iPads and computers.
 - The availability and production of a multilingual/multimodal classroom landscape that includes, among others, listening and visual centers and texts,

technologically enhanced media, multilingual word walls, multilingual sentence starters and cognate walls.

3. Teacher design of curriculum and classroom structures for translanguageing, which include:

- Peer grouping according to home language, to enable collaborative dialogue and cooperative tasks using translanguageing.
- Project- and task-based learning, to build on multimedia and kinesthetics.
- Research tasks, so that students can translanguage, as they find new information.
- Curriculum thematic units, to integrate ways of languageing and producing knowledge.
- Language-inquiry tasks, for example cross-linguistic comparisons that include cognate-identification, to build translanguageing capacities and extend metalinguistic awareness. (Garcia & Li, 2014, p.121-122)

In Williams' (1996) definition of translanguageing, the foreign language learners were seen as having two autonomous languages, which is similar to code switching. This was suggested by Williams as weak version of translanguageing, which means "softening the boundaries between languages" (p.233), which still advocates the notion admitting the existence of language separation. (Turnbull, 2019). However, Garcia and Li (2014) claim that bilingual speakers do not hold to barriers of the named languages but rather they select the features from their linguistic repertoires to make meaning and learn. (Turnbull, 2019). Weak and strong versions of translanguageing is illustrated in Anderson's translingual continuum in Figure 2.

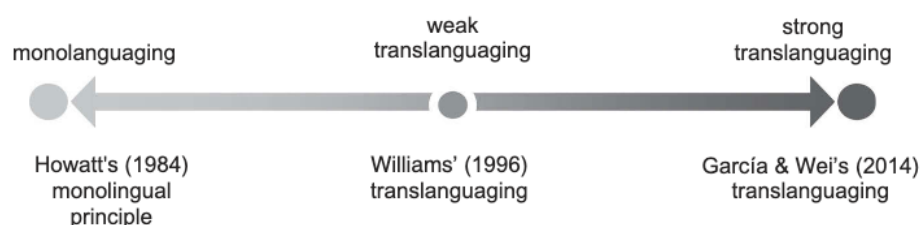


Figure 2. Translanguageing continuum (Turnbull 2019, p.234).

Howatt's (1984) monolingual principle represents a notion in which there is a strong relation between bilingual speakers and native speakers in terms of monolingualism and perceives bilinguals as failed monolinguals rather than competent bilinguals having multicompetence (Cook, 1999). When it is considered in a classroom context, it means there is an EoP, and all instructions are only given in English. The William's (1996) weak translanguaging somehow recognizing the multicompetence of bilinguals, advocates for softening the boundaries between HL and AL; however, it still acknowledges their existence. In a classroom context, it means each language is employed separately for specific purpose, for instance, having discussion in HL and read a text in English. On the other hand, the strong version of translanguaging which is supported by Garcia and Li (2014) claims that there should not be boundaries between two named languages because bilinguals have a single linguistic repertoire from which they utilize the features of all languages they have. Therefore, in a classroom where strong version is implied, it is possible to see that the learners are allowed to utilize their multicompetence to complete a given task. However, it has been pointed out and warned by Garcia and Li (2014) that in an EFL context, if the aim is to develop linguistic features of a specific language, random switching between languages might have negative effects. That's why strong version of translanguaging can be implied systematically with a planned acquisition of specific features of the AL by keeping the control on the learners when to utilize their HLs. To give an example, learners might be allowed to utilize any language they have to activate their existing knowledge before completing an assignment in their AL. As García and Lin (2017) suggest, both weak and strong versions of translanguaging pedagogy should be utilized in translingual practices because weak version softens the boundaries between HL and AL and strong version, on the one hand, provides a space for learners to support their criticality and creativity (Li, 2011). Therefore, through a combination of both forms of translanguaging pedagogy, emergent bilinguals may develop their holistic linguistic repertoires align with the principles which have been designed for the AL.

Consistent with Garcia and Lin (2017), Cenoz (2017) defined pedagogical translanguaging as 'planned by the teacher inside the classroom and can refer to the use of different languages for input and output or to other planned strategies based on the use of students' resources from the whole linguistic repertoire' (p. 194) to improve language ability and content learning of learners (Cenoz et al., 2022). Align with this

notion, Cenoz and Gorter (2021) claim that despite having different explanations defined by different scholars, pedagogical translanguaging has the following core characteristics (Table 2).

Table 2

Core Characteristics Of Pedagogical Translanguaging

Type of programme	Multilingual education and second/additional language education
Type of student	Multilingual or emergent multilingual
Aims	Linguistic and academic development
Organisation	Planned, designed
Approach	Multilingual/heteroglossic

Cenoz & Gorter (2021, p.23)

Type of programme refers to multilingual education programs (see, Kiramba, 2017; Cenoz & Santos, 2020) and second or AL education programs (see, Yüzlü & Dikilitaş, 2022; Turnbull, 2019) employed pedagogical translanguaging to activate the multicompetence of the learners. In these contexts, translanguaging serves as a bridge, enabling students to use their prior linguistic knowledge as scaffolding to grasp new concepts and develop proficiency in the TL. By addressing both multilingual and second/additional language settings, the table highlights translanguaging's potential to promote equitable and inclusive learning across diverse educational landscapes.

Type of student described as multilingual or emergent multilingual aligns well with translanguaging's goal of leveraging students' full linguistic repertoire (e.g. Muguruza et al., 2023). It embraces learners at different proficiency stages, encouraging their linguistic knowledge. Multilingual students are those who already have proficiency in more than one language and can fluidly draw on their linguistic resources. Translanguaging empowers these students by validating their existing knowledge and encouraging its use in academic contexts, rather than enforcing rigid language boundaries. Emergent multilinguals refer to learners in the process of developing multilingual skills. These students might still be learning how to use their multiple languages effectively. Translanguaging provides these learners with

opportunities to develop confidence and competence by strategically blending their languages for communication and learning. These characteristics demonstrate that translanguaging recognizes and values all students' language repertoires, regardless of their current proficiency levels.

Aims focusing on linguistic and academic development reflect translanguaging's dual purpose: improving language competence while supporting broader academic success. The key idea in pedagogical translanguaging is “to maximise the learner’s linguistic resources as a multilingual when developing language and academic subject” (Cenoz & Gorter, 2021, p.24). This suggests that translanguaging is not just about language skills but also about fostering cognitive and content-based learning. Linguistic development involves helping students improve their language skills across multiple languages, whether spoken, written, or comprehension based. Translanguaging achieves this by allowing students to engage in meaningful communication using all their linguistic resources. For instance, students may write drafts in their HLs before translating them into the AL. Academic development focuses on learning subject content and fostering critical thinking. Translanguaging supports this by enabling learners to understand complex academic concepts without being restricted by limited proficiency in the target language. It recognizes that students can process and express ideas more effectively when they use their full linguistic repertoire. This dual focus reflects how translanguaging serves both language acquisition and overall academic success.

Organisation being planned and designed indicates that translanguaging requires structured pedagogical framework, avoid being spontaneous or unstructured. Teachers intentionally incorporate translanguaging into lesson plans to scaffold learning. For example, activities may include reading in one language and summarizing in another. A planned approach ensures that translanguaging is purposeful, supporting clear learning objectives while promoting language and content mastery.

Finally, *Approach* characterized as multilingual/heteroglossic addresses a flexible, dynamic view of language use, which contrasts traditional monolingual teaching approach. These characteristic challenges traditional monolingual teaching models that view other languages as interference. Instead, it positions multilingualism as a resource for learning and cognitive development. Multilingual approach

encourages learners to leverage all their languages in the classroom to facilitate understanding, communication, and learning. Rather than isolating languages, translanguaging allows for a flexible interplay between them (Cenoz & Gorter, 2021). The term heteroglossic (from Bakhtin (1981) 's theory) refers to the coexistence of multiple voices, languages, and meanings within a communicative context. Translanguaging embraces this idea by recognizing that multilingual learners naturally mix and switch between languages in authentic ways. Overall, the table highlights translanguaging's structured, planned, inclusive, and holistic approach to multilingual education.

Finally, translanguaging approach challenges monolingual approach because it considers learners' repertoire as resource rather than ignoring it or perceiving it as a problem (Celic & Seltzer, 2011). Furthermore, Baker (2011) emphasises four potential benefits of translanguaging:

1. It may encourage a deep and full comprehension of the subject matter.
2. It may help students enhance their abilities in their additional language.
3. It may help engage home-school collaboration.
4. It may help the cooperation of fluent speakers with emergent learners. (Baker, 2011, p.281)

Consequently, Garcia et.al (2017) advocate that pedagogical translanguaging focuses on learners' linguistic abilities with "intentionally, purposefully and mindfully" designed classrooms in which translanguaging spaces and lessons plans are created (Garcia, Johnson, & Seltzer, 2017, p.79).

The following studies have been reviewed to get more insights about the pedagogical implications of translanguaging in different contexts and contents such as four skills teaching, grammar instruction and cognitive awareness on lexical knowledge, paying attention on the perceptions of both students and teachers through interviews, class observations and questionnaires. For instance, Yüzlü & Dikilitaş (2022) examined the effect of translanguaging pedagogy on EFL learners' four language skills. In their study, the quasi-experimental mixed method was employed. There were 60 pre-intermediate, and 60 upper-intermediate high school students assigned in two experimental groups and two control groups in the study. Translanguaging pedagogy was implemented to experimental groups for 10 weeks

consisting of 40 hours of teaching, however, the other control groups were subjected to two different approaches. One of the control groups was taught grammar-translation method and the other control group went through communicative approach. In their study, 3 different approaches were investigated to see the impact of translanguaging pedagogy in four skills lesson including reading, writing, listening and speaking. The results show that translanguaging pedagogy had a significant effect on both students' receptive and productive skills. Students' perceptions were also examined by semi-structured interviews in order to get more insights for the research and it has been revealed that there are 4 different dimensions in their perspectives: *Constructive dimension* which helps learners make meaning and promote their autonomous learning; *cognitive dimension* which enable them to access their full linguistic repertoire, discover the language system, raise their bilingual awareness and facilitate their learning; *interactive dimension* which develops their interactional and authentic language use; finally, *affective dimension* which gives a sense of feeling secure, comfort, enjoyment, volunteering, real language learning and sustain motivation during English learning.

Moreover, Debreli & Oyman (2016) investigated how students' educational background and AL proficiency influenced their perceptions of using Turkish (HL) in their English (AL) classrooms, as well as their needs for HL in AL learning contexts. The study was conducted at the English Preparatory School of the European University of Lefke in Northern Cyprus. The study selected participants from various countries, primarily Turkey, who were preparing for their major programs in which EMI employed. The English language program, lasting approximately 34 weeks, relies heavily on a communicative approach and enforces a strict EoP, thereby prohibiting HL use during classes both for teachers and students. Data were collected through a questionnaire from 303 Turkish EFL learners, and the analysis revealed that students generally held positive perceptions towards the implementation of HL in their AL classes. Moreover, the study results also indicated that such perceptions were significantly influenced by their demographic characteristics, particularly their AL proficiency levels. Students with lower proficiency levels perceived HL as more beneficial for EFL learning, primarily for defining new vocabulary, explaining complex grammar points, and practicing phrases and expressions.

Cenoz & Santos (2020) investigated the implementation of translanguaging pedagogies in an English medium instruction (EMI) primary and secondary schools in the Basque Country, where three languages: Basque, Spanish and English, are taught in the curriculum (trilingual schools). In this study, a group of in-service teachers from various primary and secondary schools, joined a professional development course including inputs and pedagogical implications. They attended this training while they were actively teaching at their schools. The course consists of two parts: 20 hours face-to-face theoretical and 7 hours of online instruction. All teachers were employed in the Basque Autonomous Community in Spain in which Basque and Spanish languages are spoken. The researchers focused on the pedagogical implementation of translanguaging in three classes: one in science classes taught in primary school and two in English language classes in secondary school. The attendee teachers were provided a guideline to implement the pedagogical translanguaging and they were required to prepare a lesson plan involving activities in two or more languages such as listening, reading, word wall with pictures and watching a video. Following with the lesson plan preparation, they were asked to implement translanguaging pedagogy at least in one lesson and they received feedback from their students and reflected them on their implementations. The entire process lasted six weeks. The feedback from the primary school science class show that students found the activities quite easy and translanguaging pedagogy helped them to understand activity without any problems as they utilized their knowledge of the three languages. The science teacher also would like to extend the translanguaging activities beyond cognates. There were two English classes: one in 3rd year, the other one was in 2nd year of secondary school. In 3rd year of English language class, focusing on grammar teaching, the teacher reported back that multilingual postcards were very helpful for students to clarify the structure of different languages, and they used them as a tool. In the 2nd year of English class focused on different oral and written skills related with journalistic writing. The teacher in the 3rd school reflected that the students developed their metalinguistic awareness, and they noticed that the languages were not separate compartments. The result of this study show that multilingual education can be more effective as it softens the boundaries between languages and enable the students to use their linguistic resources.

Wang (2022) investigated the implications of translanguaging pedagogy with a longitudinal case study lasted one academic year in China. The data were collected through class observations and reflective interviews with teachers and students. After teachers were trained how to use translanguaging theory through 7-day trainings before the semester began, they implemented the gained knowledge in EFL pedagogy in their classrooms. The purpose of the study was to examine to what extent translanguaging pedagogy engaged in EFL classrooms and how the teachers' language beliefs impact their teaching strategies and students' ability to use translanguaging to support their new language learning. Four teachers were purposefully selected for the case study. They all had Master of Arts (MA) degree in Teaching English as a Foreign Language (TEFL), and their teaching experience ranged between 5 to 19 years. They did not have common language with their students. All teacher participants' first and second languages are Chinese and English however, they also spoke a third language including French, Japanese and German. 197 students were investigated in the study. These students had at least basic English proficiency, speaking Uyghur or Kazak as their HLs and Chinese as their AL. Data were collected through 16-hour classroom observations lasted eight weeks and semi-structured interviews with both teachers and students. The results show that strategically implemented translanguaging pedagogy leveraged the students' linguistic repertoires and translanguaging constituted a bridge among students to connect the learning gaps and grammar acquisition. Researcher states that translanguaging spaces created in the classroom improved students' engagement "for sense-making and meaning-making, negotiating abstract words, grammatical terms and text across languages" (p.7). The study concluded that there is a need to reconsider existing EFL pedagogy for multilingual learners.

Cenoz et al, (2022) investigated the effect of translanguaging pedagogy on cognate and metalinguistic awareness of primary students in three languages: Basque, Spanish and English. The researchers tried to explore (a) whether the identification of cognates in three languages related to linguistic factors or instruction and (b) whether there is a relation between instruction on cognate identification and metalinguistic development. The study was conducted among twenty-four 5th grade students. The study employed experimental method. 12 students participated 12-week intervention of translanguaging pedagogy as an experimental group and the other 12 students followed the regular school curriculum as a control group. Both groups multilingual

competence in three languages was measured at the beginning of the academic year. The researchers analysed the cognates by listing 13 different words (either as a noun or verb) in English and investigated the orthographic and semantic transparency to determine their difficulty in other two languages: Basque and Spanish. Think-aloud protocol was also employed to collect data on the participants' use of metalinguistic strategies. Following the students' discussion on the cognate recognition task, two open-ended questions were asked to answer to get more insights about the metalinguistic awareness of the participants. The study concludes that participants who engaged in the pedagogical translanguaging intervention demonstrated a higher development of cognate awareness, although there were no significant differences in cognate identification between the experimental and control groups because the identification of cognates is influenced by linguistic characteristics but not by the first language of the participants. The results also pointed out that orthographic and semantic transparency significantly affected cognate identification, especially with more transparent cognates that could be identified easier.

Muguraza et al. (2023) examined a course taught in English to mostly Basque-Spanish bilinguals in a Basque Country university. The teacher used a flexible language policy, allowing three languages in class, and the study aimed to analyse language use and student reactions. The study involved 77 Social Education students enrolled in the course called *Language Planning: Social and Educational Perspectives* which was conducted in English in two semesters of the academic year lasted 15 weeks as 3 hours per week. At the beginning of the study, students were tested with Oxford Placement test excluding writing and speaking skills. The further instruments used to collect data were classroom observations, focus group discussions, field notes and student journals. Their teacher of the class followed the EoP strictly while she was giving the instructions in the classroom, however, students were free to use their whole language repertoire. The translanguaging pedagogy in this study does not give a reference to teacher's language use, but it refers a planned pedagogical strategy used in the classroom in which three languages (Basque, Spanish and English) were active in their utterance. Students had a positive attitude towards the flexible language policy, and appreciated the ability to use multiple languages, which helped them feel more comfortable and less pressured in the learning environment. This flexibility was particularly beneficial given the students' low general level of English proficiency.

Despite the limited use of English for production, the exposure to English through the teacher's consistent use and course materials contributed to an improvement in students' English comprehension skills, which was evidenced by a significant increase in their post-test. While the flexible language policy allowed students to engage with the course content more easily, it also highlighted the challenge of promoting English productive skills. Overall, the results indicate that the flexible language policy was effective in supporting students' learning in an English medium instruction course, particularly by reducing anxiety and making the course more accessible, although it did not significantly enhance their English productive skills. The study suggests that implementing flexible language policies allows students to use their HLs alongside English, which can enhance their comprehension and participation in the classroom. This indicates that translanguaging can be an effective strategy for developing language skills in EMI settings, even if students are not required to use English.

2.3 Translanguaging Pedagogy and Writing

Velasco and Garcia (2014) claim that “bilingual writers use different problem-solving strategies and exhibit ways of expressing meaning that are not present in monolingual writing” (p.10). Inspired from this notion, some scholars mentioned at the following investigated bilingual learners’ writing process to examine how they develop their writing skills in translanguaging classrooms.

Turnbull (2019), for instance, investigated the impact of weak and strong versions of translanguaging pedagogy on Japanese EFL learners’ academic and creative writing competence. The study was conducted as mixed method among two classes of 30 students studying at Literature and Economics departments in a national university in Japan. Each class consisting of 30 participants were divided into 3 groups: monolingual English -only (EO), weak version of translanguaging (WT) and strong version of translanguaging (ST). EO group students were subjected to EoP in giving instructions and the students discussed and planned their essays in English. In WT group, instructions were given in Japanese and students were given the chance to have discussions in Japanese, but they write their essays in English. In ST group the boundaries had been removed and the instructions were given in both Japanese and English and students were free to choose two named languages (Japanese or English)

in their discussions and planning before writing their essays in English. The results show that EO group students had difficulty to discuss on the content of the task because of spending their time on what to do next, which led them to rely on Japanese to express themselves and manage the task. WT group students came across some unknown English vocabulary occasionally and were not able to discuss the task in Japanese. The researcher explained this situation that WT group students spent most of their time on Japanese more than in English. This caused a negative transfer and confusion in their minds when writing in English. Whereas, in ST group, students were able to effectively engage more in discussions because of having freedom on using both Japanese and English and they integrated all their linguistic features in their systems, and they made their discussions consciously. The students' task scores also show that there is a significant difference between EO group students and ST group students in both academic and creative writing in both classes. Although WT group students scored lower than ST group students because of negative transfer, they still received higher scores than EO group, as well. The study suggested that if foreign language learners are engaged with strong version of translanguaging pedagogy during their planning, the students can score higher grades than the ones restricted by EoP.

Yesuf & Anshu (2022) investigated the effect of collaborative writing on students' attitudes towards learning EFL writing skills among 88 Grade 11 high school students in Ethiopia. The students were divided into experimental and control groups, where the experimental group engaged in collaborative writing for 12 weeks, whereas the control group wrote individually. The study employed a mixed methods design, combining both quantitative and qualitative data collection and analysis methods to gain a comprehensive understanding of the subject. An explanatory sequential mixed methods design was utilized, and quantitative data was collected through pre-and post-tests in the first phase. Questionnaires and semi-structured interviews were also utilized to collect data to assess attitude changes in the experimental group. Statistical analysis revealed a significant difference in mean scores between the experimental and control groups indicating that their attitudes enhanced in the experimental group. Qualitative data from interviews supported these findings because experimental students expressed enjoyment and reduced anxiety when engaging in collaborative writing tasks. In contrast, the control group did not show any significant changes in attitude. The study suggests that collaborative writing is not only an effective intervention for

enhancing EFL students' engagement and performance in writing, but also enhances students' enjoyment and motivation to write in English in EFL classes.

Akkuş & Ataş (2023) examined the role of translanguaging in English Medium Instruction (EMI) contexts, focusing on how it can enhance multilingual students' understanding and performance in academic writing. The participants of the study were 81 Turkish university students studying at English Language and Literature department within 2022-2023 academic year in Turkey. The research employs a mixed-methods approach, analysing exam papers of the participants to explore the complexities and benefits of translanguaging practices. The study utilized exam papers as the primary dataset to explore the nature of translanguaging among students. A total of five exams were included: midterms of Advanced Research Skills I and Critical Literary Theory I, and finals of Discourse Analysis I, Critical Literary Theory I, and Teaching English to Young Learners. The midterm exams of Discourse Analysis I and Teaching English to Young Learners were excluded from the analysis as they were not written assessable work. The qualitative aspect focuses on analysing the use of translanguaging in students' written responses, while the quantitative aspect examines the frequency of translanguaging practices. The research questions aim to explore how students use their linguistic repertoire to support comprehension and articulate responses in exam settings. The study found that translanguaging was a common practice among students in their exam papers, with significant proportions of both mixed clauses and paragraphs which are the core components of the study. The research results revealed that incorporating translanguaging practices in exam papers enhances students' comprehension and boosts their confidence and engagement in learning. It revealed that students utilize their full linguistic repertoires to articulate responses indicating a dynamic use of language in assessments. The frequency of translanguaging was shown to increase with larger units of analysis, suggesting that complex ideas are better expressed through multiple languages. The study concludes that translanguaging is an effective practice for students in both classroom discussions and exam situations, challenging the English-only ideology prevalent in EFL contexts. It posits that translanguaging can facilitate critical thinking and knowledge construction, allowing students to utilize their diverse linguistic repertoires to engage with complex concepts.

Karabulut & Kesli Dollar (2022) aimed to explore the role of Translanguaging Pedagogy (TP) in writing classes for English as a Foreign Language (EFL) learners. The study was conducted among 63 participants from an English preparatory school at a state university. These participants were divided into one control group and two experimental groups. Over one semester, the first experimental group was exposed to TP, while the second group experienced a translanguaging instruction that excluded their mother tongue (L1). The control group received product-focused English-only writing instruction. Quantitative data were collected through four in-class writing tasks (WTs). Additionally, a weekly questionnaire was conducted to gather the first experimental group's perceptions of TP. The study found that participants exposed to TP showed significant improvements in their writing skills. This included enhancements in task achievement, lexical and grammatical range and accuracy, and cohesion and coherence compared to other teaching practices. The TP group outperformed the control group, which had product-focused English-only writing classes, and the second experimental group, which used a translanguaging instruction excluding L1. Findings show that TP, which includes the use of L1, is more effective in improving writing skills. Participants in the TP group achieved significantly higher task achievement scores. This suggests that TP helped them better understand and apply writing concepts, leading to improved organization of essays and development of paragraphs. Participants found the implementation of TP useful in enhancing various aspects of their English writing skills. This positive perception underscores the effectiveness of TP in providing a supportive learning environment. The study concluded that implementing TP significantly improved the writing skills of emergent bilinguals in the TL. TP was found to be more effective than monolingual approaches, which often fail to reflect the real-life linguistic practices of bilinguals. It assisted learners in understanding and working with complex content, such as learning to write in the TL. It improved their academic writing skills by enhancing their linguistic practices. It created a 'third space' for learners to use their entire linguistic repertoire holistically, facilitating meaning-making through bilingualism.

Rafi & Morgan (2023) investigated the impact of translanguaging pedagogies on bilingual students' experiences in an academic writing class at a Bangladeshi university and employed an ethnographic research design. Data collection methods included classroom observation, a pedagogical intervention, focus group discussions,

and semi-structured interviews. The intervention involved engaging students in writing tasks guided by translanguaging principles, which were audio recorded for analysis. The researcher also documented linguistic practices through field notes, photographs, and relevant documents from the university. The study results show that the intervention improved students' metalinguistic and sociolinguistic awareness, leading to enhanced participation in writing tasks. Despite these benefits, students expressed mixed feelings about regularizing translanguaging due to existing English-only biases and concerns over cultural identity. The findings highlight the need for further exploration of translanguaging in writing instruction and its implications for policy.

Yang et al (2023) aimed to explore how translanguaging pedagogy impact on EFL learners' critical thinking, content comprehension and effective communication skills with an ethnographic classroom-based study. The research was conducted in a university in Western China among 21 Master of Translation and Interpreting program students and data were collected through two questionnaires, students' writing samples, 11 classroom observations, field notes, semi-structured interviews with the class teacher and four volunteering students. The research presents several key findings regarding the impact of translanguaging pedagogies in EFL writing education. One of the key findings of the study was it enhanced Critical Awareness of the learners. This is achieved by allowing students to engage with multiple languages, which helps them develop a deeper understanding of content and enhances their critical thinking skills. It also improved Content Comprehension of the content by using their full linguistic repertoire, so students can better grasp complex concepts and ideas, leading to more effective learning outcomes. Another key finding was students' development in effective communication skills by engaging with multiple languages and modalities, therefore students become more willing to express their ideas clearly and confidently. Moreover, further key finding was Classroom Involvement and Engagement. Multilingual learners, by critically using different languages, attempt to understand content knowledge deeply. This diverse language practice serves as a scaffold for both receptive and productive learning, fostering greater classroom involvement and engagement. Finally, the incorporation of multimodal resources, such as oral, written, visual, and audio forms, enriches the learning experience. This approach makes second language writing programs more fascinating and engaging for students, contributing

to their motivation and interest in learning. The study emphasizes that teachers do not need to be multilingual to implement translanguaging pedagogies effectively. Instead, they should act as co-learners, valuing the multilingual speakers' full linguistic and semiotic repertoires and learning experiences. This approach helps in creating a more inclusive and dynamic learning environment. These results highlight the potential benefits of translanguaging pedagogies in enhancing EFL writing education by leveraging students' multilingual capabilities and promoting a more engaging and effective learning environment.

2.4 AI and Writing Competence

Technology has been widely integrated in EFL classrooms to assist language learning especially for feedback purposes due to time constraints (Teng, 2024; Fathi & Rahimi, 2023; Wang, 2022). AI-assisted platforms offer various opportunities for language learners specifically when they have challenges in different aspects of writing such as organization, grammar, vocabulary and coherence. AI-assisted online platforms can be utilized to support EFL learners in their language learning journey especially in the process of input and output (Song & Song, 2023). These AI platforms are easily accessible in language learners' computers and mobile devices, specifically assist them in the development of their writing abilities. One of the well-known AI tools is ChatGPT, which is an AI-assisted chatbot developed by OpenAI (Barrot, 2023). Since it was launched in 2022, it has a great impact in English lessons especially in writing. As it provides instant feedback, it is welcomed by language teachers for minimizing their challenges in large classrooms (Seo, 2024). ChatGPT can be effectively integrated in various language learning programs to leverage learners' writing competencies by correcting incorrect grammatical sentences, giving feedback on coherence and cohesive devices in their piece of written work, overcoming writing difficulties such as vocabulary and organization (Barrot, 2023). Language learners are able to communicate with ChatGPT in their HLs and it understands human inquiries and delivers suitable replies, accordingly (Song & Song, 2023).

Numerous studies explored the impact and contribution of AI to develop EFL learners' writing skills. Some scholars in literature (Selim, 2024; Song & Song, 2023; Fathi & Rahimi, 2024) grounded their studies on Vygotsky (1978)'s social

constructivist theory emphasizing the scaffolding aspect of ChatGPT. For instance, Selim (2024) explored the role of artificial intelligence (AI) platforms in enhancing language learning, specifically focusing on how AI contributes to the development of writing skills in English language learners. The study is grounded in Vygotskian social constructivist theory, employing a qualitative research design to assess the impact of AI-enhanced writing mediation on EFL learners' academic writing skills. Fourteen EFL learners, who were preparing for the IELTS (International English Language Testing System) examination, participated in the study. A comprehensive set of questionnaires and semi-structured interviews were employed to gather data on students' perceptions and experiences with AI writing tools. The mixed-method approach aimed to provide a nuanced understanding of how these tools impact academic writing among EFL students. They engaged in interactive writing activities using ChatGPT, an AI platform, which provided them with both implicit and explicit writing mediation to aid in their academic writing development. The researcher observed the learners' interactions with the AI platform and maintaining a reflexive journal. The findings confirmed that the AI platform's writing mediation significantly contributed to the learners' academic writing skills development. Moreover, in the study, think-aloud interviews were conducted, and results revealed that learners had positive attitudes and perceptions towards the role of AI-enhanced writing mediation in improving their academic writing skills. Despite a general enthusiasm for AI tools, there is some uncertainty regarding their future use and the level of instructor support for their integration. ChatGPT and Grammarly emerged as the most utilized AI tools among students, reflecting their diverse needs in academic writing. The findings indicate a proactive approach among EFL students in leveraging various AI tools to enhance their writing skills and meet academic demands. The study reveals a high level of awareness and utilization of AI writing tools among EFL students, although understanding of their full capabilities varies. The study advocates for integrating AI tools into the curriculum, emphasizing the importance of ethical use and providing comprehensive training for students. Establishing feedback mechanisms and promoting peer support networks can enhance the learning experience and ensure equitable access to AI resources. The integration of AI writing tools in EFL education offers significant advantages, including improved writing quality and academic integrity. The study offers pedagogical and practical implications for the development

of AI-enhanced writing mediation for EFL learners, suggesting that such tools can be beneficial in language learning contexts.

In consistent with Selim (2024)'s study, Song and Song (2023) also conducted a study grounded on Vygotsky (1978)'s social constructivism focusing on social interactions in learning. In Vygotsky (1978)'s theory, The Zone of Proximal Development (ZPD) highlights that collaborative learning helps learners reach their ZPD through peer support. Song and Song (2023) claim that AI can emulate social interactions, enhance collaborative learning experiences, engage themselves more in personalized learning in AI contexts. They also emphasized in their study that ChatGPT provides real-time feedback, promotes their active participation and acts as a scaffold, helping learners internalize writing skills. Findings support AI tool integration in EFL classrooms to boost writing proficiency. Collaborative writing with AI tools can sustain student interest in writing. They employed a mixed research design to investigate the impact of AI on 50 tertiary level Chinese students' writing skills and motivation. Experimental group participants received regular AI assistance throughout the 12-week intervention. ChatGPT provided error identification, suggestions, and writing improvement recommendations and reflection on writing strengths and weaknesses. The quantitative results of the study revealed that the experimental group outperformed the control group in various writing dimensions. Qualitative findings provided insights into the effectiveness of AI-assisted instruction. Participants perceived AI-assisted writing instruction as innovative and helpful. They described real-time feedback from ChatGPT as a personal tutor. They appreciated the accessibility and immediate feedback from ChatGPT. Personalized feedback was seen as a valuable resource for their writing improvement. This was evident as the AI-assisted class showed superior development and performance compared to the non-AI class. Although most of the participants indicated positive perceptions on AI feedback, one of the participants mentioned that the suggestions of AI were not accurate and did not align with his/her writing style. Moreover, one of the participants highlighted his/her challenge on over-reliance, which hindered his/her creativity and critical thinking.

Like Song & Song (2023) 's study, Fathi & Rahimi (2024) followed Vygotsky (1978)'s social constructivist theory and conducted their research employing a qualitative research design to explore the role of AI platforms in enhancing language learning, specifically focusing on how AI contributes to writing skills of fourteen EFL

learners, preparing for the IELTS examination. They engaged in interactive writing activities using ChatGPT provided them with both implicit and explicit writing mediation to assist in their academic writing development. The findings confirmed that the AI platform's writing mediation significantly contributed to the learners' academic writing skills development. Follow-up think-aloud interviews were conducted to understand learners' cognitive processes and experiences, revealing that learners had positive attitudes and perceptions towards the role of AI-enhanced writing mediation in improving their academic writing skills. The findings highlighted that the structured implicit and explicit writing mediation provided by ChatGPT significantly contributed to the development of EFL learners' academic writing skills. This mediation helped learners reach their potential level of development, also known as ZPD, in writing. As learners engaged with the AI platform, they required less explicit mediation over time and became more responsive to the writing mediation provided. This responsiveness indicated potential development in their academic writing skills, particularly in areas such as coherence, organization, grammar, and vocabulary. The study also identified areas of strength and weakness in the learners' writing by closely monitoring their responses to the varying levels of writing mediation provided by ChatGPT. This allowed for targeted intervention and support, further assisting in the development of their writing skills. Learners expressed positive attitudes and perceptions towards ChatGPT's contribution to their writing skills development. This positive reception was attributed to the engaging, structured, immediate, and relevant writing mediation provided by ChatGPT. Nevertheless, some learners reported occasional inaccuracies in ChatGPT's writing mediation. These inaccuracies were particularly noted in context-specific language usage and cultural references, which could potentially mislead learners or provide less effective guidance. There were also concerns among learners about becoming too reliant on ChatGPT. This dependency was feared to negatively impact their creativity and originality, as they might rely more on the AI's suggestions rather than developing their own writing skills independently. These challenges highlight the need for addressing technical barriers and ensuring that AI tools are used as a supplement to, rather than a replacement for, traditional learning methods.

Seo (2024) conducted a study in South Korea from March to June 2023, during the early stages of ChatGPT's release. The study was conducted as exploratory

research among 44 B1 level students aimed to observe natural phenomena without a control group. A course was designed to help students connect their experiences to themes in an American movie, practice language use in context, and develop narrative writing skills. Students engaged by watching a movie to learn authentic English expressions and increase cultural awareness. Participants discussed the film, characters, and cultural insights, and wrote narratives reflecting on personal experiences like the film's themes. The class was conducted once per week for 3 hours over 15 weeks, including an orientation session, a pre-test, and a post-test. The study did not include a non-AI feedback group, which is necessary to track improvement over time and to thoroughly investigate how students optimally utilize generative AI to enhance writing skills. The study highlights the need for the development of AI tools for writing assessment that reflect the characteristics of different genres. The results show that while students became more fluent, their syntactic complexity did not increase as expected. However, there was a significant increase in their clauses, indicating some genre-specific improvements. The study suggests that instructors should focus on content and higher-order writing skills, as ChatGPT effectively handles surface-level errors. It also highlights the need for prompt literacy education to help students interact effectively with AI tools. Collaborative activities are recommended to foster innovative thinking and improve writing skills.

Teng (2024) investigated the possible impact of ChatGPT on EFL learners' writing competence and their perceptions on using ChatGPT for writing feedback in Macau language, among 45 participants registered in an English Practical Writing Course. A mixed-methods approach was employed, combining quantitative data from questionnaires and qualitative insights from interviews after a semester-long writing course. The study found significant positive effects of ChatGPT on EFL learners' writing, particularly in motivation, self-efficacy, engagement, and collaborative writing tendency. Participants reported positive experiences with ChatGPT, appreciating its instant feedback and the ability to make real-time adjustments to their writing. Additionally, the research explores the potential of ChatGPT in generating automated corrective feedback and its role in supporting teachers by minimizing the workload associated with providing personalized feedback. Nonetheless, the research identified several challenges associated with using ChatGPT for writing assistance. Participants expressed concerns about the insincere nature of ChatGPT's feedback,

which is lack of human touch and emotional understanding. There were also some concerns regarding the possible over-reliance on ChatGPT, which could lead the EFL learners to laziness and hinder the development of their critical thinking and creative skills. Specifically, one of the learners expressed in the interview that “teachers are not replaceable in instructing content and ideas, sharing experiences in writing” (p.8)

Barrot (2023) explored the use of ChatGPT as a tool for second language (L2) writing, highlighting its potential benefits and challenges in writing pedagogy. He further claims that ChatGPT can provide automated grading and feedback, addressing the need for quality writing assessment. However, it lacks emotional depth and critical thinking skills, which are essential for effective writing. Due to this fact, Barott (2023) suggests how to get benefit from ChatGPT as an AI tool with the following statement:

While ChatGPT can be useful as an L2 writing assistant, adopting it as a supplementary tool for writing essays is highly advisable rather than relying on it as a content creator. A helpful approach is to encourage students to write their original outputs first and then refine them using ChatGPT. This approach helps students develop their writing skills while using ChatGPT to improve their written outputs further. (p.4)

ChatGPT can be utilized throughout the writing process, serving as a pre-writing, during-writing, and post-writing tool, which enhances students' writing skills. It offers automatic grading and feedback on written work, assessing various aspects such as content clarity, organization, and grammatical accuracy. The research emphasizes the importance of integrating ChatGPT into writing instruction while maintaining ethical considerations and supporting students' creative expression. Barrot (2023) concludes his study with recommendations for teachers and students, including clear guidelines, hands-on training, and ongoing support to enhance the effective use of ChatGPT in L2 writing classrooms.

2.5 Writing Competence of EFL Learners Assisted with Machine Translation (MT)

With advancements in technology, the communicative repertoire of bilingual and multilingual learners has been significantly enhanced by digital tools. Resources for meaning-making that beyond their current proficiency have also been integrated

into their repertoire through distributed practice (Canagarajah, 2018). One approach they utilize to acquire languages is machine-assisted translation (Beiler & Dewilde, 2020). Research on machine-assisted translation has largely been influenced by monolingual perspectives, treating languages as independent entities (Buendgens-Kosten, 2020). This notion perceives translation as a tool to identify the linguistic equivalents in both home and additional languages to achieve proficiency (Horner & Tetreault, 2016). However, when creating and interpreting texts are concerned, machine translation technology engages with learners' pre-existing linguistic abilities, cultural insights, and other resources for meaning making to facilitate understanding (Beiler & Dewilde, 2020; Vogel et al., 2018).

The study, for example, conducted by Lee (2020) investigated the role of machine translation (MT) as a computer assisted learning language (CALL) tool in EFL writing. The study employed a different design that students translate their HL writings into AL without the help of MT and then correct their additional writing using MT translation for comparison. The study was conducted among 34 students majored at intermediate and high intermediate level of English during six weeks in a media-assisted language learning course at a university in Korea. The participants first watched a TED video for 15 minutes on a topic then they write about the topic in their HL, next, they translate their HL writing into English without the help of MT, then translate their writing with the help of MT, finally they edit their initial English translation by comparing with the MT version. During the process of 3-5 students are allowed to use other sources such as dictionaries, Google translate and Papago (MT developed in Korea). Then, the task reflection papers were collected to analyse the insights of the participants. The results revealed that MT helped learners decrease their grammatical errors and positively affected student writing strategies and helped them think of writing as a process. The interviews and reflection papers demonstrated that students viewed the use of MT during writing positively.

Kelly & Hou (2022) investigated the role of machine translation (MT) in the education of multilingual pupils learning English as an additional language (EAL) in Northern Ireland. It employs a translanguaging framework to analyse how these learners utilize MT in their academic and daily lives. Data was gathered through pupil focus groups, which included 28 participants, and teacher interviews, involving 14 educators across five secondary schools in Northern Ireland. Findings reveal that

learners view MT as a valuable tool, integrating it into their learning processes while navigating challenges related to accuracy and effectiveness. The study found that MT is widely used by multilingual pupils learning English as an additional language (EAL) in both educational and everyday contexts. Learners view MT as a legitimate tool, integrating it flexibly and critically into their language practices. Advanced multilingual pupils demonstrate critical engagement with MT, recognizing its accuracy issues and proactively post-editing translations to suit their communicative needs. As pupils' English proficiency improves, they tend to rely less on MT, indicating a complex relationship with the tool as their language skills develop. The challenges discussed in the paper include concerns regarding the accuracy of MT, as some pupils reported that certain words do not translate effectively, leading to frustration and annoyance during their learning process. Teachers noted that pupils often resist using paper bilingual dictionaries due to feelings of embarrassment or being set apart from their peers. Additionally, there is a tension between pupils' recognition of MT's inaccuracies and their reliance on it for communication and learning, influenced by prevailing monolingual ideologies in their educational environment.

Tsai (2022) investigated the effectiveness of Google Translate (GT) as a translingual CALL tool in EFL writing among Chinese students, comparing English major (EM) and non-English major (NEM) students. The study involved 33 EM students and 31 NEM students from a national university in Taiwan, with their English proficiency assessed using an online TOEIC-like test. Students first wrote a reflective essay in Chinese, then composed an English version self-written (SW) based on the same theme. They utilized GT to create a translated version and subsequently revised their SW text to produce a revised self-written version (RSW). A questionnaire was administered to gather student perceptions regarding the use of GT in their writing process. The study found that GT significantly improved the writing performance of both EM and NEM students, with NEM students showing greater improvement rates in content and accuracy compared to EM students. NEM students expressed more ideas in their GT versions, achieving writing performance comparable to EM students in revised texts. Students reported positive perceptions of GT, particularly NEM students, who found it helpful for vocabulary and content improvement. Overall, GT served as an effective translingual tool in EFL writing instruction. Despite

improvements, both groups noted limitations in GT's grammatical accuracy, indicating a need for enhanced English proficiency. It highlights how GT can enhance writing performance by providing enriched content, advanced vocabulary, and reducing grammatical errors compared to self-written texts. It emphasizes the importance of leveraging students' HLs during the writing process and improve their writing quality.

Yang & Lin (2025) investigated how EFL students in China with lower to intermediate proficiency utilize a generative AI tool in their writing tasks and their perceptions on that tool regarding their language development. The population sample size in the study was six EFL students with lower to intermediate proficiency. The sampling method employed was stratified random sampling. The study employed qualitative methods, and data were collected through semi-structured interviews and artefacts from participants who completed three writing tasks while utilizing the generative AI tool, ERNIE Bot. Data coding and theme development were utilized to analyse the interview responses, focusing on students' translanguaging practices and emotional responses towards AI assistance. The study concludes that EFL students in China effectively leverage generative AI, specifically ERNIE Bot, to enhance their writing skills through translanguaging practices. Students utilized their HL for problem-solving and idea generation, which facilitated their writing process. However, mixed emotions were observed with students. While some students appreciated AI's feedback, some others expressed their concerns about overreliance such as satisfaction, frustration, anxiety, and reliance. The findings suggest that generative AI can boost students' confidence and willingness to practice writing, although its long-term effects on language development remain uncertain.

This chapter provided the detailed information regarding the theoretical background grounded on the translanguaging pedagogy and some studies conducted in the same area of the study focusing on writing competence of EFL learners assisted with AI (ChatGPT). The literature regarding the framework was review align with the research questions. The next chapter will give detailed information about how the current study conducted pedagogically.

Chapter 3

Methodology

This chapter outlines the research methods by describing the research design of the study, setting, participants along with the data collection tools and procedures, data analysis, reliability and validity, and finally, limitations. This study investigates whether AI-assisted translanguaging pedagogy has an impact on the writing competence of EFL learners studying at preparatory school of a non-profit foundation university located in Istanbul, Turkey. Additionally, the research is conducted to reveal the EFL learners' perceptions on translanguaging pedagogy sequentially during and after the treatment. Therefore, the following research questions were investigated:

1. To what extent does AI-Assisted translanguaging pedagogy have an impact on the writing competence of EFL learners in a Turkish university context?
2. What are impacts of AI-assisted translanguaging pedagogy on EFL learners' perceptions in writing instruction?

3.1 Research Design

The current research is a sequential, explanatory, and mixed-method research design with a quasi-experimental intervention in which non-equivalent (Pre-test and Post-test) control group strategy is employed. To investigate the impact of AI-assisted translanguaging pedagogy on the writing competence of the EFL learners and overall perceptions of participants regarding AI-assisted translanguaging pedagogy, using mixed method provides the researcher “to combine elements of qualitative and quantitative data approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration” (Johnson et al. 2007, p.123). The participants received a 5 week of intervention and their pre and post-test intervention results were calculated and reported. Additionally, their perceptions about the intervention were also investigated to get deep understanding of the phenomenon.

Moreover, when individuals are not randomly assigned, the procedure is called a quasi-experiment (Creswell, 2009). Quasi-experimental studies can be frequently employed in educational settings as researchers cannot create artificial groups for the

purpose of their research (Creswell, 2012). The current study employed thirty-five English language learners studying in a foundation university, so there were no random groups. The participants in this study were the officially assigned classes of the researcher, they were not formed artificially for the purpose of the study.

The current research employs explanatory sequential design in which there are two distinct phases, that is, it starts with quantitative data collection and analysis, and then it follows qualitative data collection and analysis to examine whether it expands or explains the quantitative data analysis results (Creswell & Creswell, 2018). The current study is sequential as in the first cohort, the quantitative data were collected from thirty-five EFL learners' pre and post-tests writing scores, and then the qualitative data were collected through semi-structured interviews to investigate the perceptions of the participants on the AI-assisted translanguaging pedagogy. The findings of the research helped the researcher to explore the impact of the intervention.

3.2 Setting

The study was conducted at a foundation university's preparatory classes in the School of Foreign Languages located in Istanbul, Turkey, in the autumn term of the 2024-2025 academic year. The English Preparatory Program follows standardized curriculum guidelines and assessment practices designed to prepare students for EMI programs. The university offers 30% and 100 % EMI at its major departments. Therefore, English proficiency is a must that students are supposed to demonstrate at the beginning of each academic year by taking a proficiency exam designed in accordance with the objectives of the institution and Common European Framework of Reference (CEFR) English level requirements.

At the beginning of the academic year, students sit for the institution's proficiency exam (with an average of 60), Pearson PTE (with an average of 55), IELTS (with an average of 6) or YDS (with an average of 60) to be eligible to start their undergraduate studies at their majors. Language classes are divided into levels as A1, A2, B1, B2 and Prep C levels according to the proficiency exam scores. Each level goes through a language education for a period of eight weeks, which is called a module. There are sixteen weeks in each semester and at the end of the second module, B2 level students are tested with an English language proficiency exam, and if they

are eligible to pass the proficiency exam with a score of 60, they are able to start studying at their majors as irregular students.

Students received 24 hours of English instruction per week and 18-hour instruction of it is given as integrated lessons (including grammar, vocabulary, reading, listening and speaking) and 8 hours of instruction is allocated for academic writing skills. 6 hours of integrated lessons are offered as online lessons (3 hours per day) however, 8 hours of academic writing classes are given as face-to-face lessons. When the entire course program is taken into consideration, four language skills are taught and practiced with a General English curriculum, and it aims to prepare students for their EMI majors.

The School of Languages uses their in-house published course books for all levels which are written by expert level coordinators to meet the requirements of each level and equip the learners not only with General English abilities but also prepare them for proficiency exam at the end of their learning journey. Apart from course books, students are also supported by Technology Enhanced Learning Unit (TELU) with digital exercises and informative documents designed for each level. Students are regularly assigned with level- appropriate digital tasks each week and they can revise the topics covered during the week.

During the eight-week period within a module, students are not assessed in the 1st and 8th week, whereas, during the remaining weeks, they are assessed with four weekly tests. Besides, there are two collaborative tasks and two speaking tasks that students are expected to complete successfully. Along with the weekly tests and tasks, students are also assessed with integrated and academic performance grades by their teachers. At the end of each module students sit for an End of Module (EoM) Exam and if they get 60 points from the exam, they are promoted to the next level. At the end of the second semester, students are required to take a proficiency exam, and they must score at least 60 points from the exam to be eligible for completing their language instruction period before starting their majors in the following year. The students who fail are required to repeat the preparatory year. This recycling goes until the student reaches the level B2 which is a necessity for them to comprehend their English instructed lectures in their majors.

3.3 Participants

Convenience sampling was utilized to collect qualitative and quantitative data in the study. 35 students participated in this study, and they studied at a Turkish foundation (non- profit) university studying at the elementary level in the preparatory programme of an English-medium university. The participating students are obliged to complete 4 modules and take the proficiency exam at the end of the academic year to continue their academic studies in their respective departments. Additionally, out of 35 student respondents, 20 were female and 15 were male. The participants whose ages ranged from 18 to 19 constituted the largest group of the participants (77,1%), whereas those aged over 19 made up a smaller portion (14,4%), and the smallest group (8,6 %) consisted of participants under the age of 18. Moreover, all participants were Turkish and shared similar cultural and educational backgrounds. According to the English education background of the participants, the majority of the students studied English at high school (71,4 %) and the least common form of language learning was through other types of courses (17,1 %). Most participants studied English for no more than 8 hours per week prior to university. Moreover, for each level class, there were two partner teachers sharing a level class as integrated and academic writing instructors.

3.4 The Raters

Raters play a crucial role in the assessment of writing, particularly in educational settings where objective evaluation is required (Weigle, 2002). The reliability and validity of assessments are based on scoring strategies employed and the training provided to raters. Such training is essential for ensuring consistency and minimizing subjective bias in evaluations (Knoch, 2011). To provide objectivity in scoring, each pre-test and post-test was assessed by two independent raters who were both tertiary level English instructors employed at the same institution with the researcher. The rationale for choosing these assessors is that one of the raters has completed her MA degree and the other one has completed her PhD degree in English Language teaching, and they are both consistently trained by the institutions' testing unit members before each module with a session to be standardized.

They were trained and calibrated through a training session to familiarize themselves with the components of Cambridge Preliminary Test Writing Rubric (Appendix I) prior to their assessment. Throughout the training process, they learned how to follow specific evaluation guidelines. This process enabled them to be consistent and reliable in their scores. Each piece of the control and experimental group students' pre and post-test writings were read twice by the raters blindly based on the four components of the rubric: content, communicative achievement, organisation and language. In the first phase, the aim was to evaluate how the participants convey their messages in their writings and in the second phase their focal point was to evaluate their writings based on the specific components in the rubric. This procedure enabled them to be standardized in their scorings (Turnbull, 2019).

Intraclass Correlation Coefficient (ICC) test was used to evaluate interrater reliability of the raters for each pre-test and post-test scores obtained through blinded grading by two independent raters. The level of statistical significance was set at $p < .05$ for all analyses (Table 3).

Table 3

Intraclass Correlation Coefficient (ICC)

		Intraclass Correlation Coefficient					
	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.969 ^a	.940	.984	62.417	34	34	.000
Average Measures	.984 ^c	.969	.992	62.417	34	34	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

The results suggested that there is an excellent internal consistency between the two raters and they are highly correlated and reliable with a p value of .98 ($r=0.98, p<0.0001$), (Cronbach, 1951; Kılıç, 2016). As emphasized by Creswell and Creswell (2018), establishing inter-rater reliability is a crucial procedure in quantitative research to confirm the trustworthiness of scores obtained from multiple evaluators. The statistically significant F-test result ($F(34, 34) = 62.417, p < .001$) provides additional evidence for the reliability of the scoring procedure. It demonstrates that the high level of agreement observed among raters was unlikely to

have occurred by chance. Briefly, the standardization training on rubric components, reading the writing piece of the participants twice, and statistical analysis of interrater reliability across raters contribute to a consistent and reliable scoring and assessment process.

3.5 Procedures

3.5.1 Data collection instruments. The present study has a quasi-experimental mixed methods research design, collecting both qualitative and quantitative data through various data collection instruments.

3.5.1.1 Pre-tests and Post-tests scores. Pre and post test scores constitutes the quantitative data of the study. Pre-tests were given to both control and experimental groups to examine the homogeneity of the participants in the study. Post tests were given to both groups after treatment to analyse whether there was a significance difference between two groups in terms of writing competence. Both pre and post tests were the same to investigate the possible effect of translanguaging treatment across the groups. The Cambridge Preliminary English Test which can be reached at <https://www.cambridgeenglish.org/exams-and-tests/preliminary/preparation/> (Appendix D) was administered for 45 minutes (during one lesson hour) as pre and post-tests.

The purpose of selecting this test was to ensure compatibility with the lessons in which the research was conducted. Since the story writing competence of the language learners is tested in Cambridge Preliminary English Test writing section, it aligns with the writing objectives of institution in A2 level, including teaching how to write a story using prompts and generate ideas on familiar and theme-related topics. In the Cambridge Preliminary Test, the writing a story section starts with a prompt sentence giving an idea to the test takers to continue the story. This is also the same in the institution's writing a story assessment at the end of the module.

Furthermore, the Cambridge Preliminary Test writing section assesses the writing skills of the EFL learners in terms of Content, Communicative Achievement, Organisation and Language, which is also compatible with the institution's writing assessment rubric in which students are tested in the EoM Exam with the components of Task achievement, Organisation, Language and Vocabulary. Both Cambridge Preliminary English Test and End of Module test story writing sections are assessed

out of 20 points including 4 components in which each component is evaluated out of 5 points. (See Appendix K).

The pre-test was conducted to both control and experimental group in the first week. Following the pre-test administrations, the AI-assisted translanguaging pedagogical implications were only conducted in the experimental group for 5 weeks and at the end of week 5, post-test was administered in both control and experimental groups. The pre and post tests were blind scored by the raters. Statistical analyses were conducted for the interrater reliability for pre and post test scores determined to be satisfactory at .98. This high level of reliability results indicate that the assessments were consistent across two raters.

3.5.1.2 Students' reflective feedback after each class activity. A reflective feedback activity sheet consisting of two open-ended questions written both in English and in participants' HLs reflecting their perceptions was designed based on insights from the existent literature (Karabulut, 2019). The researcher distributed it to participants right after each activity (see Appendix E). Therefore, students could respond in either language to get more insights about the activities without having any language barriers in a translanguaging space (Li, 2011).

In this study, qualitative data were collected through reflective feedback of the participants after activities, which were Frayer Model, 4 Box Graphic organizer, ChatGPT feedback activities, multicolour sentence strips and Parking Lots. The total number of reflective feedback for each activity is listed at the following table:

Table 4

The Total Number of Reflective Feedback for Each Activity

Activity	Number of reflective feedback sheets
Frayer Model	16
4-Box graphic organizer	16
Multicolour sentence strips	17
ChatGPT feedback (paragraph writing)	17
ChatGPT feedback (story writing)	13
Parking lots	14
Total Number of sheets	93

3.5.1.3 Field notes. Field notes refer to the researcher's personal and subjective reflections and interpretations, which were written during the observation. The researcher meticulously documented field notes during and/or right after the class sessions focused on the translanguaging activities of the participants. As Bogdan and Biklen (2007) state, such notes may provide valuable insights and comments from the observer that align with the suggested categories for analytic memo reflection. Saldana (2018) also claims that personal field notes can serve as rich sources for in-depth analysis. As the researcher intends to implement translanguaging practices, it becomes essential to document the participants' responses throughout the process. The data acquired from the researcher's notes not only provide significant insights that may prompt further investigation during interviews but also enhance the study's credibility, serving as a verification tool for interview responses (Yin, 2011). In other words, Karabulut (2019) clarifies the concept that it acts as both a supportive and verification instrument for the information extracted from students' reflective feedback. Regarding verification, it assists the researcher in determining whether the participants are expressing their genuine experiences and reactions rather than merely echoing what they have been instructed or encouraged to convey, and it allows for a comparison of the data gathered through interviews to assess any biases or coherence with the field notes. In this study, the researcher became a participant observer (Creswell, 2012) focusing on the participants' reactions to the activities and their challenges in real classroom environment.

3.5.1.4 Semi-structured focus group interviews. It is clarified by Saldana and Mathews (2018) that semi-structured interviews can be conducted by researchers through creating a list of questions that covers all the topics they wish to discuss with the participants. The questions should be asked in a coherent, logical order that enable the participants to naturally move from one question to the other. It is often advised to start with simple questions to orient the participant to the discussion and build rapport with the interviewer before going into detailed, complex, or sensitive questions. Additionally, they also state that in some cases, the researcher might feel the need to lead the interview with follow-up questions for the flow of the interview.

Saldana and Mathews (2018) also claim that it is useful to have interviews with group participants concurrently in a context where they can hear each other's responses and interact, rather than exclusively answering the interviewer's questions. Further,

they explain that this strategy is notably beneficial when a researcher requires to analyse the group relationships to see how it functions as a group, rather than individual responses of each participant. While semi-structured interviews enable individuals to express their perspectives on group dynamics, focus group interviews allow researchers to witness how members engage, at least within the framework of the focus group itself (Saldana, 2018).

In this study, semi-structured 6 focus group interviews were conducted to get more in-depth information about the second research question regarding the participants' perceptions about the AI-assisted translanguaging pedagogy implemented in their writing classes. The interview questions start asking the participants' perceptions on using their HL and then continue to get insights about class activities and link these activities to their ChatGPT experience and finally get their overall perceptions on five-week writing classes in which translanguaging pedagogy has been implemented (See Appendix G). Semi-structured interviews were verbatim transcribed with 6 focus groups during two class hours lasted roughly 70 minute.

3.5.2 The procedure. The A2 level coordinator provided the 8-week plan of the Module 1 from the A2 level coordinator of the institution. '*Translanguaging in Curriculum and Instruction; A CUNYNYSIEB Guide for Educators*' (<https://www.cuny-nysieb.org/wp-content/uploads/2016/04/Translanguaging-Guide-Curr-Inst-Final-December-2014.pdf>) outlining practical translanguaging techniques at each school level (from elementary to high school), was examined and appropriate activities for tertiary A2 level were carefully integrated into the existing lesson plan by embedding translanguaging pedagogy aligning with the instructional framework (see Appendix M for detailed lesson plan). First, the institution's module overall plan, instructional stages on the writing guide coursebook were analysed, and then exercises were compared with the practical translanguaging techniques in the CUNYNYSIEB Guide. Next, the appropriate activities were selected consistent with tertiary A2 level and objectives for each week, and finally the chosen ones were added to the existing overall plan as a supplementary section titled "Translanguaging- How to". The selected activities were thoroughly explained for each week using visuals and giving instructional suggestions how to implement the translanguaging techniques.

After the translanguaging pedagogy was embedded into the plan, the researcher introduced the content of the study and asked for help from the institution's Technology Enhanced Language Unit (TELU) to recommend an available AI tool for the study. There are various AI tools that could have been utilized on the internet, however, the most appropriate one providing translanguaging space for students needed to be chosen. Various tools were examined, analysed and tested aligned with the activities in the plan, yet most AI tools offered translation features rather than creating a translanguaging space. Therefore, ChatGPT was chosen as the most appropriate tool for the study, as it would be utilized for getting feedback in any languages creating a translanguaging space for the students.

Since the research focuses on the pedagogical implementations of translanguaging assisted by an AI tool (ChatGPT), a pilot study was conducted a) to examine whether this newly designed plan would be compatible with the existing flow of the overall plan in terms of time, b) to check the implementations of the treatment activities in real classroom environment c) to make alterations accordingly before conducting the main study. Due to this fact, pre and post tests were not conducted in the pilot study, only AI assisted translanguaging implementations were done and perceptions of the students were collected. The data collection tools data analysis investigating the research questions are listed in the following table.

Table 5

Overview of Research Questions, Data Collection Tool and Data Analysis

Research Questions	Data Collection Tools	Data Analysis
1.To what extend does AI-Assisted translanguaging pedagogy have an impact on the writing competence of EFL learners in a Turkish university context?	Pre-test scores Post-test scores	Shapiro-Wilk normality test Wilcoxon Signed Rank test Paired Sample T-test Independent t-test- Mann-Whitney U test
2.What are impacts of AI-assisted translanguaging pedagogy on EFL learners' perceptions in writing instruction?	Reflective feedback sheets Field Notes Semi-structured Focus Group Interviews	Data-driven Thematic analysis

3.5.3 Pilot study. The pilot study was conducted between 23 September and 8 November 2024 for 5 weeks, with two classes one of which was the experimental group in which AI-assisted translanguaging practices embedded into the plan, and the other class was the control group in which traditional EoP instructed classes carried out. The researcher was also the instructor of both groups and collected data simultaneously.

In the first week, the researcher introduced the research content to the participants and got their consents to conduct the pilot study. The participants' demographic information was collected via written form (Appendix H). The total number of the participants was 20 (10 females and 10 males) and their ages range between 17-22 and the majority of the participants (60%) was at the age of 18 and their majors were economy, physical therapy and rehabilitation, advertising, dentistry, new media, nursing, architecture, industrial design, psychology, artificial intelligence engineering, gastronomy, electrical engineering, business administration, and computer engineering. 19 participants were from Turkey and their HLs were Turkish whereas there was only one international student from Iran speaking Farsi and Turkish fluently and learning English.

3.5.3.1 The implementation during the pilot study. Within the first week, the researcher created writing partners among the participants to meet the specific goals (home language partnership or mixed language partnership). There was only one international student, but he was also fluent in Turkish so, it was easy for the researcher to pair him with the participants having the same HL. The researcher allowed the students to carry their bilingual dictionaries and create their own supplementary bilingual glossaries to clarify the meanings and spelling of the words. Next, the researcher assigned one student for each language (one for HL and one for AL) as the editor of the word wall. At the end of each week, editors wrote the newly learned words on the wall.

As the primary goal of the module was story writing, the administrator unit and the level coordinator of the institution had agreed to start from unit 5, introducing paragraph writing first. Therefore, for two weeks' time, the participants were instructed about the introduction to paragraph writing and structure of the paragraph. In the introduction part, students were allowed to use their bilingual/electronic

dictionaries and when the structure of the paragraph was introduced, they could annotate definitions of unfamiliar vocabulary and engage in collaborative discussions using their HLs.

In the second week, brainstorming and writing topic and supporting sentence were instructed. The researcher used mind maps (outlining sheet & graphic organizer) to clarify the topic to enable them to see the concepts deductively. For supporting sentence structure, the researcher implemented “Frayer Model” for the instruction of linkers. There were 6 different linkers (although, however, that’s why, because of, because and so) in the objective of the lesson. The researcher brought a piece of paper on which these linkers had already been written in the middle of the paper and the students were grouped and each piece was given to each group to write on the Frayer model including its meaning, function, example sentences both in English and in their HLs (See Figure 5).

In writing a concluding sentence part, the participants were allowed to discuss, annotate, plan and write their first draft paragraphs in their native languages, then they wrote in English. After writing their paragraphs in English, they were directed to ChatGPT and write a prompt either in English or in their home languages to check their grammar and spelling mistakes. Since ChatGPT responds in all languages, students will have a chance to communicate with ChatGPT in any languages in their repertoires. This is the translanguaging space (Li, 2011) that ChatGPT provides to all bilingual students. After they wrote the prompts in any languages, they started typing their paragraphs into ChatGPT box and let it check their mistakes. After students got feedback on their mistakes, they corrected their mistakes on their first drafts and re-wrote their paragraphs. Next, they wrote another prompt to ChatGPT in any languages to assess their written paragraph according to “A2 Paragraph writing-self-assessment checklist” (Appendix L) on their course books, and uploaded/attached the photo of it into ChatGPT and they got feedback from ChatGPT in any languages. Finally, they exchanged their paragraphs with other writing partner peers and got feedback from them in English using “A2 Paragraph writing peer-feedback form” (Appendix L) on their course books. The researcher provided opportunities for students to discuss the rubric in their HLs.

As of third week until week five, the participants were instructed about writing a story. The components of story writing including brainstorming, climax and ending

were instructed by the researcher by using mind maps. Then, effective story writing tools such as, articles, adjectives and adverbs, time makers, linguistic features and vocabulary studies were also carried out. Articles, adjective and adverb forms were instructed by using sentence building technique as illustrated below:

a young lady – genç bir kadın

A. I see a bird. ----- B. I see a red bird.

Adapted from: Translanguaging in Curriculum and Instruction; A CUNYNYSEB Guide for Educators website

Time makers and linguistic features regarding simple past tense and past continuous tense were implemented by using multicolour sentence strips and each colour was assigned with a structure type (affirmative, negative, interrogative sentences and time makers such as when, while, after, before) (See Appendix S). After all tools of writing a story were provided by the researcher, the participants were given some words, beginning and ending sentences to write a story as it had been instructed. Writing partners work collaboratively and brainstorm the story and generate ideas in their HLs. First, participants were allowed to write their stories in any languages using the given instructions. They got assistance from their bilingual /electronic dictionaries, and after they wrote their own stories in English, they check their grammar and spelling by getting assistance from AI tool “ChatGPT” for self-editing, and then they exchanged their stories with other classmates and gave peer-feedback by using “story writing peer-feedback form” (Appendix L) on their course books and discussed in their HLs. Teacher provides opportunities for students to discuss rubric in multiple languages. After writing their first drafts in English and editing their final stories by getting assistance from AI tool ChatGPT, they read their stories to the whole class in English.

3.5.3.2 Feedback from the participants about the activities in the pilot study.

All participants found the activities highly beneficial, both linguistically and socially, for consolidating and comprehending the topics. After each activity, students’ perceptions were taken through reflective feedback sheets (Appendix E) and some students indicated that being socialized with their classmates had positive contributions to their learning and reminded them the studied topics (e.g. Excerpt 1: *This activity helped me to socialize with my classmates and reminded me of the*

topics we had studied (*Multicolour sentence strips activity*). They also emphasized the activities' scaffolding function (e.g. Excerpt 2: *It helped me like a teacher, ChatGPT feedback activity*) by supporting them on grammar building (e.g. Excerpt 4: *It helped me to understand the structures better and now I know where to put a verb and a noun, Sentence building activity*), meaning making (e.g. Excerpt 3: *When we synthesise the English structure in our home language, it becomes meaningful and more retainable, Sentence building activity*), realizing their mistakes (e.g. Excerpt 4: *It was very effective because I was able to see where I made mistakes. I noticed my grammar and spelling mistakes, ChatGPT feedback activity*), and receiving alternative suggestions (e.g. Excerpt 5: *Although the task was difficult for my level, ChatGPT helped me to complete the task by giving suggestions.... I think, we should be allowed to use it in more activities, ChatGPT feedback activity*).

3.5.3.3 The alterations made after pilot study. During the pilot study, previously designed two in-class activities (4-box Graphic Organizer and Parking Lots) could not be done because of time constraints. Additionally, the students assigned as word wall editors often failed to update it weekly with new vocabulary. This may have been due to their lack of voluntary engagement, as they were selected rather than volunteering willingly. Therefore, the researcher decided to ask participants in the main study whether they would like to be volunteers as word wall editors. Furthermore, in sentence building activity, the researcher wrote words on the board and some students took notes, whereas some did not, due to this fact, the researcher decided to prepare a board including parts of speech in adjective and adverb topics and display it on the wall for easy reference during class activities. In the Frayer model activity, students understood the linker they worked on but were unaware of the others until they were posted on the wall, as the activity was conducted in groups. So, the researcher decided to extend this activity in the main study by enabling students to present the linkers to their peers. Finally, it was difficult to graph the demographic information of the students with a written form, therefore, the researcher decided to prepare a google form which could be accessed via their mobiles and the graphs could be downloaded easily.

3.5.4 Main study. The second module started on 18 November 2024 and ends on 03 January 2025. The researcher was assigned two A2 level classes: one for integrated, one for academic writing class. Since the study investigates the AI-assisted translanguaging pedagogy on the writing competence of EFL learners, the researcher conducted the main study in her academic writing class assigned as the experimental group and no treatment was conducted in her integrated class assigned as the control group. In the second module, the researcher collaborated with a colleague who taught academic writing to her integrated class assigned as the control group. The following figure illustrates the flow of the topics instructed during week 1.

3.5.4.1 Week 1.

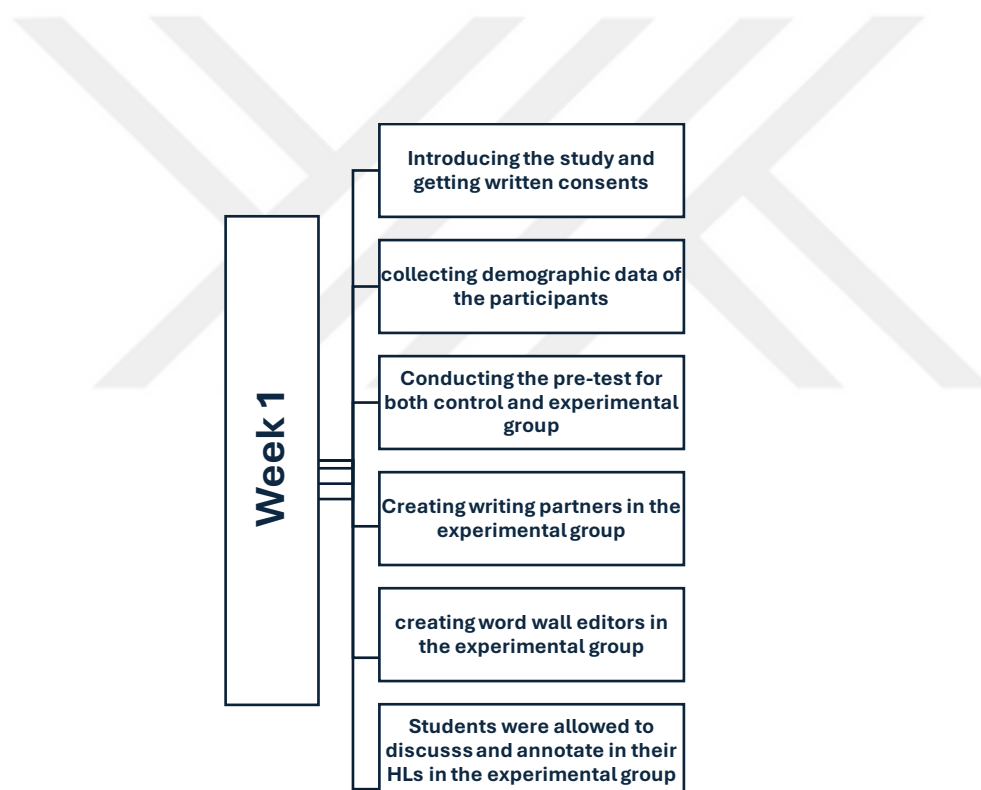


Figure 3. The flow of the topics instructed during week 1.

In the first week of the main study, the researcher introduced the content of the research to both experimental and control group participants. In the main study, there were 17 students in the experimental group and 18 students in the control group. The necessary consent was taken from the participants in a written form and demographic data of the participants were collected via Google form. In the experimental group, all

participants were Turkish students learning English as a foreign language, so HL of the participants were the same. The researcher created writing partnerships among the participants. The researcher suggested the students create their own supplemental bilingual content glossaries to clarify the meanings and spellings of the words. The researcher asked students whether they were willing to be volunteers as the editors of the word wall, so two students were volunteered to be the editor of Turkish and English. The researcher encouraged them to write newly learned words on the word wall both in their HL and English at the end of each week. The Cambridge Preliminary Test Writing Section 2, story writing, was conducted to both experimental and control groups as pre-test. (See Appendix D). The participants were given 45 minutes to write their stories. The pre-test starting with a prompt sentence: ‘*Jo looked at the map and decided to go left*’ was given to the participants to write a story with minimum 100 words. After collecting the stories from both groups, the pre-tests were given to the raters to be scored according to the Cambridge Preliminary Test Rubric (See Appendix I).

3.5.4.2 Week 2. In the second week, the topic called “What is a paragraph?” was introduced by the researcher. This topic contains three main subtopics: introduction, brainstorming and making an outline and the structure of a paragraph. Each subtopic was instructed with different activities. The following figure gives an overview of the instructed topics about paragraph writing in week 2.

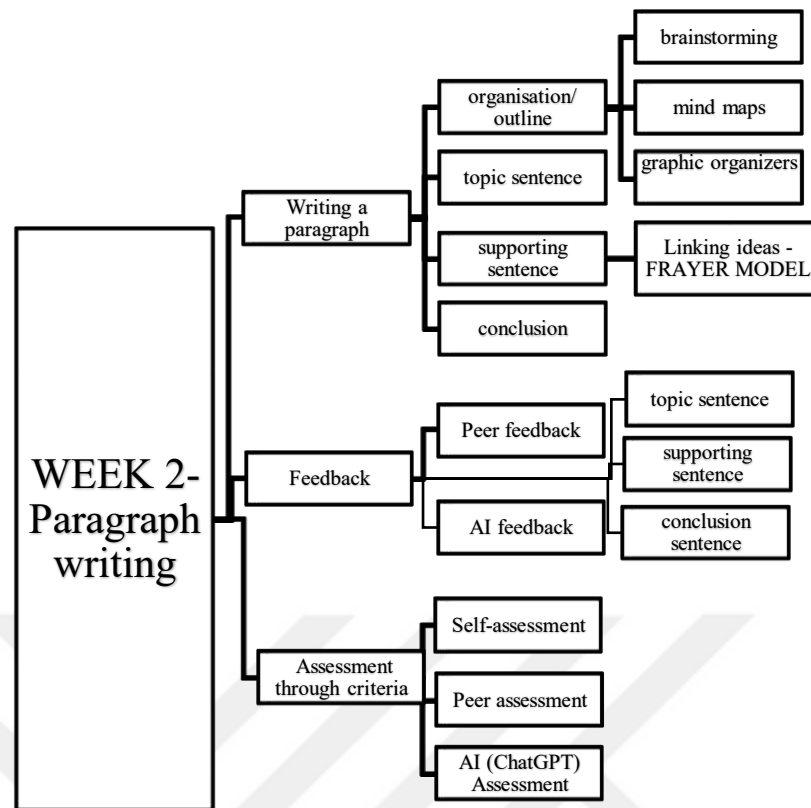


Figure 4. The flow of the topics instructed during week 2.

Students were first introduced about ‘*what is a paragraph?*’ They read and analysed a sample paragraph and discussed the questions in HL (Turkish) and shared their experiences and responded to the questions individually in AL (English). They were allowed to annotate the definitions of the unknown vocabulary in their HL or AL using their bilingual dictionaries and discussed the answers with their partners in their HL and answer the questions in AL. Next, the structure of a paragraph was introduced by the teacher in English. The researcher drew a mind map on the board and students identified the parts of the given text (e.g. topic sentences, supporting sentences and conclusion) using their bilingual dictionaries. Working collaboratively and having discussions with their writing partners in their HL, they placed the parts under the given headings in English. Finally, for brainstorming, the researcher drew a graphic diagram on the board and elicited some ideas from the students in English and instructed the outlining technique. The researcher also introduced outlining sheet to encourage the learners how to organize their paragraphs. Then students discussed,

brainstormed, took notes with their writing partners in their HL and checked the unknown words from their bilingual dictionaries. After brainstorming and outlining their paragraphs in their HL, they wrote their first drafts in English and exchanged their outlines and paragraphs with their other partner peers and got feedback in English.

Students read the given paragraph and annotated the definitions of the unknown vocabulary in their HL using their bilingual dictionaries. After discussing the paragraph with their partners in HL, they answered the questions in AL. Later, the researcher introduced the topic ‘what is a topic sentence?’ in English. Learners worked collaboratively with their HL partners and identified the topic sentences in the exercises by discussing in English. Next, the researcher introduced non-examples of topic sentences and learners discussed the topic with their partners in their HL and identified the reasons why the given sentences were non-examples of a topic sentence. Finally, the researcher introduced the importance of questions which helped students to write a topic sentence and directed them to notice how the topic sentences answered the questions in the exercise and students discussed the questions in their HL and wrote their answers in English using their bilingual dictionaries for unknown vocabulary.

The researcher introduced the signal words (e.g. Firstly, Secondly, Finally) and supporting sentences for the topic in the body paragraphs and instructed how to organize their ideas and introduce a new reason or fact. The teacher directed the students to identify the topic sentences and signal words in each paragraph in the following exercise and students discussed the task in their HL using their bilingual dictionaries for unknown vocabulary and gave their answers in English. Students worked with their writing partners and wrote topic sentences in English and then they organized their paragraphs by using a mind map.

The researcher brought six pieces of paper to the class, drew a box and a circle in the middle of each box and wrote “although, however, that’s why, because of, because and so” in each circle and then introduced the linkers to the class in English. Later, the researcher introduced the Frayer model to the students and then grouped them and asked each group to complete the boxes including their meaning, function, example sentences of each linker in both in AL and HL as illustrated below:

<u>Meaning in English</u> <i>despite the fact that</i> <u>Meaning in home languages:</u>	<u>Function (in English) :</u> <i>show contrast</i>
<u>Example:</u> <i>Although Kate wants to live alone, she does not want to all the cleaning by herself.</i>	<u>Example in home language:</u>

Figure 5. The Frayer Model sample for linking words.

Students wrote the meanings, and example sentences in their HL on the papers. The same activity was carried out for all linkers as a group. After students completed the activity, each group introduced their linkers to their classmates and all linkers designed with Frayer Model were stucked on the wall of the classroom. Then students did some exercises related with the linkers together with their writing partners discussing in English.

Students were instructed about how to write a conclusion sentence, and they did some exercises regarding the paraphrasing technique, from which they restated the sentence in the topic sentence. They were introduced with some signal words for conclusion such as overall, all in all, consequently, to sum up and in conclusion.

Students used the outline they planned in the previous unit and started writing a paragraph in English. They took notes in their HL and checked the unknown words from their bilingual / electronic dictionaries. They were allowed to discuss, annotate, and plan their first draft paragraphs in their HL or AL, then they wrote in English. After writing their paragraphs in English, they typed it into ChatGPT and wrote a prompt for ChatGPT either in HL or AL to check their grammar and spelling mistakes. Then they got feedback in their HL or in AL. Since ChatGPT responds in all languages, students had a chance to communicate with ChatGPT in any languages in their repertoires. This is the translanguaging space that ChatGPT supplies to all bilingual students. After students got feedback on their mistakes, they corrected their mistakes on their first drafts and re-wrote their paragraphs. Then, they wrote another prompt to ChatGPT in any languages to assess their revised paragraph according to the paragraph writing criteria. Next, they re-typed their second drafts into ChatGPT box and took a photo of “A2 Paragraph writing-self-assessment checklist” (Appendix L) on their coursebooks, and uploaded/attached the photo of it into ChatGPT and they got

feedback from ChatGPT in any languages. After getting feedback from ChatGPT about self-assessment checklist and edited their paragraphs, students exchanged their paragraphs with other writing partner peers and got feedback from them using “A2 Paragraph writing peer-feedback form” (Appendix L) in English. Teacher provided opportunities for students to discuss rubric either in their HL or AL.

Finally, the students made the necessary amendments on their paragraphs and corrected their mistakes according to the feedback taken both by their peers and ChatGPT, they uploaded/attached the writing criteria for paragraph writing into the ChatGPT (See Appendix J) and re-typed their final drafts into it and they asked ChatGPT to score their writings.

3.5.4.3 Week 3. In the third week, the second genre, writing a story was instructed in English. The following figure illustrates the flow of instructed topics and activities during week 3.



Figure 6. The flow of instructed topics and activities during week 3.

The first step was the introduction of story arc which was the main component of story writing. After watching a short movie on YouTube (<https://www.youtube.com/watch?v=RHZgEurs9hE>) and eliciting some ideas from the students in

English, the researcher introduced the story arc and climax and then students read a text in English. While reading the text, students took notes in their HLs and arranged the pieces of the story in the correct order. To ensure coherence, they utilized time markers and engaged in discussions with their peers. Additionally, they sought assistance from bilingual or electronic dictionaries to comprehend unfamiliar vocabulary. They wrote newly learned words to their personal dictionaries with their meanings in their HLs. Writing partners analysed the characters and events in the text by discussing in their HLs using textual evidence as support and answered the questions in English and completed the climax of the story collaboratively. The researcher encouraged students to think through their idea first in their HLs before writing their ideas in AL. After writing the climax of their stories in English, they were directed to ChatGPT and wrote a prompt either in AL or in their HLs. Since ChatGPT responds in all languages, students had a chance to communicate with ChatGPT in any languages in their repertoires. This is the translanguaging space that ChatGPT supplies to all bilingual students. After they wrote the prompt, they started typing their paragraphs into ChatGPT box and let it check their mistakes. After students got feedback on their mistakes, they corrected their mistakes on their first drafts and re-wrote their sentences and shared their climax writings with the whole class in English.

After having instructed on climax, the researcher focused on other story writing components: Articles, Adjectives and Adverbs. Those components were instructed by the researcher using “Sentence Building” technique. Articles were introduced by putting the two languages side-by-side when building the English sentence. This is a great opportunity to help bilinguals compare the sentence structure of English with their HLs. In addition, it improves their comprehension of the meaning of each grammatical component in English sentence as they are able to refer to their HLs.

Ex: a young lady – genç bir kadın

Adapted from: Translanguaging in Curriculum and Instruction; A CUNYNYISIEB Guide for Educators website

Adjectives and Adverbs were also instructed by the teacher using “Sentence Building” technique. First, a basic sentence was used and then a specific grammatical structure was added to make it more complex, interesting, or detailed. This is a useful scaffold for bilinguals as they can see similarities and differences in sentence structure across languages, improving their understanding of different components of

grammar and supporting their ability to create more complex sentences by adding one or more adjectives. For example:

A. I see a bird. ----- B. I see a **red** bird.

Adapted from: Translanguaging in Curriculum and Instruction; A CUNYNYISIEB Guide for Educators website

Then, students were instructed about “graphic organizers” which helped them to organize their ideas on how characters move a story forward and elaborate on how a character’s action affected the story. While students having discussions, asking questions, making comments and connections, they were allowed to use both HLs and AL. This linguistic flexibility helps students fully engaged with the text as they demonstrate their deep thinking and analysis using all their language resources. Throughout the process, students read a text in English and annotated the text in English or in their HLs with their predictions for what would happen next. Teacher gave students sentence prompts in English for prediction also allowed students to discuss with their partners in their HLs and wrote their brainstormed ideas in English.

3.5.4.4 Week 4.

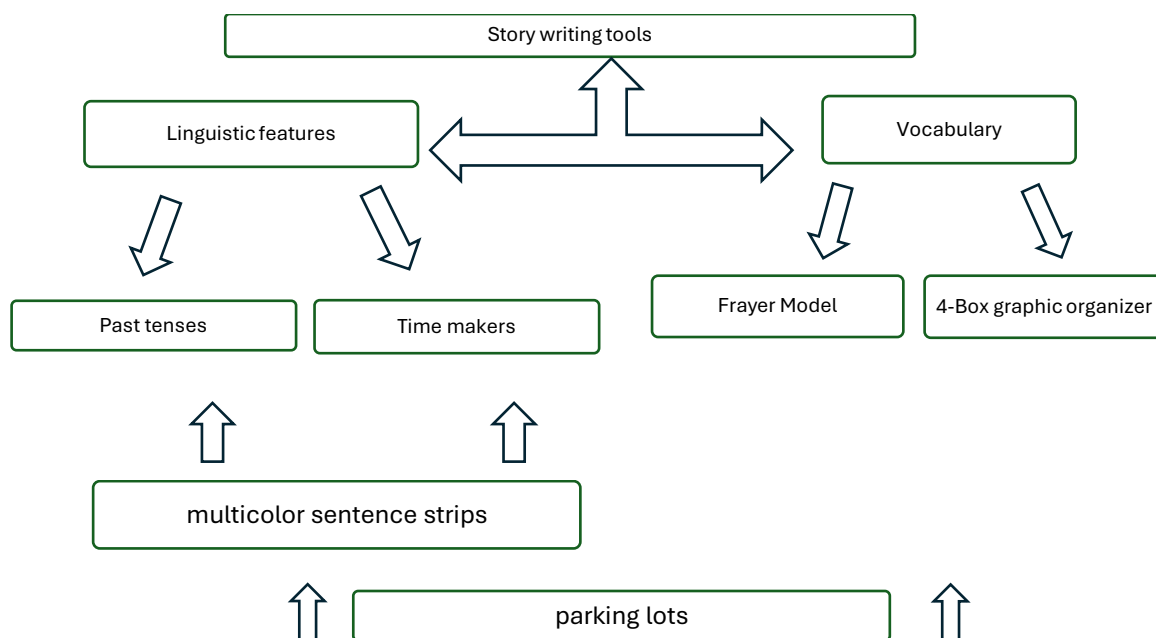


Figure 7. The flow of instructed topics and activities during week 4.

The researcher introduced linguistic features of Past tense and time makers in English and then students compared the prompt sentences in their HLs. Comparing syntax across languages strengthens students' metalinguistic awareness and increases students' ability to recognize and understand mistakes they have made in English based on the syntax of their HLs. Linguistic features were instructed by drawing a timeline on the board to show the difference between Past Simple and Past Continuous and wrote a sample sentence for each linguistic feature and then students compared the prompt sentences in their HLs.

After doing exercises on linguistic features, the researcher gave an interactive task called “**multicolour sentence strips**” (Appendix S). In this task, each colour refers to a linguistic feature such as simple past tense, past continuous tense, affirmative / negative / interrogative sentences, time makers (e.g. *When/ they/ arrive/ we/have/dinner (Past Simple, Past Continuous +)*). In groups, students built and discussed complex sentences in AL and their HLs. Students displayed sentences around the room. Then, as they were walking around and reading each other's sentences, they reflected on the differences between the sentences in the two languages. Each student placed an additional phrase or word to build the complexity of their classmates' original sentences.

Students also worked with a large amount of domain-specific vocabulary. “**The Frayer Model**” (Figure 8) and “**4-Box Graphic Organizer**” (Figure 9) are very useful for expanding understanding of complex concepts and exploring how they are used in a specific content-area contexts. They are also valuable tools for fleshing out strong detail of content-area vocabulary that can be used as prewriting for larger writing pieces. It is important to note that the teacher strategically chooses box topics that are both relevant to the content objectives, and language based on cognates. “**The Frayer Model**” (Figure 8) is most effective when exploring more complex and abstract concepts or terms, but also works well with more concrete ideas.

<u>Meaning in English</u> <i>despite the fact that</i> <u>Meaning in home</u> <u>languages:</u>	Function (in English) : <i>show contrast</i>
 <u>Although</u>	
<u>Example: Although Kate</u> <i>wants to live alone, she</i> <i>does not want to all the</i> <i>cleaning by herself.</i>	<u>Example in home</u> <u>language:</u>

Figure 8. Frayer Model.

relieved	
Definition in English:	Student-friendly definition in Turkish

Figure 9. 4-Box Graphic Organizer.

The Frayer Model is meant for the vocabulary that is most important for students to understand and deeply engage with, such as central themes that anchor a unit, or complex concepts that are central to meeting content standards. With the word written in a middle circle, the Frayer Model includes four boxes: Definition in AL / HL, Example sentence in AL, Function in English, and Example sentence in HL. “**The 4-Box graphic organizer**” (Figure 9) in the example above use: Vocabulary/ the word, Visual representation of the word, Definition in AL and Student-friendly definition in HL. Students completed these activities as a group and then they presented their words to their classmates.

After teaching the linguistic features, story writing tools, time makers, adverbs, adjectives, and new vocabulary, the researcher created “**Parking Lots**” (Appendix R) from both HL and AL in the classroom and selected the strongest students as representatives. They helped the ones having difficulty in the correct form in both HL and AL. These representatives also took the opportunity to compare and explain the syntax of the sentences to her/his classmates in their HLs.

3.5.4.5 Week 5.

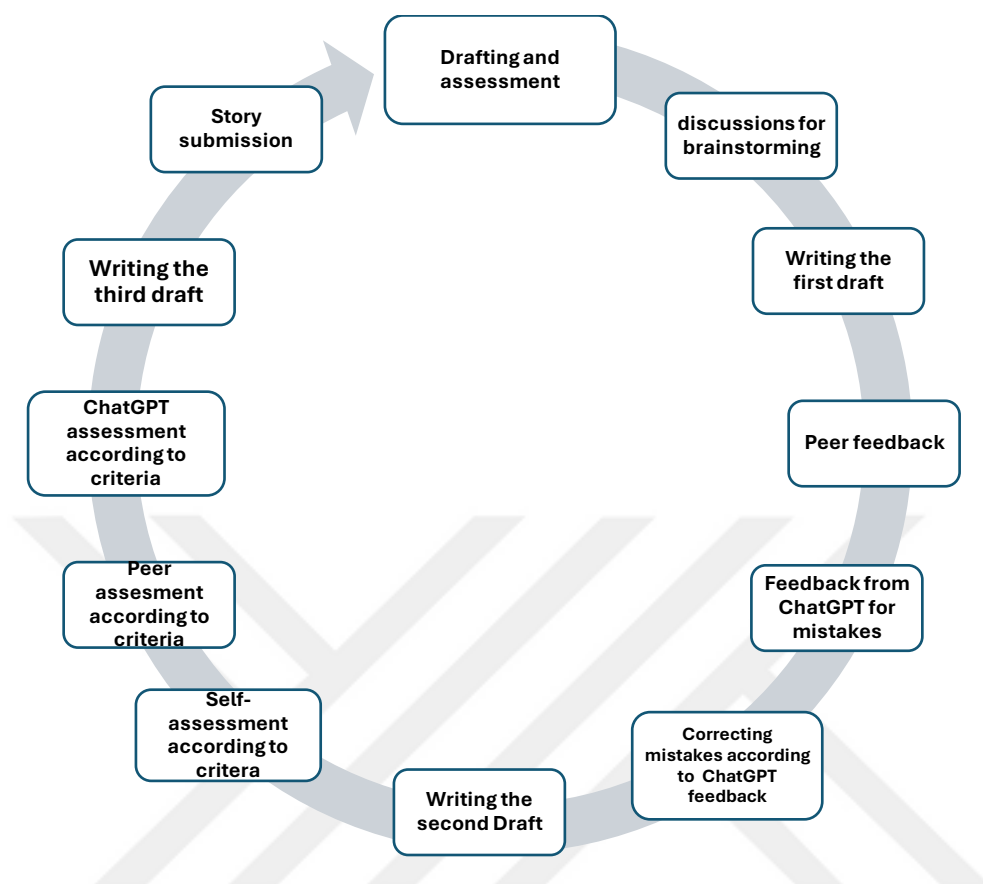


Figure 10. The flow of activities during week 5.

After brainstorming and discussing in their HLs, writing partners started creating their first drafts with the given words either in AL or in HLs and wrote their stories in English. The researcher provided opportunities for students to discuss rubric in multiple languages. After the students wrote their first drafts, they exchanged their group stories and got peer feedback in any language using the “Story writing peer-feedback form”(Appendix L) on their coursebooks. The researcher provided opportunities for students to discuss rubric and gave feedback to their peers in multiple languages.

After getting feedback from their peers and re-writing their stories in English, they were directed to ChatGPT and wrote a prompt in any languages to check their grammar and spelling mistakes and then they got feedback in any languages. Since ChatGPT responds in all languages, students had a chance to communicate with ChatGPT in any languages in their repertoires. This was the translanguaging space

that ChatGPT supplied to all bilingual students. After they wrote the prompt, they started typing their stories into ChatGPT box and let it check their mistakes. After students got feedback from ChatGPT, they corrected their mistakes on their first drafts and re-wrote their stories. Then, they wrote another prompt to ChatGPT to assess their rewritten stories according to the attached criteria. Next, they re-typed their second drafts into ChatGPT box and took a photo of “A2 Paragraph writing-self-assessment checklist” (Appendix L) on their coursebooks, and uploaded/attached the photo of it into ChatGPT and they got feedback from ChatGPT in any languages.

After getting feedback from ChatGPT for their self-editing assessment, exchanging their stories with other classmates and getting peer-feedback by using “story writing peer-feedback form” (Appendix L) on their coursebooks in either in HL or AL, students wrote a new prompt to ChatGPT to assess their stories according to a rubric, and then they took a photo of A2 Story Writing Rubric on their books and attached/uploaded it to ChatGPT and got their scores from ChatGPT. They edited their stories according to the feedback supplied by ChatGPT and they submitted their final stories.

On the last day of the week 5, the post-test was conducted to both experimental and control groups. The post-test was administered for 45 minutes and students were asked to write a story with a starting sentence which was identical in the pre-test (e.g. *Jo looked at the map and decided to go left*). The students were asked to write a story with a given prompt and write minimum 100 words. After collecting the stories from both groups, the post-tests were given to the raters to be scored according to the Cambridge Preliminary Test Rubric (See Appendix I).

3.6 Data Analysis

3.6.1 Quantitative data analysis. The pretest and post-test scores of both the control and experimental groups were scored blindly by the raters, based on the writing rubric of the Cambridge Preliminary English Test (See Appendix I). The writing section of the Cambridge Preliminary test consists of two parts: writing an email and a story. Each section is assessed out of 20 points. In this study, story writing genre is selected to assess the competence of the participants as it aligns with the purpose of the research. The rubric of writing section includes four different components to assess the competence of the participants in story writing. These components are: Content,

Communicative Achievement, Organisation and Language (See Appendix I for a detailed description of each band).

The quantitative data collected in the study were analysed using the Statistical Package for the Social Sciences (SPSS) version 22.0. Given the relatively small sample size (N=17 in the experimental group and N=18 in the control group, total N=35), the normality of the data distribution was examined with the *Shapiro–Wilk test*, which determines the selection of statistical tests based on the distribution characteristics of the data. Based on the normality test results, to analyse the data obtained from rubric components and overall scores respectively within each group, *The Wilcoxon Signed Ranks Test* was employed for the non-normally distributed data, while the *Paired-Samples T-Test* was applied to the data exhibiting a normal distribution. To compare variability between the experimental and control group scores for each component and overall scores, the *Mann–Whitney U Test* was used for non-normally distributed data, and the *Independent Samples T-Test* was performed for data following a normal distribution.

3.6.2 Qualitative data analysis. The qualitative data collected from participants were analysed using data-driven thematic analysis method. Braun and Clarke (2006) define thematic analysis as a method that identifies, analyses and reports themes within data. In this study, qualitative data were analysed using the phases of thematic analysis outlined by Braun and Clarke (2006). While trying to create themes, an inductive analysis was conducted for coding in this study. Braun and Clarke (2006) describe inductive analysis as a process of coding the data without having an intention to match it into a pre-existing coding frame, or the researcher's analytic preconceptions. In this study, qualitative data were transcribed, read and re-read five times and initial ideas were noted down and then these initial ideas analysed in two stages. In the first stage, participants' responses were classified by highlighting and coding the words that were frequently repeated. Next, interesting features of the data in the entire data set was collated data relevant to each code. In the second stage, the codes were collated into themes gathering data relevant ones and categorizing under potential themes. And then, themes were checked one by one in relation to the coded extracts and the entire data set to refine the specific of each theme whether definitions and names were clear or not. Finally, each theme was checked whether the

theme selection is vivid, complete the examples and related to the research question and literature. Consequently, a report of analysis was produced.

3.7 Reliability and Validity

Reliability and validity are the fundamentals of scientific research directly contributing to the overall quality and credibility of a study. Reliability refers to consistency of repeated scores (Stanley & Hopkins, 1982), ensuring that similar results are obtained under comparable conditions (Creswell & Creswell, 2018). Validity is defined as whether data collection instrument accurately measures what it intends to assess (Creswell & Creswell, 2018). While it is acknowledged that eliminating all potential threats related with reliability and validity is improbable, researchers are expected to make their maximum effort to identify these threats and mitigate their impact throughout the planning and execution of the study (Cohen et al., 2007). Given that the present study employs a mixed-methods approach, reliability and validity are explained for both qualitative and quantitative data collection tools.

Lincoln and Guba (1985) posit that credibility of a research study is important to evaluate its worth. To address the reliability and validity of this study, it is important to consider the criteria proposed by Lincoln and Guba (1985) for establishing the trustworthiness of research. According to Lincoln and Guba (1985) trustworthiness involves establishing a) *credibility* which refers to confidence in the truth of the findings, b) *transferability*, which refers to findings have applicability in other contexts c) *dependability* which refers to the findings are consistent and could be repeated, d) *confirmability* which refers to a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest.

In this study, to achieve *credibility*, participants in this study had already been assigned to programs based on placement test scores aligned with the CEFR framework, ensuring that reliability and validity standards are maintained by the institution's testing unit, so participants of the study have similar English level proficiency, thereby, it contributes internal validity of the study. Additionally, the researcher paid considerable attention to standardize the conditions for all participants by giving the same amount of time to write their stories, informing them about the

story writing rubric, and having the same number of lesson hours in both groups. Additionally, in this research, the participants' story writings were assessed through pre and post-tests supplied from Cambridge Preliminary English Test (Appendix I), which aligns with CEFR standards and institution's objectives in A2 writing competence. Moreover, pre-test and post test scores of experimental and control groups were blindly scored by two experienced teachers having a high degree of consistency. In addition, triangulation of data was employed by gathering different data collection instruments such as pre and post test scores, focus group interviews, reflective feedback sheets and field notes to provide tangible evidence and explore the impact of translanguaging pedagogy that was implemented. Finally, to ensure credibility, regular debriefings on the analysis of qualitative data was carried out among the researcher and the advisor.

For *transferability*, in this study, detailed information about research content including setting, participants, procedures, and assessment tools is provided meticulously to ensure transferability of the findings in different settings.

In this study, to ensure *dependability*, data were collected through an audit trail in which all the steps were detailly documented and traceable with procedures and plans.

Consequently, in this study to ensure *confirmability*, which refers to the objectivity of the findings, was provided by conducting semi-structured focus interviews, taking field notes and collecting reflective feedback sheets after each activity without having any guided questions and supporting the findings with blindly scored numerical data help mitigate the potential bias and subjectivity.

3.8 Ethical Considerations

Prior to the academic year, the researcher was granted the necessary official consent from the institution to conduct the study. (Appendix A). Additionally, the participants of both the experimental and control groups gave their consent on a written form (Appendix B/C) after being informed about the research. Moreover, experimental group participants gave their written consent before the interviews (Appendix F) and they were assured that their narrative and verbal responses and identities would be kept confidential and anonymous and appropriate environment would be provided for

interviews. They were also informed that the study was voluntary and did not involve any risk or coercion. Moreover, the materials used in the research do not incorporate compelling questions. However, if they felt uncomfortable for any reason during the research, they would leave the study without any sanction.

3.9 The Role of the Researcher

In mixed methods research, the researcher may adopt different roles depending on the nature of the inquiry. (e.g. Yuzlü & Dikilitaş, 2022; Kim, 2023). In this study, while gathering and interpreting quantitative data, the key role of the researcher role was an investigator with an outsider and objective viewpoint. The researcher followed quantitative standards for selecting samples, managing variables, and performing statistical analyses to achieve findings of the study.

On the other hand, in gathering qualitative data, the researcher adopted an emic stance. The *emic* and *etic* perspectives, originally introduced by Pike (1967), distinguish between the insider's view (*emic*) and the outsider's analytical view (*etic*) of cultural and social phenomena. It is important to address and cope with the challenges in qualitative data where the researcher has an emic stance to ensure trustworthiness outlined by Lincoln and Guba (1985), several strategies were implemented: *Credibility* was addressed through member checking and peer debriefing. *Transferability* was supported by providing rich and thick descriptions of the context. *Dependability and confirmability* were strengthened by involving two independent raters who scored the pre-test and post-test writing samples without knowledge of group assignments and the researcher herself did not participate in the grading process.

When translanguaging practices are considered, adopting an emic perspective means exploring how bilingual or multilingual individuals perceive and utilize their languages in various contexts. This involves understanding their subjective experiences, meanings, and practices related to language use. When integrating AI tools into language learning, an emic approach would focus on how learners experience and interpret the use of these technologies within their linguistic and cultural frameworks. This includes examining their attitudes, challenges, and the perceived impact of AI on their language practices. Instead of analysing their performance solely through standardized writing scores, it incorporates students'

reflections, or classroom interactions to understand their lived experiences, challenges, and attitudes toward translanguaging. These insider perspectives would provide a richer understanding of how translanguaging works in practice beyond statistical outcomes.

During current the study, the writing courses carried out with their regular schedule; the only difference was the translanguaging integration of the activities in the experimental group. Moreover, the researcher actively participated in the study, however, she did not grade the story writing tasks in both pre and post-tests in the main study. The colleagues of the researcher, as two independent raters, scored the story writing tasks blindly. Consequently, the researcher also used member checks to increase the reliability and validity of the study. She received support from her supervisor and colleagues in the data analysis step. With this aim, peer debriefing which refers to getting views of a colleague who is not involved in the study was also carried out (Fraenkel & Wallen, 2009). A colleague (Çınar, 2025; debriefing), adopted an etic stance and received her PhD in educational sciences, was introduced about the research and the process of data collection and was asked to critically review the emerging themes in the qualitative data.

As a researcher with an interest in translanguaging pedagogy and AI-assisted tools such as ChatGPT, I recognize that my enthusiasm for these approaches may have influenced various aspects of the research process such as designing of teaching practices, collection of data, and the interpretation of participants' feedback. I was aware of the risk of interpreting student responses too positively due to my emic stance. To mitigate this potential bias, I adopted several strategies to ensure the dependability and credibility of the qualitative findings. These included a slow and careful coding process, regularly revisiting and refining codes, including contrast views of the participants and seeking peer debriefing from colleagues who provided critical perspectives on the interpretation of the data. Additionally, field notes taken during the activities helped me to remain conscious of my assumptions and maintain a balanced view of participant responses. These steps were taken to ensure that the findings reflect the participants' voices and experiences as authentically as possible, rather than being shaped by my personal beliefs.

3.10 Limitations

The study has some limitations that needs to be considered. To begin with, the sample size of the participants both in experimental and control groups was only 35, so the results obtained from this study cannot be generalized for greater populations. Secondly, the implementation of AI-assisted translanguaging pedagogy was conducted only for A2 level participants, therefore, the findings might not be the same for higher or lower proficiency learners. Finally, the treatment of translanguaging pedagogy was carried out for 5 weeks, which means that longer exposure could reveal long-term effects. These limitations may pave the way for future research where future studies could address these limitations.



Chapter 4

Findings

4.1 Overview

The purpose of the study is to examine whether the implementation of AI-assisted translanguaging pedagogy had any impact on Turkish EFL students' writing competence. To evaluate the effectiveness of the intervention, the first research question focused on assessing participants' writing competence before and after the implementation of translanguaging pedagogy through pre- and post-tests. The second research question aimed to investigate participants' perceptions of AI-assisted translanguaging pedagogy, with a particular focus on their experiences and practices during writing instruction. A mixed-methods approach, incorporating both quantitative and qualitative data collection techniques, was employed to address these questions, and the analysis of the collected data was intended to provide comprehensive answers to the research objectives. This chapter thoroughly presents the findings of the study following a meticulous examination of the research questions.

4.2 Findings of RQ1. To what extent does AI-Assisted translanguaging pedagogy have an impact on the writing competence of EFL learners in a Turkish university context? The first research question was designed to analyse the participants' writing competence before and after the translanguaging pedagogical treatment through pre-tests and post-tests.

To determine whether the data met the assumptions of normality required for parametric tests, the Kolmogorov-Smirnov and Shapiro-Wilk tests were applied to both the control and experimental groups across each component in the writing rubric; pre-test and post-test mean scores respectively. The control group normality test results are indicated at the following table.

Table 6

Control Group Test of Normality For Each Component In The Writing Rubric

Components	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Content	0.197	18	0.064	0.926	18	0.165
Communicative Achievement	0.220	18	0.021	0.887	18	0.034
Organisation	0.296	18	0.000	0.856	18	0.011
Language	0.250	18	0.004	0.843	18	0.007
Total	0.153	18	.200*	0.958	18	0.564

*. This is a lower bound of the true significance

a. Group = Control

b. Lilliefors Significance Correction

Table 6 displays the results of the normality tests conducted for the data obtained from the control group across each writing assessment component. According to the Shapiro–Wilk test, which is more appropriate for small sample sizes ($n < 50$), the *Content* ($p = .165$) and *Total* scores ($p = .564$) were found to be normally distributed, as their significance values exceeded the conventional threshold of .05. Conversely, the components *Communicative Achievement* ($p = .034$), *Organisation* ($p = .011$), and *Language* ($p = .007$) did not meet the assumption of normality, as their p -values were less than .050. The experimental group normality test results are indicated at the following table.

Table 7

Experimental Group Tests of Normality For Each Component In The Writing Rubric

Components	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Content	0.272	17	0.002	0.821	17	0.004
Communicative Achievement	0.206	17	0.054	0.817	17	0.003
Organisation	0.292	17	0.000	0.862	17	0.016
Language	0.290	17	0.000	0.780	17	0.001
Total	0.149	17	.200*	0.960	17	0.630

*. This is a lower bound of the true significance.

a. Group = Control

b. Lilliefors Significance Correction

Table 7 displays the results of the normality tests conducted for the data obtained from the experimental group across each writing assessment component.

According to the Shapiro–Wilk test, the *Total* scores ($p = .630$) were normally distributed, as the significance value was greater than the threshold value of .05. In contrast, the components *Content* ($p = .004$), *Communicative Achievement* ($p = .003$), *Organisation* ($p = .016$), and *Language* ($p = .001$) did not meet the assumption of normality, as their p -values are below .050.

Therefore, the normality test results for the control and experimental groups revealed notable differences in the distribution characteristics of the writing assessment components. In the control group, the *Content* and *Total* scores demonstrated normal distribution according to the Shapiro–Wilk test ($p = .165$ and $p = .564$, respectively), whereas *Communicative Achievement*, *Organisation*, and *Language* components did not meet the assumption of normality ($p < .050$).

In contrast, within the experimental group, only the *Total* scores were normally distributed ($p = .630$), while the remaining components (*Content*, *Communicative Achievement*, *Organisation*, and *Language*) exhibited non-normal distribution, with p -values ranging from .001 to .016.

These analyses suggest that, although the overall performance scores (*Total*) for both groups followed a normal distribution, individual components varied in distribution patterns, with the experimental group displaying a higher number of non-normally distributed components. This difference guided the selection of appropriate statistical tests in the subsequent analyses, ensuring that parametric tests (e.g., Paired-Samples T-Test) were applied to normally distributed variables whereas, non-normally distributed components were subjected to non-parametric tests (e.g. Wilcoxon Signed Ranks Test), thereby maintaining the validity and reliability of the statistical inferences.

To investigate the impact of the treatment in the experimental group, each component in writing rubric was analysed within in each group's pre-test and post test scores across five writing performance components: content, communicative achievement (CA), organisation, language, and overall writing performance. The following tables indicate the descriptive statistics of the findings in both groups.

Table 8

Control Group Analysis Of Content Component In The Writing Rubric

Item	Control (n=18)					t	df	p- value
	Mean	Std.Dev	Median	Min.	Max.			
Pre_content	3.06	0.725	3	2	4	1.534	17	0.143
Post_content	3.56	0.984	3	2	5			

The descriptive findings indicate that the students' mean score increased from $M = 3.06$ ($SD = 0.725$) in the pre-test to $M = 3.56$ ($SD = 0.984$) in the post-test. To determine whether this observed increase was statistically significant, a Paired Samples T-Test, which is appropriate for normally distributed repeated measures, was conducted. The results revealed no statistically significant difference between the pre-test and post-test scores, $t(17) = 1.534$, $p = .143$. Although the control group students exhibited a slight increase in their mean scores following the English only instructional intervention, this difference was not statistically significant at the 0.05 significance level. This indicates that the English-only teaching practices applied to the control group did not produce a meaningful improvement in students' performance in the "Content" component of their writing.

Table 9

Control Group Analysis Of Communicative Achievement Component In The Writing Rubric

Item	Control (n=18)						z	p- value
	Mean	Std.Dev.	Median	Min.	Max.	Mean Rank		
Pre_CA	2.22	0.548	2	1	3	5.00	-2.19	0.029
Post_CA	2.72	0.669	3	2	4	6.22		

The above table presents the descriptive statistics for the pre-test and post-test scores obtained by the students in the control group for the Communicative Achievement (CA) component. Since the assumption of normality was not met for this variable, as determined by previous normality tests, a non-parametric Wilcoxon Signed Ranks Test was employed to examine whether the difference between the two

time points was statistically significant. The analysis yielded a significant result, $z = -2.179$, $p = .029$, indicating that the observed increase in CA scores was statistically significant at the 0.05 significance level. The median scores obtained by the control group students at each measurement were $M_1 = 2$ and $M_2 = 3$, respectively. It was found that the English only instruction applied to the control group had a statistically significant effect on students' scores ($p < .050$). Additionally, the effect size was calculated as $r = 0.37$, suggesting a moderate effect (Cohen, 1988). This finding implies that the control group students had a meaningful improvement in communicative achievement in writing.

Table 10

Control Group Analysis Of Organisation Component In The Writing Rubric

Item	Control ($n=18$)						Mean Rank	z	p - value
	Mean	Std. Dev.	Median	Min.	Max.				
Pre_Org	1.78	0.428	2	1	2	3.50		-1.903	0.057
Post_Org	2.22	0.808	2	1	4	5.43			

Table 10 displays the descriptive statistics for the pre-test and post-test scores of the control group students in the Organisation component. The median Organisation scores for the control group at pre-test and post-test were $M_1 = 2$ and $M_2 = 2$, respectively, indicating no visible change in central tendency across the two time points. The test results revealed no statistically significant difference between the pre-test and post-test scores, $z = -1.903$, $p = .057$. Although the mean score increased from $M = 1.78$ ($SD = 0.428$) in the pre-test to $M = 2.22$ ($SD = 0.808$) in the post-test, this change was not statistically significant at the .050 level. This suggests that the English only instructional approach applied to the control group did not yield a statistically significant effect ($p > .050$) and did not result in a meaningful improvement in students' performance on the Organisation component of their writing.

Table 11

Control Group Analysis Of Language Component In The Writing Rubric

Item	Control ($n=18$)						Mean Rank	z	p-value
	Mean	Std. Dev.	Median	Min.	Max.				
Pre_lan	1.33	0.485	1	1	2	6.50		-2.000	0.046
Post_lan	1.83	0.786	2	1	4	7.15			

Table 11 presents the descriptive statistics for the control group's Language component scores at pre-test and post-test. The median Language scores for the control group at pre-test and post-test were $M_1 = 1$ and $M_2 = 2$, respectively thereby, it rose from 1 at pre-test to 2 at post-test, produced a statistically significant effect ($p < .050$), with mean values increasing from $M = 1.33$ ($SD = 0.485$) to $M = 1.83$ ($SD = 0.786$). The analysis revealed a statistically significant improvement in Language performance following the English only instructional intervention, ($p = .046$, $p < .050$.) An effect size was calculated as $r = 0.34$, indicating a moderate effect (Cohen, 1988). This finding indicates that English only instructional approach yielded a meaningful enhancement in students' language proficiency within the control group.

Table 12
Control Group Analysis Of Overall Scores

Item	Control ($n=18$)						t	df	p-value
	Mean	Std. Dev.	Median	Min.	Max.				
Pre_overall	8.39	1.501	8.50	6	11		2.210	17	0.041
Post_overall	10.33	2.97	10	7	17				

An analysis was conducted to evaluate the change in overall scores for the control group ($n = 18$) before and after the implementation of a English only instructional approach. Since the assumption of normality met for this variable, as determined by previous normality tests, a paired-sample t-test was performed to assess the significance of this difference. The overall scores obtained by the students in the control group from each measurement were respectively ($\bar{X}_1 = 8.39$ and $\bar{X}_2 = 10.33$). The result was statistically significant ($p = .041$, $p < .050$), demonstrating that the English only instruction had a meaningful effect on student achievement within the control group. The effect size was calculated as 0.47, which is considered a medium level.

In the experimental group, since the data obtained from the following components (Content, Communicative Achievement, Organisation and Language) were not normally distributed as determined by previous normality tests, a non-

parametric Wilcoxon Signed Ranks Test was employed to examine whether the difference between the two time points was statistically significant.

Table 13

Experimental Group Analysis Of Content Component In The Writing Rubric

Item	Experimental (n=17)					Mean Rank	z	p-value
	Mean	Std. Dev.	Median	Min.	Max.			
Pre_content	3.12	1.111	3	0	4	0.00	-3.585	0.000
Post_content	4.82	0.393	5	4	5	8.50		

The results indicate that, the median content scores obtained by the students in the experimental group for each measurement were, respectively, $M_1 = 3$ and $M_2 = 5$. It was observed that the treatment applied to the students in the experimental group had a statistically significant effect ($p < .050$). The effect size was calculated as 0.61, which indicates a large effect.

Table 14

Experimental Group Analysis Of Communicative Achievement Component In The Writing Rubric

Item	Experimental (n=17)					Mean Rank	z	p-value
	Mean	Std. Dev.	Median	Min.	Max.			
Pre_CA	1.94	0.659	2	0	3	0.00	-3.153	0.002
Post_CA	2.94	0.899	3	2	5	6.50		

The median Communicative Achievement (CA) scores obtained by the students in the experimental group for each measurement were, respectively, $M_1 = 2$ and $M_2 = 3$. It was observed that the treatment applied to the students in the experimental group had a statistically significant effect ($p < .050$). The effect size was calculated as 0.54, which indicates a large effect.

Table 15

Experimental Group Analysis Of Organisation Component In The Writing Rubric

Item	Experimental (n=17)					Mean Rank	z	p-value
	Mean	Std. Dev.	Median	Min.	Max.			
Pre_Org	1.82	0.728	2	0	3	5.50	-2.952	0.003
Post_Org	2.65	0.786	3	1	4	7.13		

The median organisation scores obtained by the students in the experimental group for each measurement were, respectively, $M_1 = 2$ and $M_2 = 3$. It was observed that the treatment applied to the students in the experimental group had a statistically significant effect ($p < .050$). The effect size was calculated as 0.51, which indicates a large effect.

Table 16

Experimental Group Analysis Of Language Component In The Writing Rubric

Item	Experimental (n=17)					Mean Rank	z	p-value
	Mean	Std. Dev.	Median	Min.	Max.			
Pre_Lan	1.47	0.624	2	0	2	0.00	-2.762	0.006
Post_Lan	2.18	0.809	2	1	4	5.00		

The median language scores obtained by the students in the experimental group for each measurement were, respectively, $M_1 = 2$ and $M_2 = 2$. It was observed that the treatment applied to the students in the experimental group had a statistically significant effect ($p < .05$). The effect size was calculated as 0.47, which indicates a moderate effect.

Table 17

Experimental Group Analysis Of Overall Scores

Item	Experimental (n=17)					t	df	p - value
	Mean	Std. Dev.	Median	Min.	Max.			
Pre_overall	8.35	2.760	9	0	11	6.402	16	0.000
Post_overall	12.59	2.526	13	9	18			

Since the assumption of normality met for this variable, as determined by previous normality tests, a paired-sample t-test was performed to assess the significance of this difference. The overall scores obtained by the students in the experimental group for each measurement were, respectively, $\bar{X}_1 = 8.35$ and $\bar{X}_2 = 12.59$. It was observed that the treatment applied to the students in the experimental group had a statistically significant effect on their average scores ($p < .050$). The effect size was calculated as 0.84, which indicates a large effect.

To compare the scores between two groups, the following tests were conducted. Firstly, to determine whether the data were normally distributed across groups, Kolmogorov-Smirnov and Shapiro-Wilk tests were conducted for each writing component (Content, Communicative Achievement, Organisation, and Language), as well as the overall writing scores, to see the difference between both groups.

Table 18

Tests of Normality For All Components In The Writing Rubric

Components	Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Content	Control	0.197	18	0.064	0.926	18	0.165
	Experimental	0.272	17	0.002	0.821	17	0.004
Communicative Achievement	Control	0.220	18	0.021	0.887	18	0.034
	Experimental	0.206	17	0.054	0.817	17	0.003
Organisation	Control	0.296	18	0.000	0.856	18	0.011
	Experimental	0.292	17	0.000	0.862	17	0.016
Language	Control	0.250	18	0.004	0.843	18	0.007
	Experimental	0.290	17	0.000	0.780	17	0.001
Total	Control	0.153	18	.200*	0.958	18	0.564
	Experimental	0.149	17	.200*	0.960	17	0.630

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Above table 18 presents the results of the Kolmogorov-Smirnov and Shapiro-Wilk tests conducted to examine the normality of the score distributions for each writing component in both control and experimental groups. For the Content component, the control group did not significantly deviate from normality (Shapiro-Wilk, $p = .165$), whereas the experimental group showed a significant deviation (Shapiro-Wilk, $p = .004$), indicating a non-normal distribution. In the Communicative Achievement component, the control group distribution marginally violated normality

($p = .034$), while the experimental group's results also indicated non-normality ($p = .003$). Similarly, both groups' distributions for the Organisation component were significantly non-normal ($p < .050$). Regarding Language, both control ($p = .007$) and experimental ($p = .001$) groups demonstrated significant deviations from normality. However, for the Overall scores (Total), both the control and experimental groups' distributions were found to be normal ($p = .564$ and $p = .630$, respectively).

Therefore, it was observed that while the total score of the scale exhibited a normal distribution ($p > .050$), the dimension scores for Content, Communicative Achievement, Organisation, and Language did not follow a normal distribution ($p < .050$). These results suggest that non-parametric tests (Mann-Whitney U test) may be more appropriate for the analysis of individual writing components, while parametric tests (Independent t-test) could be used for the overall scores.

To examine whether there were statistically significant differences between the control and experimental groups in terms of the post-test scores across writing components: content, communicative achievement (CA), organisation, and language, the Mann-Whitney U test was conducted due to the violation of normality assumptions.

Table 19

Comparison Between Experimental And Control Groups Regarding All Components In The Writing Rubric

Design	Group	n	Mean	Std.Deviation	Median	Minimum	Maximum	Mean Rank	z	sig.
Content	Control	18	0.50	1.383	1	-2	3	13.64	-2.699	0.008
	Experimental	17	1.71	1.047	2	0	4	22.62		
CA	Control	18	0.50	0.857	0.5	-1	2	15.39	-1.646	0.126
	Experimental	17	1.00	0.791	1	0	2	20.76		
Organisation	Control	18	0.44	0.922	0	-1	2	15.75	-1.415	0.184
	Experimental	17	0.82	0.809	1	-1	2	20.38		
Language	Control	18	0.50	0.985	1	-1	3	17.06	-0.602	0.590
	Experimental	17	0.71	0.772	1	0	2	19.00		

The table above presents the descriptive statistics related to the statistical differences between pre-test and post-test scores of students in the experimental group and the control group. The results indicated that after the treatment was applied to the

experimental group, the content median score increased by 2 points, whereas the control group's median score increased by only 1 point. The analysis of the difference between the two groups revealed a statistically significant difference ($z = -2.699, p = .008 < .050$). The mean rank of students in the experimental group was higher than that of the control group, indicating that the treatment was more effective than traditional methods in improving content. The effect size was calculated as 0.45, which corresponds to a moderate effect. Following the treatment, the CA (Communicative Achievement) median score in the experimental group increased by 1 point, while the control group showed a 0.5-point increase. However, the difference between the two groups was not statistically significant ($z = -1.646, p = .126 > .050$), indicating that the treatment did not have a superior effect compared to traditional methods in the CA dimension. In terms of organisation, the median score in the experimental group increased by 1 point after the treatment, whereas the control group's score remained unchanged. The difference between the two groups was not statistically significant ($z = -1.415, p = .184 > .050$), suggesting that the treatment did not outperform traditional learning methods in this dimension either. For the language component, both the experimental and control groups showed an increase of 1 point in median scores. The analysis of the difference between the groups revealed no statistically significant difference ($z = -0.602, p = .590 > .050$), indicating that the treatment did not offer an advantage over traditional methods in improving language use. Overall, while the experimental group outperformed the control group in all four dimensions, the difference reached statistical significance only in the content dimension, favouring the experimental group. These results suggest that the treatment was particularly effective in improving students' content development in writing, while other areas were not statistically significant.

To examine whether there were statistically significant differences between the control and experimental groups in terms of overall scores, an independent sample t-test was performed due to the normal distribution of the data.

Table 20

Comparison Between Experimental And Control Groups Regarding The Overall Scores

Design	Group	<u>n</u>	<u>Mean</u>	<u>Std.Dev.</u>	<u>Median</u>	Min.	<u>Max.</u>	<u>t</u>	<u>df</u>	<u>sig.</u>
<u>Overall</u>	Control	18	1,94	3,733	2	-4	10	-2,062	33	0,047
	<u>Experimental</u>	17	4,24	2,728	4	-1	9			

According to the results, it is observed that the overall score of the experimental group increased by 4.24 points after the treatment, while the control group's score increased by 1.94 points. The analysis of the difference between the two groups revealed a statistically significant difference ($t = -2.062, p = .047 < .050$). This indicates that the treatment was more effective than traditional learning methods in terms of overall performance. The effect size was calculated as 0.34, which corresponds to a moderate effect.

4.3 Findings of RQ2: What are impacts of AI-assisted translanguaging pedagogy on EFL learners' perceptions in writing instruction? The second research question was designed to explore the participants' perceptions regarding the impact of AI-assisted translanguaging pedagogy aiming to shed light on participants' experience about AI-assisted translanguaging practices during writing classes. The qualitative data analysis revealed three main key themes and three sub-themes for each main theme as indicated in Table 21. The following themes, subthemes and excerpts emerged based on semi-structured focus group interview questions' (Appendix G) responds of the participants, reflective feedback sheets (Appendix E) and field notes taken by the researcher while the activities were being carried out provide evidence for qualitative findings of the study along with its pedagogical impacts.

Table 21

Major Themes With Sub-themes Regarding The Impact Of AI-assisted Translanguaging Pedagogy On EFL Learners' Writing Competence

Main themes	Sub-themes	Pedagogical Impacts
1.Role of HL in learning and Communication	Feeling Comfort and Reduced Anxiety Enhanced Understanding and Expression Collaborative Learning and Social Bonding	Enhanced comprehension Reduced anxiety Reflect ideas effectively Fostered social interaction
2.The Impact of Translanguaging Activities on Learning	Effectiveness of Specific Activities Retaining Factor on Learning and Self-effort Motivational Impact	Facilitated collaborative engagement in classroom activities
3.AI feedback on Writing Competence	Benefits of AI feedback on Writing Competence Comparing AI and Teacher Feedback Challenges in Using AI for Instant Feedback	Linguistic support led to writing competence

4.3.1 Role of HL in learning and communication. The use of HL during the instructional process emerged as a significant factor for participants in creating a sense of relaxation, making the meaning more comprehensible and engaging in classroom discussions without having any hesitations, which are indicated in the following sub-themes.

4.3.1.1 Feeling of comfort and reduced anxiety. Many participants reported feeling more at ease when they were allowed to express their ideas or clarify complex concepts in their HLs. Some students reported that using their HLs during writing classes eased their understanding and created a comfort zone. Cansu, for example, expressed her ideas with the following excerpt:

Our HL vocabulary is so rich, so we, first, start thinking with it, but when we are forced to speak or write in AL, it makes it difficult to do the task. However, using HL during discussions, created a comfort zone for us and it eased to write or speak in AL (Focus Group Interview, Week 5).

As it can be seen from the excerpt, the participants of the study utilized from their HLs for meaning making, which made it easier for them to create an output in AL. When they were forced to do a task in AL, they would not have a chance to get benefit from their rich repertoire. Not only did this the positive impact of a relaxed and non-threatening classroom atmosphere create a comfort zone for students, but also it supported their social interactions. It was extracted from their statements that using their HL created a relaxing atmosphere to reduce stress in social relations while speaking with their classmates. To illustrate, Elif stated that

Using my HL helped me reduce my anxiety while speaking because at the beginning of the module, I did not know my friends and it was so stressful to speak in English in social environments, but by the help of HL, I could easily socialize with my classmates”. (Focus Group Interview, Week 5).

As can be seen in the above-given statement, the vast majority of the participants emphasised the positive effect of using HL to make new social connections. For instance, Senay also mentioned that “group discussions helped me to make close friends” and Zehra stated that “it helped me to overcome shyness”. Most students pointed the supportive function of using HL which made them more comfortable while having discussions collaboratively. Zehra also stated that “Speaking my HL was so comfortable, because my partner helped me about my unknown words so did I. So, we learned new words together working collaboratively”. Ali emphasised that working with partners was highly effective by stating that “...involving yourself into learning makes it more achievable”. (Focus Group Interview, Week 5)

Despite the overall positive perception of HL use, several participants expressed their hesitations, and they were unsure about using their HL in an English learning context. Fatih stated that “Even though using HL seems more advantageous in terms of feeling more relaxed or having a better understanding, it might be better to use less HL in long turn” (Focus Group Interview, Week 5). Similarly, Hande supported this notion stating that “...exposed to a language in long turn is the best way to learn it.” (Focus Group Interview, Week 5). From these excerpts it can be

understood although using HL was favoured, some students had some hesitations about its long-term effects.

4.3.1.2 Enhanced understanding and expression. Participants consistently reported that they were able to grasp complex ideas more efficiently and internalize new vocabulary and grammar structures easily by drawing parallels between the two linguistic systems. For instance, Rana mentioned this notion with the following words:

I am at A2 level and sometimes my English level is not enough to express my ideas or understand the meaning of the words. When I do not understand something, I construct a bond between my HL and AL and this makes it easier to understand the topics or convey my ideas. (Focus Group Interview, Week 5)

The above excerpts point out that using HL in writing classes constructed a bond between two languages, which helps students make meaning and comprehend the topics. Most of the students also stated that when a challenging topic was instructed in English, they had some problems to comprehend it at the beginning, but when the instructor simply explained the concept in HL, it was truly beneficial for them to understand it better.

Using HL was so beneficial for me. While I was listening to the lesson in English, I was trying to translate whatever you said in Turkish in my mind, but it was so difficult for me because I did not know some words you mentioned. But when you gave examples in HL to clarify the meaning, it was so helpful to understand the topic. (Ayla, Focus Group Interview, Week 5).

As it can be inferred from the above-given statement that using HL helped the students comprehend the topic easily and it had a scaffolding function to clarify the complicated concepts in AL.

Some students also mentioned that while they were getting feedback from ChatGPT, they utilized from their both HL and AL, which was so explanatory for them. Emre stated that “First, I wrote my prompt in English and got my feedback in

English and then I asked ChatGPT to clarify some parts in Turkish, so I used both languages interchangeably” (Focus Group Interview, Week 5).

4.3.1.3 Collaborative learning and social bonding. The use of the HL was stated as beneficial during collaborative tasks, where students worked together to complete assignments or engage in discussions. Participants highlighted that being able to communicate in their HL allowed them to express their ideas more clearly and faster, negotiate meaning more effectively, and contribute to group work with greater confidence. While the participants were doing the in-class activities, they were having discussions with their classmates either in English or in Turkish. They were asked when and why they preferred using HL during discussions, and majority of the students stated that they usually prefer to use their HL when they do not know the meaning or pronunciation of a word, when they had difficulty to understand the task, additionally they further stated that using HL supported them to communicate fast, and it enabled them to express exactly what they wanted to say. For instance, Şule mentioned that

Because of my English level, I was unable to express myself in English effectively, neither were my classmates. When I asked a question to my partner, he/she could hardly explain it in English. This created a lack of communication (Focus Group Interview, Week 5)

It can be inferred from the above-given statement that it was difficult for the students to be understood by their classmates with their limited repertoire in AL so, they preferred to use HL for the flow of their conversation in which they had rich repertoire to express themselves effectively.

Likewise, several participants stated that using their HL during classroom discussions contributed to greater speed and efficiency in communication. When learners were not constrained by linguistic limitations, they were able to articulate their thoughts more rapidly, respond more spontaneously, and keep the flow of conversation active. To illustrate, Nazım stated that using HL was the fastest way to “ make yourself understood.” Additionally, Efe emphasised that even if he was able to speak

at advanced level of English, he would prefer to speak in HL because it was the easiest and the most logical way to communicate.

4.3.2 The impact of translanguaging activities on learning. The other main theme coded as “The Impact of Translanguaging Activities on Learning” explores how pedagogical practices of translanguaging had an impact on students’ perceptions in the classroom activities, which are indicated in the following sub-themes.

4.3.2.1 Effectiveness of specific activities. Most of the students stated the effectiveness of the classroom activities such as group discussions for brainstorming, Word wall, Multicolour Sentence Strips, Frayer model, 4-Box Graphic Organizer and Parking Lot. However, there were also some students mentioned their ineffectiveness. Each activity conducted in the classroom is given at the following to clarify whether it was effective.

Some students mentioned the effectiveness of *group discussions for Brainstorming* activity pointing out its unlimited aspect in their imagination. Hande stated that “the most effective activity was the one when you asked us to brainstorm, it was amazing because I was able to use my own imagination which has no limits. That gave me a feeling of freedom, which I liked the most” (Focus Group Interview, Week 5). It can be inferred from the excerpt that when creativity is concerned, students wish to go beyond their borders where they are able to create their own space using all their repertoire without being limited with prompt sentences.

Word wall activity (Appendix N) was considered as useful and effective for most of the students. To exemplify, Senay stated that “I always take notes about new words but sometimes it is very hard to catch up every word, so word wall enables me to see them all at once, so it was so useful for me” (Focus Group Interview, Week 5) . Furthermore, most of the students mentioned that it was beneficial and helped them to revise the words whenever they looked at them. However, there were some oppositions, and they claimed that “editors were the ones who got the most benefit from the word wall activity, because they were the ones who put their effort on it” (Sule, Focus Group Interview, Week 5). In a similar vein, Hande, one of the editors of the word wall, also admitted this notion by stating “it was so retainable for me as I wrote them twice, both onto my notebook and then on the word wall, so I remembered

the words easily” (Focus Group Interview, Week 5). These excerpts point out that although this activity enabled students to see the unknown words as a whole and help them make revision each time they looked at them, some students perceived its significant contribution mostly on editors.

Most students stated that *Frayer model* (Appendix O) was effective particularly while they were writing the HL examples of the linkers. Moreover, some students mentioned that it was very beneficial as they learned where and how to use the linkers while writing the examples in both languages. Şule noted that “....at least each student exactly learned a linking word” and Zehra consisted with this notion and connected its effect with social interaction by saying: “.....at least we definitely know one conjunction, moreover it was very beneficial for establishing social connections with our classmates” (Focus Group Interview, Week 5). Similarly, Ayla also noted its contributing factor by stating that “after doing the activity, presentation of each group was very effective, so that we learned the other linkers from our classmates” (Focus Group Interview, Week 5).

Additionally, most of the students emphasised the effect of *4-Box Graphic Organizer* (Appendix P) activity by pointing out its HL use opportunity and visual contribution. Şenay , for instance, mentioned that “Learning a word along with its HL definition and visual makes it more retainable. Whenever I want to use the word, I remember the photo of the word and it makes it easier to recall”. (Focus Group Interview, Week 5).

When *Parking Lot* is taken into consideration (Appendix R) , it was stated that it helped them to realize their mistakes from symbols by having discussions with their peers who “can understand their language and make them feel relaxed” (Ayla, Focus Group Interview, Week 5). Some students also mentioned that discovering their mistakes step by step by discussing with their peers contributed to their understanding. İlgin stated that it seems like a “.....multilayer learning”, which means that at first step, they discovered their mistakes by asking their peers and then checked their understanding by getting feedback from their teacher. Majority of the students were consistent with the effectiveness of the activity having discussed with their peers and getting assistance with correcting the mistake and thinking and working collaboratively.

Additionally, most students stated that the activities carried out before writing practices helped them to remember the input in further exercises. The following excerpt pointed the usefulness of these activities:

After involving these activities, it was very helpful to remember the newly learned words while doing the daily tasks. I recalled the moment, and I remembered the word we learned and did the exercises without having any difficulty, so my grades from daily tasks increased. It was extremely retainable. (Ilgin, Focus Group Interview, Week 5).

The excerpt above further supports the effectiveness of activities with its retainable factor which they could get benefit for their further studies.

However, some students found the activity ineffective for several reasons. Firstly, Elif claimed that the assigned students did not have satisfactory knowledge like a teacher, and they were not helpful enough to discover the mistakes because of their English level. Secondly, Esin stated that there were only two students in the parking lot which caused long queues, and the allocated time was not sufficient to get feedback from their peers. Finally, student Efe also claimed that it was more reliable to ask the teacher rather than his/her peers (Focus Group Interview, Week 5).

Multicolour Sentence Strips activity (Appendix S) was favoured not only with its engaging, entertaining and socializing factors but also it was appreciated with its contribution for learners' linguistic awareness. Some students stated that while they were during controlled activities in the classroom, they did them automatically but with this activity, they realized their mistakes while they were speaking. It is noteworthy to mention that most students appreciated its contribution in their linguistic awareness by stating that it reminded and eased their comprehension when and where to use grammatical structures together with time makers such as when and while, before and after. The following excerpt reflects their perception:

When I first saw the verbs and time makers, I stopped for a moment and thought about the grammar structure because there were only verbs and time makers to make a meaningful sentence. That's why it was so useful to remind me the topic. (Şenay, Reflective Feedback Sheet, Week 4)

It can be inferred from the above-given statement that it had a significant effect in their memory to recall the grammar topics and activate their output in AL.

Nevertheless, some participants considered it as a revision by stating that “since it was not that much difficult for me, I was able to do the exercises without having any mistakes, it was just a revision for me” (Hande, Reflective Feedback Sheet, Week, 4). Consequently, most students pointed out its social contribution and entertaining factor by stating that it created a colourful and engaging learning atmosphere in the classroom.

4.3.2.2 Retaining factor on learning and self-effort. Participants frequently mentioned that they could easily remember topics by the help of the activities carried out in the classroom. They indicated a strong sense of engagement and meaningful involvement in the learning process. This retainable factor was often linked to the interactive and contextualized nature of the tasks, which made the learning experiences more memorable. However, some participants reported that this was not only the engaging nature of the lessons but also their personal investment in the learning process. This was frequently associated with the effort they put into the tasks; the more involved and challenged they felt, the more they have memorable the experience. Consistent with this notion, majority of the students emphasised that effectiveness of the activities for further tasks depends on the learners’ autonomy and curiosity. They pointed out that the in-class activities were highly effective while doing them. Additionally, they were highly supportive after sticking on the walls as they were visible and accessible anytime they needed. However, most of the students stated that they might have become ineffective unless they were read and revised regularly, which depended on the interest of the learner. To give an example, Nazım emphasised the effectiveness of the activities by saying “ for those who wonder about its value”. Likewise, Emre also stated the following words to support this notion:

Retaining these activities depends on students’ efforts. The more the students take them seriously, the more they learn. If they just complete the task as it is asked to do, or unless they look at them while passing through and it does not work, it has no effect on the learner. Learning depends on their desire to learn. (Emre, Focus Group Interview, Week 5)

The excerpt above suggests that the willingness of learning is a significant factor for students to remember the content in further outcomes in AL. Not only do the efforts of teacher and classroom activities have an impact on their learning, but also students' own desire, curiosity, and willingness help them recall the studied topic to see the effect of learning.

4.3.2.3 Motivational impact. Participants consistently described how enjoyable learning experiences made them more willing to participate in classroom activities. Majority of the students stated that the activities were enjoyable so they could engage in the lesson efficiently. The following statements exemplify this as follows:

Previously, the writing lessons were so monotonous and boring, because we had to speak in English and it was challenging, I was hardly involved into the lessons, however, in this module, with different activities, I felt comfortable, and I was so curious what we would have as an activity today. (Rana, Focus Group Interview, Week 5)

The above excerpt conveys that forcing students to complete a task with their limited repertoire keep them away from engagement into activities. This decreases their willingness and creates a boring atmosphere in the classroom. Since there were different activities that they could involve, it was easy for them to engage into the lessons with motivation and curiosity, which facilitates an enjoyable learning.

4.3.3 The impact of AI feedback on writing competence. The last key theme derived from the qualitative data was the Impact of AI Feedback in Writing Competence. During the classroom activities, students were asked to write a paragraph and a story by collaborating with their peers and engaging into activities with their teacher. Apart from peer and teacher interaction, they were also assisted with AI for its feedback purposes. The data categorized under following sub-themes which highlight its benefits for writing competence, compare it with teacher feedback, and point out the challenges encountered, collectively illustrate the impact of AI-generated feedback on participants' perceived writing competence.

4.3.3.1 Benefits of AI feedback on writing competence. In this study, ChatGPT was utilized for its instant feedback purposes, and it also had a scaffolding effect on the learners as it enabled them to discover and correct their mistakes. Most students stated that the feedback of ChatGPT was surprising, not only did it precisely correct their mistakes but also contributed their writing skills by giving suggestions how to enrich their writings with wide range of vocabulary and grammar structures. The following excerpts were taken from some participants reflections, illustrating their feelings when they first encountered the feedback of ChatGPT.

Apparently, I did not expect ChatGPT to give me that much feedback. Along with correcting my mistakes, it suggested some alternative ways how to improve my story. That was my shocking moment! (Fatih, Focus Group Interview, Week 5).

When I first upload my story in ChatGPT, I was just expecting it to correct my mistakes, but when I saw the detailed feedback, I was surprised because it rewrote my story by correcting my mistakes along with extending it. It did not change the content of my story but enriched it with range of vocabulary. It became a good sample for my further writings (Nazım, Focus Group Interview, Week 5).

As stated in the first excerpt, students were not ready to get that much detailed feedback from ChatGPT. It was so surprising and at the same time so convenient for them to see their corrected mistakes as they were always asked to find their mistakes by themselves. The second excerpt supports that not only did they utilize ChatGPT with its correcting aspect, but also it supported the students with its wide range of vocabulary options and offering extended suggestions for their stories, which in turn they can get benefit for their further tasks.

Some students also mentioned that they could see their gradual progress when they compared their first and final drafts. “In my first draft, I had more mistakes in my stories but gradually my mistakes became fewer in linking words, sentence structures and especially in vocabulary knowledge.” (İlgin, Focus Group Interview, Week 5). Similarly, Ayla also stated that the biggest contribution to her writing was to see “the

cause-and-effect relationship” of ChatGPT’s feedback on her story. “ChatGPT gave me feedback on my grammar mistakes by stating the reason why it is incorrect and how it can be corrected, like cause-and-effect relationship, that was so helpful” (Focus Group Interview, Week 5). Likewise, Esin stated that “Getting feedback from ChatGPT on my mistakes helped me to see the story writing from larger perspective and realize how to write it as a whole” (Focus Group Interview, Week 5)

4.3.3.2 Comparing AI and teacher feedback. ChatGPT feedback was appreciated for its immediate, accessible, and detailed explanation, especially in identifying grammar and spelling mistakes, improving lexical choices, and offering suggestions. Learners reported that this type of feedback helped them revise drafts more efficiently and independently, giving them greater control over their writing process. Moreover, getting feedback from ChatGPT was appreciated by most students as not only with its time-saving aspect but also lessen the burden on teacher’s shoulder to use lesson time more effectively. Emre supported this notion with the following statement: “It is definitely a time saver, because it would take longer if each of us came and asked you to check our stories, but ChatGPT did it in seconds for all of us” (Focus Group Interview, Week 5). Bora supported this notion, stating that “I like this feature of ChatGPT, for instance, we are 17 students in this class, if each of us came one by one, there would be long que to get feedback from you, but ChatGPT gave us instant and detailed feedback, it really saved our time” (Focus Group Interview, Week 5). Similarly, Zehra also stated that “We have reached to the best data in short period of time” (Focus Group Interview, Week 5).

Some students also mentioned that after the classroom activities they started to utilize from ChatGPT in their daily lives. “I did not use to utilize ChatGPT before, but after realizing its instant feedback in our class activities, I started to use it for other tasks and even for my daily chores” (Elif, (Focus Group Interview, Week 5). In the same vein, Ayla emphasised its contribution to her life by stating that “following our activities in the class, I started to consult ChatGPT about everything” (Focus Group Interview, Week 5). Furthermore, some students pointed out ChatGPT feedback’s permanent effect stating, “although verbal communication is important, written communication gives us more permanent feedback” (Ali, Focus Group Interview, Week 5). also supported this notion with the following words:

When I got feedback from my teachers, I sometimes forgot what had been told, because it was verbal and I had some hesitations to ask it again and again, but after activities in our class, I had a chance to read the feedback of ChatGPT whenever I needed, because it was in a written form (Şule, (Focus Group Interview, Week 5).

This excerpt of the student underscore that not only does the ChatGPT feedback fade away their hesitations to ask a question to the teacher, but also it helped them keep the record of the ChatGPT suggestions that can be reachable whenever they need.

On the other hand, while ChatGPT was highly effective for time saving, having permanent and supports linguistic enhancement, some students recognized the added value of teacher and favoured teacher feedback as it was more reliable and retainable. Efe stated that “I admitted that it was helpful to get instant feedback from ChatGPT, but I wanted to compare the results by asking feedback from you, as well. So, it became more reliable for me”. Finally, Emre also noted that “it is more retainable when a teacher points my mistakes” (Focus Group Interview, Week 5)

4.3.3.3 Challenges in using AI for instant feedback. While students generally acknowledged the usefulness of ChatGPT for receiving quick and accessible feedback on their writing, several challenges also emerged. Some students had some problems on getting feedback from ChatGPT as they preferred to take the photo of written stories rather than typing them. This caused ChatGPT to have difficulty reading their handwritings so, some students had some challenges to get instant feedback. However, some students typed their stories into ChatGPT and mentioned that “I avoided taking the screen shot of my story because ChatGPT was not able to read my handwriting at first time, so I typed it each time, and I did not have any problem afterwards” (Şule, Focus Group Interview, Week 5). Moreover, they had some challenges about level appropriate vocabulary and grammar if they did not mention their level in their prompts in any languages. illustrated this situation by stating that “It is very important to mention the level of English while writing the prompt to ChatGPT, otherwise it

gives suggestions with more advanced vocabulary, which I was confused about what was being told in my rephrased story” (Hande, Focus Group Interview, Week 5).

In brief, the qualitative data collected from focus group interviews, reflective feedback sheets, and field notes revealed a rich interplay between emotional, cognitive, linguistic, and social dimensions of language learning. A central theme across the data was the positive impact of AI-assisted translanguaging practices, particularly the strategic use of students’ HLs. Participants reported that using their HLs not only enhanced their comprehension and reduced anxiety, but also fostered social bonds and collaborative engagement, especially during group tasks. Students also emphasized that making connections between HL and AL helped them understand complex topics more deeply. Moreover, a relaxing classroom atmosphere played a key role for engaging lessons and making social connections among learners. Furthermore, retainable factor of classroom activities was often linked to the amount of effort and engagement invested by students. The integration of AI-generated feedback through ChatGPT added a significant contribution to students’ writing development. While learners appreciated ChatGPT’s immediate and detailed linguistic support, they also encountered some challenges such as having problems on understanding the rationale behind the corrections or suggestions because of lower proficiency of limited metalinguistic awareness. Consequently, these emerged themes underscore the importance of fostering linguistically flexible learning atmosphere in the classroom that empower learners to engage writing lessons and reflect their ideas effectively, which leads them to develop their writing competence by getting assistance with the latest technological advancements such as ChatGPT.

Chapter 5

Discussion and Conclusions

5.1 Discussion of Findings for Research Questions

The present study primarily aimed to investigate not only the writing competence of the EFL learners, but also their perceptions on the AI-assisted translanguaging pedagogy. Specifically, the present study attempted to provide insights into the promotion of AI-assisted translanguaging pedagogy in a preparatory programme of a private (non-profit) university in addition to the perceptions of the students. In this regard, the relevant data were collected both quantitatively and qualitatively and a mixed method research design was adopted for analysis. This concluding chapter discusses the findings of each research question in details.

5.1.1 Discussion of the findings of RQ 1: To what extent does AI-Assisted translanguaging pedagogy have an impact on the writing competence of EFL learners in a Turkish university context? The purpose of the first research question was to explore the impact of AI-assisted translanguaging pedagogy on EFL writing competence via pre-test and post-test scores. The quantitative results revealed that AI-assisted translanguaging pedagogy provided development in students' writing scores. The effect size results show that experimental group had a **large effect** in *content*, *communicative achievement*, *organisation* and *overall scores*, whereas, it had **moderate effect** in *language* component. According to Cambridge Preliminary English Test Writing Rubric (Appendix I), these statistical results, therefore, suggested that of AI-assisted translanguaging pedagogy developed experimental group participants' (a) *content knowledge*, which refers to their ability to convey their ideas to inform the reader, (b) *communicative skills*, which refers to their ability in communicating straightforward ideas to hold the readers' attention, (c) *organisation*, which refers to their ability to write a well-organised text by using a variety of linking words and cohesive devices, and (d) *overall scores* which refers to an enhancement their writing competence. However, (e) in the *language* component, which refers to lexical and grammar knowledge, the effect was not that much strong or significant. Therefore, the results indicated that AI-assisted translanguaging pedagogy treatment

carried out in the experimental group outperformed the EoP in the control group, in terms of writing competence, even though AI ChatGPT corrections on mistakes or grammar structure instructions in HL did not have significant impact but still effective. Moreover, the results obtained between groups in *content* and *overall* scores also supports the notion of Li (2011) stating that translanguageing pedagogy, implemented as a treatment in the experimental group, enhanced the comprehension and the development of *language* and *content* by activating learners' prior linguistic knowledge through the creation of translanguageing space where the participants of the present study were free to use their HLs with the assistance of AI and by working collaboratively with their classmates. These results are in line with the research studies in the existent literature (Yuzlu & Dikilitaş, 2022; Karabulut & Dollar, 2022; Tsai, 2022; Yang & Lin, 2025) in terms of pedagogical implications of translanguageing in the writing competence, which were conducted without the assistance of AI or technological advances. In Yuzlu & Dikilitaş's (2022) study, for example, both productive and receptive skills of their participants were investigated and their study results indicated that translanguageing pedagogy had a *large effect* on their participants' language skills, which is consistent with the present study results. Additionally, although AI-assistance was not included in Karabulut and Kesli Dollar (2022)'s study, their research results revealed that the inclusion of translanguageing practices into writing lessons increased the writing abilities of their students in *content* learning and *overall* scores, which also aligns with the present study results.

In terms of AI or technology assisted studies investigated the writing skills of EFL learners with the lens of translanguageing approach, the study of Tsai (2022) can be given as an example. In his study, the effectiveness of Google Translate was explored as a CALL tool in EFL writing, and the participants conveyed significantly more ideas, and they provided more *content* in their writings. Unlike Tsai (2022), which was deprived from collaborative interaction, in the present study collaboration constituted a social bond in the communication skill of the participants. Moreover, Song & Song (2023) explored academic writing skills and motivation of Chinese students with AI assistance (ChatGPT) in their study, and their results revealed that participants had significant improvements in *overall scores*, *content*, *organisation* and *language* components. While Song & Song's study did not focus on translanguageing, the present study extends their insights by integrating AI feedback within a

translanguaging pedagogical framework. Finally, writing competence of six EFL learners was investigated with the assistance of AI called ERNIE Bot in the recent qualitative study of Yang & Lin (2025) through the lens of pedagogical implications of translanguaging and the results showed that the participants used AI-assistance as a bridge for their linguistic gaps to enhance their writing skills, which is in line with the findings of the present study in terms of overall scores.

To conclude, the quantitative results of the present study revealed that AI-assisted translanguaging pedagogy had an impact on the EFL learners' writing competence to convey their ideas, use linking words and cohesive devices in a well-organized text and enhance their communicative skills although their lexical and linguistic awareness need further attention.

5.1.2 Discussion of the findings of RQ 2: What are the impacts of AI-assisted translanguaging pedagogy on EFL learners' perceptions in writing instruction?

The purpose of the second research question was to explore the overall perceptions of the experimental group participants regarding the AI-assisted translanguaging pedagogy implemented in their writing class through reflective feedback sheets provided at the end of each activity, field notes of the researcher and semi-structured focus group interviews. The implementation of translanguaging practices is not a new phenomenon and there are studies previously conducted on translanguaging pedagogy in the literature (e.g. Muguraza et al., 2023; Karabulut & Kesli Dollar, 2022; Yuzlu & Dikilitaş, 2022; Turnbull, 2019; Wang, 2022). Nevertheless, it is noteworthy to mention that the research studies regarding the assistance of AI or MT in translanguaging practices specifically focusing on writing skills and EFL learners' perceptions on its impact have rarely been investigated (e.g. Lee, 2020; Kelly & Hou, 2022; Tsai, 2022; Yang & Lin, 2025).

Considering the findings of qualitative analysis, participants generally held favourable reactions toward the implementation of translanguaging practices in their writing classes. Consistent with previous studies in literature, the findings of the present study revealed that translanguaging pedagogy eased meaning making (Cenoz & Santos, 2020; Karabulut & Kesli Dollar, 2022; Wang, 2022) for comprehension of grammar topics (Lee, 2020; Debreli & Oyman, 2016; Wang, 2022) and boosting their confidence and engagement in learning (Akkuş & Ataş, 2023; Yeng et al., 2023);

furthermore, it created relaxing (Yesuf & Anshu, 2022; Yuzlu & Dikilitaş, 2022), comfortable and supportive atmosphere for social relations (Rafi & Morgan, 2023; Muguraza et al., 2023). While most students felt relaxed using their HL, a few participants expressed initial hesitations about whether it was ‘allowed’ in academic contexts and felt discomfort about using HL highlighting their internalised monolingual ideologies (Rafi & Morgan, 2023).

By embedding AI-assisted translanguaging practices into the existing plan of the institution without changing the existing flow of the school, it is possible to create a space (Li, 2011) for students providing them a sense of freedom to use their HL to negotiate meaning, exhibit linguistic awareness and reduce anxiety (Yang & Lin, 2025). Moreover, in the present study the use of HL was systematically planned and implied by keeping the control on the learners by refraining from random switching between languages to mitigate possible negative effects as it is pointed out by Garcia and Li (2014).

Regarding the effectiveness of activities, participants perceived them as feeling of comfort (e.g. Yuzlu & Dikilitaş, 2022), joy (Yesuf & Anshu, 2022) and freedom (Turnbull, 2019). Moreover, in this study, it was also concluded from the interviews that linguistic enhancement depends on the efforts and willingness of participants, which concurs with the constructive dimension of Yuzlu & Dikilitaş (2022)’s research finding indicating that not only do translanguaging practices help learners meaning making but also, they promote their autonomous learning.

Furthermore, in this study, AI feedback and integration into translanguaging pedagogy contributed to students’ writing skills with its scaffolding feature by giving suggestions and correcting their mistakes on grammar, vocabulary, content and organisation which aligns with the studies of Song and Song (2023), Selim (2024) and Fathi and Rahimi (2024) drawing upon the Vygotsky (1978)’s sociocultural theory, particularly ZPD. In this study, AI functions not only as a linguistic scaffold per se, but also as a mediator that supports dynamic language practices and fosters greater engagement. As a result, ChatGPT enabled students to identify and address their areas of difficulty where they needed to strengthen by constructing a bridge between their writing abilities and their potential (Yang & Lin, 2025). Consequently, while AI (ChatGPT) instant feedback was perceived as a time saver and valuable mediator developing their writing abilities, the participants found teacher’s feedback more

reliable due to its lack of human touch and emotional understanding, which concurs with the study of Teng (2024).

5.2 Pedagogical Implications

Notwithstanding the persistent beliefs in English only policy in the field of English language teaching, present research study has yielded significant findings highlighting the advantages of translanguaging pedagogy specifically in EFL learners' writing competence in the AL. Considering these noteworthy contributions, the present study proposes some pedagogical implications.

To begin with, the common perception of AI-assisted translanguaging pedagogy among students at a private, foundation non-profit university identified by this study underscores the need to promote the role of translanguaging pedagogy supported with AI tool, ChatGPT, on English as a foreign language learning. In other words, the study revealed that it is essential to notice and recognise the contributions of translanguaging pedagogy on cognitive strategies on learning, especially, developing students' capacity and willingness in English language learning. As Garcia et al. (2017) state that teachers' notion of translanguaging stance which refers to the belief that students have one linguistic repertoire which they draw upon is the most important component of translanguaging pedagogy.

However, teachers supporting English only policy in their instructions are less likely to implement translanguaging practices in their classrooms due to the belief that it may not lead to favourable outcomes (Anderson, 2018). The present study results revealed that meticulously embedded AI-assisted translanguaging pedagogy into existing lesson plans supported the participants' willingness, cognitive development and engagement into activities. A further step should be taken, and teachers should be trained on how to implement translanguaging practices into their classes. This training might be proposed to start from pre-service teachers taking theoretical and practical courses throughout their education. These trainings and practices might encourage them to design English lessons in different levels utilizing AI- assisted translanguaging pedagogy embedded lessons plans and reflect their experiences to reach out the best way to adapt and implement various practices. Moreover, given the challenges students faced with AI such as misunderstanding handwritten input, translanguaging lessons integrating AI should provide explicit digital literacy training. Furthermore,

in-service teachers may also attend in-service trainings where the translanguaging pedagogy's rationale, theoretical and practical implementations are provided with hands-on activities. Additionally, they may share their experiences in different contexts so that other teachers and researchers may get benefit from, therefore, they may contribute to the transferability and generalizability of findings on translanguaging approach. Although translanguaging pedagogy has been implementing for a long time in different contexts, there is still an urgent need to exemplify different activities how to implement the theory into practice.

All in all, the findings of the present study can be taken for granted in future studies for understanding of the impact of AI-assisted translanguaging pedagogy on EFL learners' writing skills in English preparatory programmes at tertiary level.

5.3 Conclusions

The present study contributes to the literature by investigating the impact of AI-assisted translanguaging pedagogy on EFL learners' writing competence and their perceptions of students on AI-assisted translanguaging pedagogy. When the results of the study taken into consideration, firstly, it is essential to indicate that the participating students enrolled at a private, non-profit foundation university perceived the translanguaging practices as beneficial and engaging due to an increase in their writing competence. The translanguaging space (Li, 2011) and comfort area created by AI-assisted translanguaging pedagogy enabled them to feel relaxed and engaged to the activities without having any hesitations and shyness toward their mistakes and enhanced their writing skills and confidence. Additionally, while EoP restricts the students to get benefit their full repertoire, it is quite obvious from the findings that when they are allowed to use their all linguistic repertoire, their tendency to learn is triggered leading to a joyful, motivated, supported and enriched learning atmosphere.

In a nutshell, the previous studies suggested some pedagogical implications of translanguaging in EFL contexts and this study contributed the field of English language teaching with its the positive outcomes of in terms of learners' competence and motivation in learning. In the literature, there has been several studies investigating translanguaging pedagogy in different contexts (Garcia & Li, 2014; Cenoz & Santos, 2020; Yuzlu & Dikilitaş, 2021; Rafi & Morgan, 2023; Yang et al., 2023) at different

levels (Turnbull, 2019; Karabulut & Dollar, 2022; Yesuf & Anshu, 2022) however, AI- assisted ones are rare (Kelly & Hou, 2022; Yang & Lin, 2025). Besides, most of the studies created their lessons plan (e.g. Cenoz & Santos, 2020; Yang & Lin, 2025) for the purpose of the research but in the present study, the translanguaging practices were embedded into the existing plan of the institution and the results demonstrated that translanguaging pedagogical implications would align with the existing instructional cycle of the context by getting assistance from technological innovations such as ChatGPT. As the latest study of Yang & Lin (2025) suggested further studies on AI-assisted translanguaging pedagogy, the current study contributed to the field with its quasi-experimental design with a larger sample investigating on AI-assisted translanguaging practices implemented for writing lessons embedded on an existing lesson plan explored the phenomenon with pre and post-test stages and perceptions of the participants.

Overall, the integration of AI-tools in educational settings has led several opportunities for learners specifically in the realms of learning and writing. However, it is noteworthy to point out that these tools cannot replace the role of teachers in education (Selim, 2024).

5.4 Recommendations for Further Research

This study has several recommendations for future research. Firstly, the present study was conducted with pre-intermediate level (A2) students at tertiary level. Therefore, further studies can be conducted to extend the scope in terms of participants, settings, and levels so that more comprehensive and further results can be obtained. Secondly, in the present study AI-assistance was exploited in terms of its feedback purposes for checking content and linguistic features such as grammar, vocabulary and spelling, so further studies can make use of its other features such as generating ideas for brainstorming and writing sample texts for learners. Finally, as this study investigated the AI-assisted translanguaging pedagogy for five weeks, future studies can focus on the investigation of the effects of it with a longitudinal experimental design study following a delayed post-test to seek whether its impact diminish over time.

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