ENGLISH STUDIES: A MULTIFACETED LENS

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FOREWORD

The rapid transformation in education, particularly within the realms of English Language Teaching (ELT), English Literature, and Applied Linguistics, is being shaped by technological advancements and evolving pedagogical practices. In the book *English Studies: A Multifaceted Lens*, a collection of studies is presented that delves into various dimensions of English education, literature, and linguistics, and the impact of emerging technologies on language learning, teaching, and literary analysis. Each chapter offers unique insights into how educators, learners, and educational systems adapt to these changes, reflecting on challenges, opportunities, and future directions. Through the integration of technology, innovative teaching practices, and interdisciplinary approaches, this book showcases the dynamic nature of English studies today, covering not only language education but also the cultural, literary, and theoretical frameworks that shape our understanding of the English language.

In "L2 Writing in the Age of AI: Teachers' Perspectives on EMI Classrooms," **Abbas HADIZADEH** explores the intersection of second language (L2) writing instruction and Artificial Intelligence (AI), examining how English Medium Instruction (EMI) teachers perceive the impact of digital tools on students' writing skills. His findings underscore the growing need for innovative strategies to bridge the gap between students' academic writing and their in-class performance.

Beyza KABADAYI's study, "Exploring Deeper Insights: How Epistemological Beliefs Influence Argumentation in an EFL Classroom," takes a closer look at the cognitive underpinnings of language learning, specifically how students' beliefs about knowledge shape their argumentation skills in English as a Foreign Language (EFL) classrooms. The study highlights the importance of fostering sophisticated epistemological beliefs to enhance critical thinking and argumentative abilities.

In "Exploring the Challenges and Learners' Perspectives in a Flipped Language Classroom," **Buket GÜLLÜ ÖZKAYA** and **Hasan BEDİR** evaluate the obstacles encountered by both learners and teachers during the implementation of the Flipped Classroom Model (FCM) in EFL settings. Despite technological challenges, their research confirms the potential of FCM in promoting language

acquisition, illustrating both the benefits and struggles associated with blended learning environments.

Ebru ŞİRE KAYA, **Oğuzhan HÜYÜKLÜ**, and **Emin ÖZDENVAR**'s study, "A Study on the Ethical Concerns of Post-Graduate EFL Learners Regarding AI Utilisation in Academic Writing," addresses critical issues surrounding the use of AI tools in academic contexts. This research explores the ethical concerns post-graduate students face when using AI in academic writing, offering guidance on how to integrate AI responsibly within educational frameworks.

"Investigating EFL Students' Attitudes Towards AI and Learner Autonomy in Language Learning" by **Emre ARTUT** and **Merve GAZİOĞLU** explores the relationship between AI adoption and learner autonomy. The study presents Turkish EFL students' perceptions of AI and its potential to empower them as independent learners, ultimately contributing to their development of autonomous learning strategies.

Eser ÖRDEM's research, "Investigating Complex Sentence Usage in Turkish EFL Learners," provides an analysis of how Turkish learners use complex sentence structures, focusing on noun, relative, and adverbial clauses. The study offers valuable insights into language proficiency levels and suggests ways to improve the teaching of advanced sentence structures.

The perspectives of graduate students on integrating AI tools into ELT are explored in "Exploring the Utilisation of AI Tools from ELT Graduate Students' Perspectives" by **Gizem KARAMAN**, **Hazal AKSOY**, **Merve DEMİRCİOĞLU**, and **Yeşim KAYHAN**. The research underscores the evolving role of AI in shaping ELT materials and its implications for future educators.

Gürkan TEMİZ and **Elif Nazlı KAFADAR**'s study, "An Investigation of In-Service EFL Teachers' Perception of AI and Experiences with Its Integration in ELT: A Phenomenological Approach," delves into the perceptions of in-service EFL teachers on AI integration. The findings reveal both optimism and apprehension surrounding AI in education, highlighting the nuanced attitudes teachers hold toward technology in the classroom.

In "Mastering Turkish Linking Adverbials: Challenges and Patterns Among Diverse Learners," **İrem Nur ATEŞ** and **Eda DURUK** examine the role of first language influence in learners' acquisition of linking adverbials in Turkish writing. Their study illuminates the complexities of language transfer and the need for tailored pedagogical strategies to address learners' individual challenges.

Kübra ŞIK KESER's research, "Integrating AI into ELT Material Design: Perspectives from Future English Educators," explores how senior ELT students perceive the incorporation of AI in material design. The study highlights both the potential and challenges of AI in enhancing language education and stresses the importance of preparing future educators for this technological shift.

The comparative study by **Kübra ŞIK KESER** and **Rümeysa PEKTAŞ**, "Human vs. AI Feedback on Academic Writing," investigates the effectiveness of AI-generated feedback compared to human feedback in the context of academic writing. Their research provides a nuanced understanding of AI's role in feedback processes, suggesting that AI may complement human feedback, but cannot replace it in fostering deeper student engagement.

In "Structural and Pragmatic Skill Development in Children with Autism Spectrum Disorder," **Mariana VILLEGAS VENEGAS** and **Natalia RAKHLIN** explore the language development of children with Autism Spectrum Disorder (ASD), shedding light on challenges in both structural language use and conversational continuity. This study offers valuable insights for educators working with children with ASD in language development settings.

Matthew CHAMPLIN's "Teaching Reading Skills in Fresh Ways as GenAI Emerges" reflects on the transformative potential of generative AI in reading instruction. As technological advancements alter the way students interact with texts, this chapter addresses the balance between embracing new tools and maintaining foundational reading skills.

Mehmet DEMİREZEN's study, "Discovering the Basic Phonemic Traits of Rhotic and Non-Rhotic /r/ Phoneme of English" examines key pronunciation challenges in English. The study explores the practical application of technology in helping learners overcome pronunciation issues through the use of specialized programs like *Audacity* and Text-to-Speech Labs.

"Marking the Location of Tonic Stress in English Sentences by Using the Text-to-Speech Labs and *Audacity* Program" by **Mehmet DEMİREZEN** and **Halil ERCAN** offers an innovative approach to teaching sentence stress through technology. This research explores how tools like *Audacity* and Text-to-Speech Labs can help learners understand the nuances of tonic stress, which is essential for comprehending sentence meaning and improving spoken fluency.

Meryem AKÇAYOĞLU and **Azra TAJHIZI**, in "Redefining Writing Instruction in ELT: Peer and AI Feedback as Powerful Tools," advocate for a hybrid feedback

model combining peer review and AI-powered writing tools to enhance student engagement and writing proficiency in ELT.

Met'eb ALNWAIRAN's study, "Transformative AI in English Literature Education: Evaluating the Impact of *ChatGPT* and *Gemini* on Student Literary Analysis and Writing Proficiencies," examines how AI models like *ChatGPT* and *Gemini* influence students' literary analysis skills and writing abilities. While AI offers substantial benefits in text interpretation, the author warns against over-reliance, encouraging educators to strike a balance between technology and independent critical thinking.

Mustafa KARA's exploration of proto-feminist discourse in "Beyond the Veil: Women's Agency and Proto-Feminist Discourse in the Premodern World" examines women's evolving roles in patriarchal societies through literary and historical lenses, offering a fresh perspective on feminist movements that precede modern-day feminist theories.

Pınar KIR's "The Impacts of Neoliberalism on Türkiye's Language Policies: Insights from University Students" investigates how neoliberal policies influence language education in Turkey. This study offers an understanding of how economic and social hierarchies shape the role of English in Turkish universities.

Salih DEMİR, **Sena Nur ÖZDEMİR**, and **Soner ELASLAN**, in "Investigating Language Teachers' Perspectives on Utilisation of GenAI Tools in Teaching at the Tertiary Level," explore how language teachers implement GenAI tools in their teaching practices and the implications for educational development, emphasizing the need for ethical considerations.

Sinem ÇAPAR İLERİ's article, "Gender Bias in AI: How to Dismantle Prejudices," confronts the issue of gender bias in AI systems. Through an examination of the historical and contemporary intersection between gender and AI, this study calls for greater awareness and solutions to dismantle these biases.

Tahir YAŞAR's "Waiting for Unappearing Heroes: *Godot* and *Lefty*" draws comparisons between two iconic plays from the Absurdist and Agit-Prop theatre movements, analysing the profound influence of Samuel Beckett and Clifford Odets on modern theatre and their depiction of human existence.

Among the topics explored, several studies examine the role of AI in language acquisition. For example, "Enhancing Spoken English Proficiency through a Custom GPT" by **Yusuf Emre YEŞILYURT** presents an evaluation of a tailored Generative Pre-trained Transformer (GPT) used to improve students' speaking abilities. This study highlights the potential of AI-driven tools for improving

spoken English, providing a forward-thinking perspective on language learning technologies.

Zehra KAYAALP's "The Impact of AI-Blended Learning on EFL Students' English Language Proficiency, Attitudes, and Motivation" evaluates how AI-integrated blended learning environments affect students' language proficiency and attitudes, revealing the benefits of AI-powered learning tools in enhancing both engagement and achievement.

In the realm of writing, "From Struggle to Structure: Scaffolding Essay Writing Skills of EFL Learners at Tertiary Level" by **Zekeriya DURMAZ** investigates the challenges faced by Syrian students in Turkey as they navigate English academic writing. The study emphasizes the need for scaffolding, contextual writing strategies, and improved reading practices to support students in overcoming writing barriers.

"Exploring the Relationship Between Demographic and Educational Factors and English-Speaking Anxiety" by **Zeynep Büşra VARIŞLI** and **Tuğba SÖNMEZ AKALIN** examines how demographic factors such as gender and prior English exposure affect students' speaking anxiety. The findings call attention to the importance of considering individual characteristics when developing language teaching strategies, emphasizing that early exposure and family support can alleviate anxiety and enhance language acquisition.

The contributions in this book represent a rich diversity of perspectives on English Language Teaching (ELT), English Literature, and Applied Linguistics, embracing a wide array of themes ranging from the integration of cutting-edge technologies like AI to the socio-cultural factors that influence language education, literary interpretation, and linguistic research. The studies presented here not only highlight the evolving methodologies within language teaching but also explore the dynamic relationship between language and culture, addressing the growing need to prepare students for an interconnected, globalized world. In the field of English Literature, the volume delves into the shifting roles of canonical and contemporary texts, examining how digital tools and interdisciplinary approaches are reshaping the ways we engage with literature and its study. Applied Linguistics provides further insights into the cognitive, psychological, and sociocultural processes that underpin language learning and use, offering a robust framework for understanding the complexities of multilingualism and bilingual education.

Each chapter offers unique insights that reflect the broader societal and technological changes impacting education today. Together, these studies provide

a comprehensive lens through which we can better understand the challenges and opportunities across English studies, highlighting the importance of adapting both teaching practices and academic research to meet the needs of modern learners. The studies in this volume are not only theoretical but also grounded in practical application, offering actionable recommendations for educators, linguists, and scholars to bridge the gap between research and practice. As we move forward, these contributions emphasize the need for an integrated, interdisciplinary approach to English studies, one that fosters both innovation and inclusivity while addressing the complexities of our global educational landscape.

December 2024

Editors

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L2 WRITING IN THE AGE OF AI: TEACHERS' PERSPECTIVES ON EMI CLASSROOMS

Abbas HADIZADEH[1]

Over the past two decades, EMI programs have gained significant popularity in non-English-speaking countries. EMI is defined as "the lecturing and studying of course content via English in contexts where this language is not the main medium of instruction" (Ducker, 2019, p. 2). Research into EMI has examined various aspects of its implementation, with numerous studies investigating the perceptions and practices of both teachers and students in EMI contexts worldwide. For students enrolled in English Medium Instruction (EMI) programs, achieving a high level of competence in academic writing is critical for their success in both content learning and overall academic performance (Hyland, 2013).

Academic writing is widely regarded as a challenging and demanding skill for L2 learners across the globe (e.g., Lillis & Scott, 2007; Lea, 2004), as it requires them to think and write in a language that is not their native tongue. This dual process places significant cognitive strain on learners, especially in content-based courses, where both linguistic proficiency and subject knowledge are essential. As a result, L2 learners face what can be described as a "double burden" when engaging in academic writing (Hyland, 2013). Additionally, the pressure to produce fluent and coherent texts creates a psychological burden, as academic success is often measured by the quality of written output.

The context of Northern Cyprus presents a unique case, having experienced a substantial increase in international student enrolment over the past 20 years. Informal estimates suggest that more than 100,000 students are currently enrolled in universities on the island, with over 50 percent coming from countries outside of Northern Cyprus or Türkiye ("The number of students," 2022). This shift has led to the widespread implementation of various English-medium instruction (EMI) programs in universities across the region, significantly boosting enrolment

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in English Language Teaching (ELT) programs and even increasing the demand for English language teachers. However, there is a notable lack of research on L2 academic English in Northern Cyprus, particularly from the teachers' perspectives in the digital age, where students have numerous resources at their disposal to write in English. Consequently, this research aims to explore the perceptions and practices of a group of English language teachers on the island of Northern Cyprus.

In addition to the challenges posed by EMI and academic writing, the rise of new technologies has recently transformed this landscape, both in Northern Cyprus and globally. Students now have access to various writing tools at their fingertips, creating a dilemma for L2 teachers concerned about academic integrity and the potential misuse of these tools. Several studies have examined L2 teachers' perceptions, practices, challenges, and attitudes regarding academic writing in English as a second language. However, there seems to be a paucity of research on L2 teachers' perceptions and practices of academic writing in the digital age. Therefore, this study aims to explore the perceptions of a group of English language lecturers regarding L2 academic writing in English within the international context of Northern Cyprus.

Literature Review

Richardson (1996) categorized perceptions, beliefs, and attitudes as a set of mental constructs that "name, define, and describe the structure and content of mental states believed to drive a person's actions" (p. 102). Despite its complexity, research on teachers' beliefs in language teaching has garnered considerable attention, even though it "does not lend itself easily to empirical investigation" (Pajares, 1992, p. 308). Beliefs are considered a key component of "teacher cognition," which refers to "the unobservable cognitive aspects of teaching—what teachers know, believe, and think" (Borg, 2003, p. 81). These beliefs act as "cognitive filters that shape how teachers interpret new experiences and influence their thoughts and actions" (Mohamed, 2006, p. 20).

Extensive research has been conducted on L2 teachers' perceptions and practices regarding the teaching of academic writing across various global contexts. For clarity, I divide these studies into two main sections: the first explores general perceptions and practices related to L2 writing, while the second focuses on the integration of technology in L2 academic writing instruction.

Teachers' Beliefs on Academic Writing

Numerous studies have underscored the challenges faced by higher education students in developing effective writing skills and their general lack of preparedness for academic tasks (Lea & Street, 1998; Munro, 2003; Niven, 2005). These challenges are compounded by the insufficient methods often used by lecturers and tutors to teach academic writing (van Schalkwyk et al., 2010). In the Libyan context, Suwaed (2011) explored teachers' cognitions and instructional practices in writing education, revealing the significant influence of culture on teachers' knowledge, beliefs, and thoughts about writing pedagogy. Similarly, Al-Bakri (2015) examined EFL teachers' beliefs, practices, and challenges in relation to written corrective feedback (WCF). The study found that teachers' broader personal and educational beliefs significantly shaped their WCF approaches, including their perceptions of their roles as educators and their beliefs about teaching, learning, and students, all of which impacted their feedback practices.

Additionally, Shi, Baker, and Chen (2017) demonstrated that professional training in Systemic Functional Linguistics (SFL) genre pedagogy had a positive influence on the teaching beliefs of six Chinese College English teachers, developing their writing communicative competence through an informed genre-based approach.

In another study investigating teachers' beliefs within an English for Academic Purposes (EAP) course, Wu and Hung (2011) proposed a circular model for EAP teaching practices. This model incorporates five key elements—instructional focus, scaffolding, in-class learning activities, corporate learning cycle, and evaluation—centered around three core themes: critical thinking, academic writing, and thesis writing. More recently, a study by Hajan et al. (2019) on Filipino L2 teachers' beliefs and pedagogical practices regarding second language writing found that participants held complex perceptions about L2 writing and its teaching, which were reflected in their approach to teaching academic writing. However, various factors—such as time, class schedules, class size, and school facilities—were identified as constraints on their ability to implement these beliefs in their instructional practices.

Overall, beliefs about writing have also been shown to influence teachers' instructional practices (Yang & Gao, 2013). As a result, the challenges students face with writing may be exacerbated when lecturers and tutors lack the necessary expertise and experience to support under-prepared students (Moutlana, 2007). This study argues that there is no one-size-fits-all solution to addressing students' writing difficulties in an EMI context. However, L2 writing instructors, especially in EMI settings, should approach L2 writing as a process and actively engage in critically examining academic writing within the context of the digital era.

Teachers' Beliefs on Technology Integration in L2 Writing

The integration of digital multimodalities in language education is not a recent development; it has been a part of every stage of teaching and learning—from planning to delivery and assessment—since the early 1980s (Lamy & Hampel, 2007). Sociocultural theory has been the dominant framework for much of the research in this area, where technology is seen as a tool for interactive language learning. Teachers use digital devices, such as computers, to foster collaborative instruction, while students engage with these tools for authentic communication (Lamy & Hampel, 2007). In this framework, learners are seen "as social beings, whose cognitive and linguistic development occurs through social interaction mediated by language", marking a shift away from teacher-centred instruction and toward student-oriented, active, and collaborative learning environments. In these settings, students become "creators of digital texts and media and (co)-constructors of knowledge, both in and out of the classroom" (Otto, 2020, p. 19). Most research in these areas has focused primarily on students' language learning, with far fewer studies examining instructors' or teachers' perceptions of instructional technologies applied to teaching academic English writing.

In a study by Villamizar (2018) conducted in an English language teaching program in Australia, the researcher investigated how teachers perceived visual literacy and their experiences using images in the classroom. The study found a connection between visual literacy and digital technologies, as teachers reported using technology to both view and create multimodal texts on electronic devices. However, external pressures limited the teachers' ability to fully engage students in critical visual literacy practices.

Several studies indicate that computer-mediated feedback is perceived by students as an effective tool for improving their writing skills (e.g., Ahamat & Masrom, 2018; Ebadi, 2021). Additionally, it has been reported to improve assessment outcomes (e.g., Al-Olimat & AbuSeileek, 2015; Sarré et al., 2021) and increase motivation for academic writing (e.g., Ahamat & Masrom, 2018; Yilmaz, 2018). For example, Lee (2014) explored language teachers' perceptions in Hong Kong regarding instructional technologies for providing feedback on L2 writing. The study revealed that instructors actively follow professional development to better their feedback methods. Despite some challenges, the instructors expressed a sense of professional empowerment and recognized the pedagogical benefits of adopting innovative feedback practices in the context of teaching English as a foreign language.

Recently, Tan and Matsuda (2020) explored teachers' views on multimodal composition in a first-year English composition program at a large U.S. public

university. Their findings demonstrated that instructors held positive attitudes toward multimodal composition, with their teaching practices aligning closely with their beliefs. The participants benefited from multimodal literacies to foster awareness, cultural sensitivity, critical thinking, and deeper understanding of content. Additionally, the study found that instructors recognized the pedagogical benefits of incorporating multimodal texts into writing classes, viewing them as useful tools for enhancing student engagement and learning.

A number of studies have also investigated the incorporation of Google translation in L2 writing classes. Gokgoz-Kurt (2022) reviewed a number of papers on the use of MT in EFL classrooms and the reluctance of some teachers to use the GT in their teaching. Some studies have reported GT as an easily accessible and effective tool for computer-assisted language learning (CALL) in EFL writing (Bahri & Mahadi, 2016; Alhaisoni & Alhaysony, 2017). However, some studies have criticized the incorporation of GT in EFL classes regarding L1 as an interference. Although the recent version of GT has shown significant improvements, it has not received favourable feedback from teachers and students in the field due to its previous versions' inaccuracies and imprecisions (see Briggs, 2018; Stapleton & Kin, 2019). In this regard, Stapleton and Leung Ka Kin (2019) emphasized the need for instructors to constantly adjust to emerging technologies and assess their effects on language teaching and learning. Although some educators may be hesitant to depend on such tools, the authors suggested that it is crucial for teachers to find methods to incorporate resources like *Google Translate* into their teaching strategies to support student learning.

However, the new AI bots seem to change the game for both second language learners and teachers. Since its initiation in November 2022, it has created huge waves in education all over the world. Several studies have explored teachers' views on using chatbots in education. Chocarro et al. (2023) found that teachers are more likely to use them if they perceive them as relevant and easy to use. Pokrivcakova (2022) surveyed a group of pre-service English teachers in the Czech Republic and Slovakia, reporting that respondents rated chatbots positively for being "fun," "accurate," and "entertaining." However, only about a third indicated they would incorporate chatbots into their teaching, while nearly half were hesitant to use them in future English lessons. Similarly, Belda-Medina and Calvo-Ferrer (2022) investigated future language educators' perceptions of conversational AI in language learning. Although participants expressed interest in learning more about chatbots, they tended to prioritize human interaction over human-chatbot communication, echoing findings from Pokrivcakova's study.

Quite recently, Zimotti et al. (2024) conducted a study with approximately 100 instructors to examine their perceptions of *ChatGPT*'s role in language education. The findings showed that instructors' enthusiasm or concerns about using *ChatGPT* were strongly linked to their personal experience with the tool. Instructors who had prior exposure to *ChatGPT* expressed greater excitement about its potential for educational use compared to those who had not interacted with it. Notably, the study found no significant differences in attitudes based on instructors' age or years of teaching experience.

Overall, the studies on language teachers' perceptions of the integration of technology in language learning in general and academic writing in particular show language teachers' generally positive but cautious views on integrating technology in L2 writing. Teachers value digital tools like multimodal texts, computer-mediated feedback, *Google Translate*, and AI chatbots for enhancing engagement, collaboration, and writing outcomes. However, concerns persist regarding over-reliance and students' unsupervised use. Recent studies suggest that educators' attitudes vary based on experience with these tools (Zimotti et al., 2024), emphasizing the importance of balancing human interaction with technology-driven instruction.

Method

Context of the Study

This study was conducted in an international context in Northern Cyprus, where the student population exceeds 4,000, with more than half coming from countries other than Cyprus or Türkiye. The study focused on the English Language Teaching (ELT) department, which included around ten academic staff members, both full-time and part-time. Since the department's establishment, formative assessment has consistently made up approximately 40 percent or more of the total grade in each course, making academic writing a central component of the department's curriculum. This includes tasks such as essays, projects, and smaller-scale research assignments.

Data Collection and Analysis

In this study, I adopted a qualitative research design, conducting interviews with four lecturers (see Table 1) selected through convenience sampling. The data collection began after receiving approval from the relevant ethics committee in the context of the study. The lecturers, aged between 32 and 38, were teaching

courses in academic writing or teaching methodology. The interviews included ten open-ended questions, allowing for in-depth exploration of specific topics and eliciting broader, often unexpected responses (Heigham & Croker, 2009).

The interviews were semi-structured, providing participants with the opportunity to openly discuss their thoughts, emotions, and practices regarding teaching academic writing. The interview data were transcribed and analysed using qualitative content analysis, following Patton's (2015) approach. Content analysis offers significant flexibility by allowing researchers to "make inferences based on the quantified analysis of recurring, easily identifiable aspects of text content" (White & Marsh, 2006, p. 23).

Table 1

Instructors' Profiles

Instructors' names (pseudonyms)	Years of experience	Age	Nationality
T1	10	38	Cypriot
T2	7-8	32	Iranian
T3	6-8	36	Cameroonian
T4	6-8	35	Turkish

Findings

The analysis of the interviews revealed five main themes of the study: attitudes towards academic writing, linguistic limitations and language proficiency, students' profiles and lack of good study habits, lack of seriousness and motivation, and the impact of technological tools on academic writing: concerns and frustrations. These themes will be discussed in detail below:

Attitudes towards Academic Writing

In this study, some instructors perceived academic writing as a task that simply involves following a predefined set of steps. Specifically, they did not find the initial stage (pre-task stage) as overwhelming. Instead, they viewed it as a process comprising a few straightforward steps, as outlined below:

> *... make an outline which includes the main points and the general structure of their paper. After creating an outline, they should write a draft which has an introduction, body, and conclusion to be given feedback. The next step is editing and revision. ...in terms of its well-organization, coherency, and errorlessness. They should also revise their paper to develop its clarity, and argumentation. (T4)*

However, this seems not to be practically possible for the students who are required to take 7 to ten modules a semester. Academic writing was also seen as challenging since it requires a lot of time and efforts by students and since it is a cognitively demanding task, as indicated in the following extract:

> *Academic writing is a difficult endeavour ... The most difficult aspects are the time and energy that these tasks take and the cognitive process required for these tasks. (T2)*

Linguistic Limitations and Language Proficiency

Linguistic limitations or language proficiency in the EMI context was another most-cited theme by the course instructors. They believed that students' proficiency level hinders students' ability to write more effectively, especially in discipline-specific areas.

> *Because sometimes you see that this student has an idea that he or she wants to, you know, pass on, but the language is limited...They don't have knowledge of the register. (T3)*

The topic was another issue that came up in teachers' interview insights, as indicated in the following extract. The unfamiliarity with the topic was believed to impact students' non-engagement in academic writing activities.

> *I think if I assign them with topics that they have background knowledge, they will be more comfortable to work with that topic than with a new one. I guess as students nowadays they have this attitude of we don't want to learn even in class when you ask them to go online. ... if they don't have background knowledge, then they kind of inhibits them or. Doesn't engage them in the task. (T3)*

This perception shows the challenging nature of academic writing, and the process involved in the activity. For this, both language proficiency and discipline-specific discourse knowledge need to be taken into account.

Students' Profiles and Lack of Good Study Habits

Some of the challenges of writing are associated with students' profiles and study habits. One habit that teachers highlighted as significant is the lack of good reading habits. Particularly, extensive reading was perceived to be a skill that students generally lack due to their individual profiles or possibly large amounts of coursework. Two representative extracts are provided below:

> *I think the most common problem is that they do not read enough and practice enough ... First of all, they should read a lot. When they read, they can have a better understanding of different writing styles, language structures, and usage which helps improve their writing skills. (T4)*

> *Reading articles is the most effective way to improve one's academic writing. The phrases used, the academic vocabulary, etc., is the best way students can be exposed and hence, produce their own academic writing essays. T1*

Lack of Seriousness and Motivation

Another concern expressed by teachers was the students' lack of attention or seriousness. The instructors were somehow not quite satisfied with such habits of ease and lack of seriousness and sometimes ascribed these habits to the challenging nature of the task and the resulting lack of motivation on the part of the students, as evident below:

> *I feel like the students are taking us for granted. They are taking the course for granted because you keep emphasizing, you pass the whole semester, telling them the importance of that task and when they come up with it and you give them feedback, they still come with the same. ... They are not serious, and they don't want to change. (T3)*

Teachers also identified various psychological dimensions of academic writing, including fear of failure, lack of motivation or confidence, anxiety, and apprehension, as expressed below:

> *Students .... may have a feeling of fear of failure, and this may lead to their confidence and motivation to complete their work. (T4)*

> *The due date is a common challenge when I assign writing tasks. They tend to get a little anxious when they find out the due date. ..., students get a little apprehensive when it comes to the word count. (T1)*

The Impact of Technological Tools on Academic Writings: Concerns and Frustrations

Some teachers believed that CMC technology has made the job quite easier and less time-consuming for students to write in English, as depicted below:

> *The internet has a huge advantage with regards to finding information and translation. Students have the opportunity to do their research with the touch of a button and can access numerous samples of essays and articles. As a result, the amount of time students take to complete their assignments takes less than one expects. (T1)*

Although teachers acknowledged the usefulness of technological tools, they noted that overreliance on these tools often leads to copy-pasting, using AI-generated content, and translation tools, which undermines linguistic and content knowledge development. Such practices, they observed, limit students' critical thinking and degrade both their writing skills and habits, as described below.

> *It may help them if they do more practice, like whatever they find they try to. Imitate and produce yes. But if they have to copy it, copy what they see. Exactly, then it's not helping them. Because you're actually you're just transferring from here to another place. It's not helpful, ... (T3)*

> *Google translate is commonly used, these days AI generated writing websites are popular and used by some students also. Some students use websites or apps like grammarly to get corrective feedback. They use turn it in for submitting their writing tasks from time to time also. In most cases, these tools are used not to facilitate writing but to have the writing done for them. These tools can be extremely beneficial if used correctly, they are mostly used to evade assignments though. I would love it if they used them to improve their writing skills. It is heart-breaking when they use it to cheat in the tasks they are supposed to do. (T2)*

Furthermore, there were instances where students failed to adhere to teachers' instructions and instead resorted to practices that did not align with the teachers' expectations. Thus, the students tended to follow an unhealthy academic path by utilizing technological tools which made the teachers frustrated and angry and sometimes even unable or helpless to detect students' plagiarism, as portrayed below:

> *... I feel frustrated as I tell my students time and time again that they ought to produce their own writing essays and that copying from a source is unethical and is considered an "academic crime". ... I wish I was more aware of the online tools that students use so that I can try to prevent them*

from using them. .... The plagiarism detection tools are not that effective. (T1)

They make me feel very furious. Because I'm not stupid. ... You know the students, you know what the student can produce at that stage. But what you are reading is not what they have...you are not seeing the student on the paper. (T3)

Overall, as the findings of this study revealed, instructors face diverse challenges in teaching academic writing within EMI contexts, as shown by this study. While technology simplifies access to resources, teachers note its overuse can hinder writing skills and academic integrity. These factors shape instructors' complex, sometimes conflicting experiences with students' academic writing practices.

Discussion

The findings from this study revealed a complex array of attitudes, challenges, and frustrations surrounding academic writing within an EMI (English as a Medium of Instruction) context. One notable finding was the teachers' perception of academic writing as a smooth, linear process, which contrasts with the students' experiences, especially those from the same context (Hadizadeh & Kanık, 2022). Teachers like T4 view writing as a step-by-step process—outlining, drafting, revising—but as an academic working in this context, it is unrealistic to expect such an approach from students enrolled in more than 7 or 8 modules per semester. This mismatch in expectations among different stakeholders needs to be carefully addressed to prevent students from becoming overwhelmed by multiple project deadlines. It also adds extra pressure on academics and instructors, who must manage large volumes of academic writing assignments for assessment and evaluation.

Linguistic limitations were identified as another significant challenge, particularly in relation to students' English proficiency and their ability to manage discipline-specific writing tasks. The study participants observed that while students often have ideas, they struggle to articulate them due to a limited understanding of academic language. For instance, the third study participant pointed out that unfamiliarity with the subject matter further intensifies the issue, resulting in disengagement from writing tasks. This aligns with previous studies, which have highlighted unfamiliarity with topics or academic discourse as a key factor demotivating students from completing academic writing tasks (Hayes, 2000). These findings underscore the need for both language support and discipline-specific guidance to upgrade students' academic writing performance.

Another key finding of this study was the students' lack of reading habits and seriousness, which the study participants attributed to poor study habits and low motivation. For example, the fourth study participant stressed that extensive reading is essential for developing writing skills, yet students often do not read enough, which limits their exposure to diverse writing styles and structures. Other study participants also expressed frustration over students' apparent lack of commitment, noting that, despite receiving consistent feedback, many students fail to make necessary revisions. This suggests deeper motivational and psychological barriers. Similar concerns have been raised in earlier research on academic writing, which reports comparable issues among students in some EMI contexts (e.g., Altınmakas & Bayyurt, 2019).

The findings also reveal a complex relationship between the use of technological tools and the development of academic writing skills among students. While teachers recognized that CMC (Computer-Mediated Communication) tools, such as internet-based resources and translation software, facilitate faster and more efficient research, they also expressed concerns about the potential drawbacks. In this regard, online resources were seen as allowing students to complete assignments in significantly less time, presenting a substantial advantage in terms of research and access to a wide array of writing samples. However, this convenience seems to be perceived by language teachers as leading to students' over-reliance on technology, which, accordingly, undermines essential writing skills and fosters negative writing habits. Tools like *Google Translate*, *Grammarly*, and AI-based writing platforms are noted to be popular among students, but they are frequently used not as aids but as shortcuts to bypass the efforts required for authentic learning. One of the participants, for instance, voiced disappointment in the misuse of these resources, emphasizing that rather than supporting the learning process, students often employ them to complete tasks without genuinely engaging with the content. This reliance on such technological tools also has broader ramifications for academic integrity, as students' frequent use of such tools jeopardizes teachers' ability to ensure original work. Teachers' frustrations are also compounded by the limitations of plagiarism detection tools, which are not always effective in identifying subtle forms of copying or AI-generated content. As T4 points out, students' disregard for producing original work can be demoralizing, leading teachers to feel helpless in upholding academic standards. Similarly, T3 highlights a sense of disappointment, noting that students' submissions often do not reflect their true abilities, creating a disconnect between the teacher's knowledge of the student and what is presented on paper. These insights highlight a pressing need for strategies that balance technological

advantages with the cultivation of independent writing skills, fostering ethical academic practices while leveraging digital tools in ways that truly enhance learning. Some similar concerns have also been documented in previous research on teachers' perceptions of AI use (Calvo-Ferrer, 2022).

Conclusion

The findings of this study reveal that academic writing is neither a linear nor a straightforward process for L2 writers in English as a Medium of Instruction (EMI) contexts. L2 teachers and practitioners must acknowledge and address this complexity, particularly as new technologies reshape the writing landscape. Although some academics may view academic writing as a systematic process, it is inherently multifaceted, shaped by cognitive, affective, and sociocultural dimensions. Achieving proficiency in academic writing within EMI settings demands extensive reading and immersion in both the linguistic and content-specific aspects of the target language. Considering the substantial workloads faced by both students and teachers, expecting undergraduate students—especially those newly transitioned from high school—to reach near mastery of academic writing is an unrealistic expectation.

Furthermore, the prevalence of AI technology in the last two years has, at times, diminished the time students once devoted to the essential stages of academic writing: prewriting, writing, and post-writing. This heavy reliance on technology may have led students to lose touch with critical skills such as critical thinking, reading, topic search, paraphrasing, and summarizing. However, this situation can also be viewed from another perspective: the new generation of students in the digital age requires new literacy practices and skills. The critical thinking experiences that earlier generations encountered may not be fully replicated in today's academic landscape shaped by AI technologies.

Finally, this study has several limitations. One significant limitation was the small number of participants, as only four language instructors were involved. Additionally, the use of a single data collection tool—interviews—limited our ability to cross-compare data from different sources. Finally, all four participants were drawn from a single study context, which may have influenced their perceptions and conceptions of academic writing in EMI contexts more broadly.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics. Ethical approval for this research was obtained from the Ethics Committee of Final International University, with approval number FIUP-2020/006.

EXPLORING DEEPER INSIGHTS: HOW EPISTEMOLOGICAL BELIEFS INFLUENCE ARGUMENTATION IN AN EFL CLASSROOM[1]

Beyza KABADAYI[2]

Epistemology, a branch of philosophy that explores the nature and justification of knowledge, has garnered growing attention from psychologists and educators seeking to understand how individuals form beliefs about knowledge and knowing. In the context of education, epistemic beliefs are fundamental to understanding how students approach education and learning (Muis et al., 2006). These beliefs, which encompass various dimensions, are inherently individual and vary significantly among learners (Hofer & Pintrich, 1997; Kuhn et al., 2000). Studies have highlighted the profound impact of personal epistemology on various learning outcomes, including learning approaches, reading comprehension, conceptual understanding, and the adoption of effective learning strategies (Schommer-Aikins, Bird, & Bakken, 2010). For instance, students who perceive knowledge as fixed and absolute tend to seek definitive answers, often misinterpreting tentative information (Kardash & Scholes, 1996). Similarly, those who view knowledge as fragmented may struggle to comprehend mathematical texts (Schommer et al., 1992), while individuals who believe learning occurs quickly often encounter difficulties in understanding and summarizing academic materials (Schommer, 1990). Epistemic beliefs also play a pivotal role in shaping higher-order cognitive activities, such as reasoning and argumentation (Baytelman et al., 2020). The connection between personal epistemology and argumentation has been a focal point of research, highlighting how individuals' beliefs about knowledge and knowing underpin their ability to engage in

[1]This study is the revised version of a chapter in the author's unpublished Doctoral Dissertation titled "A Dialogic Approach to Create Argumentative Discourse: Promoting Argumentation at Tertiary EFL Classroom" (Çukurova University, 2023).

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meaningful intellectual discourse and construct coherent arguments. Reznitskaya and Gregory (2013) posited that an advanced level of epistemological understanding is a prerequisite for meaningful participation in inquiry dialogue. They argued that the primary objective of inquiry dialogue—arriving at the most reasonable judgment—hinges on participants' ability to engage with fundamental assumptions about knowledge and the process of knowing. This perspective is reinforced by Kuhn et al. (2000), who emphasized that an individual's cognitive and intellectual functioning is profoundly shaped by their beliefs about the nature, evaluation, and acquisition of knowledge. Similarly, Weinstock and Cronin (2003) highlighted that epistemological understanding forms the foundation for specific reasoning skills and the construction of arguments. Mason and Scirica (2006) further suggested that the development of argumentation skills is closely tied to, and potentially limited by, the depth of one's epistemological understanding. The influence of epistemic beliefs on learning outcomes and argumentation underscores their crucial role in cognitive development. Theories of epistemological development propose a shift from simplistic, absolutist views of knowledge as fixed and certain to more sophisticated perspectives that recognize knowledge as dynamic, context-dependent, and constructed through reasoning and social interaction (Perry, 1970; Belenky et al., 1986; Schommer, 1990). Kuhn et al. offer a comprehensive developmental model of personal epistemology, spanning childhood, adolescence, and adulthood (2000). In the framework developed by Kuhn et al., individuals' beliefs about knowledge and knowing are categorized into three distinct levels: absolutist, multiplist, and evaluativist. *Absolutists*, who hold the most simplistic and rigid conceptions, fail to recognize the importance of engaging in argumentation, as they view knowledge as fixed, unchanging, and dictated by authoritative sources. In contrast, *multiplists* regard all viewpoints as equally valid, disregarding the essential role of counterargument and refutation in refining conclusions. As Bakhtin (1984) aptly observed, "both relativism and dogmatism equally exclude all argumentation, all authentic dialogue, by making it either unnecessary or impossible" (p. 69). Consequently, it becomes clear that inquiry dialogue aligns more closely with evaluatist epistemology, which acknowledges knowledge as subjective, evolving, and shaped through critical discourse.

Building on the foundations of epistemological developments and the interplay between epistemological beliefs and argumentative skills, this study explored whether the epistemological beliefs of 18 EFL students in a school of foreign languages served as predictors of their argumentation skills. Kuhn's framework of epistemological understanding (Kuhn et al., 2000) was employed to analyse

epistemological beliefs, aiming to determine whether students with specific epistemological dispositions differ in how they construct arguments and exhibit overall argumentation skills. For the organizational framework to evaluate argumentation skills of the students, Argument Schema Theory (AST) was adopted. As outlined by AST, students develop a transferable "argument schema" through active participation in dialogic peer discussions, which serve as platforms for practicing argumentative strategies such as taking positions, providing justifications, presenting rebuttals, and counterarguments (Reznitskaya et al., 2009). As these experiences are internalized, students acquire a structured knowledge system encompassing essential components of Toulmin's (1958) argumentation model, including claims, reasons, grounds, warrants, and rebuttals (Reznitskaya & Anderson, 2002). AST posits that individuals with a well-developed argument schema possess both declarative knowledge of these elements and procedural expertise on effectively employing them in argumentation (Reznitskaya et al., 2009).

Method

This study utilized a mixed-methods approach to evaluate students' epistemological understanding and its potential impact on argumentation skills. The Epistemological Understanding Instrument (Kuhn et al., 2000) was administered to measure students' beliefs about the nature of knowledge and justification across five domains: personal taste, aesthetics, moral values, social truths, and physical truths. This was complemented by discourse analysis of students' argumentativeness in both written and spoken formats.

Participants

Seventeen B1-level EFL learners from the School of Foreign Languages at a state university participated in this study. Despite scoring high on the initial placement test, they did not pass the proficiency exam for advancement from the preparatory class. Most participants were from the English Language Teaching Department, with two students from Business Administration and Mechanical Engineering.

Data Collection Instruments and Procedure

The data collection occurred during the fall term of the 2021-2022 academic year. The students started by completing an epistemological understanding scale, followed by two discussion sessions and two argumentative essays on

controversial topics, where they examined arguments for both sides. Table 1 below presents the topics discussed in both written and spoken formats.

Table 1

Schedule for the Data Collection

Sessions	*Topic*	*Discussion type*
Discussion session 1	Controversial questions (from their coursebooks)	Whole class discussion
Essay 1	Should sports be separated based on sex as the strength of men and women is different?	
Discussion Session 2	Mixed sex school	Group discussion
Essay 2	Should education be invested more?	

The epistemological scale adopted comprised 15 sentence pairs, with three pairs per judgment domain. Each pair, voiced by fictional characters Chris and Robin, presented mutually incoherent judgments. For three pairs, participants were asked, "Can only one view be right, or could both have some rightness?" Absolutist responses were "Only one view can be right," while those selecting "Both could have some rightness" were asked a follow-up question to determine evaluativist tendencies: "Could one view be better or more right than the other?" Responses indicating "One could not be more right than the other" signified a multiplist level, whereas "One could be more right" indicated evaluativism. Participants were classified as absolutists, multiplists, or evaluativists based on their answers to two of the three questions per domain. Scoring, adapted from Kuhn et al. (2000), assigned one point for absolutist, two for multiplist, and three for evaluativist responses, with a pure absolutist scoring 15 points, a multiplist 15–30, and a pure evaluativist scoring 45. If all three response patterns occurred without predominance, the multiplist level was assigned.

Before classroom activities began, the students were introduced to key argumentation concepts through the *Argumentation Study Guide*, which is based on Argument Schema Theory (AST) by Reznitskaya and Anderson (2002). This guide, defining argument schema as a mental structure encompassing elements like positions, reasons, and rebuttals, served as the foundational coding framework for the study.

Data Analysis

To simplify the analysis, four main themes—argument, evidence, rebuttal, and counterargument—were highlighted, following Govier's (1987) view that such insights remain essential for many learners. The students then participated in structured reasoning activities to strengthen their understanding over time. Classroom discussions and student essays were coded according to this framework. It should be noted that the coding system for this study disregarded grammatical and vocabulary errors, focusing instead on content. Discussion session transcripts were prepared using intelligent verbatim transcription, removing redundant speech while retaining key insights. Sentences in students' native languages were translated into English, preserving their original meaning and intent. To enhance validity, an experienced colleague assisted in coding: each rater independently coded a set of transcripts and essays, remaining blind to student identities. Discrepancies were resolved through discussion, and the primary researcher then completed the remaining coding. Descriptive statistics were applied, and selected excerpts from transcriptions were included to enrich interpretation of the results.

Results

This study used an epistemological understanding instrument (Kuhn et al., 2000) to explore differences in argument formation and overall argumentation skills among students with varying epistemological dispositions. According to Kuhn et al. (2000), individuals' cognitive and intellectual functions are strongly shaped by their beliefs about the nature of knowledge and how they assess and acquire it. Thus, the analysis of the epistemological scale aimed to determine if students' epistemological understanding could serve as an indicator of weaker argumentation skills, a key assumption of the study. The analysis of students' preferences and their frequencies across judgment types is illustrated in Figure 1 below. The personal taste judgment type is omitted, as the multiplist level predominates in this area. Similar results are observed in the aesthetic judgment domain.

Figure 1

Patterns of Performance Shown across Judgment Types
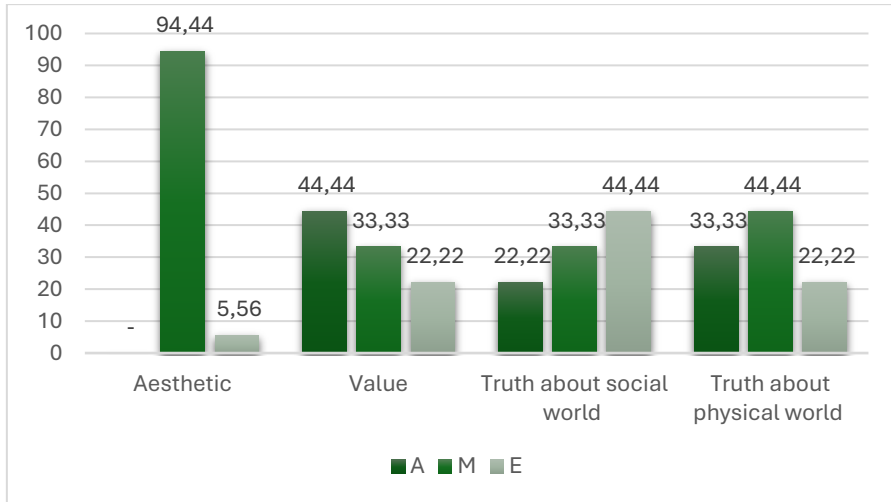
None of the participants held an absolutist position, with 17 of 18 exhibiting multiplist beliefs about aesthetic judgments. This category allows for differing opinions, indicating that it is acceptable for individuals to have various judgments and perspectives. In the value judgment domain, students evaluated three statements related to personal values and determined if one could be seen as more valid than another. For instance, one statement was, "Robin thinks the government should limit the number of children families can have," while another said, "Chris thinks families should have as many children as they choose." The results showed that most participants (n=8) held absolutist beliefs, six were multiplists, and only four demonstrated evaluatist approaches. The fourth category addresses the truth about the social world, focusing on how children learn language, where students answered related questions. More students (n=8) held evaluatist beliefs, believing one statement could be more valid than another, despite the questions not supporting definitive answers. Conversely, in the Judgments of the Truth About the Physical World, which involved scientifically proven statements, more students (n=8) had multiplist beliefs than absolutist ones (n=6), with evaluatists being the smallest group (n=4). This indicates that students were open to diverse beliefs about physical truths, even when based on scientific knowledge.

Table 2

Patterns of Performance between Females and Males

	Absolutists	Multiplists	Evaluatist
Female	20%	70%	10%
Male	0	87.5%	12.5%

As shown in Table 2, nearly 79% of students were classified as multiplist, confirming one of the study's assumptions. Multiplist epistemology values subjectivity and recognizes all opinions as equally valid. Among the students, males (n=8) were more likely to adopt multiplist and evaluatist approaches than females. Notably, 20% of female students held absolutist beliefs, while no male students did.

Distribution of Argument Schema Elements Throughout Discussion Sessions and Essays

In the study, two sets of discussion and essay sessions were organized to thoroughly identify the problem and make more grounded methodological decisions. These sessions aimed to analyse whether students could generate arguments effectively in both spoken and written contexts. Reznitskaya and Anderson (2012) adapted Toulmin's (1958) original model by renaming key elements, including position, reasons, grounds, warrants, backing, modifiers, and counterarguments. Reznitskaya et al. (2008) noted that Toulmin's model lacks a clear focus on counterarguments, which they see as essential to argumentation. They view reasoning as inherently dialogic, meaning even individual arguments are shaped by an imagined dialogue evaluating different perspectives. While Reznitskaya et al. (2008) used a modified Toulmin model to create an argument schema, further adjustments were made in this study. Here, only the primary elements essential to dialogic discourse were retained and emphasized.

Table 3

Definitions of Argument Elements Adapted for this Study

Argument	an assertion put forward by the speaker or writer in response to a topic or problem e.g., Co-ed schools offer several advantages over single-sex schools
Evidence/Reason	information or data that either supports or refutes a claim. It can comprise facts, statistics, expert evidence, personal experience, and other types of data that contribute to the development of a compelling

	case for a specific claim. E.g., students who attend co-ed schools have better social skills and are better prepared for the workforce.
Counterargument	an opposing opinion to the speaker's or writer's argument. It is a method of anticipating and responding to probable objections to the argument, as well as demonstrating that the speaker or writer has considered various points of view. E.g., single-sex schools provide a more tailored and focused learning environment, allowing for more targeted instruction and fewer distractions.
Rebuttal	a response to a counterargument. It is an attempt to refute or invalidate the opposing argument by providing additional evidence, reasoning, or analysis. E.g., Single-sex schools may offer more focused instruction; however, co-ed schools provide a more realistic representation of the workforce and society as a whole.

Two recorded, whole-class sessions were held to identify the problem, and transcriptions were coded using an Argument Schema Theory-based system (Reznitskaya & Anderson, 2012) to assess students' use of argument elements in spoken and written discourse. For reliability, two coders independently identified key elements—argument, reason, rebuttal, and counterargument—and then scored each element.

Argument / Reason

0 point: if the argument is invalid or irrelevant, e.g. I agree, I disagree, or she is right.

1 point: if the students generated one argument but with no reason or with an invalid or irrelevant reason, e.g. I prefer co-ed schools because it is better for girls.

2 points: if the students generated one argument with a strong and valid reason, e.g. I think co-ed schools are better for boys and girls because they can prepare students for the real world.

3 points: if the students generated one argument with two or more strong reasons e.g., Co-ed schools are better for students because they prepare students for the real world and promote better communication skills between sexes.

*Reasons produced for other people's arguments received one point.

Counterargument

2 points: a valid and relevant counterargument for the arguments others put forward or to their own arguments, e.g., Co-ed schools are better for boys and girls, but single-sex schools provide a more tailored and focused learning environment, allowing for more targeted instruction and fewer distractions.

Rebuttal

3 points: a valid and relevant rebuttal generated for others' counterarguments or for their own counterarguments, e.g., Single-sex schools may offer more focused instruction; however, co-ed schools provide a more realistic representation of the workforce and society as a whole.

This formulation, which emphasizes the importance of "opposing perspectives" in argumentation, incorporates elements from Mason and Scirica's framework (2016) and from Reznitskaya and Anderson's argument schema theory (2012). They argue that students should focus on justifying their arguments, anticipating counterarguments, and providing rebuttals. Student essays formed another part of this stage. To analyse students' arguments quantitatively, the same coding system was applied. This approach was based on the assumption that students might feel less anxiety expressing arguments and reasons in writing. Students wrote two essays on controversial topics where differing opinions were expected. Coders followed the same procedure as before, coding essays blindly. Once any ambiguities were clarified between the coders, the researcher continued coding the remaining essays.

Discussion Session I: Controversial Questions

Session one took place at the start of the fall term after administering the epistemological scale. Students read about four individuals' success stories (two men and two women) and then discussed two open-ended questions: "Do you think a difficult childhood helps people succeed in business?" and "Do you believe it's harder for women to succeed in business than men?" The session lasted one class hour, during which students shared their opinions and reasoning. The sequences below were analysed to illustrate how the coders scored argument elements and to explain the scoring. The mean scores for argument elements in this session are as follows: out of 15 participants, 14 produced an argument, with one student providing two reasons. However, fewer reasons were given overall, as some arguments lacked support. Counterarguments and rebuttals were the least common elements, with five counterarguments identified and only two valid rebuttals scored.

Figure 2

Mean Scores of Argument Elements in the First Discussion Session
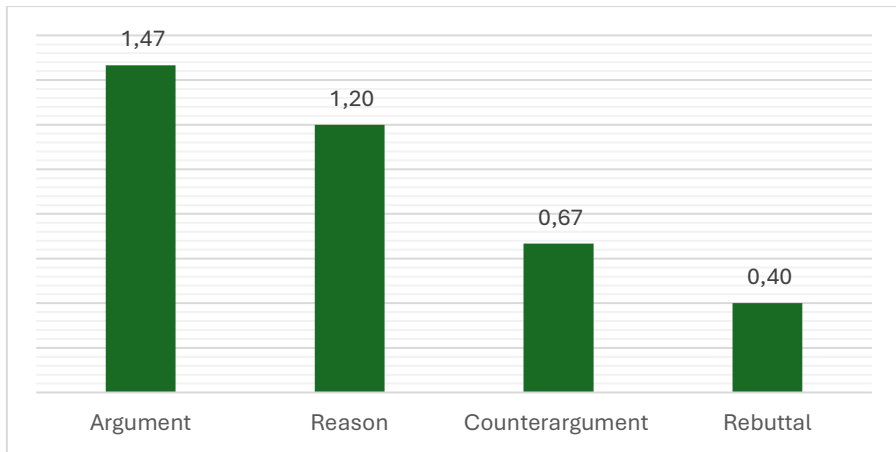
The sequences below show two student discussions on textbook questions. In sequence one (Table 4), student responses are brief and lack strong support, despite the questions' controversial nature. For example, in sequence one, students provided two main reasons: "poverty makes people more enthusiastic about being rich, so it can motivate" and "people with difficult childhoods try to improve themselves to avoid that life." Both were strong enough to support their arguments. Additionally, the reason "it depends on the country" in sequence two (Table 5) received a point under the "argument with no valid reason" category due to its implied presumption.

Table 4

Discussion Session One, Sequence One

Line	Agent	Content	Argument Element
1	S1	I think it's not that important. Because I don't know, even if he or she is rich, it depends on people depends on the situation and, strategy.	Argument with an invalid reason
2	S2	I really agree with you. It doesn't really matter, but it is actually can motivate people to become rich, uh, because poverty makes people more enthusiastic about being rich, so it can motivate, but, uh, rich people can be successful as well.	Argument with one valid reason

….	….	….	….
3	S2	Yes, because we have an example. He was rich away from, and he end up being rich as well. But,	
4	S1	There are some things about how he, uh, become rich, uh, sorry. how, he sets her, he own business.	
5	S2	Okay. Uh, being power can motivate people, but being rich helped them to form business way easier	Counterargument
6	S3	I, I agree with both of you, I think difficult childhood. I mean, people who have difficult childhoods, like, they solve some things like they just try to improve themselves to not live that life. It, I think it helps.	Argument with one valid reason
7	S2	Yes. For all of, but it is not necessary to be poor to you successful because we are poor as, but we're not that successful as they're.	Attempted Rebuttal

Table 5

Discussion Session One, Sequence Two

Line	Agent	Content	Argument Element
1	S1	Do you think it is more difficult for women to succeed in business than men? Why?	
2	S2	We have example Josephine, Esther, she's a founder of... and she's also woman. And if she has a patient for her, uh, business, her, interest so she can be successful. Yeah.	Argument with an invalid reason
3	S2	And it shouldn't be more difficult.	
….	…	…..	….
7	S2	It depends on the country. Yes. Like she said, she's a woman and she was very good what she was doing, but still there are some countries that, in which it is difficult for women to be more successful than men, it depends on the countries in depends on the so statue. Yeah.	Argument with an invalid reason
…	…	…	…

11	S2	It depends. There's lots of factors that affect women also. She Is experienced So, and, but in general, as I said, if she is so passionate about it, she can be successful as easy as man.	No valid argument
12	S4	I agree.	No valid argument

This session had few valid rebuttals and counterarguments. One counterargument was accepted when S2, in line five, said, "…but being rich helped them form businesses more easily." However, an attempted rebuttal from S2, "It's not necessary to be poor to be successful because we're poor and not as successful," was not scored as it was not well-grounded and comprehensive enough. For the second question in Table 5, students agreed on the impact of countries on women's success but struggled to explain how countries influence women's paths to success. Simple statements like "I agree" or "I disagree" were not scored, as they did not meet the criteria for valid arguments.

Table 6 below provides an example of a student-generated rebuttal and counterargument. S2 argued that conditions for women in business are as bad now as in the past, but the counterargument was unclear about why the past was worse, so it wasn't marked as valid. S1 initially tried to rebut with "it's more difficult for women because men always say you're wrong," but this response lacked support. Later, S1 gave a stronger rebuttal, stating, "In some parts of the world, women can't even go to school," which was accepted as valid due to its practical example.

Table 6

Discussion Session One, Sequence Three

Line	Agent	Content	Argument Element
1	S1	Yeah. I think it depends Because just, uh, difficult experience or money about that. Um, he or she has to be, uh, creative maybe. Yeah, and entrepreneur, yes. Melek?	Argument with an invalid reason
2	S3	I think it depends on the person's dream, the person's dreams and what, uh, he or she wants to be in future. Difficult child childhood can help them to create. it's not about the money or experience. It's about the creativity.	Argument with an invalid reason
…	…	…	….

	S3	Can you, do you think it is more difficult for women to succeed in business than why? Why?	
6			
7	S1	I think so because we are, we are living in the man's world	Argument with an invalid reason
8	S2	So maybe in the past, yes. Maybe the past, but now it's not.	Attempted Counterargument
9	S1	Yeah. Okay. (sarcastically) Today, we are still with our rights and it's more difficult for women to succeed because men are always like you wrong. You are wrong.	Attempted Rebuttal
10	S2	And I said, that is difficult. Yes. But it's not difficult more than the past	
11	S1	But still difficult. Some parts of world women are even women even can't even go to the school.	Rebuttal

The conversation in Table 7 below was the most productive, with students presenting more valid arguments compared to other discussions. While the reason in line two was weak, the same student provided a valid reason in line four, where a detailed example strengthened the argument. Later, S2 supported another student's point about society limiting women's success by referencing the list of the world's richest people, noting no women in the top ten. S1 added that the wealthiest women were often married to rich men, further supporting the argument. Reasons for others' arguments were scored one point. In line eight, a weak personal example earned one point, while line nine, which linked education to overcoming gender discrimination in business, was scored as an argument with one valid reason.

Table 7

Discussion Session One, Sequence Five

Line	Agent	Content	Argument Element
1	S1	Do you think it's more difficult for women to succeed in business than the man? Why and why?	
2	S2	It sadly situations, made it hard for women, but it's not, for me, it's not, has to be hard for women because we are all equal. And then, and I think women, um, about to be more successful. Yes. If the, situation	Argument with an invalid reason

		were equal. Uh, cuz there are more hardworking than men, I guess.	
3	S1	I think it's depends on the, the, where they live in. Yeah. In, first world countries like, like United Kingdom, United Kingdom, France, it's easier to it's more easier to become the better business in for women but in third world countries like Russia and uh, Turkey, Afghanistan, you know it's hard.	Argument with one valid reason
4	S2	I read, uh, we had a timeline yeah. For the best timeline for the woman, which is the first years of Republic of Turkey. Yeah. Which, uh, the woman get lots of, privileges, privileges, to improve theirselves mean, government and also other parts of the society What do you think about it?	Argument with one valid reason
5	S3	I think more have, enough know and enough power to be successful, but society don't give chance to be successful to them. so if they give them this chance, they can be, they can make, ,	
6	S2	Yes, yes. Like 10, the most wealthy person, 10, most 30 wealthy persons are mostly men. Yes. But if there was a chance for the women, there will be much more women in the chart, I think. Yeah. Do you know any wealthy women? I know wealthy womens, but there with the world, wealthy mans. And after they break up, they get the money. I remember like who can be like, yeah.	One valid reason for others' argument
7	S1	Two richest women in the world last once Jeff's wife and yes ex-wife so you get the money from, (laughs)	One valid reason for others' argument
8	S2	But maybe it's not only about product like sales, maybe some musicians can be which drive or Oprah. It's not married with the rich guy. Maybe Michelle Obama. Maybe it's also, he's also, she's also a rich, if I know there are strong women,	Argument with an invalid reason
9	S1	It's I think that for make it clear, it's, about the society they living how, how much educated people there are, there is more less difficult to be woman in succeeding in business	Argument with one valid reason

Essay I: Sports should be separated based on sex as the strength of men and women is different. To what extent do you agree or disagree with this statement?

Two weeks after the initial classroom discussion, students were tasked with writing an argumentative essay on a given topic. It was assumed that students would feel less pressure discussing controversial issues in writing, compared to in-class discussions. The mean scores of argument elements in both spoken discussions and written essays were compared (Figure 3). The findings revealed that argumentative elements were more prevalent in the essays than in the discussions.

Figure 3

Mean Scores of Argument Elements in Discussion Session One and Essay Session One
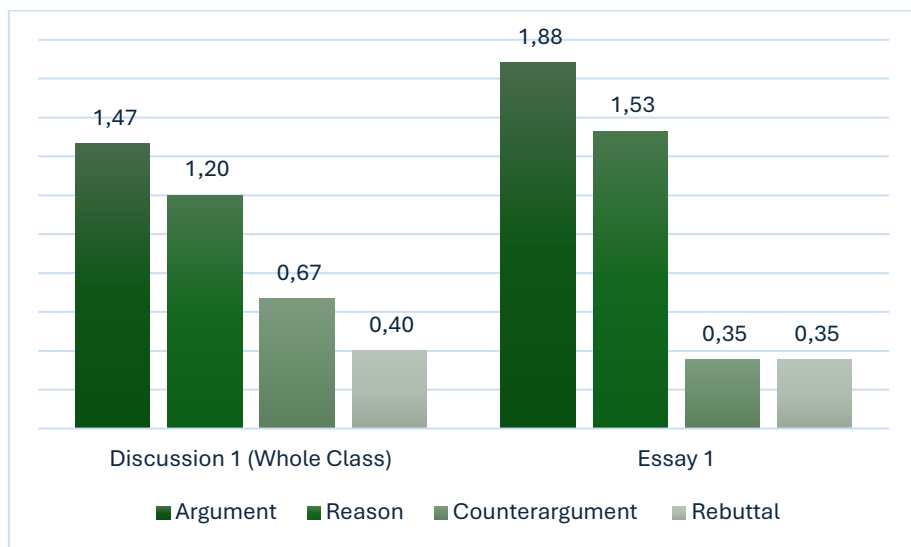
The first discussion session included 15 students, of whom 14 produced arguments with or without valid reasons. In the essay writing task, the number of students who generated arguments increased to 17, with all of them providing at least one reason. This shift is likely due to the individual nature of writing and the familiar essay format, which encourages students to support their arguments. While counterarguments and rebuttals are crucial for strengthening arguments, students often focus solely on presenting reasons in their essays. In the initial essays, five counterarguments were used, matching the number from the classroom discussion. However, rebuttals decreased, with only one student

successfully producing a valid rebuttal. Unlike in discussions, where students might produce counterarguments without rebuttals, essays required rebuttals to improve the quality of the arguments, though only a few students (n=5) used counterarguments effectively.

Excerpts below show examples of argument elements used in the essays.

Excerpt 1

> To start with, women and men have many biological differences like hormonal, body fat, muscle mass, aerobic capacity, and anaerobic threshold. Therefore, these kinds of physical and biological differences are not equal and not close to competing for both sexes with the same category. For instance, studies show that male athletes average 6% to 13% body fat compared to 14% to 20% in female athletes, and males develop larger hearts and lungs than females. Furthermore, in most sports branches, trying to compete women against men will not be fair and equal. Because of the physical strength characteristics, only very few women have a chance to win this challenge.

In Excerpt 1, S5 argues for separating men and women based on physical strength, offering a commonly accepted reason. After the transition "furthermore," a new viewpoint or reason was expected, but the student merely reworded the same idea, resulting in a lower score.

Excerpt 2

> ... in many disciplines, physical strengths are not the key factor, for example, Archery, bowling, artistic gymnastics, and many more branches. In these sports, women and men can compete with each other without a difference.

> ...gender stereotyping is one of the main reasons for separated sex sports. To illustrate, sports are considered men's world and attract boys rather than girls. However, women are more successful at endurance and stamina in events that last longer than two hours. Moreover, if players play with or against the opposite sex, they will be more responsible and develop a fair play mentality.

The preceding excerpt (Excerpt Two) illustrates a failed counterargument. S9 attempted to provide examples of sports where men and women can compete together without physical differences, but these sports are also influenced by body mass, which weakens the argument. This counterargument lacked sufficient

grounds to be considered valid. Additionally, the gender stereotyping used to justify the separation of sexes was not accepted, as the explanation was based more on emotions than on factual evidence.

Excerpt three below includes the only valid rebuttal against the separation of sexes in sports. S11 gave the example of races with their physical advantages over others as a counterargument, and it was scored as valid and relevant.

Excerpt 3

> *.... the general public does not accept these ideas. To start with physical fairness, people have different body structures not only in terms of gender but also racially. Should we then create ethnic categories? ...*

Excerpt 4

> *...This distinction in sports categories stems from the physical inequality between men and women. For example, in combat sports and sports branches where physical strength is at the forefront, the fact that women and men compete with each other in most cases results in men winning due to their different physical structures.*
>
> *...forcing men and women to come together may force some religious contestants to withdraw from the competition and may disturb spectators. At the same time, the excuse of some male competitors that I cannot concentrate when my opponents are women and the fact that some women do not want to meet male competitors reveals that it is necessary to segregate them based on gender in sports categories.*

Excerpt four contains both valid and invalid counterarguments. The first paragraph argues that sports should be segregated by sex due to physical strength differences. The second paragraph includes one valid and one invalid counterargument. The valid counterargument, "Forcing men and women to compete together may cause some religious contestants to withdraw and disturb spectators," was deemed acceptable due to its real-world implications. However, the invalid counterargument, "I cannot concentrate when my opponents are women, and some women do not want to compete with men," was not considered relevant, as both sexes interact in many contexts, and concentration issues cannot be generalized.

Discussion Session II: Co-ed Education Discussion

Discussion session two, held two weeks after the first essay session, focused on the topic "Is a single-sex school or a co-ed school better for students?" Figure 4 compares the mean scores of argument elements from this session with those from the previous discussion and essay.

Figure 4

Mean Scores of Argument Elements throughout the Discussion Sessions and Essay Session One
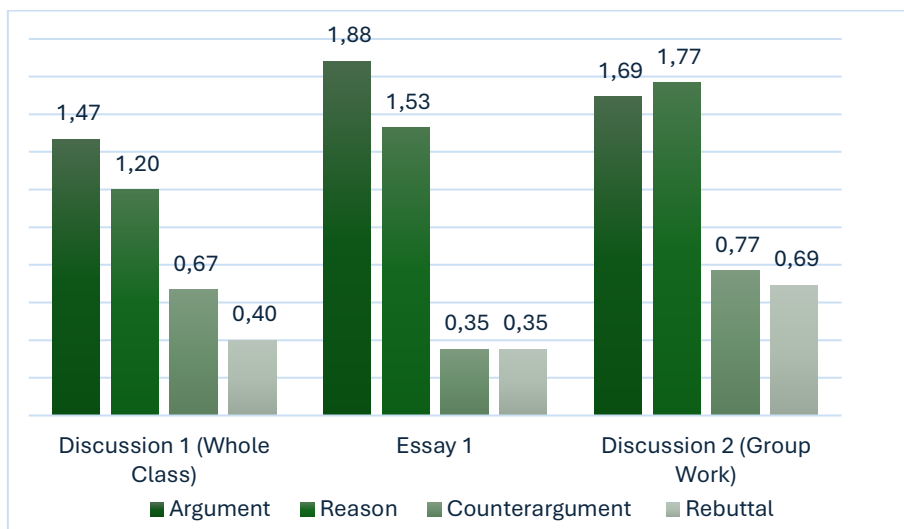
Thirteen students attended the second discussion session, with all providing arguments, and 12 offering reasons. In comparison, 14 out of 15 students did so in the first session. The increase in reasons could be attributed to the smaller group size and greater familiarity with the topic. The number of counterarguments and rebuttals remained similar across both sessions, with five counterarguments and two rebuttals in session two. The small rise in these elements might be linked to the group format, which likely helped students feel more comfortable discussing and challenging each other. The following sequences are from each group discussion.

Table 9

Discussion Session Two, Sequence One

Line	Agent	Content	Argument Element
4	S1	Well, well, I think mixed school schools are better for me. I don't like bullying and I hate, I hate bullies. That's the first factor for me.	Argument with an invalid reason
5	S2	I think schools are better too because you know, in every day, your life, your everyday life, you will always be pair with, someone from, other sex. Yeah. You can go home with them. You just marry with them. So you just, I think it's better than mix that. Cause you get used to them. You use how to talk.	Argument with one valid reason
6	S3	I think it's not just about marrying you.	
7	S2	Like no, no, no, no. I don't mean that, you know, you have to use to other things okay. So I, I give the example of Marrying.	
8	S4	Single sex schools create a dog-eat-dog situation. I totally agree with that. Cause yeah, it's competitive. It's a competitive environment in single sex schools. That's why I agree with that.	Argument with one valid reason
9	S3	We need to interact with other genders because all of you know our brain is different from each other and we need to share our opinions with other gender. And so we progress once, themselves.	Argument with one valid reason
10	S3	I don't know how to pronounce like curriculum. Well, I think we're just going there. Like not meeting, it's just education. You like, you need to learn something. I don't think the gender is important, but mixed is better.	Argument with an invalid reason

In the first sequence of Table 9, S2 argued that co-ed schools were better because they prepare students for a life where both sexes coexist. This argument was accepted with one valid reason. However, line one lacked valid reasoning, as the concept of bullying was unclear. Lines eight and nine provided valid reasons; the former highlighted the competitive nature of co-ed schools, while the latter focused on intellectual differences between men and women. In the final line, S3's

comment, "I don't think gender is important, but mixed is better," was unclear and lacked supporting reference.

Table 10

Discussion Session Two, Sequence Two

Line	Agent	Content	Argument Elements
5	S3	I can say um, it's 2021 and we still separate genders and sexist. Cause it doesn't matter. It says um, boys, boys and girls learning difference, but everyone learns different. This is not about gender. Yeah. this is separating people with, by their gender, sex and sexual orientation is just stupid.	Counterargument
6	S1	I agree with your point.	No valid argument
7	S3	Yes. It's just for separate people and, maybe dominates, one dominate for one another just yeah. So, mix schools are better. Yeah.	
8	S1	In terms of studying yes. Have to be realistic.	
9	S3	Of course. Keeping student interest is important. Yeah.	
10	S3	Same sex one is competition, people say it is better for girls but I don't think this is true. This is just about our gender roles and gender stereotypes and you know, people be like, boys are peaceful. Boyfriends are better. You know, there are, you know, maybe like I only friend with boys because they are better than girls. No, they are not. This is just a stupid stereotype this is just about gender roles.	Argument with an invalid reason
11	S2	Yeah. Girls are not bad at each other. Just society want this and they gave this message and like girls are mean each other. No, they're okay.	

In sequence two (Table 10), S3 responded to the comment "women and men learn differently" with a counterargument, saying, "everyone learns differently. This is not about gender; it's about separating people by gender." This counterargument was valid, focusing on individual differences rather than gender. In line ten, S3 used the term "gender roles," which is often a fallacy among students. Using such

terms without explanation is considered "talking in slogans" and lacks sufficient reasoning.

Table 11 presents examples of accepted counterarguments and rebuttals. In line three, S1 argued that single-sex schools improve concentration but then gave a real-life example showing that both sexes interact in daily life and need to learn to coexist. In contrast, S3's argument was irrelevant, focusing on unrelated issues, and was not scored. Similarly, S2 and S3's contributions between lines five and seven were off-topic and not scored. In line eight, S2 provided a concrete example, suggesting that single-sex schools could lead to adaptability issues and emphasizing individual learning differences, earning three points for presenting two valid reasons.

Table 11

Discussion Session Two, *Sequence Three*

Line	Agent	Content	Argument Elements
3	S1	I think there, there is both man and women in the real world and I think we should, see, have mixed education. Some people say it is better for concentration but it is not real, real life is not single sex and people need to learn to live with themselves.	Counterargument and rebuttal
4	S2	in real, we are mixed anyway. So we have to learn, with boys and boys need to, boys need to learn, live with girls, because in our nature, we are not that different. We just feel we are different because of this is what we thought.	
83		Yeah. That, that topic that are bullying and the gender issues, because there are, there are more gender than the two gender. There are people who make a question about the gender and there are people like the nonbinaries. They don't identify themselves like female or male. But in, in fact, if we, if we, if say this, they should study in the same gender school, they should put each put themselves to each category. And that's a very big problem for them because there are the topic like gender and the gender dysphoria is a real, real problem. So, and we just should look at the difference between like Azerbaijan and Iran. In Azerbaijan schools are the mix and in Iran, that school, the same general, but Azerbaijan school education is more way better than the Iran also.	No valid argument

	S2	I definitely agree because we all, we all should respect every kind of people. They can identify themselves with both genders or they don't have to identify with themselves as with genders. So I really agree with them. They don't have to fit it in because the schools want to.	No valid argument
7	S4	I think the first one is right and also because, there is, there are not two genders only and nonbinaries and blah, blah. And we don't need to put ourselves in one category. Yes. That, and also if, um, there is a discrimination in education and also real life, yes, there will be in life	
8	82	because maybe it's maybe difficult to adopt ourself the other genders later than school, because you go to school with one sex, like only, and they, you finish the school you get in life. And there are lots of genders you may need later. And it, it makes it harder to adapt ourselves to real life and boys and girls learn in very different ways. I don't believe that every person has their own way to learn. So it doesn't depend on your gender. where is the point of learning something If you can adapt yourself to real life? how you can use it. Definitely.	Argument with two valid reasons

Essay II: Do advancements in modern technology ruin childhood?

In the final step of the data collection, students wrote an argumentative essay on the same topic, one week after the last classroom discussion. The table below shows the mean scores of argument elements across all sessions. Students produced more for each element in this session, but the mean score for argument elements slightly decreased from 1.88 in the first essay to 1.65 in the second. This decrease may be due to familiarity with the topic. The number of reasons remained unchanged, although there was a slight decline from the last discussion session ($\bar{x}=1.77$). Rebuttals scored the lowest in the final session, with only one valid rebuttal produced, compared to five counterarguments. Only one student successfully presented a rebuttal to their counterargument.

Figure 5

Mean Scores of Argument Elements during the Discussion and Essay Sessions
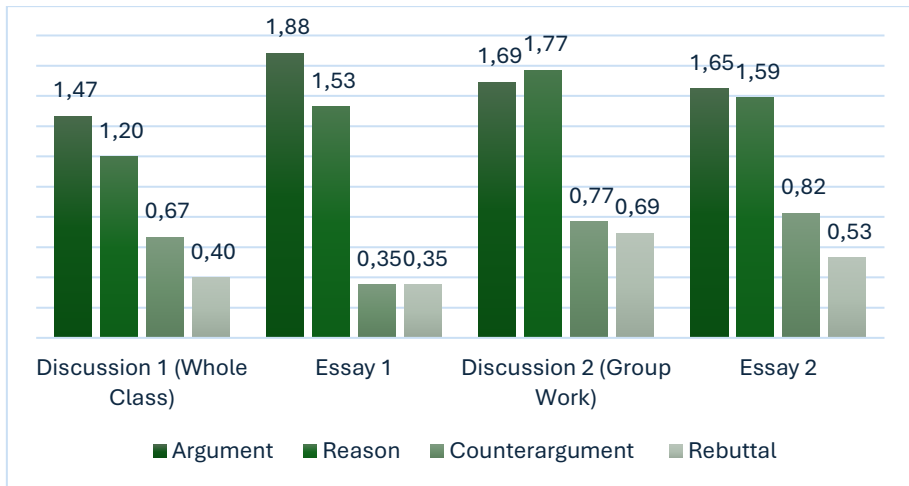
Below are excerpts from four student essays in the final argumentative session (on whether modern technology ruins childhood), showcasing typical arguments, counterarguments, and rebuttals from students who successfully provided reasons or countered opposing points.

Excerpt 1

> *…while people believe too much technology ruin children's life and they ban children from using technological devices. They should not forget that this is technology era, people can't avoid it. Children who raise without technology may have difficulties in their adult life, adapting to work environment, catching up with the latest trends…*

Excerpt One from S9 presents a successful counterargument and rebuttal. The student opposed the idea that modern technology ruins childhood, suggesting some parents might view banning as a solution. The student then rebutted this by highlighting the technological nature of the new era and its potential long-term effects. This was the only rebuttal in the session.

Excerpt 2

> *…What is more is that the overuse of technology can be harmful to children's health, as the more they use technological devices, the less physical activities they do. It is not only limited to physical health issues;*

> *if a parent would not take the necessary precautions, it is most likely that children might develop depression…*

Excerpt Two shows one valid and one invalid reason. S17 discussed the side effects of technology overuse on children's health. The reason "the more they use devices, the less physical activity" was accepted, while the following reason about depression was deemed unsupported. Similarly, Excerpt Three highlights an invalid reason, common in students' essays, where lack of explanation weakens the argument. Providing more details, such as how certain apps could encourage physical activity, would have strengthened the reasoning.

Excerpt 3

> *Finally, the modern world doesn't provide a proper environment for children to be active. But with the use of appropriate apps, they can have a more active life.*

Excerpt Four shows a counterargument that two coders disagreed on regarding its validity. S5 argued that some believe technology doesn't ruin childhood, suggesting that with proper use, children can learn better and in diverse ways. One coder initially rejected it due to weak support, leading to a discussion on whether the student addressed individual learning differences. Ultimately, both coders agreed the counterargument was relevant and valid.

Excerpt 4

> *…some others disagree with idea that children's childhood will be ruined however, appropriate use of technology can help young children grow and learn. We can make use of these technologies by enabling children to learn numerous things in different ways, so they will not get boring, likewise, they will develop their brains.*

Discussion

The study initially hypothesized by the researcher that students demonstrated insufficient argumentativeness in the classroom, as evidenced by their lack of critical questioning, limited engagement in responding to or challenging peers' or teachers' ideas, and a general reluctance to participate in intellectual discourse. This behaviour was attributed to their underlying epistemological beliefs, with the findings revealing a predominance of multiplist tendencies among the participants—87.5% of males and 70% of females. According to Kuhn et al. (2000), multiplists reject the significance of reasoning and expertise, perceiving

all viewpoints as equally valid and viewing knowledge as subjective. While this perspective aligns with domains such as aesthetics or values, nearly half of the students exhibited multiplist beliefs even in the domain of empirical truths, where knowledge is typically objective, scientific, and evidence-based. Such an epistemological stance inherently stifles critical discourse, as a context where all ideas are considered equally valid discourages the progression and refinement of ideas. Claims are reduced to subjective opinions, undermining the intellectual rigor required for constructive debate. Reznitskaya and Wilkinson (2015) argue that multiplist and absolutist epistemologies are incompatible with dialogic discussions because they neglect the use of reasoning to substantiate and defend claims, ultimately failing to recognize the role of dialogue in advancing knowledge.

The scale results reflected the students' general epistemological tendencies and the limitations imposed by a multiplist disposition, which renders them less critical and less inclined to engage interactively with their peers (Nussbaum et al., 2008). As Nussbaum and colleagues (2008) emphasize, argumentation is both an intellectual and social activity, and students' epistemological beliefs play a crucial role in shaping their willingness and capacity to participate meaningfully in argumentative exchanges.

In conjunction with the results from the epistemological scale, the analysis of students' argumentative skills in both written and spoken discourse further emphasized the need for students to improve their argumentation abilities. Conducted sessions revealed that while the average number of students (n=15.5) who could produce arguments and provide supporting reasons was relatively high, the numbers for counterarguments (n=4.5) and rebuttals (n=2) were considerably lower than the class average. According to Kuhn's (1991) model of epistemological development, individuals who view knowledge as absolute and certain tend to see judgment through reasoning as unnecessary. This perspective limits their ability to appreciate the value of argumentation, resulting in a lack of motivation to cultivate and apply the requisite skills. The low scores in counterarguments and rebuttals among the students align with their epistemological beliefs, reinforcing the connection between their worldview and argumentative performance. Supporting this finding, Mateos et al. (2011) identified a similar correlation between epistemological beliefs and the ability to generate counterarguments, noting that more sophisticated epistemological beliefs predicted better performance in argumentation tasks, particularly in developing counterarguments and rebuttals on controversial topics. Sophisticated epistemological beliefs, as defined by Kuhn (1991), involve understanding

knowledge as relative and recognizing its uncertain nature, along with the capacity to integrate multiple perspectives on a given issue. This advanced view of knowledge is essential for effective argumentation, particularly in navigating complex, contested topics where counterarguments and rebuttals play a crucial role.

Conclusion

This study posits a strong connection between learners' epistemic beliefs and their ability to engage in argumentation. Findings from this socio-constructivist action research highlight how fostering argumentation discourse in educational settings can shape students' willingness to participate in communicative activities and view language acquisition as purposeful. Students who regard knowledge as unpredictable and complex are more inclined toward exploratory learning and reflective language use. Since epistemological beliefs are deeply influenced by societal, cultural, and educational factors, raising awareness and promoting a critical, evaluative approach may better support both learners and educators. Adopting such perspectives not only enhances tolerance for diverse viewpoints but also equips learners to overcome challenges, paving the way for deeper engagement and more effective language acquisition. Tailored strategies that address individual needs and characteristics can further facilitate this process.

By understanding and implementing the most effective approaches, learners can enhance their language acquisition skills, leading to a more enriched and reflective learning experience.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics. Ethical approval for this research was obtained from the Ethics Committee of Cukurova University, with approval number E-95704281-604.02.02-261872.

EXPLORING THE CHALLENGES AND LEARNERS' PERSPECTIVES IN A FLIPPED LANGUAGE CLASSROOM[1]

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There has been an inevitable shift towards Distance Education in the past few years, which resulted in a search for new models of teaching and learning, and revolutionized modern language classrooms. As a type of Blended Learning, *Flipped Classroom Model* (*FCM*) is an option for educators who do not want to limit the teaching and learning process within the walls of their classrooms. However, along with its benefits, *FCM* has certain challenges both for learners and teachers. By challenging the established teaching and learning habits, *FCM* has continuously being implemented by educators to overcome limited classroom time and extend the teaching and learning process beyond the classroom.

Literature Review

The traditional classroom model is not in alignment with the demands and opportunities of the modern world anymore, and individualistic learning proves more effective in achieving current educational outcomes (Zmuda, Curtis, & Ullman, 2015). Along with this, growing importance of technology as an essential tool of education has significantly influenced teaching methods, causing educators to innovate themselves and update their methods and tools of teaching. As a special type of blended learning (Strayer, 2012), the term flipped classroom has emerged and become popular with its learner-centred and online teaching model

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(Yavuz & Ozdemir, 2019) and it is recognized as the most popular and dynamic approach (Tucker, 2012). By transferring learning responsibility from teacher to the student (Bergmann, Overmyer & Wilie, 2011), flipped classroom approach also varies from traditional classroom methods with its theoretical background, prerequisites, suggestions, and practical applications and it has become more of an issue recently because of the focus on the vital role of online and learner-centred learning in foreign language learning process (Yavuz & Ozdemir, 2019).

Bergmann and Sams (2012) define the flipped classroom probably in the simplest way as "which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class" (p.13). In flipped learning, students control their online learning and rewatch video lectures as many times as they require (Walker, Tan, & Koh, 2020), so these video lectures let them be flexible in their learning and progress at their own individual pace (O'Flaherty & Phillips, 2015), which is particularly useful for learners of a second or foreign language (EDUCAUSE, 2012).

It is an acknowledged fact that time, patience, and practice are keys to learning a new language. Learners are required to participate in various activities to gain a deeper understanding of the target language and learn it effectively (Turan & Akdag-Cimen, 2020). To achieve this, flipped classroom is supposed to be a solution, and accordingly, the flipped classroom has gained popularity in the foreign language classroom. (Wang, An, & Wright, 2018; Köroglu & Çakir, 2017). As a result of this, studies investigating the use of *Flipped Classroom Model* in foreign language classroom, such as its impact on different skills, students' and educators' perspectives towards it, or its advantages and disadvantages, are among the topics of research.

In the light of these, the present study aims to investigate

- the challenges that learners face during the implementation of *FCM*
- the perceptions of adult EFL learners towards their experience of *FCM* after experiencing it for 15 weeks.

Method

In the study, case study methodology was employed to examine the context in detail. A comprehensive investigation was deemed necessary to explore the research questions in depth. The case study is an ideal method for thoroughly investigating a complex social issue in a cultural setting (Dörnyei, 2007, p. 155), accordingly, researchers typically spend extended periods investigating the case in its real-life context to gather comprehensive and detailed information (p.152).

Research Model

The study applied a mixed methods research design since it allowed the researcher to gather more comprehensive data and conduct an in-depth examination of the research inquiry. Accordingly, both quantitative and qualitative data were gathered to foster the investigation of the topic of inquiry.

Edpuzzle was utilized as a video sharing platform because of its practicality and its capability to embed questions within the videos. *Edpuzzle* is an online platform originally designed by a teacher who sought to deal with absenteeism with a goal of empowering students to act as active participants in their learning through interactive video lessons that ignite creativity and foster curiosity. In this study, pre-recorded lesson videos in the implementation process were uploaded to *Edpuzzle* on a weekly basis. The implementation of *FCM* took place for 15 school weeks (60 Reading and Writing lessons) in total.

Participants

The setting for the current study was The School of Foreign Languages at Iskenderun Technical University, Türkiye. The participants were 47 preparatory class students. The study was conducted in Reading and Writing lessons which were 4 hours a week.

Data Collection Tools

In the study, qualitative and quantitative data collection instruments were utilized in combination to guarantee data triangulation and to compliment findings by providing a more comprehensive understanding of the research inquiry. Quantitative data were collected through the *Perception of Flipped Learning Experience Questionnaire* (Chen Hsieh, Wu & Marek, 2017) which was completed by all 47 participants at the end of the implementation of *FCM* process. Qualitative data for the study were collected through field notes, minute papers, and researcher's journal throughout the implementation process. Additionally, semi-structured group interviews were conducted with 12 participating learners at the end of the implementation process.

Perception of Flipped Learning Experience Questionnaire (PFLEQ)

The *Perception of Flipped Learning Experience Questionnaire* was utilised following the completion of *FCM* implementation process in the final week. The questionnaire was employed to identify the perceptions of participants towards *FCM* after they had firsthand experience with it in their own classroom. The

questionnaire consists of a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree," and includes 14 statements for participants to evaluate their perceptions of *FCM*. Although issues which are aimed to be explored by 14 statements in the questionnaire are listed as motivation (5 items), effectiveness (4 items), engagement (4 items), and overall satisfaction (1 item), researchers clearly express that the tool fundamentally investigates participants' overall perception of *FCM* (Chen Hsieh et al., 2017).

Field Notes

Written field notes were taken as inscription notes such as jottings and mental notes in the lessons during the implementation period. These notes were turned into description notes during break times or at the end of the lesson which included detailed descriptions of observations as "full field notes to be useful for subsequent analysis" (Marshall & Rossman, 2014, p. 280). In order to capture the heart of the situation, the researcher paid high attention to capturing the actions, comments, feelings, and words of participants with concrete details.

Semi-Structured Group Interviews

After the end of the implementation period, semi-structured group interviews were conducted with four volunteers from each of the three student groups, 12 participants in total. Participants' answers to interview questions and their additional comments and suggestions on the discussed topics provided rich and comprehensive data which supported and provided insights into the data gathered through field notes and minute papers.

Minute Papers

Participants were asked to write minute papers about their *FCM* experience in general at three different times during the research process. The main objective of minute papers was to gather data about their *FCM* experience. Participants' perceptions of *FCM*, how these perceptions were shaped in time, and the difficulties that they came across during the implementation process were investigated through minute papers. Minute papers were administrated at specific intervals during the implementation process: in the 3rd, 8th, and 11th weeks. This structured approach allowed for systematic data collection in the course of the implementation process.

Researcher's Journal

The researcher documented in her journal additional reflections on the effectiveness of the implementation process in various aspects, implications for ongoing procedures, changes resulting from this critical reflective attitude, and personal perceptions regarding *FCM* as a whole.

Data Analysis

The quantitative data gathered through the study were examined descriptively via *SPSS*. Qualitative data were analysed through content analysis as codes, categories, and mind maps.

Results

Results of the Analysis of the *PFLEQ*

The data obtained via the questionnaire were analysed using descriptive statistics to gather information about the perceptions of participants towards the *FCM*. Initially, the data were scrutinized based on four constructs outlined in the questionnaire: motivation, effectiveness, engagement, and overall satisfaction. The descriptive statistics for each construct are detailed in Table 1.

Table 1

Descriptive Statistics of Participants' Perceptions of Flipped Learning Experience in Accordance with the Four Constructs

Constructs	N	Mean	Minimum	Maximum	SD	N of Items
Motivation	47	3.37	1	5	1.09	5
Effectiveness	47	3.36	1	5	1.21	4
Engagement	47	3.35	1	5	.99	4
Overall satisfaction	47	3.85	1	5	1.21	1

According to the findings presented in Table 1, each construct assessed in the questionnaire displayed notably high mean scores: motivation (M=3.37), effectiveness (M=3.36), engagement (M=3.35), and overall satisfaction (M=3.85). These scores suggest that participants' perceptions across all constructs tended towards strong agreement. Considering these four constructs, it can be concluded that *FCM* encouraged participants to engage in this learning model by both watching pre-recorded videos and participating in the classroom activities. It

proved effective in their learning process, meaning that they perceived improved learning outcomes within this model. Additionally, participants reported feeling adequately engaged with this model, as evidenced by the closely aligned mean scores of these three constructs. Above all, the overall satisfaction of participants scored the highest mean (M=3.85) among all constructs, indicating a notably high satisfaction level with their participating in *FCM*. These results were to be additionally examined and interpreted using qualitative data obtained from the study.

To have a deeper understanding of participants' perceptions of *FCM*, along with the constructs measured by the questionnaire, further examination of each item in the questionnaire was subjected to descriptive statistics analysis as seen in Table 2. This aimed to reveal the perceptions of participants in a more interpretable way and to enhance clarity.

Table 2

Descriptive Statistics of Participants' Perceptions of Flipped Learning Experience

Questionnaire Items	Mean	SD	*N*
1. Flipped classroom is a better way of learning.	3.47	1,19	47
2. I enjoyed the flipped classroom teaching approach more.	3.38	1,37	47
3. I think the flipped classroom is a more effective and efficient way to learn.	3.53	1,21	47
4. I feel more motivated in a flipped classroom.	3.21	1,26	47
5. I participated and engaged myself more in learning in the flipped classroom.	3.28	1,33	47
6. I became a more active learner in the flipped classroom.	3.30	1,33	47
7. I thought the time and effort I spent in the flipped classroom was worthwhile.	3.60	1,31	47
8. I learned more and better in the flipped classroom.	3.38	1,32	47
9. I prefer the flipped classroom to a lecture-based classroom.	3.19	1,42	47
10. I think the flipped classroom learning guided me toward better understanding of the course topics.	3.45	1,29	47
11. I experienced pleasure in the flipped classroom.	3.43	1,19	47
12. I devoted myself more to the instructional/class activities in the flipped classroom.	3.36	1,22	47

13. I spent more time and effort than usual on my flipped classroom learning activities.	3.17	1,30	47
14. Generally, I am happy and satisfied with this flipped learning experience.	3.85	1,21	47

Based on the results shown in Table 2, it is evident that participants generally held positive perceptions of *FCM*, as indicated by average scores reflecting agreement with the statements provided. Notably, the highest mean score (M=3.85) was observed for the 14th item, suggesting overall satisfaction with *FCM* among participants. Only three participants responded as unsatisfied to this item. Following closely was the 7th item (M=3.60), indicating that participants valued the time and effort invested in the flipped classroom. Additionally, the 3rd item (M=3.53) revealed a consensus that the flipped classroom offers a more effective and efficient learning approach. Conversely, the 13th item ("I spent more time and effort than usual on my flipped classroom learning activities") received the lowest mean score (M=3.17) among participants. Despite ranking lowest among all items, its score still exceeded the average, proving participants' agreement with the fact that *FCM* required more time and effort compared to traditional lecture-based classroom. While this might initially sound as a drawback of *FCM*, implying it as more demanding compared to the traditional classroom, further exploration of this issue was intended through qualitative data analysis.

In conclusion, participants exhibited positive attitudes regarding motivation, effectiveness, and engagement within the *FCM*. Notably, their overall satisfaction with the *FCM* surpassed that of all other aspects. Therefore, a deeper comprehension can be achieved by delving into these aspects of *FCM* further and supporting them with qualitative data.

Results of the Analysis of Field Notes

The analysis of the field notes revealed that while the majority of participants held favourable perceptions towards the *FCM*, there were some variations in enthusiasm among the groups. Each group consisted of 5-6 students who appeared less enthusiastic about the study compared to their classmates. Additionally, four participants expressed clear scepticism regarding the effectiveness or necessity of the study. Although the researcher insisted that the ones who did not want to fill in questionnaires or share comments about the experience had the chance to keep out of the study or withdraw from it anytime they wished, there was not anyone who asked for these options. Some notes taken by the researcher regarding participants' perceptions included:

One of the participants said "Teacher, I really liked the lesson. Today the lesson was fun, and I understood better."

This week, participants completed the exercises earlier than expected, and we had time to play games on Blooket. They divided into two groups and competed against each other. The classroom atmosphere was really positive and entertaining. When they were leaving the class, one of them thanked the instructor for providing such activities in the classroom. The instructor said it was all thanks to the FCM because it saved classroom time for extra activities. They agreed, and another one of them mentioned that was why she liked this method.

…One of the participants asked the instructor what would happen in the following lessons as the FCM implementation process had ended this week. The instructor responded that there would not be pre-recorded videos to watch; instead, she would cover the topics in the classroom. One of them asked if there would be homework, and the instructor affirmed it. He said that was not good and he liked the way it was before. Another participant said that she would miss these lessons because she learned better.

Based on the provided notes and quotations of the participants, it can be concluded that the majority of participants hold positive attitudes towards the *FCM*. They expressed enjoyment in the process, appreciation for the activities facilitated by the *FCM*, opportunities for better learning, and gratitude for the instructor for incorporating such activities into the classroom. However, a minority of participants, consisting of four at the beginning and two in the end of the process, clearly expressed their dissatisfaction with the *FCM*. They insisted that the traditional classroom was better than the *FCM* and they felt more comfortable in other lessons given in the traditional way.

As for the challenges the participants came across in the *FCM* experience, poor Wi-Fi connection was the most common challenge observed by the researcher. Additionally, participants faced technological issues during classroom online activities, including battery problems and one participant's smartphone malfunctioning, which prevented her from participating activities for a few days. Also, time-management for watching the videos outside classroom proved to be a challenge for participants. In response, the instructor decided to share videos on Sunday evenings after experimenting with different days and times, as it was observed that participants were more likely to forget to watch the videos if they were uploaded earlier.

Results of the Analysis of Semi-Structured Group Interviews

One of the major themes generating from the interviews is the efficacy of the *FCM* on the learning processes of the participants. According to the views of participants, there is a consensus that the *FCM* is an effective method in their learning. Even two participants who initially encountered challenges in active participation in the process clearly accepted the superiority of *FCM* over the traditional classroom. Participants emphasized the opportunity to rewatch pre-recorded lesson videos at their discretion, repeatedly when necessary. They believe that this continuing opportunity of repetition makes *FCM* more effective in learning. *FCM* is also found effective in spending quality time in the classroom by studying the topics earlier and sparing all the classroom time for activities.

In the interviews, participants shared their likes and dislikes about the *FCM* experience which helped to distinguish between the positive and negative aspects or challenges of *FCM*. Analysis of the data collected through the interviews illustrated that participants believed there were many good aspects of *FCM*. The responses of the participants created the mind map in Figure 1.

Figure 1

Mind Map for the Theme of Positive Aspects of FCM
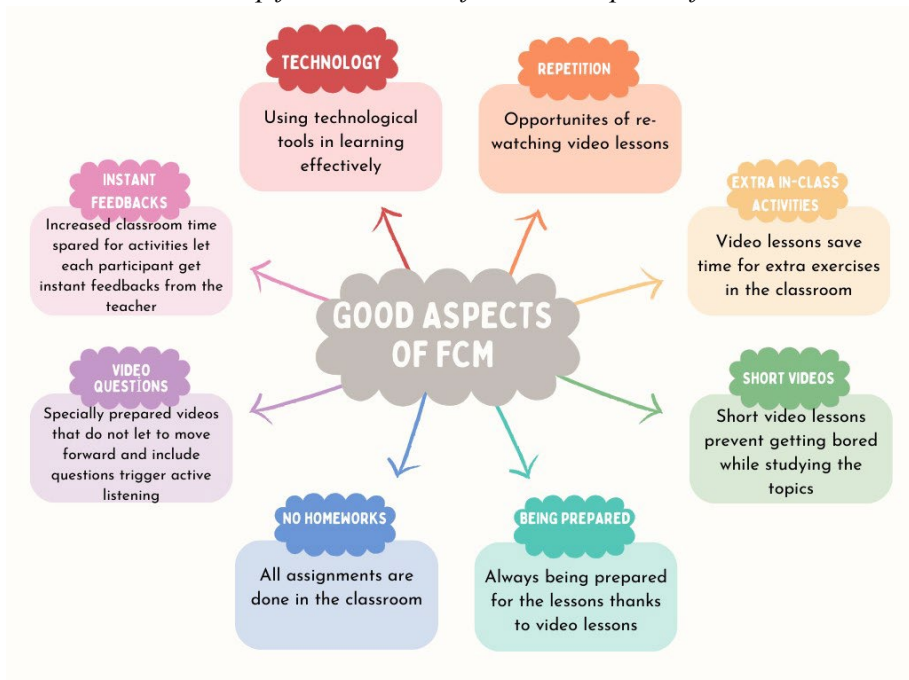
Participants mentioned the opportunity of making repetition by doing ample exercises in the classroom and re-watching videos whenever they needed. One significant advantage of *FCM* was allocating all class time to exercises, thanks to the use of pre-recorded videos. This also enabled the teacher to provide feedback to each student individually. Being prepared for the lesson by watching videos assigned to them was a good aspect of *FCM* for participants. Some participants touched upon its positive effect on their motivation and self-confidence. During the interviews, the majority of participants highlighted the absence of homework in FCM as a notable aspect. They expressed appreciation for the notion that watching pre-recorded videos is preferable to traditional homework assignments. *FCM* provided the participants with the assurance that weekly topics would be available on an online platform, *Edpuzzle.* This allowed them to review and study the topics outside the classroom, even if they could not attend the class.

During the interviews, participants also listed the facts that made the *FCM* experience challenging or unmotivating for them. Many different difficulties, as illustrated in Figure 2 were mentioned by participants as obstacles or drawbacks they encountered during their *FCM* experience.

Figure 2

Mind Map for the Theme of the Challenges of FCM
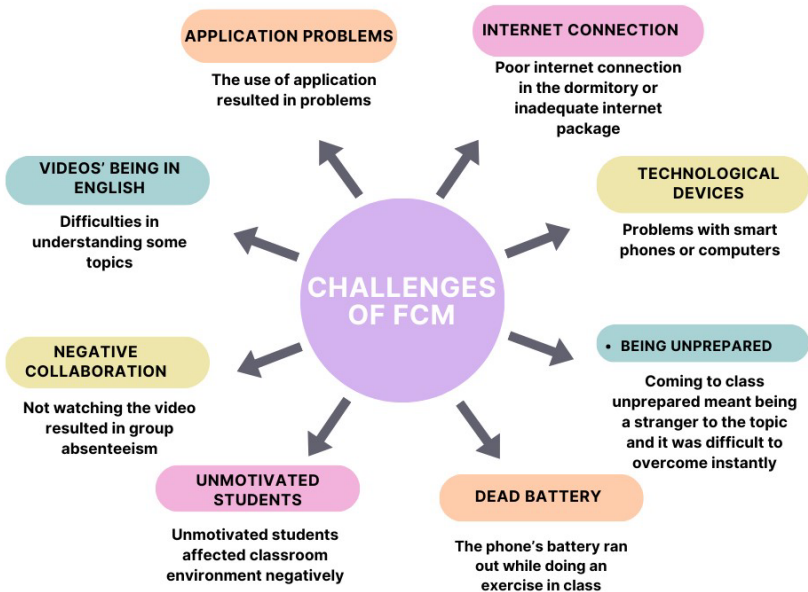
Some participants mentioned encountering problems with the *Edpuzzle* application. Others reported issues stemming from poor Wi-Fi signals in their dormitories. Additionally, a participant experienced challenges related to her smart phone, a hardware malfunction. Participants expressed that they had difficulties in engaging in classroom activities when they did not watch the pre-recorded videos. In line with this, some other participants added that unprepared students sometimes affected their motivation negatively by asking lots of questions in the classroom. Another point of view was that being unprepared caused some students to feel like falling behind. Besides, a participant noted that he sometimes had difficulties in understanding the video because of its being mainly in English. Along with all these issues, the majority participants said that their level of motivation for lessons started to decrease in the second term. However, they clearly noted that this loss of motivation did not result from the *FCM*. There was a general unwillingness for taking part in all lessons.

Results of the Analysis of Minute Papers

The comments shared by participants on the first implementation of minute papers illustrated a strong agreement that the implementation of *FCM* was progressing well, with only a few expressing negative opinions. Adjectives or descriptions used by participants to refer to *FCM* were identified as codes. These codes were then categorized into two groups: positive and negative. Positive codes included *FCM's* being better than traditional classroom, participants' contentment with *FCM*, and perceptions of its effectiveness. Conversely, negative codes reflected feelings of stress, views of *FCM* as a loss of time, having limited interaction in the videos.

On the second completion of minute papers, the participants provided shorter comments compared to the first round, and almost all comments were positive. The most frequently mentioned theme was effective learning, with participants noting their *increased success* in the lesson, *being prepared and more active* in class, and having more *opportunities for repetition*. Another theme was increased consciousness about gaining control over their learning processes, indicating a sense of empowerment and self-awareness among participants. Furthermore, participants praised the opportunity to save time for extra activities in the classroom and the potential for integrating educational technologies into their learning experiences.

Analysis of the third implementation of minute papers revealed that participants' opinions about the *FCM* did not change much in the course of study. The majority

of participants maintained positive views towards the *FCM* throughout the study, mirroring the findings from previous implementations of minute papers.

Results of the Analysis of Researcher's Journal

The data gathered through researcher's journal which was subjected to content analysis revealed that the researcher mainly focused on her personal experience of utilising *FCM*, basically the challenges she came across during the process and the effects of these challenges on the procedure. The experience of *FCM* had some challenges for the instructor as well as the learners. The researcher primarily wrote about the difficulty of preparing the lessons. It was a challenge to prepare video-recorded lessons according to the needs and expectations of learners, and to the purposes of the study. *FCM* required more time and effort of the researcher compared to a traditional classroom. Besides, it was understood that choosing the most effective in-class activities was also a challenge. As the classroom time was only spared for activities, the number of activities that were prepared for the class was also higher than that was required in a traditional classroom.

Discussion & Conclusion

The study revealed that participants held predominantly positive perceptions, and they were generally satisfied with their *FCM* experience. According to the findings, each construct measured in the *PFLEQ* displayed notably high mean scores. Participants showed strong agreement with all constructs which are student motivation, effectiveness of *FCM*, and student engagement. Most importantly, the last item of the questionnaire, which aims to measure the overall satisfaction of participants, had the highest agreement level.

The findings of the quantitative data regarding the perceptions of participants were supported by the qualitative data. Most participants expressed their agreement that *FCM* is a more effective way to learn, enhances their understanding of the topics, and they had pleasure in experiencing this method although they admitted that *FCM* sometimes required more time and effort compared to the traditional classroom. Most of all, they believed that the time and effort they spent in *FCM* was worthwhile. While a few participants expressed their dissatisfaction from the beginning until the end of the implementation process, they noted that the reason of their low level of motivation was not related to the *FCM* but to their personal problems. In agreement with Frydenberg (2013), student comments indicated that they found the experience of watching pre-class videos and completing in-class exercises more engaging than a traditional in-class lecture. For the present study, based on the student feedback, it can be concluded that being able to watch the

pre-class videos wherever or whenever they want was one of the most convenient things about *FCM*. Moreover, giving place to tools like *Padlet, Kahoot, Quizziz* etc. significantly contributed to the satisfaction of learners and increased their motivation and enjoyment.

These findings of the study regarding the perceptions of learners were compatible with the existing literature. Ngo and Yunus (2021) reviewed 18 articles, from year 2016 until 2020, which mainly focus on the perceptions of teachers and learners towards the implementation of flipped classroom particularly in ELT and reported that there was more positive feedback received than negative feedback. Similarly, Basal (2015) conducted a study regarding the implementation of *FCM* in an English language class to investigate the perceptions of 47 pre-service English language teachers at a state university in Turkey. He concluded that the English language teachers had positive perceptions about flipping the classes. Accordingly, the present study contributes to the literature that the flipped classroom is more enjoyable and fun than the traditional teaching approach, and learners are keener to learn (Ekmekçi, 2017; Haghighi et al., 2018; Lee & Wallace, 2018; Kurt, 2017; Pudin, 2017). These insights suggest that this study enlightens the way for future practitioners who have worries about student perceptions and encourages them to consider implementing *FCM* in their classrooms.

The study also reveals some certain challenges that participants primarily came across during their flipped learning experience, illustrating the practical obstacles that can appear when integrating technology-based methods into the learning process. These difficulties were related to technological devices, the application that was used to watch lesson video recordings, and internet connection issues. Initially, at the beginning of the implementation process, some students were unmotivated and unprepared, but these problems were resolved in the natural course of the study as students gained motivation and recognized the importance of being prepared for the class.

Along with the challenges that learners faced during the process, the study also revealed that this experience may be challenging for educators as well. Analysis of the researcher's journal highlighted that preparing videos requires significant time and effort, supporting the findings of Herreid and Schiller (2013) who also admit that *FCM* requires much time and effort to prepare good quality videos. LaFee (2013) further confirms that *FCM* does not decrease the workload of teachers; rather, it increases it. These findings are also consistent with those of the Halili and Zainuddin (2015) emphasized that teachers need to spend more time and effort into the implementation of *FCM* compared to the traditional classroom methods.

Despite the technical difficulties reported, the overall positive reception of *FCM* underscores its effectiveness in enhancing learner engagement and skill development. To further increase the effectiveness of *FCM*, addressing these technological hurdles could enhance participant experience and outcomes. Additionally, considering the challenges identified, the study suggests potential areas for improvements in infrastructure and support to maximize the benefits of *FCM* in diverse learning environments.

The present study also revealed that learners have positive perceptions towards the *FCM* after experiencing it for a long time. This result can be accepted as enlightening for practitioners who have intentions of integrating *FCM* into their classroom but has some hesitations about the attitudes of their learners. Of course, there are factors affecting the satisfaction level of learners, such as duration and content of pre-recorded videos or the variety of activities done in the classroom. However, all these factors can be controlled by paying attention to student feedback during the process. The study explicitly lists the challenges that learners come across during their experiences of *FCM*. Accordingly, it informs practitioners about problems that they possibly face in their own experience and helps them to take certain measures before implementing *FCM* in their own classrooms.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

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Author 2: Conceptualization, Review & Editing, Visualization, Last Draft.

A STUDY ON THE ETHICAL CONCERNS OF POST-GRADUATE EFL LEARNERS REGARDING AI UTILISATION IN ACADEMIC WRITING

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AI tools are computer programs or systems that utilize artificial intelligence methods, including natural language processing, computer vision, or machine learning, to improve, streamline, or expedite a variety of processes. These tools can simulate human intelligence by analysing data, identifying patterns, generating content, predicting outcomes, and interacting with users. Artificial intelligence (AI) is also introducing new ways to the field of ELT by creating a wide array of opportunities and difficulties for teachers and students. As AI implementation in the ELT field advances, legislators, financiers, and educational leaders must consider the implications and ethical implementation of AI technology in language teaching (Purwanto et al., 2024). This consideration must also extend to academic writing in the field of ELT because academic writing plays a very important role in the language development of EFL learners, and this development requires EFL learners to become proficient in multiple aspects of the language like structure, coherence, grammar, and vocabulary (Campbell, 2019). According to Kurniati and Fithriani (2022), academic writing, as a genre, is challenging and intricate because it demands that students apply critical thinking and demonstrate advanced writing skills. In addition, the process of academic writing involves combining diverse ideas, combining various outlooks, and expanding existing theories. It also requires advanced construction of the skills and the ability to consider multiple viewpoints while also focusing on accuracy,

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tone, and the intended audience (Lavelle & Bushrow, 2007). Besides, the swift rise and widespread use of AI has sparked ongoing debates, heightening educators' concerns about possible breaches of academic integrity. Furthermore, with the innovative advancements in AI-supported EFL writing accelerating, a variety of tools, such as software used for word processing, automatic paraphrasing tools, grammar checkers, and automated feedback programs, have been gaining more importance in the field of ELT and increasing debates relating to academic integrity and ethics (Söğüt, 2024). AI chatbots using *Large Language Models* (*LLM*), such as Open AI's *ChatGPT*, Google's *Gemini*, and Microsoft's *Bing*, have raised both practical and scholarly concerns due to their ability to quickly generate text designed to mimic human language (Casal & Kessler, 2023). Similarly, Stokel-Walker (2022) also claimed that AI tools possess the fascinating capabilities of providing texts which mimic human intelligence and production as a response to user prompts.

These AI-powered writing tools provide automated feedback on different elements of writing, such as structure, coherence, grammar, and vocabulary, helping to enhance writing performance more effectively (Song & Song, 2023). As such, their proven proficiency and effectiveness make it difficult to distinguish between AI-generated text and genuine human language articulation. This fact may impact post-graduate EFL students' academic writing skills and experiences as well since post-graduate students tend to have more academic writing tasks compared to undergraduates and are required to handle more detailed and complex writing projects, such as scholarly papers, international conference presentations, research proposals, and theses (Kurniati & Fithriani, 2022). Therefore, it is important to investigate post-graduate EFL students' ethical concerns regarding the utilisation of AI tools in academic writing. By exploring the ethical considerations of post-graduate EFL students towards AI usage in academic writing, this study hopes to contribute to the awareness surrounding the potential danger of misusing AI tools in academic writing and the protection of academic integrity. Hence, this study has a multitude of purposes. The first purpose of the study is to determine the purposes of post-graduate EFL students for utilizing AI in the academic writing process. Another purpose is to investigate the ethical considerations of post-graduate EFL students towards AI utilisation in academic writing. The last purpose is to raise post-graduate EFL students' awareness of the ethical considerations of using AI tools in order to potentially improve the protection of the academic integrity of their future work.

With the purposes of the study in mind, the following research questions have been formulated:

1. For what purpose do post-graduate EFL students use AI tools in their academic writing?
2. Do post-graduate EFL students possess any ethical considerations in relation to academic writing?
   a. If so, what are the ethical considerations of post-graduate EFL students towards AI tool utilisation in academic writing?
3. What do post-graduate EFL students suggest to ease ethical concerns regarding AI tool use in academic writing?

Literature Review

Artificial Intelligence

Artificial intelligence is defined as the science and engineering of making intelligent machines, especially intelligent computer programs, by McCarthy (2004). Artificial intelligence is the common name given to technology, focusing on the development of machines which are purely created by artificial methods, and which can demonstrate intelligence and behave like humans, while being completely independent from any living being (Mijwel, 2015). The earliest artificial intelligence models aimed to simulate the function of a single neuron. The simplest AI models began as simple input-output functions (Muthukrishnan et al., 2020). The concept of using computers to simulate intelligent behaviour and critical thinking was first described by Alan Turing in 1950 (Kaul et al., 2020). Also, in 1950, Alan Turing (cited in Kaul et al., 2020) developed a test to investigate whether a machine could possess intelligence. This test demonstrates the intelligence given to computers, and the intelligence of the machines that were successful in tests at the time were considered to be adequate (Mijwel, 2015).

AI Utilisation in Academic Writing

Aldosari (2020) explains AI as a system where smart software works with humans to complete tasks. AI usage in ELT could impact academic honesty and help ELT students improve their writing skills. However, using AI in academic writing changes how we think about authorship, originality, and creativity and affects the whole writing process (Livingston & Risse, 2019; Roscoe et al., 2014). For this reason, the rise of algorithm-based writing tools has sparked worries about academic honesty, leading educators to reconsider their methods, viewpoints, and guidelines in the age of AI (Gustilo et al., 2024). The *ChatGPT* software, a popular AI tool, is prompting significant concerns among educators and researchers globally, especially regarding fraud and, in particular, plagiarism (Reuters, 2023).

Chomsky (cited in EduKitchen, 2023) thinks that *ChatGPT* is not anything other than plagiarism and that *ChatGPT* is just a way to escape the learning process. Nevertheless, *ChatGPT* (developed by OpenAI in 2022) has become widely popular in academic environments for various purposes, including generating code or text, aiding in research, and helping with assignments, essays, and academic projects (Bahroun et al., 2023; Stojanov, 2023; Strzelecki, 2023). Similarly, Hasebrook et al. (2023) found that people were more likely to use technology when their workload was high and that *ChatGPT* can also help improve writing by suggesting better sentence structure, word choice, and grammar. On the other hand, relying too much on external resources, like generative AI tools, without active learning and personal engagement, can slow the development of important skills and knowledge needed for academic success (Chan, 2023). For this reason, universities should reconsider how they use these AI tools in teaching and accept AI-generated work. They must also be careful to prevent students from relying too much on AI tools (Ivanov & Soliman, 2023) because students might lose the ability to come up with original ideas and make strong arguments for their research (Arif et al., 2023). For example, Halaweh (2023) suggested that *ChatGPT* can help students collect ideas and issues for future studies. It should be used as a starting point for research, not something students rely on too much because, if used properly, *ChatGPT* can encourage innovation in education (Sallam, 2023). For similar reasons, researchers have suggested more studies to look into the pros and cons of *ChatGPT* in higher education (Bahroun et al., 2023; Chaudhry et al., 2023; Dalalah & Dalalah, 2023).

Ethical Considerations in Academic Writing

Ethics is defined as a branch of philosophy that focuses on human behaviour and establishes norms or standards to guide how individuals act and interact with one another (Blumberg et al., 2005; Kovacs, 1985). Ethical considerations in academic writing majorly consist of fraudulent actions involving plagiarism. Plagiarism is defined by Fishman (2009) as the act of using someone else's words, ideas, or creations without giving proper credit to the original source. The term 'plagiarism' is often used accompanying, and sometimes interchangeably with, other terms such as 'academic dishonesty,' 'cheating,' 'academic misconduct,' 'copying', and 'violation of academic integrity' (Park, 2017; Helgesson & Eriksson, 2014; Masic, 2014). Research shows that social factors, achievement motivation, internal and external motivation, external pressure to achieve high levels of performance, faculty members' attitudes towards academic dishonesty, and institutional policies may explain academic dishonesty (Nathanson et al., 2006; Yang et al., 2013). It is

even compared to 'intertextuality,' which Ivanic (2004) describes as the process of shaping one text's meaning through the influence of another text. Rau and Durand (2000) and Smith and Pino (2003) suggested that one way of rebuilding academic integrity and reducing the incidences of academic dishonesty is to foster the development of an academic ethic among college students. According to Rets and Ilya (2018), research on plagiarism has become increasingly important because of the fact that recent technological advancements have led to more materials being available as open access that could tempt students to plagiarize. Ethical considerations in academic writing also include academic fraud and fabrication. Fabrication is the creation of fictional and false data or results which are presented as real. In contrast, falsification, or fraud, involves changing materials, equipment, or procedures or manipulating results by either modifying them or not including certain data, leading to an inaccurate representation of the research findings (Akaranga & Makau, 2016; Kour, 2014).

Ethical Considerations Regarding AI in Academic Writing

Zohouri et al. (2023) claim that AI provides a considerable amount of assistance to the writing process; however, inquiries about the authenticity of the work are also raised. In addition, they focus on transparency which is a fundamental academic principle since AI tools introduce ethical considerations in this subject as well. They go on to say that researchers and writers must comply with the necessity to transparently acknowledge the role of AI in the writing process. Similarly, Mohammadkarimi (2023) states that even though AI technologies have the ability to help better educational circumstances and aid academic fields in developing faster, they also have the potential to be utilized in order to degrade the value of the principles of originality and academic integrity that are present in the building blocks of education as a whole. For instance, Manley (2023) argues that the ease of access to tools such as essay mills, paraphrasing software, and various other AI-powered tools has fostered plagiarism and harmed the production of genuinely original content by students. Korn and Kelly (2023) and Novak (2023) also believe that AI tools can potentially have a harmful effect on students' learning process and success and diminish their academic integrity. Furthermore, this absence of academic integrity can hurt the credibility and trustworthiness of higher education institutions (Macfarlane et al., 2014) and harm the achievement motivation of students (Krou et al., 2021). These facts necessitate placing importance on the detection of such violations. Therefore, teachers usually carry the most responsibility in regard to detecting violations of academic integrity in students' written work. However, the rapid improvement and increasing

versatility of AI technology have made this responsibility increasingly more complicated (Mohammadkarimi, 2023).

Methodology

The methodology section of this study is designed to describe the research design and its justification, outline the sampling process and participant details, and specify data collection tools and data analysis techniques.

Research Design

This study aims to explore post-graduate EFL students' ethical considerations related to AI tools in academic writing, with the goal of raising awareness about these ethical concerns. A qualitative phenomenological research design was employed to achieve this. This approach is used to investigate the beliefs of people, their previous experiences, personal outlooks, actions, and interactions through the usage of non-numerical data (Pathak et al., 2013). Phenomenological research prioritizes participants' emotions, perspectives, judgments, and beliefs regarding their own experiences (Köksal & Genç, 2019; Patton, 2002). A qualitative phenomenological design was chosen for this study because it is well-suited for examining post-graduate EFL students' views and attitudes on the ethics of AI tools in academic writing.

Sampling

The study was conducted at Çukurova University, focusing on post-graduate EFL students enrolled in the two-year master's and four-year doctorate programs in the ELT department within the Faculty of Education. The participants who are currently engaged in the M.A. and doctorate programs were selected using a combination of purposive and convenience sampling. Convenience sampling involves choosing participants who are readily accessible, while purposive sampling selects individuals based on specific criteria relevant to the study (Etikan et al., 2016). According to Dörnyei (cited in Farrokhi, 2012, p. 1), convenience sampling is performed according to how easy the access to participants is for the researcher, and purposive sampling constitutes choosing participants who suit particular predetermined criteria, such as knowledge relating to the research topic or volunteering to participate (Rai & Thapa, 2015). The combination helps ensure that participants meet the necessary criteria while being easily reachable.

The study involved 10 participants, a number chosen to allow for an in-depth exploration of their ethical considerations towards the ethics of AI tools in

academic writing, aligning with the nature of qualitative research. Teaching experience and gender were not taken into consideration while selecting the participants. The participants were fully informed about the study's objectives, the expected timeline, and the time commitment required at the initial stage of the study. They consented to take part in the study before participating, and detailed information on how their data were used was provided. The participants were assigned numerical identities in the published study to maintain confidentiality. This approach is intended to address ethical concerns and ensure internal validity by controlling as many variables as possible.

Data Collection Tools

In this study, semi-structured interviews were conducted, and a reflection paper was employed to examine the purpose and ethical considerations of using AI among post-graduate EFL students in academic writing. All 10 participants underwent these semi-structured interviews, which were designed to capture detailed ethical concerns of post-graduate EFL students related to academic writing. Semi-structured interviews involve the interviewer preparing a set of questions in advance while also having the flexibility to ask follow-up questions based on the responses given. This approach is preferred in this study because it offers a balance between structured questioning and the opportunity to gather rich, detailed data. Moreover, the adaptability of semi-structured interviews lets the researchers validate or dispute previous knowledge and discover previously unknown points of view or perspectives (Karatsareas, 2022). They also allow rich exploration of the participants' responses (Waluyo & Apridayani, 2021).

In this study, all 10 participants were interviewed in a mutually agreed-upon neutral location or an online environment. The interviews consisted of 8 open-ended questions designed to elicit detailed information about the ethical considerations of post-graduate EFL students regarding the use of AI tools in academic writing. These questions covered topics such as the AI tools available for use, their ethical concerns about these tools, and how these concerns affect their academic integrity. Additional questions explored the participants' perspectives on how using AI tools impacts their development as researchers and teachers. Reflection papers were administered online and collected online as well. The reflection paper featured four open-ended items that were also designed to elicit rich data regarding the same topics as the semi-structured interview. Lutz and Paretti (2019) state that one method that harbours the potential for gathering effective qualitative data is making proper use of reflection. Reflection is defined by Anderson (2020) as a thought which is deliberate and experience-based,

sometimes including attributes of evaluation, critical analysis, and problem-solving. This process can lead to new insights, a greater sense of awareness, or a deeper understanding. The reflection papers in this study were developed and administered parallel to the interviews in the data collection process. All the items included in both the interview and the reflection paper were designed by the researchers.

Data Analysis

In this study, semi-structured interviews and reflection papers provided qualitative data about the ethical considerations of using AI among post-graduate EFL students in academic writing. To analyse the qualitative data, content analysis was carried out to identify and categorize themes and codes that emerged throughout the study. Yıldırım and Şimşek (2013) claim that researchers can draw conclusions based on the themes that emerged in the study and thus connect the emerging themes to predict future developments. In this study, the content analysis scheme of Creswell (2012) was employed to analyse the data from the semi-structured interviews and reflection papers. Firstly, the data were transcribed and organized to find emerging ideas easily. Secondly, the data were classified into themes. Then, the classified data were interpreted and coded according to the specific themes. Finally, the results were organized and tabulated based on these codes and themes, which were determined by the participants' answers. As for reliability and validity, the data were categorized, interpreted, and coded by the three researchers independently to compare and contrast their emerged themes and codes so that they could reach an agreement.

Findings

The study employed a semi-structured interview and a reflection paper to obtain qualitative data on the AI use of post-graduate EFL students as well as their ethical considerations regarding AI use in academic writing courses. The emerged themes and codes were tabulated as frequencies in tables and reinforced by the comments of the participants taken from both the interview and reflection papers.

AI Tools Post-Graduate EFL Students Use in Academic Writing

Table 1 lists the AI tools the post-graduate EFL students reported using in their academic writing.

Table 1

AI Tools Employed by Post-Graduate EFL Students

AI Tool	Frequency
ChatGPT	16*
Grammarly	8
Google Gemini	6
Quillbot	5
Kahoot	2
Open AI	2
Chatbox	2
DeepL	2
Wordwall	1
Reverso Context	1
Canva	1
Edmodo	1
Bamboozle applications	1
Gamma	1
Sider	1
Grammarly premium	1
Citation Generator	1

The frequency of the codes uttered by the participants at the interview

As seen in Table 1, post-graduate EFL students tend to use different AI tools in EFL classes. *ChatGPT* is found to be the most frequently used AI tool among the participants. The participants reported that they make use of *Grammarly*, *Google Gemini*, and *Quillbot* in and outside of the class for their academic writing. Some example quotes are given below:

> *"In my reading and writing classes, I mostly use quillbot, chatgpt, Grammarly. I frequently use quillbot in my EFL classes, and I also want my students to use reverso context. Reverso context is also a dictionary: It gives the sentence examples of each meaning and the translation"* (Participant 4).

> *"You know, there is a kind of AI tool as well. Canva presentations, so I can use them while preparing teaching materials, but not for academic writing because of the level of my learners"* (Participant 5).

However, one of the participants claimed that he wouldn't like to use AI tools in his EFL classes, but he tends to use AI tools in his academic studies. He elaborated on this issue at the interview as follows:

> "*In EFL classes, I don't use AI tools, actually, so I don't have any ideas about any AI tools, but in academics, I use some AI tools like* **ChatGPT and Sider.** *That's all*" (Participant 10).

Post-Graduate EFL Students' Purpose of Using AI Tools in Academic Writing

Table 2 displays the reasons why post-graduate EFL students use AI tools in academic writing courses. The participants are seen to employ AI tools for a set of varied reasons.

Table 2

Post-Graduate EFL Students' Purpose of Using AI Tools in Academic Writing

Purpose	Frequency
Checking and correcting grammar mistakes	15*
Sounding more academic	8
Organizing ideas	7
Paraphrasing	5
Learning more about the topic	4
Checking vocabulary	4
Detecting plagiarism	4
Translating	3
Editing one's writing	3
Checking punctuation	3
Being more creative	2
Preparing teaching materials	2
Improving academic writing	2
Saving time	2
Checking spelling	2
Getting inspired	2

Preparing perfect assignment	1
Making our task easier	1
Enhancing language	1
Acting as an assistant	1
Creating Word games	1
Being tutored	1

The frequency of the codes uttered by the participants at the interview

As Table 2 indicates, the most frequently uttered reason is "*Checking and correcting grammar mistakes*" followed by ''*Sounding more academic,*" and "*Organizing ideas.*" The following excerpts illustrate these reasons:

> "*I use AI for, you know, checking my grammar mistakes again and maybe finding more formal words, academic words that I can put into my work and organizing my ideas. When you start to do an assignment, you usually feel lost because you haven't prepared such an assignment beforehand. So, AI assists me in those areas*" (Participant 1).

> "*I mostly use them for organization of my ideas because you have some ideas but you don't know how to formulate them into your research. And our assignments were about preparing a research proposal. And I was kind of lost, because I haven't prepared a research proposal before. You know, taking some guidance and asking questions for perfecting my work*" (Participant 2).

Apart from the writing process, some post-graduate EFL students focused on "saving time" while expressing why they use AI tools:

> "*I primarily use AI tools. My purpose is to save time while doing unimportant things. I mean, citing the references as APA, seventh or sixth. You know, this takes a lot of time. And instead of doing that I could just do more reading or do more paraphrasing. You know, using a citation generator, or checking punctuation and spelling errors with AI tools*" (Participant 3).

Additionally, as seen in Table 2, two participants highlighted "*preparing teaching materials*" as a reason for using AI tools. The following exemplifies this finding:

> "*AI will also affect my teaching positively because this generation likes technology. They are like digital natives, so they need technology in the classroom. AI certainly helps me in planning my lessons because I can*

ask AI tools like ChatGPT for different, engaging, and motivating activities and materials'' (Participant 9).

In Table 2, the participants also reported that they use AI tools for "*Paraphrasing,*" "*Learning more about the topic*," "*Checking vocabulary*" and "*Detecting plagiarism*" at a moderate degree. Other categories in Table 2 received less attention from the participants.

Ethical Concerns of Post-Graduate EFL Students Regarding AI Utilisation in Academic Writing

Table 3 summarizes the ethical concerns of the participants reflected both in the interview and reflection papers. The findings also reveal that the post-graduate EFL students are aware of some ethical concerns of using AI in academic writing courses.

Table 3

Ethical Concerns of Post-Graduate EFL Students Regarding AI Utilisation in Academic Writing

Category	Frequency
Leading to plagiarism	25*
Leading to academic dishonesty	10
Violating originality of the work	6
Leading to inaccurate citation	6
Using AI to do whole assignment	5
Lack of legislative rules	4
Generating misinformation	4
Minimizing creativity	4
Using to detect plagiarism	3
Just Copying	3
Being unethical	2
Not knowing how to use AI tools	2
Hindering writing autonomy	2
Difficult to assess reliability	2
No ethical concern	2

Having transparency and copyright concerns	1
Leading to over reliance and laziness	1

*The frequency of the codes uttered by the participants at the interview and reflection paper

The post-graduate EFL students' ethical concerns about using AI tools in academic writing are shown in Table 3. The most reported ethical concern is "*Leading to plagiarism*" in Table 3. One participant stated:

> *"I think AI tools might **lead to plagiarism issues in academic environment**, which could lead to less creativity, critical thinking, and personal development. They may **sound more or less similar to one another in** sharing their individual opinions since AI tools offer parallel ideas about the same issues"* (Participant 1).

"*Leading to academic dishonesty*" is the second most uttered category that emerged throughout the study. One quote highlights this issue as:

> *"My primary ethical concern regarding AI in academic writing is **its potential to facilitate plagiarism and academic dishonesty**. I've personally witnessed some classmates using AI tools to generate entire assignments simply by providing a prompt like, 'I have an assignment, Can you write all of the necessary chapters about this topic?' While some argue these tools merely offer assistance with paraphrasing or idea generation, the line between "help" and outright plagiarism feels blurry* (Participant 2).

Another code revealed in Table 3 is "*Violating the originality of the work*":

> *"While utilizing AI tools in my own writing, I act carefully to maintain **my own originality and voice** by writing my own sentences and adding my own personal touch. I view these AI tools strictly as assistants for tasks such as generating frameworks and outlines, identifying and correcting grammatical errors, and finding more appropriate academic words, My goal is to ensure the work I submit is genuinely my own"* (Participant 2).

> *"Of course I have some concerns regarding the integration of AI in my academic works. Although I only use AI **for paraphrasing, punctuation and citation,** I fear that when I paraphrase with AI, my **work may not be original because** using AI tools always raises questions whether it is plagiarised or not"* (Participant 3).

"*Inaccurate reference citation*" is also mentioned as one of the drawbacks of using AI in Table 3:

"While writing, I have become more careful in using AI because it is hard to give the exact reference of information that AI presents to users. I suppose this **may cause some ethical problems**" (Participant 5).

*"Yeah, how can I say, it's a way of **plagiarism** because it takes lots of information from the internet, but it doesn't give any references. I think we cannot use that information directly in our writings because it's not ethical"* (Participant 6).

At the interview, one of the participants pointed out that there are "*no legislative rules*" about the unethical use of AI tools as follows:

*"To be honest, in one of my classes last year, I had some students who directly **copied paragraphs** written by ChatGPT. This can be ethical or not ethical because we haven't had any strict rules in our institution so far. I mean, in Turkey, we still don't have the legislative rules about it"* (Participant1).

As seen in Table 3, one of the participants expressed that AI tools *have* made her "lazy" as follows*:*

*"As a rapid development of Al tools, I believe people have **become heavily dependent on Al tools. To be honest,** as a researcher, using **AI** makes me **lazier**, you know, lazier to do stuff. **to do paraphrasing**, because I could just use AI, you know, why not use it? and I'm embarrassed to say this, but I still have problems when citing documents for references, because for up to this time, AI has done it or has already done it for me. **So, it made me feel so lazy, so unable, because I depended, I highly depended on it"** (*Participant 3).

Interestingly, one of the participants commented that she has *"no ethical concerns''* regarding the use of AI as follows:

*"No, I **don't have any ethical concerns,** because it is detectable. The plagiarism caused by some AI tools can be detected by some others. Therefore, AI is the thing which must not be utilized a lot in academic writing".*

Post-Graduate EFL Students' Suggestions for Establishing Proper Ethics of AI Use in Academic Writing

Table 4 reveals the suggestions of post-graduate EFL students as how to establish ethical principles of AI use in academic writing classes. This study also highlighted that post-graduate EFL students are capable of providing some

sensible suggestions about how to deal with and decrease the unethical use of AI tools in academic writing courses.

Table 4

Post-Graduate EFL Students' Suggestions for Establishing Proper Ethics of AI Use in Academic Writing

Category	Frequency
Publishing a nationwide guideline to specify acceptable AI uses	26*
Integrating AI into teacher training programs\curriculum	15
Holding seminars and workshops on academic integrity of AI	13
Creating AI awareness among students through activities	7
Getting some help from the AI tools not to violate the ethical rules	7
Integrating AI ethics into the curriculum of academic writing courses	5
Helping students to develop a sense of ethical responsibility	4
Providing obligatory AI report for writing assignments	3
Organizing an academic AI community	3
Updating AI ethical rules	2
Feeling not qualified to give suggestions	1

The frequency of the codes uttered by the participants at the interview and reflection paper

Table 4 lists the suggestions of post-graduate EFL students as how to establish the ethical principles among the students. The participants also proposed that these suggestions can actually be accomplished by the institutions rather than teachers and students. The most uttered suggestions in Table 4 are *"Publishing a nationwide guideline to specify acceptable AI uses,"* **"***Integrating AI into teacher training programs\curriculum*," and "*Holding seminars and workshops on academic integrity of AI."* One participant elaborated on "*Publishing a nationwide guideline to specify acceptable AI uses*" as follows*:*

> *"YÖK must publish a guideline with nationwide policies for all institutions concerning how to approach AI ethics. I believe YÖK officials must immediately focus on this topic and create a framework for using AI tools in higher education before it is too late. These policies should specify acceptable uses, such as grammar correction, and unacceptable uses"* (Participant 1).

Another participant focused on "*Holding seminars and workshops on academic integrity of AI"* in her comments:

> "*I guess workshops and seminars. Teachers and students could attend seminars on academic integrity of AI or ethics in the use of AI. Thus, we become more literate about AI through such seminars. I mean we can clearly draw the line between what is ethical and what is not. Then, we become more self -aware and efficient in using AI properly (*Participant 7).

Some participants in Table 4 also emphasized the need for "*Integrating AI ethics into the curriculum of academic writing courses"* and the importance of *"Creating AI awareness among students through activities*" One such comment is given below:

> "*Integrating AI ethics into the curriculum of writing courses is essential, equipping students to understand the potential pitfalls and develop a strong ethical compass through for navigating this new technological landscape we're in. Furthermore, institutions and teachers should try to create AI awareness among the students through some appropriate activities as one part of the curriculum"* (Participant 2).

In Table 4, some post-graduate EFL students are seen to favour the category "*Getting some help from AI tools not to violate the ethical rules":*

> "*Well, I would suggest that **AI tools could warn us for plagiarism**. If you are a beginner user of AI, you really don't understand, or you don't know whether you are violating ethical rules. So, there should be **a kind of device to** guide us while using AI in our academic studies"* (Participant 8).

As Table 4 shows*,* "*Providing obligatory AI report for writing assignments"* and *"Helping students to develop a sense of ethical responsibility"* categories were also uttered by the participants as follows:

> "*There must be an obligation for the researchers to provide a kind of AI report. You have to show the necessary reference when you cite something into your thesis. So, I mean, students should be taught and highlighted how to use AI tools not only in in M.A and doctorate programs but also in bachelor degree. Teachers should encourage students to develop a sense of responsibility while using AI tools"* (Participant 4).

Table 4 also highlighted the importance of "Organizing an academic AI community" and "Updating the established ethical rules in the use of AI" as follows:

> *"The rapid development of AI tools requires us to think critically and adapt our ethical understanding and guidelines. AI technology keeps evolving, we, as students, educators, and researchers, need an academic AI community to keep talking and working together to make sure our ethical guidelines are up-to-date and promote responsible AI use''* (Participant 2).

However, one of the participants stated that she is not so qualified enough to comment on the ethics of AI:

> *"Ease these concerns? I don't feel qualified enough to give suggestions to the academic world, but if I could, I think we need some frameworks, you know, some boundaries. Actually, I don't know what those boundaries are"* (Participant 2).

Discussion & Conclusion

This study revealed that the AI tool most frequently utilized by the participants was, by far, OpenAI's *ChatGPT*. The participants also expressed that they used AI tools such as *Grammarly*, *Google Gemini*, and *Quillbot* in and outside of the class for their academic writing. Similarly, Dergaa et al. (2023) stated that *ChatGPT*, which was developed by OpenAI in 2018, became one of the most well-known large language models in the world. They have also found that GPT rose to popularity extraordinarily quickly over other AI applications.

The findings also demonstrated that the number one reason the participants utilized AI tools in their academic writing process was to check and correct grammar mistakes and to organize their ideas. These findings are in line with the findings of Razack et al. (2021), who found that AI tools are immensely effective at pinpointing errors and improving the quality of academic writing content. Another finding showed that time-saving aspects of the research process, such as generating and organizing ideas and sounding more academic, are significant. Likewise, in a study conducted by Khalifa and Albadawy (2024), it was found that AI tools are highly proficient in idea and content development, structuring, and brainstorming.

As for the participants' ethical concerns emerged throughout the study, the themes majorly centred around plagiarism, academic dishonesty, and originality. The post-graduate EFL students are concerned about AI tools' being misused to plagiarize and produce unoriginal work and lead to academic dishonesty. These findings are consistent with the findings of Helgesson and Eriksson (2014), who found that plagiarism concerns arise from copyright issues and that AI has been

previously known in journalism for plagiarism. On the other hand, Gallent Torres et al. (2023) claimed that students must have the ability to generate original texts even while making use of generative AI tools without partaking in academically dishonest actions that compromise the integrity of their research and education.

The findings also highlight that the participants' most prolific suggestion was to have nationwide guidelines which specify acceptable AI utilisation published. The participants also majorly suggested the integration of AI into teacher training programs and holding seminars and workshops regarding AI's impact on academic integrity. These findings are supported by Elbanna and Armstrong (2024), who found that in order to efficiently mitigate ethical concerns related to the utilisation of AI tools in scholarly publishing, all parties involved in the process, including students, faculties, administrators, and policymakers must participate in a joint effort. This effort will need a comprehensive approach that takes technical details and the complicated nature of AI models into account. In addition, the study revealed that an academic AI community can be established to check ethical guidelines and promote responsible AI use in academic writing. Similarly, Hosseini, et al. (2023) state that any part of an academic paper written by an AI tool should be checked by an expert in the field for concerns of accuracy, bias, relevance, and reasoning. Second, they state that the use of AI tools brings forth concerns of accountability. If a portion of a paper authored by an AI tool harbours errors or biases, all co-authors must be held responsible for its accuracy and integrity.

Limitations and Suggestions

As in all studies, the present study also has some limitations that should be recognized. First, the study is limited to the fact that it was employed only in one academic institution. If the study had been carried out in a different university, the results could have been different. Another limitation is the low number of participants (10). This is due to the nature of qualitative research and the scope of the study; however, the number of participants could be increased for improved generalizability. Another limitation is the fact that the study is limited to only two data collection tools. One more limitation is that the study only investigated ethical concerns regarding academic writing and, therefore, is not generalizable to other aspects of academia. Lastly, the participant's attitudes towards the rapid improvement of AI technologies could have impacted the results of this study. For instance, if they had a negative outlook on AI technology, their ethical concerns regarding its utilisation are also likely to be negative.

For future research, this type of study could be conducted in a MoNE setting, with a larger number of participants, to improve generalizability. In order to investigate this research topic further, both students' and teachers' viewpoints on ethical concerns related to AI use could be investigated and then compared in a comparative study. Other academic skills, such as reading and listening, could also be studied. In addition, as a continuation of this study, the participants could be administered a training program on AI tool utilisation, and their improvement or lack thereof can be monitored.

Implications

This study has also yielded some implications for post-graduate EFL students, curriculum designers, and some educational authorities. First of all, the study implied that some AI training programs should be organized by MoNE in collaboration with universities to guide both teachers and students about the ethics of using AI in EFL classes. Similarly, pre-service teaching programs can include the ethical principles of using AI tools in their curriculum. Integrating the ethics of AI tools into the curriculum will certainly provide a secure learning environment for both teachers and students. Furthermore, this integrity will also help students to produce original and ethical work in their academic writing courses. Thirdly, EFL teachers could provide different learning activities to facilitate and support the correct and ethical use of AI tools among students in EFL courses. Finally, since this study has created a kind of awareness about the ethics of AI among the post-graduate EFL students, they will be more attentive to the use of AI tools in their academic and professional lives after participating in such a study.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed. All participants were informed regarding the nature of the study and they also consented to participating in the study. All participants' data were used with their knowledge and full consent.

Proportion of Authors' Contribution

Author 1: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing – Original Draft.

Author 2: Conceptualization, Formal Analysis, Review & Editing, Visualization, Last Draft.

Author 3: Literature Review, Methodology, Findings, Discussion and Conclusion, Limitations, Implications.

INVESTIGATING EFL STUDENTS' ATTITUDES TOWARDS AI AND LEARNER AUTONOMY IN LANGUAGE LEARNING

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Over the past few years, studies on using technology in foreign language education have gained popularity among researchers. With the advent of new artificial intelligence (AI) technologies which are built on machine learning and digital intelligence systems, language education has been transformed into a more effective and innovative process not only for teachers but also for students. Considering the huge potential they have, ways to utilize AI tools pedagogically must be explored from several aspects.

Computer Assisted Language Learning (CALL), originating in the 1960s, has enabled learners to design their own paths for developing their language skills. However, as pointed out by Nobre (2021), language education must be enhanced ensuring the right balance between technological benefits and traditional features. CALL and the application of AI in educational contexts have also redefined the roles of teachers and students in language classrooms by creating more learner-centred environments (Danesi, 2024).

As one of the key aspects of language education, learner autonomy is connoted with the concepts of liberty, self-rule, freedom of the will, individuality, responsibility, and self-knowledge (Dworkin, 2015; Liu et al., 2022). According to the common definition made by Holec (1981), in the context of language learning, being autonomous refers to "the ability to take charge of one's own learning" (p. 3). In their book, Hilton and Pellegrino (2012) describe some skills such as critical thinking, problem-solving, collaboration, effective

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communication, motivation, and learner autonomy which are regarded as the essential competences of the 21ˢᵗ century. Benson (2012) suggests three criteria for learner autonomy: a) students' ability to take charge of their learning, b) students' willingness to be in control, and c) a learning context that enables learner control. Moreover, as stated by Cotterall and Crabbe (2012), learners need to be inspired to select their learning materials, reflect on their performance, and assess their own learning process to achieve learner autonomy. Hence, AI and digital learning tools should be integrated to provide students with a more dynamic learning experience.

Learner autonomy can be fostered with a proper collaboration of technology and traditional teaching methods. Flipped classrooms can be regarded as a practice of this approach because they allow students to personalize their learning process with guidance from teachers. Fuchs et al. (2021) refer to Reinders and White's (2016) anticipation that educational practice and theory are progressing toward a phase where technology supports a shift from a classroom-centred approach—and, in some cases, from formal education entirely—toward a focus on learners' personal lives and experiences as central to the learning process. Especially after the COVID-19 pandemic which impacted the social and educational contexts worldwide, online education and language learning platforms have played an important role in reforming the methods by which learners improve their linguistic abilities. Thus, many educational institutions, including the current research context, are aiming to prepare their students for unanticipated changes and conditions in learning contexts. Accordingly, it can be claimed that there is a need to explore students' attitudes toward using AI in language learning and their influence on developing learner autonomy. Considering this main goal, the current research has three objectives: a) to understand university students' attitudes towards AI use in language education, b) to explore the correlation between attitudes towards AI use and learner autonomy in language education, and c) to reveal any possible relationship between demographic variables and AI use and learner autonomy.

To meet these objectives, the following research questions were posed:

1. What are the perceptions of university students' use of AI in language learning and learning autonomy?

2. Is there a relationship between attitudes towards using AI and learner autonomy?

3. Are there any significant differences in participants' attitudes toward using AI & learner autonomy based upon their demographic variables (gender, age, department, English Level)?

Literature Review

AI Use in Language Education

Recently, numerous studies have been conducted to examine the role of technology in second language education (Bajaj & Bose, 2020; Fitria, 2021; Shin et al., 2021; Tulasi & Rao, 2023). Most of these studies focus on the positive impacts of using AI in language education. As stated by Yufeia et al. (2020), artificial intelligence technology is utilized in several educational areas such as automatic grading systems, teacher's feedback, adaptive and personalized learning. Yanhua (2020) also envisages that artificial intelligence will upgrade effective language teaching by offering innovative models for teachers and students. According to Barrios-Beltran (2024), the use of AI tools can facilitate the development of language skills as they enable the creation of dynamic learning environments that fulfil students' distinct needs.

However, research has shown that there can be some challenges to using technology and AI tools in language teaching and learning (Berendt et al., 2020; Khazaal, 2024; Kostka & Toncelli, 2023). In their systematic review, Crompton et al. (2024) reveal that technical problems, teachers' and students' limited skills in using technology, anxiety, and the risk of standardizing language can be some of the disadvantages. Hockly (2023) also displays the current use of AI in ELT and draws attention to possible problems such as ethical issues and privacy and suggests some ways like familiarizing with related laws to minimize the negative effects of using AI in language teaching. Furthermore, an extensive review by Law (2024) presents the potential benefits and concerns of using AI in teaching. It calls for more practical research on the influence and validity of AI tools highlighting the importance of professional development to use them effectively.

As claimed by Sahai et al. (2021), the role of teachers in classrooms is changing due to the advancements in AI technology so teachers need to welcome the benefits of using AI tools for their profession. There are a few studies addressing teachers' attitudes and/or perceptions of AI in language teaching (Al-khresheh, 2024; Nguyen, 2021; Ulla et al., 2023; Yanhua, 2020). Ulla et al. (2023) reveal that EFL teachers have positive attitudes regarding the use of *ChatGPT* in language teaching especially for lesson planning, but they have some concerns about its reliability and its ability to foster learner autonomy. In their study, Dincer

and Bal (2024) investigated teachers' perceptions and familiarity with AI use in language teaching in a Turkish EFL context. They concluded that teachers feel some concerns about AI including trust, misuse, privacy, and the need for certain policies.

Attitudes towards AI use in language education should also be examined from the students' perspectives. Kushmar et al. (2022) unveiled students' perceptions of using AI in learning English and found out that students have a fear of lacking real contexts of language practice in addition to losing their creativity, spontaneity, and expression of emotions. It was suggested that humans must be a part of the system where AI is integrated into learning as educational experts and content designers. Yıldız (2023) designed and utilized a tool called *Measurement of Attitude in Language Learning with AI (MALL:AI)* to evaluate EFL students' attitudes toward using AI in language learning and found that AI tools are commonly adopted by language learners at higher education in Türkiye.

In another study, Vo and Nguyen (2024) explored university students' attitudes toward using *ChatGPT* in language learning based on their genders and class levels. Consequently, they discovered that most students had positive attitudes about *ChatGPT*, and gender did not affect their perceptions whereas class levels made a difference. Finally, Ng and Ravana (2024) utilized the theory of planned behaviour to explore students' perceptions of using AI for academic tasks. They found that students' perceptions are shaped around their intentions, cultural and educational backgrounds, and subjective norms such as social pressure or expectations, so these perceptions are quite complex. Yet, there is a need to conduct more studies on students' perceptions and attitudes on AI use in the language learning process.

Relationship Between AI Use and Learner Autonomy in Language Education

In light of the previous findings, it can be understood that there is a close link between employing technology and developing learner autonomy in language education. Nevertheless, there is a limited number of studies investigating the relationship between AI use and learner autonomy. Tahir and Tahir (2023) who explore possible advantages and challenges of including technology in the teaching process for developing learner autonomy of students in secondary education level suggest that it enhances the quality of education by empowering learner autonomy. Respectively, Arnold and Fonseca-Mora (2017) remind that teachers and students should be trained to fully benefit from technological tools.

Research found that flexible learning environments and online platforms improve language students' autonomy and self-management skills changing their perceptions on learner autonomy (Tsai, 2021). Similarly, Anis (2023) claims that using language applications and integrating AI tools in ESL can promote motivation, diversity, flexibility, participation, and personalized learning. Agustini (2023) also investigated the impact of using *ChatGPT* in supporting learner autonomy of Indonesian language students of English. It was found that instant feedback and personalized support provided by *ChatGPT* assist learners to become independent learners. A systematic review on AI use in online learning and its impact on personalized education was presented by Dogan et al. (2023). Hence, more empirical studies are required to understand the role of AI in developing language learner autonomy in the context of Türkiye, especially at higher education where learner autonomy is a prioritized skill.

Method

Research Model

This study aims to explore the correlation between attitudes toward AI and learner autonomy, along with participants' perceptions of these concepts. To address these aims, a quantitative research method was employed. Dulock (1993) describes descriptive analysis as a means to examine one or more variables and any associations between them. Similarly, Omair (2015) notes that a descriptive study highlights the distinctive characteristics of a sample without requiring a comparison group. Accordingly, descriptive, inferential, and correlational analyses were conducted to meet the objectives of the study.

Setting and Participants

This research was conducted during the 2023-2024 Summer School at a state university in Kayseri, Türkiye, involving 118 preparatory students (see Table 1) enrolled in a program aimed at equipping them with essential English skills for their respective departments.

Data Collection Tools

Participants were asked to fill out their demographic information, such as their gender, age, English level, and department. After that, they were asked to complete two questionnaires, both of which were 5-point Likert scale. Two questionnaires were used as data collection tools in this study. The first

instrument, titled *Measurement of Attitude in Language Learning with AI (MALL:AI)*, was developed by Yıldız in 2023 and consists of 15 items across three subscales: Cognitive, Behavioural, and Communicative. Participants filled in the questionnaire's first part by using a 5-point Likert scale. The reliability of this scale was found by utilizing Cronbach's Alpha reliability and it was .84. The second tool, the *Learner Autonomy Scale (LAS)*, was created by Orakçı and Gelişli (2017) and includes 14 items without subscales. Data were collected through online platforms using Google Forms. Participants filled in the questionnaire's first part by using a 5-point Likert scale. The reliability of this scale was found out by utilizing Cronbach's Alpha reliability and it was .71. These tools were selected for their focus on relevant aspects of language learning and autonomy in the context of AI.

Data Analysis

SPSS Version 27.0 was used for data analysis, employing descriptive, inferential, and correlational statistics. Descriptive analysis was conducted to ascertain participants' perceptions of AI and learner autonomy. Inferential analysis examined whether significant differences exist based on participants' gender, age, English level, department, and attitudes toward AI and learner autonomy. Finally, correlational analysis was performed to determine whether a correlation exists between attitudes toward AI and learner autonomy.

Results

Table 1

Inferential Results of Learner Autonomy and Dependent Variables

Dependent Variable		M	sd	t / F*	p-value
Gender	Female	3.69	0.34	-1.01	.183
	Male	3.75	0.34		
Age	18-20	3.70	0.34	-0.83	.407
	21+	3.77	0.36		
English Level	A2	3.86	0.26		
	B1	3.66	0.34	1.64	.198
	B2	3.76	0.34		

Department		M	Sd		
	Computer Engineering	3.74	0.29		
	Bioengineering	3.78	0.23		
	Economy	4.01	0.30		
	EEE	3.60	0.39		
	Industrial Engineering	3.75	0.34		
	Civil Engineering	3.87	0.48		
Department	Business Administration	3.61	0.54	0.84	.593
	Mechanical Engineering	3.75	0.30		
	Architecture	3.61	0.32		
	MBG	3.73	0.31		
	Psychology	3.70	0.30		
	Political Science and International Relations	3.75	0.29		

t value is for independent t-tests, F value is for ANOVA.

Table 1 presents the analysis of demographic variables in relation to learner autonomy. No significant difference was observed between male (M =3.75, SD =0.34) and female participants (M =3.69, SD = 0.34), t = -1.01, p =.183. Similarly, age groups 18–20 (M =3.70, SD =0.34) and 21+ (M =3.77, SD =0.36) did not differ significantly, t =-0.83, p =.407. English proficiency levels (A2, B1, and B2) also showed no significant differences, F =1.64, p =.198. Finally, no significant variance was found across departments, F =0.84, p =.593. Overall, these results indicate that demographic variables, including gender, age, English level, and department, do not have a statistically significant effect on learner autonomy in this study.

Table 2

Inferential Results of AI and Dependent Variables

Dependent Variable		M	Sd	t / F**	p-value
Gender	Female	3.32	0.51	-1.34	.183
	Male	3.44	0.44		
Age	18-20	3.35	0.49	-0.78	.432·
	21+	3.45	0.50		

	A2	3.48	0.73		
English Level	B1	3.43	0.46	1.36	.259
	B2	3.28	0.49		
	Computer Engineering	3.52	0.65		
	Bioengineering	3.17	0.51		
	Economy	3.85	0.48		
	EEE	3.35	0.53		
	Industrial Engineering	3.40	0.37		
	Civil Engineering	3.53	0.20		
Department	Business Administration	3.46	0.58	1.01	.438
	Mechanical Engineering	3.31	0.44		
	Architecture	3.46	0.58		
	MBG	3.40	0.36		
	Psychology	3.23	0.43		
	Political Science and International Relations	3.19	0.45		

t value is for independent t-tests, F value is for ANOVA.

Table 2 presents the analysis of demographic variables in relation to attitudes toward AI. No significant difference was observed between female (M =3.32, SD =0.51) and male participants (M =3.44, SD =0.44), t =-1.34, p =.183. Similarly, age groups 18–20 (M =3.35, SD =0.49) and 21+ (M =3.45, SD =0.50) did not differ significantly, t =-0.78, p =.432. English proficiency levels (A2, B1, and B2) also showed no significant differences, F =1.36, p =.259. Finally, no significant variance was found across departments, F =1.01, p =.438. Overall, these results indicate that demographic variables, including gender, age, English level, and department, do not have a statistically significant effect on attitudes toward AI in this sample.

Table 3

Correlation Results of AI and Learner Autonomy

		AI	Autonomy	AI_Communicative	AI_Behavioral	AI_Cognitive
AI	Pearson Correlation	1				

	Sig. (2-tailed)					
Autonomy	Pearson Correlation	.126	1			
	Sig. (2-tailed)	.174				
AI_Communicative	Pearson Correlation	.892*	.076	1		
	Sig. (2-tailed)	.000	.414			
AI_Behavioral	Pearson Correlation	.696*	.134	.442*	1	
	Sig. (2-tailed)	.000	.147	.000		
AI_Cognitive	Pearson Correlation	.862*	.127	.613*	.510*	1
	Sig. (2-tailed)	.000	.171	.000	.000	

p < 0,01

Table 3 illustrates the correlation between learner autonomy and AI. In order to analyse the significance of correlation, Cohen's (1992) correlation coefficient was utilized, indicating that the strength of correlation can be classified into different levels: small correlation (.10 ≤ r < .30), medium correlation (.30 ≤ r < .50), and strong correlation (.50 ≤ r < 1.00). According to Table 3, there is no correlation between AI and Autonomy. However, there are significant positive correlations between AI and its subscales. Specifically, AI has a strong positive correlation with the Communicative subscale (r =.892, p < .001), a moderate positive correlation with the Behavioural subscale (r =.696, p < .001), and a strong positive correlation with the Cognitive subscale (r =.862, p < .001). Additionally, the Communicative subscale shows a moderate correlation with both the Behavioural (r =.442, p < .001) and Cognitive (r =.613, p < .001) subscales. The Behavioural subscale also has a moderate correlation with the Cognitive subscale (r =.510, p < .001). Overall, it can be said that according to the results, all relationships between AI and its subscales are positive, strong, and significant. Moreover, results suggested that an increase in AI, Communicative, Behavioural, and Cognitive areas also increase each other as well.

Table 4

Descriptive Results of AI and Autonomy

	M	**SD**

AI	3.37	0.49
Autonomy	3.71	0.34
AI_Communicative	3.35	0.55
AI_Behavioral	3.59	0.62
AI_Cognitive	3.26	0.60

Table 4 illustrates the descriptive statistics for AI, autonomy, and the subscales of AI. The mean score for attitudes toward AI was 3.37 (SD =0.49), indicating a moderate level of positive attitude toward AI. The mean score for learner autonomy was 3.71 (SD =0.34), suggesting that participants demonstrated a moderate to high level of learner autonomy. Among the AI subscales, the Communicative subscale had a mean score of 3.35 (SD =0.55), the Behavioural subscale had a mean score of 3.59 (SD =0.62), and the Cognitive subscale had a mean score of 3.26 (SD =0.60), indicating moderate levels of engagement across these dimensions.

Discussion & Conclusion

This study investigated preparatory students' perceptions of AI in language learning and their impact on learner autonomy. Descriptive results showed that participants had a moderately positive attitude towards AI. According to the results, participants appear open to using AI in language learning; for instance, growing acceptance and comfort with AI in language learning were observed. However, gender did not have an impact on learner autonomy, which is in line with Vo and Nguyen (2024). Results suggest that participants are not fully receptive to the idea of using AI without teacher support or guidance. This implies that they have reservations about AI's ability to fully replace human teachers. The results also indicate that AI tools have the potential to enhance learner autonomy and provide more personalized learning experiences. Also, results from AI suggest that participants are willing to take risks and attempt to use AI tools in their language learning process. Therefore, it can be inferred that AI could serve as a complementary tool in language education.

Regarding learner autonomy, participants demonstrated a moderate to high level of autonomy. This finding suggests that participants have some degree of independence and self-direction in their language learning journey, underscoring the potential to further foster and develop students' autonomy skills to enhance their language learning experiences and outcomes. Results and items support this finding. However, certain questionnaire items indicate that participants agree they

may lack skills in areas like self-assessment or voluntarily reading texts. Consequently, according to the results, it could be inferred that integrating self-assessment and motivation into the language learning process may help increase learner autonomy.

These findings have two implications for teachers, educators, and administrators. The first implication is the promotion of learner autonomy in curriculum design. Educators should focus on designing curricula that empower students to take greater responsibility for their learning. This could include offering more choices in activities, fostering self-assessment skills, and encouraging independent learning outside the classroom. The second implication is the potential for personalized learning through AI integration. The results suggest that students are receptive to AI's role in language learning, especially in creating a personalized and supportive environment. Teachers can leverage AI tools to provide tailored feedback, track progress, and adapt lessons to meet individual learners' needs.

However, this study has several limitations, such as a limited sample size and reliance on quantitative data. It is suggested that future studies incorporate interviews and observations alongside attitudes toward AI and learner autonomy to gain a deeper understanding of students' perceptions of these topics. Moreover, future studies should examine students' learner autonomy levels before and after utilizing AI in language learning. Additionally, expanding the sample to include students of different age groups, departments, and universities could help generalize the findings of this study.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed. Necessary permission was obtained from the Abdullah Gül University Institutional Review Board in August 2024. The document number for the ethics committee approval is 101621. According to the IRB, the project has been deemed ethically appropriate.

Proportion of Authors' Contribution

Author 1: Conceptualization, Methodology, Data Collection and Analysis, Discussion and Conclusion, Writing – Original Draft.

Author 2: Conceptualization, Literature Review, Review & Editing, Last Draft, Discussion and Conclusion.

INVESTIGATING COMPLEX SENTENCE USAGE IN TURKISH EFL LEARNERS

Eser ÖRDEM[1]

The acquisition of subordinate clauses including complex sentence structures is a crucial aspect of learning a second language (L2), especially for students of English as a Foreign Language (EFL). This is particularly applicable to students acquiring English as a second language. Utilizing complex sentences is crucial for achieving fluency and advanced proficiency in written communication (Biber et al., 1999; Celce-Murcia & Larsen-Freeman, 1999). Complex sentences consist of noun clauses, relative clauses, and adverbial clauses, which are the main three types of clauses. Eli Hinkel's research (2002) indicates that advanced language learning contexts prioritize the acquisition of these patterns. This is because these frameworks enable pupils to produce more complex ideas and interrelations among many subjects. Reaching advanced level facilitates adult learners' flexibility when intending to express their ideas in different situations from in-classroom interaction through contexts where they can write academic essays or discuss a socio-political issue. However, producing complex constructions hardly proceeds without some hindrances due to the non-linear and chaotic nature of language embedded with multi-layered factors such as usage of a given language, context, frequency and pragmatic modes.

Complex Sentence Structures in EFL Contexts

Complex sentences are distinguished, according to Quirk et al. (1985), by the presence of numerous clauses performing a range of grammatical duties. Complex phrases thereby increase the range and depth of linguistic use. Relative clauses give information that is descriptive of nouns; nouns themselves are the subjects of noun clauses; adverbial clauses modify verbs, adjectives, and other adverbs; noun

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clauses are employed as subjects, objects, or complements in phrases. Ellis (2008) and Hinkel (2012) claim that a good indicator of language competency is one's ability to appropriately employ these structures in a sentence. Lightbown and Spada (2013) claim that the grammatical differences between English and their original languages cause English as a Foreign Language (EFL) students to especially have trouble in understanding these phrases. Studies by Housen and Kuiken (2009) show that even advanced students struggle to precisely and variedly use complex words. This emphasizes the need for particular teaching and practice related to the topic.

Klein & Perdue (1997) developed the idea of Basic Variety by which they postulated that adult language learners may not end up with the acquisition of complex sentences. Rather, they may opt to use basic component of a given language. For them, it is a serious conundrum with the processing argument that it is obvious that humans are capable of understanding language that is not very difficult. In point of fact, one could argue that the structure is considerably easier to build and comprehend when it is broken down into its component parts (Klein and Dittmar,1979). Although there may be a few instances in which this is not the case, this is without a doubt the rule. In spite of the fact that it is not required of us to do so, the power of human language permits us to process extremely sophisticated systems. In the event that the capacity for complexity is utilized, it must serve a variety of reasons that are related with the function of language. Language that is simpler has a lower expressive power, and in order to transmit complicated concepts, the ways of communication must also be complex. A great degree of credibility is possessed by this argument as a result of the advanced vocabulary that is utilized. To put it another way, the concept of "Basic Variety" is not something that can be described as being extremely innovative by any stretch of the imagination (Klein & Perdue ,1997). Few early publications on the topic of second language acquisition are examples of publications that make reference to this phenomenon in a range of different ways. These publications contain a few examples of publications. These papers are examples of publications that have been published. Schumann (1978) and Klein & Dittmar (1979) also emphasize that adult language learners may have difficulty in producing fully-fledged structures similar to complex constructions in their native language. Another study done by von Stutterheim (1986) also illustrate these kinds of examples in the production of adult second language learners. Additionally, Slobin (1985) also developed the term of Basic Child Grammar to emphasize the emergence of first simple syntactic structures in children. Givon (1979) referred to this issue as pragmatic mode rather than syntactic mode. For Givon (1979),

contextual clues and pragmatic situations are more central than pure syntactic structures. Bickerton (1990) called these emergent properties 'protolanguage'. Thus, the terms of Basic Child Grammar, pragmatic modes and protolanguages can be likened to Basic Variety.

Method

With the purpose of gaining a better understanding of the strategies that advanced students of English as a Foreign Language (EFL) employ in order to acquire and make use of complex sentence structures, this qualitative study was carried out. The adverbial clause, the relative clause, and the noun clause were the primary types of simple phrase patterns that were explored during the course of the research for this study. To establish the frequency with which these structures occurred in the written work of the participants, as well as the correctness of their appearance and the forms in which they appeared, the major objective of this study was to determine, among other things, the presence of these structures. To explore the syntactic complexity of writing in a second language, the research utilized a paradigm that was established by Norris and Ortega (2009). This paradigm was used to investigate the findings of the research. As stated by Biber, Gray, and Poonpon (2011), it shed light on the significance of clause usage when determining the level of language skill possessed by an individual.

Participants

The study included 85 first-year students from a Turkish school. They mostly dealt with translation and interpretation. All of the participants were freshmen or sophomores in college with English proficiency levels between B2 and C1, as measured by the Common European Framework of Reference for Languages (CEFR). All participants in the research were required to devote an entire year to preparation. They were prepared for college and beyond thanks to the 700 hours of English classes they had taken. Because we selected the participants based on their English proficiency, we were able to study how they learned and used complex phrase patterns. Insightful data addressing the requirements of Turkish EFL teachers working with advanced level students was collected from a sample that accurately reflected the target demographic.

Data Collection

Essays that were at least 300 words long were used to get the information. The essay topics that the participants were given were meant to get them to use

complicated sentence structures, with a focus on adding adverbial clauses, relative clauses, and noun clauses. As part of the project, students were required to create argumentative and analytical essays under limited timing of thirty minutes, which was meant to simulate the conditions of a test. In accordance with the recommendations made by Storch & Tapper (2009), the time constraint was implemented in order to encourage the generation of language that is both spontaneous and genuine. This, in turn, would reduce the chance of excessive editing or reliance on support from other sources. In order to provide students with the opportunity to effectively demonstrate their comprehension of difficult vocabulary within a context that is pertinent to their studies, the essay topics were designed to be challenging as well as familiar.

Data Analysis

The writings were examined using qualitative techniques to find how often, precisely, and in what sorts of ways complex sentence structures were employed. Finding the best approaches to employ adverbial clauses, relative clauses, and noun clauses in every piece dominated the study. One could generally analyse the general complexity of the sentence structures by making use of the framework that was developed by Norris and Ortega (2009). This framework is a well-known tool that is used to check for syntactic difficulty in writing in a second language. The study also took into consideration the suggestion made by Biber, Gray, and Poonpon (2011), which said that the manner in which phrases are utilized as an indicator of language proficiency should be taken into consideration. Using the information, we were able to determine the kind of complicated phrases that were used the most frequently, the degree to which they were employed effectively, and the areas in which students were having the greatest difficulty. As a result of this survey, a significant amount of knowledge regarding the grammatical competence was gained.

Findings

The analysis of the data obtained from the essays written by the participants provided us with a great deal of insight into the manner in which advanced English language learners in Turkey employ complicated sentence patterns. It was determined that there were three primary categories of clauses that were investigated: adverbial clauses, relative clauses, and word clauses. The findings demonstrated the frequency with which these patterns emerged in the writing of the students, as well as the manner in which they were observed. In addition to this, they demonstrated the areas in which the pupils excelled and those in which

they need additional instruction. The purpose of this part is to provide a comprehensive review of the manner in which students create complex sentences by presenting an in-depth analysis of the various types of clauses and the ways in which they were utilized. In addition to this, this section provides recommendations for enhancing the syntax of students who are learning English as a Foreign Language (EFL) as well as methods for educational language instruction.

Table 1

Comparative Analysis of All Clause Types

Clause Type	Frequency	Percentage (%)
Noun Clause	119	37.19
Relative Clause	101	31.56
Adverbial Clause	100	31.25
Total	320	100.00

The data in Table 1 provides a clear comparative analysis of the frequency and percentage of different clause types used by the participants. It is evident that noun clauses were the most frequently used structure, accounting for 37.19% of all clause types, which indicates that participants might find noun clauses easier to produce in their writing or they may have received more instructional focus on this clause type. The second most prevalent phrase was relative, with 101 occurrences, or 31.56%. This is anticipated of advanced EFL learners because relative clauses are needed to combine sentences more complexly. Adverbial clauses made up 31.25% of the total with a frequency of 100, somewhat less than relative clauses. According to this distribution, adverbial clauses, which are phrases that modify verbs, may be more difficult for learners to comprehend or may be less necessary in the essays that participants were asked to create. The fact that clause types are distributed reasonably evenly shows that students are interacting with a wide range of challenging sentence structures; however, placing more of an emphasis on adverbial and relative clauses may assist guarantee that students have balanced competency.

Table 2

Frequency and Percentage of Noun Clause Wh-/Complementizers

Noun Clause Type	Frequency	Percentage (%)
that	90	75.63
what	21	17.65
how	8	3.36
Total	119	100.00

The data in Table 2 shows that the complementizer "that" was used in 75.63% of the noun clauses, which is a very high percentage. This high frequency suggests that learners depend on this complementizer a lot. This could be because it is used so often in spoken and written English. "What" (17.65%) and "how" (3.36%) were used much less often, which suggests that students may not be as comfortable with these forms or may not be sure how to use them. Because "that" is used so often, it could be a good idea to teach students how to use a wider range of complementizers.

Table 3

Frequency and Percentage of Relativizers

Relativizer	Frequency	Percentage (%)
that	90	89.11
who	7	6.93
which	4	3.96
Total	101	100.00

"That" was also the most common relativizer (see Table 3), making up 89.11% of all relative sentences. Learners may see it as a canonical relativizer. The fact that "who" and "which" were used by 6.93% and 3.96% of the subjects suggests that they may not be as sure of their ability to come up with specific relativizers. Students could improve their ability to use a variety of grammar structures in difficult sentence structures by practicing with "who" and "which" more. Because of this, activities that raise awareness can be done with students.

Table 4

Frequency and Percentage of Adverbial Clause Subordinators

Adverbial Clause Type	Frequency	Percentage (%)
if	42	42.00
because	41	41.00
since	13	13.00
although	7	7.00
when	1	1.00
while	1	1.00
though	1	1.00
Total	100	100.00

The participants mostly used the adverbial clause subordinators of 'if' and 'because' totalling 83 %. This shows that students are good at writing with conditional and causal links. In 13% of the adverbial sentences, "since" was used. Subordinators like "although," "when," "while," and "though" were used much less often. Some students may do better with certain types of adverbial clauses (like conditional and causal) than others (like concessive or temporal). This could mean that they need more balanced teaching on all of these types of adverbial clauses.

Discussion

With word clauses, the complementizer "that" is most commonly employed. The majority of the noun phrases used by the participants (75.63%) included this complementizer. The versatility and ease of understanding of the word "that" may make it a favourite among pupils (Quirk et al. 1985). The frequent use of the phrase suggests that pupils might find it appealing. According to Celce-Murcia and Larsen-Freeman (1999), learners in the middle or advanced phases tend to favour simpler frameworks until they become proficient with using more complicated ones. The findings of the present study are in agreement with their findings. The difficulty of employing question-based information in words is likely demonstrated by the low usage of "what" (17.65%) and "how" (3.36%).

Students often perceive indirect questions as more challenging, according to Biber et al. (1999).

According to corpus study data, "that" is a prevalent choice in both restrictive and non-restrictive relative clauses; 89.11% of relative sentences employ it as a relativizer. The main reason for this is that it is modifiable (Carter & McCarthy, 2006). Additionally, as Hinkel (2004) demonstrated, students tend to use the term "that" too broadly, even when more precise words such as "who" or "which" would be more appropriate. According to Norris and Ortega (2009), a strong grasp of syntax is necessary to distinguish between these variations. Students are still learning the grammatical differences between the relativizers "who" (6.93%) and "which" (3.96%), as seen by their limited usage. Norris and Ortega (2009) draw attention to this. The most prevalent subordinators among the adverbial phrases that were investigated were "if" (42% of usage) and "because" (41% of usage). Students' proficiency with conditional and causal subordinators is evident in their work, which is a strength for academic writing because it allows them to demonstrate their reasoning and make hypothetical connections. These expressions appear frequently in student work, which may be explained by the fact that they are commonly employed in the early phases of language acquisition (Celce-Murcia and Larsen-Freeman, 1999). The low frequency of concessive verbs like "although" (7% usage) implies that pupils can struggle to articulate sophisticated syntax-requiring complex contrastive relationships (Swales & Feak, 2012). Students typically stay away from these designs, according to Storch and Tapper (2009), due to their difficulty in understanding. This agrees with what we would expect from the restricted application of concessive subordinators.

These findings can be explained through chaos and complexity theory developed by Larsen-Freeman (1997) who emphasized that second language acquisition comprises dynamic, complex, nonlinear, chaotic, unpredictable, beginning condition sensitive, open, self-organizing, feedback sensitive, and adaptive. Many agents make up complex systems like the brain. Complex systems are activated by component interactions, not individual behaviour. Complex systems are nonlinear; therefore, their effect is disproportionate. Nonlinear systems might behave linearly or disproportionately to their surroundings. Chaos theory stresses details in comprehending complex systems since even little interactions can be unpredictable (Larsen-Freeman, 1997). It should be borne in mind that the acquisition of a second language is contingent upon the source language, the target language, the level of markedness, input and interaction, feedback, and whether or not to get tutoring or untutoring (Larseen-Freeman & Long, 1991; Larseen-Freeman, 1997; Schumann, 1978; Van Patten & Cadierno, 1993. Achievement in

Standard Language Acquisition (SLA) is influenced by factors such as age, ability, sociopsychological traits, personality, cognitive style, hemisphericity, learning methods, sex, birth order, and interests. The process of acquiring a language involves both regression and advancement. Peaks, valleys, progression, and regression are all components of the learning curve for a single item. Methods that are sensitive to feedback assist learners in matching the interlanguage grammar of users of the target language.

According to the findings of Larsen-Freeman and Lynne (2008), who came at this conclusion, the process of learning a second language can be seen as a complex system that acts in an entropic manner. This conclusion was reached as a result of their research. In accordance with the findings that were presented previously, this is in agreement with the conclusions that were reached by the researchers. According to this view, the formation of complex sentences, which may include relative clauses, is thought to have a large amount of unpredictability because of its highly hierarchical nature. This is especially true in situations where the statements are difficult to comprehend and produce. The ability of an individual to comprehend and generate complex words is said to be significantly influenced by a variety of characteristics that are related with one another, as stated by Diessel (2004) who studied the acquisition of complex sentences in children and Wiechmann (2015) who examined the production of complex sentences, specifically relative clauses, based on corpus-driven approach. One of these characteristics is the capacity to comprehend and produce words that are complex, which shows that there is a hierarchical order while learning and producing complex constructions. Furthermore, usage-based linguistic research places an emphasis on a continuum between lexical and syntactic characteristics, emphasizing the well-established connection between words, structure, context, pragmatic mode and frequency (Givon, 1979; Reali & Christiansen, 2007; Reali, 2014; Wiechmann, 2015). This research draws attention to the fact that there is a connection between words, structure and frequency. This type of research is sometimes referred to as "usage-based linguistic research." According to the usage-based theory of language acquisition, the primary assertion that this theory makes is that language structure is said to develop from language use (Tomasello, 2009). This is the principal assertion that this theory makes. It is true on the level of individual words because the communicative function of those words is derived from their use, and it is also true on the level of grammar because structure emerges from patterns of use of multi-unit utterances. This study also aimed to emphasize the importance of the frequent usage of complex sentences in classroom settings so that adult learners can reinforce the complex constructions.

It is obvious that teaching syntax or syntactic constructions alone may not suffice. Teachers need to move beyond these borders and consider other sociopragmatic factors.

Conclusion

The findings of the study highlight several significant ways in which advanced Turkish EFL students use complex expressions. It appears that students depend on familiar basic trends during studying. The use of less common forms in noun phrases, such as "who," "which," and "wh-," may be foreign to them or they may simply be uncomfortable with the idea. The fact that pupils can depend on basic structures demonstrates that "that" is frequently employed in both noun and relative phrases. It is easy to understand the significance of conditional ("if") and causal ("because") subordinators in academic writing due to their frequent usage in adverbial clauses. Adverbial clauses do not come in a wide variety; thus, pupils might want extra assistance with concessive and temporal subordinators.

Pedagogical Implications

As per Swain's *Output Hypothesis* (2005), which places an emphasis on the significance of language output for the purpose of gaining grammatical clarity, teachers have the power to encourage students to experiment with a broader diversity of sentence patterns in their writing. This is because the *Output Hypothesis* stresses the significance of language output. When students take part in task-based learning activities that require them to utilize relativizers and subordinating conjunctions that are not as frequently used, it is possible that they will have a better comprehension of these structures. It is possible that teaching students the appropriate way to employ concessive clauses like "although" and "though," in addition to more general terms like "who" and "which," could be a solution to the problem of expanding the syntactic repertoire of students.

Providing students with education that focuses an emphasis on indirect questions and less popular relativizers such as "which" and "whose" may prove to be beneficial, according to the findings of the study. Consequently, this would make it easier for students to handle complex frameworks in a more effective manner, which is a prerequisite for advanced academic writing, thereby aiding them in reaching that aim. There is a chance that additional research will be required in the future to investigate the impact that these instructional strategies have on the writing abilities of students, particularly their capability in utilizing a variety of complicated sentence structures.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed. Human participants were not experimentally involved in this study. Only written essays were examined based on the consent forms signed by the participants.

EXPLORING THE UTILISATION OF AI TOOLS FROM ELT GRADUATE STUDENTS' PERSPECTIVES

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The advent of the industrial age has compelled everybody to adapt to abrupt changes. The industrial age led to new opportunities, creativity, and further challenges in technology and many parts of life. For this reason, technology has a major role in conveying information through many channels. Moreover, with the progression of technology, responsibilities increased. Thus, technology was generated to alleviate the workload. One of the forefront technologies is AI. AI, which is undergoing intensive development, is a discipline within computer science focused on achieving human-like cognitive abilities and behaviours without human assistance. AI, arising from two words, "artificial" and "intelligence" (Ahmet, 2018), means unreal with "artificial" and quality that can potentially substitute authentic objects or processes with "intelligence". AI is expected to have capabilities aimed at simplifying human tasks, such as spanning from natural language comprehension to perception, logical reasoning, physical manipulation of objects, learning, and knowledge processing (Fitria, 2021). In the twenty-first century, AI has transformed from a primarily academic field to a constellation of mainstream technologies significantly impacting people's daily lives. Regarding education, despite educators' necessity to deliver top-notch education, AI offers the potential to enrich learning across various levels, notably

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by providing personalized experiences on a large scale (Stone et al., 2022. Furthermore, AI has created new opportunities and challenges for educators and students. With the increasing employment of AI technology in educational settings, understanding its impact on graduate students' academic experiences and perceptions is crucial for developing educational practices and enhancing learning outcomes. Because AI can personalize students' learning experiences, it equips teachers with powerful tools to monitor students' progress and give teachers the opportunity to adapt their teaching methods. Additionally, ELT graduate students may need to have some new skills they can benefit from AI, which are required for their current academic and professional lives. Despite the prevalence of AI integration into academic life, more research is still needed to investigate its current employment among ELT graduate students, especially those pursuing an MA. This gap in the literature shows a need to illuminate the perceptions of ELT graduate students, its impacts, and efficiency regarding their use of AI tools. In shedding light on these dynamics, this research aims to examine how ELT graduate students perceive this AI technology and contribute to the ongoing discourse surrounding technology-enhanced learning and its implications for language education in the digital age. In pursuit of these objectives, this study seeks to answer the following research questions:

1. How do ELT graduate students utilize AI tools in their academic work?
2. What are the perspectives of ELT graduate students regarding the utilisation of AI tools in their academic work?
3. What are the challenges when using AI in MA students' academic work?

Literature Review

Definitions of AI

The term artificial intelligence (AI) first emerged by McCarthy, built upon Turing's work. (as cited in Crompton & Burke, 2023). Since then, various theoretical understandings of AI have emerged, and it is influenced by fields such as biology, linguistics, and mathematics. As one of the current definitions with the purpose of analysing the influence of AI in the educational context, Popenici and Kerr (2017) identify AI as "computing systems that are able to engage in human-like processes such as learning, adapting, synthesizing, self-correction, and the use of data for complex processing tasks" (p. 2), highlighting its ability to perform human-like cognitive tasks.

Advancements of AI in Education

AI has become ubiquitous for individuals living in the 21st century, and it has been proclaimed that AI enables advancement in every aspect of life (Górriz et al., 2020). These technological advancements have also extended to other areas of academia, promoting enhanced effectiveness and efficiency (Chen et al., 2020). The integration, progress, and widespread use of technology, specifically AI, have facilitated educators in carrying out their responsibilities with greater effectiveness and efficiency. Particularly, Crompton and Burke (2023) discovered that the most prevalent field in which students use AI is language learning, encompassing areas such as writing, reading, and building vocabulary. One of the recent studies revealed that AI tools significantly impact students' academic writing and language development, providing an additional learning space and shaping their identity as independent learners (Ou et al., 2024). Hwang et al. (2020) state that AI promotes personalized learning support or guidance according to students' learning preferences, status, or characteristics from a learner's perspective.

Moreover, AI-powered tools can provide students with tailored feedback, adaptive learning paths, and access to vast amounts of information, potentially leading to deeper learning and improved outcomes (Zawacki-Richter et al., 2019). This means that, from an instructional perspective, AI can observe students' learning process as a tutor, analyse their learning performance, and observe the process of learning. Additionally, it supports getting rid of dull and repetitious teaching tasks (Chen et al., 2020; Hwang et al., 2020). Additionally, Ouyang et al. (2022) reported that several empirical studies have demonstrated the positive impacts of AI on online education, which includes improvements in online instruction quality and learning outcomes. This encompasses high-quality AI-enabled recommendations, predictions, and enhancements in academic performance. Furthermore, AI has been shown to boost online engagement and participation, like the positive results observed in face-to-face practices. Chan and Hu (2023) found that graduates acknowledged the possibilities for tailored learning assistance, writing aids, and enhanced research and analysis functionalities. Nevertheless, they also raised apprehensions about the precision, privacy, ethical considerations, and the influence on individual growth, professional opportunities, and social principles. The apprehensions are related to potential challenges and ethical considerations of the rapid advancements. Williamson (2019) raises concerns about data privacy and the potential biases inherent in AI algorithms, which could inadvertently reinforce existing

inequalities in educational settings. Ensuring that AI systems are transparent, fair, and secure is paramount to harnessing their full potential in education.

AI in Higher Education

It is observed that the implementation of AI tools in higher education has been explored through numerous qualitative and quantitative studies to examine the attitudes of AI users. AI applications have also drawn significant attention in higher education, influenced by the development of information and communication technologies (Alajmi et al., 2020). Due to the innovation and advancement of AI technologies, AI applications promote a transformation from instructor-directed, traditional style to AI-enabled and student-cantered learning in higher education (Chen et al., 2020; Ouyang & Jiao, 2021). In light of these advancements, it is stated that language models powered by AI have the potential to transform higher education by supporting brainstorming, providing writing assistance, enabling professional communication, and facilitating personalized learning (Atlas, 2023). In a broader context, Ouyang et al. (2022) conducted a systematic review of AI in online higher education, examining literature from 2011 to 2020. Their findings identified four main functions of AI: resource recommendation, performance prediction, automatic assessment, and enhancement of learning experiences. Neumann et al. (2023) claim that individuals utilizing those AI tools will work more efficiently in the foreseeable future due to the support provided by AI tools. To ensure equal opportunities in education, the integration of AI tools must be included in the curricula of higher education institutions. Neglecting the advancements of AI tools would impede understanding among students and hinder progress in higher education. Despite all these advancements in language education, the perception and usage of AI among students in higher education remains a relatively unexplored area that demands deeper understanding and investigation. Additionally, previous studies were primarily conducted by undergraduate students. This highlights the need for further in-depth research at the graduate level. (Crompton and Burke, 2023). Therefore, in light of recent findings from other studies, this research aims to provide a deeper understanding of the perspectives of master's students who utilize AI tools, exploring the challenges they encounter while AI tools are upgraded and developed rapidly.

Methodology

This study employed a qualitative phenomenological approach to gain an in-depth understanding of ELT graduate students' experiences and perspectives on using

AI tools in their academic work. As described by Creswell (2007), phenomenology allowed us to interpret a spiked interest in AI usage that is increasingly becoming common among students in higher education by gathering data through in-depth interviews and reflection papers from master's students to explore their perspectives regarding this topic.

Participants

This study was conducted at a public university in Turkey. The participants were ELT students who were in the process of getting their master's degrees. They were recruited through purposive sampling and were asked beforehand if they used AI in their academic work. To be included in this study, participants had to report knowledge of AI to a degree and/or have experience using AI tools at some point in their lives as a criterion. Afterward, the study secured the participation of 6 students whose ages ranged from 24 to 28. The research benefited from this spectrum in terms of diverse views from several people with different experiences.

Data Collection Tools

This study adopted two qualitative data collection tools that included reflection papers (Appendix A) and semi-structured interviews (Appendix B).

Reflection Paper

The reflection paper was given to the students to understand the relationship between Turkish ELT MA students and AI. It included three open-ended questions that correspond with the study's research questions. The purpose of these questions was to get a general idea of how students utilize AI, what they think about the utilisation of AI in academia and the challenges and limitations of using AI in their academic work.

Semi-Structured Interview

The students were invited to participate in a semi-structured interview after writing reflection papers. The purpose of this interview was to elaborate further on the topics they addressed in their papers. Each interview started with rapport-building questions and lasted approximately 30 minutes. The main questions were developed with the aim of getting answers to specific research questions the authors set out to answer. For example, questions like '*Could you provide examples of how AI tools have assisted you in starting or completing academic assignments?*' and '*Have you ever incorporated AI tools in your academic work?*

Why?' were asked to answer RQ1 and to explore how they utilize AI in their work more specifically.

Moreover, the questions '*What are your overall perceptions of integrating AI tools into your academic endeavours?'* and '*How do you generally perceive the adoption of AI technology in ELT graduate programs?'* were asked to answer RQ2, which focus on the students' perceptions towards the utilisation of AI tools in their academic work.

Furthermore, to investigate the challenges and limitations the students faced while using AI in their academic work, questions such as *Have you experienced any challenges or limitations when using AI tools for your studies? If so, could you elaborate on them?* were posed to answer RQ3.

The interviews were conducted in English; however, to make the environment more comfortable and ensure clear expression of ideas, the participants were allowed to use Turkish to some extent. The interviews were audio recorded and then transcribed, translating the Turkish parts into English. Full consent was obtained from the participants for the use of data collected via both reflection papers and audio-recorded interview sessions before conducting these interviews.

Data Analysis

By utilizing Braun & Clarke's (2016). phases, both the reflection paper and the interview answers were analysed using thematic analysis Initially, a multi-coder strategy was employed, with the four researchers independently coding and analysing the data. In this stage, initial themes related to the research questions were identified. These initial themes were derived from a manual coding process.

Following this initial coding phase, the data was then revisited digitally in the second step, allowing for a close examination of the data, getting a more in-depth exploration of the answers, and assigning more codes. This facilitated the development of a richer and more nuanced coding scheme within the identified thematic clusters.

Finally, the researchers engaged in a sequential qualitative research process where their independently generated codes and themes were compared and contrasted. This involved discussions that aimed to achieve a consensus on the more notable themes and their codes. This allowed for the refinement and optimization of the data, ensuring a more comprehensive analysis.

Results

This study explored ELT graduate students' AI utilisation, perceptions, and challenges they encountered. Three key research questions guided the inquiry. While analysing six participants' interviews and reflection papers, Braun & Clarke's (2016) phases of thematic analysis were implemented to reflect codes and themes. After analysing all of the participants' answers, several codes emerged and were separated into six themes to demonstrate participants' answers clearly. Themes, codes, and frequency of mentions drawn from the interview data were arranged in Table 1.

Table 1

The Thematic Analysis of Interviews

Themes	Codes	Frequency (f)
AI as a Support Tool in Academic Tasks	AI as an initiator	5
	AI for Information Management	3
	AI for Writing Enhancement	4
	AI as a Guidance	4
	AI as a Scaffolding Tool	5
	AI as an Error Detector	4
Perceived Benefits of AI	Time Management	4
	Stress Reliever	4
	Increased Productivity	4
	Motivation Booster	6
Concerns and Challenges of AI	Over-Reliance	4
	Decreased Engagement and Effort	2
	Decreased Creativity	2
Practical Barriers of AI Technology	Inadequacy for Adapting to the Context	4
	Misleading References	2
Ethical Considerations	Concerns About Plagiarism	5

	AI Literacy Education	2
Cultivating Responsible AI Literacy and Ethical Practices	Academic Integrity Guidelines for AI Use	3

As presented in Table 1, analysis of interviews revealed many key themes regarding the perceptions of MA students. According to the frequencies, perceived benefits of AI, particularly for motivation booster was the most frequently mentioned (f=6). Moreover, AI was perceived as a support tool frequently considering AI as an initiator and guidance (f=5). However, concerns about plagiarism (f=5) and over-reliance (f=4) were frequently mentioned as challenges.

Table 2 demonstrates the themes and codes identified in reflection papers, including the frequency of each code mentioned.

Table 2

The Thematic Analysis of Reflection Papers

Themes	Codes	Frequency (f)
AI as a Support Tool in Academic Tasks	AI as an initiator	3
	AI for Information Management	4
	AI for Writing Enhancement	2
	AI as a Guidance	2
	AI as a Scaffolding Tool	3
	AI as an Error Detector	1
Perceived Benefits of AI	Time Management	4
	Stress Reliever	1
Concerns and Challenges of AI	Over-Reliance	3
	Decreased Engagement and Effort	1
	Decreased Creativity	1
Practical Barriers of AI Technology	Inadequacy for Adapting to the Context	2
Ethical Considerations	Concerns About Plagiarism	3
Cultivating Responsible AI Literacy and Ethical Practices	Academic Integrity Guidelines for AI Use	1

Reflection papers showed that AI was used predominantly as a support tool in students' academic works. AI for information management (f=4) and AI's usage as an initiator (f=3) and as a scaffolding tool (f=3) were the most frequent uses among others. Moreover, time management (f=4) was shown as a benefit; however, concerns about plagiarism (f=3) and over-reliance (f=3) highlighted the concerns while utilizing AI tools in students' academic tasks (see Table 2 above).

The study aimed to find out the use of AI as a support tool, the benefits, concerns, and barriers perceived by the participants, and the ethical considerations involved in utilizing AI tools. To obtain these objectives, the following research questions guided the study and the findings:

RQ1: How do ELT graduate students utilize AI tools in their academic work?

Based on the participants' answers and related codes, the theme of "AI as a Support Tool in Academic Tasks" emerged while analysing both the interview data (Table1) and reflection paper data (Table 2). The most frequent uses included AI as an initiator (f=5) and AI as a scaffolding tool (f=5), indicating a reliance on AI for proofreading, structuring assignments, and creating outlines (Table1). It is drawn from the data that AI was also employed for error detection (f=4), writing enhancement (f=4), and guidance (f=4) (see Table 1 above).

RQ2: What are the perspectives of ELT graduate students regarding the utilisation of AI tools?

The perspectives of ELT graduate students while utilizing these tools have some duality. While all participants reported that AI tools have increased their motivation (f=6), this was not mentioned by any one of them in their reflection papers (see Table 1). While investigating their overall perspectives, two themes have emerged: Perceived Benefits of AI and Concerns and Challenges of AI. While perceived benefits included time management, stress reliever, and increased productivity (f=4), concerns and challenges were identified as over-reliance (f=4), decreased engagement and effort, and decreased creativity (f=2) (see Table 1).

RQ3: What are the challenges when using AI in MA students' academic work?

While some challenges were identified in the Concerns and Challenges of AI theme previously, analysis of interview data related to the third research question

uncovered new insights into the difficulties encountered by graduate ELT students and revealed further complexities in the utilisation of AI tools in their academic work. Participants reported challenges with AI's inadequacy in adapting to the context (f=4) and misleading references (f=2) (Table 1). In addition, ethical considerations, especially plagiarism (f=5), emerged as a major concern. While some participants verbally suggested the need for AI literacy education (f=2) and clear guidelines for ethical AI use (f=3), these themes were less noticeable in written reflections (Table 2).

Six themes that were organized through reflection papers were utilized while analysing reflection papers. Time management when it comes to perceived benefits of AI was most frequently mentioned (f=4). Moreover, when the participants reflected on their experiences with AI as a support tool in their academic tasks, they pointed out that AI for information management was mostly mentioned (f=4) (Table 2). Concerns about plagiarism remained a remarkable ethical consideration and the second most frequent one, as seen in Table 1.

Discussion

Considering the findings extracted from the participants' statements, it was inferred that the participants' inclination towards using the AI tools for the academic words was evidently mostly positive as they expressed that they could organize their ideas more easily using the AI tools, improve the quality of their work, use AI as a scaffolding tool, guidance, and to detect their errors and enhance their writings. When AI is considered a scaffolding tool and a guide in our study, these findings overlap with Zawacki-Richter et al.'s (2019) findings of AI as a tutor. Furthermore, Ou et al. (2024) revealed that AI tools impact students' academic writing and language development and provide additional space for language learning. Our study supports recent findings related to AI's contributions to students' writing tasks, as it acts as an error detector and corrects their mistakes to improve their language skills. According to Chen et al. (2020), AI helps students get rid of dull and repetitious teaching tasks and contributes to saving time. The results of our study are in line with Chen et al.'s (2020) findings as they showed that AI enables students to manage their time effectively and much better than they do without the assistance of AI in their academic work. However, our study also revealed that while AI offers numerous benefits, its unlimited scope and easy accessibility raise concerns about potential over-reliance and reduced engagement.

Implications

The findings of this research highlight the critical need to incorporate AI literacy into ELT graduate programs, along with addressing pedagogical strategies, ethical guidelines, and student skill development. Despite the participants relying on AI tasks like error detection and scaffolding (with the majority of participants using AI tools for these purposes), they express their anxiety about plagiarism and ethical misuse. To address this gap stated here, ELT programs should prioritize AI literacy education by incorporating modules or workshops. This prioritization should include ethical considerations of AI usage, strategies for critically evaluating AI-generated content, and clear guidelines for appropriate AI integration into academic work. Moreover, our findings revealed that ELT graduate students are eager to utilize AI tools. This tension emphasizes the need for clear and comprehensive guidelines on AI use in ELT programs and individual courses. These guidelines should include how to properly cite AI-generated content to avoid plagiarism, which AI tools are permissible for academic work, and expectations for original thought and student contributions. The guidelines must be accessible to the students anytime they need and updated regularly to catch up with the rapid changes. Finally, although the findings show the perceived benefits of AI, such as AI as an initiator, motivation booster, and time management, concerns about over-reliance were frequently mentioned. In this regard, educators must be mindful of this concern and encourage critical thinking and independent research skills.

Limitations

The research was conducted in an online format because of the inconvenient timing of the data collection process, and the challenge of conducting face-to-face interviews with participants residing in different locations. Moreover, the study was carried out solely with students studying at the same university as MA students, which is why the research may be untransferable and lack credibility for all ELT graduate students when applying insights to other settings.

Conclusion

This study attempted to find how ELT graduate students perceived and utilized AI technology in their academic work and how AI contributed to the ongoing discourse surrounding technology-enhanced learning and its implications for language education in the digital age. Moreover, the study treated crucial challenges while utilizing AI tools for MA students. The results demonstrated that most of the participants agreed upon the positive effects of AI in their academic

work in various aspects. However, many participants stated drawbacks along with its positive effects because of AI's accessibility to use it. According to two data collection tools, ethical considerations on plagiarism were the most evident concern among the students. In addition, this study presented considerable implications for ELT graduate programs, educators to use AI technology appropriately and effectively in education, and to guide the students so they do not get lost within the vast amount of information and technology.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed. The ethical consent for authorization and copyright were received with consent forms.

Ethical Considerations

This study adhered to ethical guidelines by obtaining informed consent from the participants before the data collection process to ensure they understood the aims of the research and participated willingly. Participants' privacy was protected during the data collection process by implementing confidentiality and anonymization measures while conducting the study. The authors refrained from using the names of the participants. Instead, the participants were referred to by numbers such as "P1" (Participant 1). Investigator triangulation, which means the data is coded and analysed by different researchers, was employed to ensure that any possible bias is reduced, and the trustworthiness and credibility of the findings are enhanced. Furthermore, all data collected is securely stored and used only for this research.

Proportion of Authors' Contribution

Author 1: Abstract, Introduction, Literature review, Results, Discussion, Conclusion

Author 2: Abstract, Introduction, Literature review

Author 3: Results, Discussion, Conclusion

Author 4: Methodology

Appendices

Appendix A

Reflection Paper

1. Please reflect on your own views and experiences using AI tools in your academic studies.

Appendix B

Interview Questions

1. How do you generally perceive the adoption of AI technology for academic assignments in ELT graduate programs?
2. Have you ever incorporated AI tools in your academic work? Why?
3. Could you provide examples of how AI tools have assisted you in starting and completing academic assignments?
4. What do you think about the effects of AI tools on your motivation?
5. How does the utilisation of AI tools affect your engagement?
6. Do you feel AI tools have impacted your efficiency in completing academic tasks? Why?
7. Do you feel AI tools have impacted your productivity in completing academic tasks? Why?
8. What are the challenges you have experienced when using AI tools for your studies?
9. What improvement could be conducted in AI tools to support ELT graduate students?

AN INVESTIGATION OF IN-SERVICE EFL TEACHERS' PERCEPTION OF AI AND EXPERIENCES WITH ITS INTEGRATION IN ELT: A PHENOMENOLOGICAL APPROACH

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The term artificial intelligence (AI) may be described as "the study of the computations that make it possible to perceive, reason, and act" (Winston, 1992). Cantos et al. (2023) stated that AI has the ability to improve approaches for teaching, personalization in learning, and ease administrative work. In the words of Yau et al. (2023), artificial intelligence is an "emerging necessity" for K-12, and it has been mentioned that the integration of AI in educational environments may help teachers lessen their workload, explore the abilities of their students, make personalized learning more possible, and encourage innovation in educational activities (Bajaj & Sharma, 2018; Liang & Chen, 2021). The Office of Educational Technology (2023) provided some recommendations, including that AI models should be aligned to a shared vision for education and educators should be informed and involved in the process. Still, there might be some concerns about AI and its usage, reflected by the students, pre-service teachers, in-service teachers, and policymakers. For instance, according to Kushmar et al. (2022), there are some fears, including students that they have concerns about losing the natural atmosphere with the language users and their actual feelings. On the other hand, Göçen and Aydemir (2020) have also indicated that despite the general positive attitude towards the use of AI in classes, teachers and academicians have some significant concerns about how AI will affect the future of teaching. Therefore, in this particular context, the main focus of this study is to

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gain a deeper understanding of in-service EFL teachers' lived experiences with AI and its utilisation in English Language Teaching (ELT). The next section discusses the use of AI in the field by providing samples from the relevant literature.

Literature Review

In recent years, many studies about the use and role of AI have been conducted by researchers in the field in different contexts, and some of these studies conducted with pre-service teachers (Pokrivcakova, 2023; Temiz et al., 2024; Yetkin & Özer-Altınkaya, 2024) showed similar findings regarding the use of AI in educational environments. For example, while Yetkin and Özer-Altınkaya (2024) found that the participants held both positive and negative attitudes toward AI integration into education in the focus group that they conducted with the participants, Temiz et al. (2024) found that pre-service teachers emphasized their willingness to benefit from the advantages that AI offers in teaching English. Also, according to the study (Pokrivcakova, 2023) carried out to determine Slovak pre-service EFL teachers' knowledge level and attitudes toward AI in ELT, EFL pre-service teachers were almost equally interested and uninterested in using AI in the classroom, meaning that they were neutral about using it.

Additionally, several studies also examined in-service teachers' perspectives toward using AI in ELT. For instance, in a study conducted by Yau et al. (2023), 28 in-service teachers were interviewed after the implementation of an AI curriculum, and six categories of teacher conceptions on AI were identified as technology bridging, knowledge delivery, interest stimulation, ethics establishment, capability cultivation, and intellectual development. Lee and Song (2024) supported the findings of this study by indicating that teachers have positive perceptions of the use of AI, but they still have concerns about it. Additionally, Moura and Carvalho (2024) concluded a case study strengthened with a mixed method data analysis and found that 90% of the participants surprisingly highlighted their desire for specialized AI training and mentioned the reasons behind this desire to acquire a deeper knowledge of AI, to develop new strategies and assessment tools for their classes, to enhance their teaching, to understand how to use AI effectively in class, and to avoid their fears and concerns. Similarly, Bezjak (2024) conducted research on Slovenian post-secondary teachers' perceptions of AI by focusing on the benefits and concerns and stated that there is a "cautious optimism" related to this practice because teachers highlighted that they believe AI can assist them in their work, but still, they had some concerns on the ethics and privacy. In addition, Soledispa et al.

(2023) concluded their study based on the perspectives of ELT teachers in high-education level courses by finding that teachers need help with understanding the potential benefits of integrating AI into their teaching practices. Even though they are not very familiar with the use of AI, the participants remained optimistic because AI provides personalized feedback to the learners, but they also mentioned some concerns about ethical issues. In that sense, Fitria (2021) states that "*AI can do things that cannot be achieved by individuals*." such as constant personalized feedback or being accessible every moment. Similarly, An et al. (2023) found that EFL teachers have a good level of behavioural intention to integrate AI into their practices.

In light of previous research on this phenomenon, this study has addressed two main research questions:

1) What are in-service EFL teachers' conceptions of artificial intelligence in ELT based on their lived experiences?

2) What emotions do in-service EFL teachers associate with the integration of AI in ELT based on their lived experiences?

In line with the research questions above, the next method section introduces and explains the methodological approach to the design of this study as well as providing information about the participants, data collection tool, and analysis of the data.

Method

This study seeks to understand the lived experiences of in-service teachers with using AI in language teaching. Therefore, as its methodological approach to the design of the study, interpretive phenomenological analysis (IPA) (Eatough & Smith, 2007) has been adopted. IPA is concerned with what experiences mean to individuals, and it explores the importance they attach to these experiences (Smith et al., 2009). In that sense, a symbolic interactionist account is embraced in IPA regarding that meanings, attributes, and interpretations are explored as subjective experiences (Stryker, 2008) to reach a common understanding of what commonalities and differences these experiences create about the phenomenon under investigation for different individuals.

Study Group

The study included fifteen in-service ELT teachers from fourteen different private schools in Türkiye. The participants teach at various levels, primarily K-12. They also work at other private language courses teaching university students or adults.

Their ages range from 20 to 40. Table 1 below showcases the information about the participants. As the table indicates, they have different years of teaching experience teaching at various levels. They all work for private schools or institutions. However, they all have used AI for their teaching practices. In that sense, purposive sampling was carried out to collect detailed accounts of using AI in ELT through the individuals who have experienced this in their day-to-day practices. Therefore, the participant selection criteria were having used AI in teaching a couple of times or more within the last year before the research. The participants were assigned numbers from 1 to 15 to keep them anonymous.

Table 1

Participant Background

Participant	Undergraduate Department	Graduate Degree	Current Teaching Level	Teaching Experience
P1	English Language Teaching	-	K-12, University Students	2 years
P2	English Language & Literature	-	K-12	5 years
P3	English Language Teaching	-	K-12	2 years
P4	English Language & Literature	Yes	K-12, Adults	10 years
P5	English Language & Literature	-	K-12, University Students	6 years
P6	English Language Teaching	-	K-12, University Students, Adults	2 years
P7	English Language & Literature	-	K-12	4 years
P8	English Language & Literature	-	K-12	8 years
P9	English Language Teaching	-	K-12	2 years
P10	English Language Teaching	Yes	K-12, University Students, Adults	4 years
P11	German Language & Literature	-	K-12	6 years
P12	English Language Teaching	-	K-12	4 years
P13	English Language Teaching	-	K-12	2,5 years
P14	English Language Teaching	-	K-12	2 years
P15	English Language Teaching	Yes	K-12	10 years

Data Collection Tool

Individual semi-structured interviews were carried out in the 2023-2024 spring term, including the summer. The duration of the interviews ranged from 15 to 20 minutes. In total, 240-minute (four-hour) interviews were held with the participants at different times based on their availability. The interview questions were developed by the authors and then piloted with five EFL teachers from the field. The study comprised fifteen interview questions (*See Appendix*), and they focused on the participants' lived experiences with and opinions on using AI in English language teaching as well as their background information.

Data Analysis

Data collected through interviews were analysed by the authors by implementing thematic content analysis (TCA) (Boyatzis, 1998), and they were analysed through the *MAXQDA* data analysis program. In any qualitative research, TCA focuses on the analysis of recurring codes and patterns that are assigned as "essence-capturing" (Saldaña, 2016, p.4) in the data. Therefore, the transcribed and organized interviews were uploaded on *MAXQDA*, and then all the data were read and re-read by the authors to find the codes and patterns to categorize the data to reach overarching themes in this phenomenological study.

Results

Regarding RQ1, the analysis of teachers' reflections on their lived experiences showed that their conceptions of using AI revealed four major categories: a) knowledge of AI, b) drives for AI, c) fears of AI, and d) future expectations from AI in the field. Regarding their knowledge of using AI, Table 2 shows that the participants addressed themselves as novice (*f*=8) and developing (*f*=7) users of AI in ELT.

Table 2

Participants' Knowledge-Related Conceptions of AI

Theme	Category	Code	Frequency (f)
Teachers' conceptions of AI regarding their knowledge in ELT	Knowledge of AI	Novice	8
		Developing	7

In the following quotations, P7 states their involvement in using AI in the field is new, meaning that they are novices in that aspect while P13 emphasizes their

engagement with AI in day-to-day practice is developing since they have been actively using it in their teaching practice.

> *"I'm new to using AI while teaching, but I have used it in a few of my lessons before and I am trying to improve it."* (P7)

> *"I think I am a developing one because I am trying to learn various sites and applications assisted with AI day by day. I have been using AI for a year."* (P13)

As for the second major category emerging from the study, it was found that the participants had some drives for integrating AI into their teaching practices. As table 3 below indicates, these drives stemmed from a) material development (*f*=13), b) time management (*f*=13), c) lesson planning (*f*=9), d) testing and evaluation (*f*=7), e) gamification (*f*=6), f) differentiating instruction (*f*=5).

Table 3

Participants' Drives for Using AI

Theme	Category	Code	Frequency (f)
Teachers' conceptions of AI regarding their drives in ELT	Drives for integrating AI	Material Development	13
		Time Management	13
		Lesson Planning	9
		Testing & Evaluation	7
		Gamification	6
		Differentiating Instruction	5

The findings related to the drives of the participants to use AI in teaching showcased that the participants mostly use it to find or develop instructional materials in teaching English and to save time while being engaged in that process. In that sense, P11 below emphasizes the use of AI tools, especially for creating language resources, while P6 highlights getting help from AI in preparing and using materials to teach English due to the need for saving time in doing so.

> *"I create reading passages a lot. It is (ChatGPT) the platform that I use most and I am more comfortable in that regard. I use it for preparing materials."* (P11)

> *"Well, it's mostly time management that motivates me because, as a teacher, I do not always have much time for finding or creating new*

activities and new ideas, so what motivates me is lack of enough time, lack of proper time to use my creative side without getting burned out." (P6)

Another major drive for using AI in ELT was found for lesson planning. The participants mostly referred to AI, stating that it helps them plan effective lessons by just setting the details about the target group and topic and having fast and easy ready-made lesson plans.

"It could be about lesson planning. You know, as I said before, you just enter the details. It creates a lesson you want to plan." (P4)

In terms of testing and evaluation, it was also found that AI helps the participants create exam materials that focus on different language skills, especially reading. In that sense, P5 emphasized using AI to prepare reading texts and questions to assess their students' language proficiency.

"Especially when I create story formats for my exams, or for a dialogue I throw in. More precisely, it helps me when I prepare a reading text and questions for an exam to assess my students." (P5)

Additionally, the analysis of the data revealed that the participants' drives for using AI in teaching come from gamifying and differentiating instruction in the classroom. More specifically, as shown in the quotations below, while AI helps the participants turn the lesson into a game so that it helps the students stay focused and enjoy the lesson, it can also be used for differentiating the instruction by using it tailored towards meeting students' individual learning needs.

"It's also possible for it to turn into gamification, you know. It's so popular these days. It helps students focus on the topic while they enjoy it like playing a game." (P4)

"Thanks to AI, we can design more creative materials and they can meet our students' needs more adequately. AI is very useful when we want to focus on our students' specific needs. It makes the learning process more individual and helps students develop their learning autonomy as we can design personal activities and they can get feedback about their work easily." (P13)

Apart from the drives, the participants' lived experiences with AI in language teaching resulted in some fears in using it. As shown in table 4, these fears stem from a) untrustworthy instructional content (f=6), b) lack of training and institutional support (f=6), c) ethical concerns (f=3), d) instructional habits (f=2), e) lack of authentic interaction (f=2), and f) less use of creativity (f=2).

Table 4

Participants' Fears of Using AI

Theme	Category	Code	Frequency (f)
Teachers' conceptions of AI regarding their fears in ELT	Fears of integrating AI	Untrustworthy Instructional Content	6
		Lack of Training and Institutional Support	6
		Ethical Concerns	3
		Instructional Habits	2
		Lack of Authentic Interaction	2
		Less Use of Creativity	2

First of all, in terms of the content that AI produces, the participants find it untrustworthy and they have some concerns regarding the ethics. In that sense, P3 below emphasizes the possibility of inappropriateness of the content in materials that AI produces regarding several learner characteristics such as the age and proficiency level while P9 focuses on the possibility of violation of ethical principles both by teachers and students.

> *"Maybe the content, yes, because the content might not always be suitable for the age group. Though you can filter it, you cannot always trust it. You cannot use the material AI produces directly, but you need to modify it all the time." (P3)*

> *"There is almost no regulation concerning the use of AI in the field. It's very murky waters right now, and the fact that it's so murky is what concerns me. I will never be able to understand fully if a teacher or a student has used AI in a given project or assignment." (P9)*

Moreover, the participants shared their concerns in relation to actively using AI in language classrooms due to their professional development needs and lack of institutional support in this vein. In that sense, the following quotation exemplifies how a lack of training and support may cause fears in integrating AI into teaching.

> *"There is this training issue as well. I may sometimes not fully understand how to use AI tools effectively, so this can make it harder to implement the applications in the classroom. Also, schools sometimes have limited*

resources and technology for using such tools. AI tools can be very expensive.” (P1)

Another concern that the participants indicated as a fear of integrating AI in ELT based on their experiences was seeing it as a threat to instructional habits not only for students but also for teachers. In the following quotation, participant 13 explains that the fear of using AI can be drawn from seeing it as a threat to instructional habits. In that sense, both the teaching and learning habits of some students and teachers are addressed as sources of barriers to the integration of AI in the language classroom.

“Both teachers and students might have some habits that they do not want to change. Mostly, adult students are so strict with their learning patterns that they do not want to leave their course books aside and try something new. For teachers, again, sometimes they stick to some instructional habits.” (P13)

Additionally, another fear that prevents the participants from using AI was addressed as the lack of authentic interaction because of overreliance on AI-language. In that sense, it was argued that high exposure to AI-language and interaction might result in students’ decentering real communicative interactions with real individuals.

“It does not produce natural language and word choice is very limited. If learners are exposed to texts produced by AI, they may use AI-like language that is very robotic and not natural. They may lose the real communication between their friends and me.” (P10)

Finally, two of the participants reported that they had a fear of using their creativity less while preparing the instructional content due to overreliance on having ready-made materials designed and created by AI. In that sense, P6 below states that this would make them lazy in time.

“I must say, lack of creativity because I fear that if I use it too much, I will get lazy and I will lose my creativity in time.” (P6)

Regarding the last category derived from the data, it was found that the participants’ conceptions of AI and its integration into ELT brought about some positive and negative future expectations, as shown in the table below. Specifically, the participants had positive expectations from AI in terms of its a) support for effective teaching (f=13) and its contribution to b) material development (f=2), while their negative expectations stemmed from the fear of a) replacement of teachers (f=5) and b) pressure for skill development (f=4).

Table 5

Participants' Expectations from Using AI

Theme	Category	Code	Frequency (f)
Teachers' conceptions of AI regarding their expectations in ELT	Positive Expectations from integrating AI	Support for Effective Teaching	13
		Material Development	2
	Negative Expectations from integrating AI	Replacement of Teachers	5
		Pressure for Skill Development	4

First of all, as the table showcases, the participants' positive conceptions of AI are more than their negative expectations. In that sense, the participants perceive the use of AI in language teaching positively and see it as a future support for effective teaching. In that sense, P1 addressed it as a helpful tool to make the instruction effective for students.

> *"I think overall AI will be a helpful tool for me, allowing me to focus on more meaningful, beneficial aspects of teaching while making learning more personalized, student-centered and effective for students." (P1)*

Additionally, the participants see AI as an opportunity to produce error-free language materials and expect that AI will help teachers and students find and study language materials that are accurate having no language or content errors.

> *"So, for example, when you search on the internet, there are many things related to language learning. People create and write them themselves. If it can be developed better, AI can produce those materials better without errors. Well, on those sites, for example, we may be exposed to a lot of errors because they are man-made. But frankly, if AI can eliminate this and neutralize these errors more, it can help us reach more accurate sources." (P11)*

However, they also reported having some concerns regarding the future use of AI in ELT based on the conception that AI will replace teachers in the future. To exemplify, P8 below stated that since AI is gaining popularity in the field, it takes on some roles of a teacher as it interacts with students and provides feedback on student output. In that sense, this is embraced as a risk by the participants.

> *"You know, there are some tools like the virtual English teacher. You speak with them and you get answers and feedback. It's nearly like a real*

teacher, so, I don't know, but there is a risk that they will replace us in the future." (P8)

In addition to the risk of replacing teachers, the participants have negative future expectations addressing AI as a pressure for skill development. In this vein, AI was addressed as a future area or skill for teachers that they will have to professionally develop themselves.

"It's kind of scary because already a lot of people are just claiming they can just learn English through apps like Duolingo or Boost even though they don't know that they cannot actually. I think it's just going to create a bigger market because the more AI is here, the more teachers will have to learn it and improve themselves. It will be a necessity." (P6)

Regarding RQ2, the investigation of feelings that the participants attach to the use of AI in the field revealed three major categories: a) neutral (f=8), b) positive (f=3), and c) negative (f=3). As Table 6 indicates, the participants mostly feel neutral to the idea of using AI in language teaching while they embrace some positive and negative feelings equally toward the phenomenon.

Table 6

Participants' Emotions toward AI

Theme	Category	Code	Frequency (f)
Teachers' conceptions of AI regarding the emotions they attach to it in ELT	Neutral	Indifferent	8
	Positive	Trust	1
		Hopeful	1
		Happy	1
	Negative	Fear	2
		Sceptical	1

In that sense, the quotation from P6 below exemplifies and indicates that the use of AI and its incorporation into the field will be inevitable in the future, and it is perceived and conceptualized as a common tool to be used in foreign language education.

"I'm neither fond of nor afraid of it. I think I am more neutral at this point because I know that it's inevitable that it's going to be everywhere. So, I'm just trying to find a good way to use it as a tool, like I'm trying to find a way that will not affect people negatively." (P6)

To this end, the analysis of the research questions revealed that the participants had some conceptions stemming from their knowledge, drives, fears, and expectations from the use of AI in language teaching, as well as varying emotions that they attached to the phenomenon. Therefore, the next section discusses the findings in relation to the relevant literature and provides some implications and conclusions to be considered in the field.

Discussion & Conclusion

The findings of this research have shown that teachers articulated their drives for the integration of AI in education and their teaching practices primarily related to time management and material development issues. These major findings were also found to be congruent with Temiz et al. (2024). The other mentioned drives were additionally found similar in the previous research by Eldin (2024), which mentioned that AI is a tool that provides high-quality educational resources. Those insights suggest that AI tools are seen as valuable resources by in-service teachers to enhance their teaching efficiency. Furthermore, the responses given by the teachers indicate that they see AI as a tool that can facilitate personalized learning experiences. The fact that AI can provide personalized teaching was also found by the research of Soledispa et al. (2023), indicating the role of AI in that matter. In this vein, it can be said that AI can alleviate and promote individualization in the learning pathways of students.

However, there are some fears about the integration of AI into educational activities, primarily because there is a lack of training about this new technology (Moorhouse & Kohnke, 2024). Therefore, an interest in teacher preparation (Tang, 2024) is needed to boost the confidence and competence of teachers in teaching with AI. From this perspective, the findings underscore the need and necessity as well as the importance of providing in-service training and support for teachers to navigate their emotions and attitudes toward the utilisation of AI in their teaching activities. Enhancing their proficiency with AI tools might help manage those fears. A collaborative environment should be fostered so that teachers would have an opportunity to share their experiences and strategies with their colleagues. From this aspect, educational institutions can help mitigate fears and build trust in the integration of AI into educational settings (Spivakovsky et al., 2023). In this way, teaching effectiveness and student engagement in AI can be improved.

In conclusion, the findings of this study and relevant research argue that there is a need for supporting in-service teachers in their engagement with AI to better

incorporate it into their teaching, as well as considering their fears stemming from this integration in the field.

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Appendix

The study involved fifteen questions that delved into the participants' experiences with AI in language teaching. Sample questions are as follows:

1. What is your educational background? (graduation of university, department)

2. Have you obtained any graduate degrees? (If yes, which degree(s), which university & department?)

3. How long have you been teaching English?

4. At what educational levels have you taught English? (Primary, secondary, high school, university, etc.)

5. What kind of a school are you currently working for: private or state?

6. In your opinion, what is AI? How do you define it?

7. How experienced do you think you are at using AI in your profession? Can you explain?

8. What AI applications have you encountered / used in your profession so far? Do you have a favourite one? Why?

9. In what areas do you use AI in your teaching?

10. What was the last AI-integrated activity or task that you implemented in your teaching? How was it? Please explain.

11. What factors motivate you to integrate AI tools into your teaching?

12. What factors prevent you from integrating AI into your teaching?

13. What feelings do you associate with AI when you hear this term? Please explain.

14. What do you think about the future relationship between AI and language teaching?

15. How do you think the future of AI will affect you as a teacher?

Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

Proportion of Authors' Contribution

The contribution of the authors is as follows:

Author 1: Conceptualization, Methodology, Formal Analysis, Writing (both original and last drafts), Review & Editing.

Author 2: Conceptualization, Data Collection, Writing (both original and last drafts), Review & Editing.

MASTERING TURKISH LINKING ADVERBIALS: CHALLENGES AND PATTERNS AMONG DIVERSE LEARNERS

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In the field of second language acquisition (SLA), the relationship between a learner's first language (L1) and their target language (L2) has long been recognized as a critical area of study. One of the most influential aspects of this relationship is language transfer, which refers to the process by which learners apply knowledge and structures from their L1 to their L2. This transfer can have both positive and negative effects, shaping the way learners acquire new linguistic structures and use them in communication. This interplay between positive and negative transfer highlights the nuanced ways in which learners navigate their linguistic repertoire, often blending familiar patterns from their L1 with the novel structures of their L2. The influence of L1 on L2 learning is particularly evident when it comes to more complex aspects of language, such as grammar, vocabulary, and discourse markers. Among these, discourse markers are especially challenging due to their role in organizing ideas and signalling relationships between clauses or sentences, a feature that varies widely across languages. In this context, linking adverbials are essential in creating coherence and cohesion in written discourse.

Linking adverbials, such as "however," "therefore," "furthermore," and "meanwhile," are often used in academic writing to connect ideas, introduce contrast, provide additional information, or show cause and effect. These adverbials guide readers through the logical flow of a text, helping them follow the argument or narrative more easily. They allow writers to structure their thoughts in a clear and organized manner, which is especially important in formal

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and academic contexts where clarity of argumentation is paramount. Without these tools, even the most well-reasoned arguments can appear fragmented, highlighting the essential role linking adverbials play in achieving textual cohesion. Moreover, these markers serve as a bridge between individual ideas, reflecting the writer's ability to navigate cultural and linguistic nuances in the target language. Proficiency in their usage often signifies advanced language mastery, especially in contexts where precise communication is eminent. In academic writing, the correct and effective use of linking adverbials contributes not only to the fluency of the text but also to the strength of the writer's argument, making it essential for learners to master these tools. Despite their significance, learners frequently encounter challenges stemming from both the structural complexity of linking adverbials and the contextual demands of their usage. These challenges are aggravated when learners are unfamiliar with the functional range of such markers in their native language, further complicating their acquisition in an L2 context.

For foreign university students in Turkey learning Turkish at the B1 level, acquiring proficiency in the use of linking adverbials is a critical step toward becoming competent and confident writers. These students are often faced with the challenge of learning how to use these adverbials correctly, as they may not always have direct equivalents in their L1. In fact, the structures and functions of linking adverbials in Turkish may differ significantly from those in their native languages. As such, learners must not only acquire the lexical meaning of these adverbials but also understand their syntactic placement, the relationships they express between different parts of a sentence or paragraph, and the discourse functions they fulfil in different writing contexts. This multifaceted process often requires learners to unlearn ingrained habits from their L1 while simultaneously mastering the new conventions of Turkish, making it a cognitively demanding task.

The process of acquiring these linguistic tools is influenced by the syntactic and discourse structures of a learner's native language. Language transfer can lead to errors when the learner overextends or incorrectly applies L1 rules to their L2. For instance, a Turkish student whose L1 is English might mistakenly transfer English sentence structures or the usage of linking adverbials in ways that are not grammatically appropriate in Turkish. Conversely, positive transfer can occur when similarities between L1 and L2 structures facilitate the learning process, helping learners use linking adverbials more naturally in their writing. Such facilitative transfer underscores the importance of identifying structural overlaps between languages, as these can serve as strategic leverage points in language

instruction. Therefore, understanding the interplay between L1 transfer and L2 acquisition is vital in helping educators design more effective teaching strategies that address the specific challenges faced by learners when mastering linking adverbials in their target language.

The significance of mastering linking adverbials goes beyond academic writing and has broader implications for language proficiency. Proficiency in linking adverbials not only enhances written communication but also contributes to learners' confidence in spoken discourse. These markers are equally vital in structuring oral narratives and arguments, making their mastery crucial for both written and oral forms of communication. In the context of academic discourse, the appropriate use of linking adverbials reflects the learner's ability to engage with and contribute to scholarly conversations, providing a clear and coherent argumentation structure. A well-developed command of these tools allows learners to produce more coherent and cohesive texts, facilitating clearer communication and more effective expression of ideas. Furthermore, proficiency in linking adverbials serves as a bridge between linguistic competence and communicative effectiveness, enabling learners to present their ideas with greater precision and persuasiveness. As such, research into the role of language transfer in the acquisition of linking adverbials is a valuable area of study, offering insights into both the cognitive processes involved in SLA and the pedagogical strategies that can best support learners as they develop their language skills.

In addition to these academic contexts, mastering linking adverbials also plays an important role in social and professional communication. For non-native speakers of Turkish, particularly university students, being able to use these markers appropriately can enhance their ability to participate in discussions, deliver presentations, and engage with a wider audience in a professional setting. Therefore, developing proficiency in linking adverbials is not only critical for academic success but also for broader communicative competence in the Turkish language. Research on language transfer in this area can contribute to developing tailored instructional approaches that address the specific needs of learners, providing them with the tools to successfully navigate both academic and real-world communication.

By focusing on the challenges learners face when acquiring linking adverbials, especially those stemming from L1 transfer, this research aims to provide valuable insights into the mechanisms of SLA. Furthermore, understanding these processes can lead to more effective teaching practices, helping educators support their students in mastering complex aspects of language use. This research underscores the importance of studying language transfer in SLA, particularly in relation to

discourse markers like linking adverbials, which are essential for producing coherent, structured, and effective communication in any language.

Literature Review

Background and Significance of Language Transfer in SLA

The concept of language transfer has been central to understanding second language acquisition (SLA) since it highlights how learners' native language (L1) influences the process of acquiring a second language (L2). This transfer manifests in both positive and negative forms: while structural similarities between L1 and L2 can facilitate acquisition, marked differences may lead to interference and errors (Appel & Szeib, 2018). This dual influence is especially evident in the use of linking adverbials, which are integral in creating coherent and cohesive text structures, particularly in academic writing (Ahmad, 2020). Linking adverbials—such as "therefore," "furthermore," and "however"— function as cohesive devices to clarify the logical relationships between ideas in texts, a skill that poses challenges for learners whose L1 lacks comparable discourse markers or syntactic structures. In addition, mastering these adverbials requires learners to not only recognize their semantic roles but also understand the subtleties of their placement and frequency within the discourse, which can vary significantly across languages.

For instance, research suggests that English and other languages with rich conjunctive systems, like French, equip learners with a framework that may facilitate the use of linking adverbials in L2 writing. In contrast, languages that rely less on explicit connectors may lead to difficulties in adopting these adverbials in L2 (Abumelha & Alyousef, 2019). Ahmad (2020) found that Malaysian students, in particular, struggle with linking adverbials in argumentative essays, often due to the divergent structural norms in Malay compared to English. These findings underscore the importance of identifying specific areas where language transfer may either support or hinder L2 proficiency.

The Role of L1 Structure in L2 Acquisition of Linking Adverbials

The syntactic and discourse conventions in a learner's L1 significantly influence their ability to acquire linking adverbials in an L2. For example, learners from languages that share similar syntactic structures with Turkish, such as Kazakh, may have an easier time transferring relevant skills. An and Xu (2018) conducted

a study on Chinese ESL postgraduates, observing how the relatively similar discourse structures of Chinese aided in their comprehension of English linking adverbials. In contrast, Arabic speakers who come from a language background with paratactic structures—favouring extensive use of coordinating conjunctions over subordination—encounter challenges when using linking adverbials in languages like Turkish that emphasize a hypotactic structure (Omer & Albajalani, 2023). This distinction is particularly important for Arabic speakers learning Turkish, as they must adapt to different coherence structures in the target language (Wang, 2022).

Research on this topic indicates that language learners often overgeneralize the patterns of their native language, resulting in inappropriate uses of linking adverbials in L2 (Appel, 2020). This overgeneralization is particularly evident in contexts where learners encounter linguistic structures in the L2 that seem superficially similar to their L1 but operate under different syntactic or pragmatic rules. For instance, Arabic-speaking learners of Turkish might overuse simple connectors or employ them in ways that do not align with the Turkish discourse patterns, which rely more on subordinating adverbials to structure complex ideas.

Cross-Linguistic Comparisons in Linking Adverbials Use

Cross-linguistic studies shed light on how different L1 backgrounds shape the frequency and accuracy of linking adverbials in L2 writing. For example, a comparative study by Abumelha and Alyousef (2019) examined how native English speakers and Arab scholars employed linking adverbials in academic writing. Their research found that native English writers used a more diverse range of linking adverbials than their Arab counterparts, who often relied on a limited set. This limitation likely stems from the structural conventions of Arabic, which places less emphasis on subordinate conjunctions.

Additionally, a corpus-assisted study by Wang (2022) on Korean EFL learners highlighted that advanced learners could use linking adverbials more effectively, yet they still faced challenges in selecting the appropriate connectors in complex academic contexts. This indicates that even with higher proficiency levels, language transfer impacts learners' choice and usage of linking adverbials, underscoring the need for tailored instructional approaches. Moreover, the frequency of linking adverbials in learner texts can reflect deeper cultural and rhetorical differences. For instance, cultures emphasizing directness and clarity may encourage frequent use of explicit markers, while others that value implicit communication might result in less reliance on such devices. It is also important to note that while the frequency of use is significant, it is the correct application

of these adverbials in various discourse contexts that defines linguistic proficiency. Therefore, teachers should emphasize both the form and function of linking adverbials in practice exercises. Consequently, addressing these transfer-related challenges requires a dual focus on linguistic form and discourse function, ensuring learners develop both grammatical accuracy and contextual appropriateness.

Implications for Instructional Practice

The varied challenges faced by learners from diverse linguistic backgrounds point to the necessity of targeted instruction that accounts for L1 influence. As Ahmad (2020) and Appel (2020) suggest, explicit teaching of linking adverbials, with attention to their functional differences across languages, can significantly aid learners. By recognizing the influence of native discourse patterns, educators can develop methods that address the specific needs of each learner group, fostering a more nuanced understanding of linking adverbials and reducing reliance on L1 structures that may lead to errors.

In sum, the interplay between L1 and L2 plays a crucial role in the acquisition of linking adverbials, a key aspect of academic writing. With further research on the cross-linguistic differences and targeted instructional strategies, SLA practitioners can better support learners in mastering these cohesive devices, enhancing their overall language proficiency. This literature highlights the ongoing need for comparative studies to explore how various linguistic backgrounds affect linking adverbial usage and underlines the gap in the Turkish context while providing a foundation for more effective language teaching methods tailored to diverse learner populations.

This study aims to investigate the usage patterns of linking adverbials among foreign university students learning Turkish at the B1 level, focusing on the influence of their L1 syntactic structures. The primary objectives are to:

1. Determine the extent to which L1 transfer affects the acquisition and use of linking adverbials in Turkish among B1-level learners.
2. Identify commonalities and differences in linking adverbial usage among learners from various L1 backgrounds.

By achieving these objectives, the study seeks to contribute to a deeper understanding of language transfer phenomena and offer practical recommendations for language instruction that are tailored to the needs of learners with diverse linguistic backgrounds.

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Method

This section outlines the research design, participant selection, data collection tools, and data analysis procedures used in this study. It describes the approach taken to investigate the use of linking adverbials in Turkish by B1-level learners with different L1 backgrounds. The aim is to provide a detailed account of how data were collected and analysed to understand patterns in adverbial usage across diverse language groups.

Research Model

This study follows a descriptive quantitative research model, aiming to investigate the frequency and use of linking adverbials among Turkish B1-level learners with different L1 backgrounds. Through statistical analysis, the study seeks to identify patterns and differences in adverbial usage based on students' native languages.

Universe-Sample / Study Group

The study sample consists of 28 students learning Turkish as a foreign language at B1 level. These participants have diverse L1 backgrounds and were selected based on their proficiency in Turkish and their willingness to participate in a study focused on cultural discourse in writing. The diversity of the sample was intentionally designed to capture a broad spectrum of linguistic influences, enabling a comprehensive analysis of cross-linguistic transfer effects.

Data Collection Tools

The data collection process involved written paragraphs, where each participant was instructed to compose a short text about "Cultural Differences" in Turkish. The paragraphs served as the primary data source for examining the students' usage of linking adverbials in Turkish. To ensure consistency, participants were given clear guidelines on the expected structure and content of their texts, minimizing potential variability unrelated to language transfer.

Data Analysis

The analysis process involved collecting and reviewing each paragraph written by the students. Using a manually curated list of Turkish linking adverbials equivalent to those commonly found in English, we carefully examined and counted each adverbial occurrence in the texts. This manual count provided a clear view of the frequency and variety of linking adverbials used by the students, allowing for a qualitative assessment of patterns across different L1 groups. Through this detailed approach, we aimed to understand how native language backgrounds might influence the choice and frequency of linking adverbials in Turkish writing.

Results

The frequencies of linking adverbials used by students from different L1 backgrounds varied considerably, as illustrated in Table 1. This variation suggests that L1 background may influence the use and frequency of linking adverbials in Turkish writing. For instance, Arabic-speaking students, who formed the largest group with seven participants, showed a wide range in the number of linking adverbials used, from as few as three to as many as 17. This diversity indicates differing levels of comfort or familiarity with Turkish linking adverbials within the same L1 group.

In contrast, some groups, such as the Tagalog and Spanish speakers, used a relatively high number of linking adverbials, with a frequency of 16 and 17, respectively, even though each group had only one participant. This could indicate either a strong proficiency in linking adverbials or particular characteristics of these students' L1s that facilitate the use of such structures in Turkish. Additionally, individual factors such as previous exposure to formal Turkish instruction or proficiency in other languages with similar discourse patterns might have contributed to their performance. Additionally, students with L1s from the Turkic language family, such as Kazakh, had a moderate frequency of linking adverbials, possibly reflecting structural similarities between their native language and Turkish that aid in the natural transfer of these elements.

Overall, the results point to a complex interaction between the L1 background and the frequency of linking adverbials, highlighting areas for further exploration. These findings suggest that L1 may play a role in how learners use cohesive devices like linking adverbials in L2 Turkish writing, potentially informing tailored instructional approaches for learners from different linguistic backgrounds.

Table 1

The Frequencies of Linking Adverbials

L1 Background	Number of students	Number of linking adverbials per student
Portuguese	2	5,11
Kirundi	1	6
Swahili	1	8
French	4	7,8,12,10
Kazakh	2	11,13
Somali	1	10
Tagalog	1	16
Arabic	7	17,10,9,9,9,11,3
Indonesian	1	11

Spanish	1	17
Burmese	1	16
Pashto	1	8
Bengali	2	9,10
Persian	2	7,11
Albanian	1	10

Discussion & Conclusion

The findings of this study reveal significant variation in the frequency of linking adverbials used by learners from different L1 backgrounds. Students with Arabic as their L1 showed a broad range of usage (3 to 17 adverbials), while French L1 students displayed a more consistent pattern (7 to 12 adverbials). In this context, Arabic learners' diverse usage could reflect both individual differences in proficiency and the varied influence of Arabic discourse strategies on their Turkish writing.

The varied usage across L1 groups also indicates that linking adverbials play different roles in learners' native languages, influencing their application in Turkish. As noted by researchers, linking adverbials are essential in constructing cohesive texts. Therefore, the differences in their usage by learners from distinct L1s imply that native language structures influence how learners connect ideas and structure written discourse in Turkish.

Kazakh and Persian speakers demonstrated relatively consistent use of linking adverbials (e.g., Kazakh: 11 and 13, Persian: 7 and 11), suggesting a more uniform transfer of L1 discourse patterns to Turkish. This consistency may be due to structural similarities between Turkish and these languages, particularly in syntactic forms and discourse markers. In addition, the learners' exposure to Turkish culture and language might also influence their use of linking adverbials, as cultural factors can shape the way individuals approach language use, particularly in terms of discourse structure. Studies on language transfer support the idea that learners can transfer language features more seamlessly when L1 and L2 share structural similarities. The consistency observed among Kazakh and Persian speakers might thus reflect an alignment in discourse conventions, making the transfer of linking adverbials into Turkish more straightforward.

The study's data underscore the significant impact of L1 on learners' use of linking adverbials in Turkish writing. Moreover, the variation in linking adverbial

use points to the diverse ways in which learners adapt their L1 discourse strategies to the conventions of Turkish. Some students may struggle with Turkish-specific cohesive devices due to the lack of comparable markers in their L1, while others may transfer L1 structures more readily. Different frequencies and patterns of adverbial usage reflect varying degrees of language transfer. This challenge emphasizes the need for explicit teaching of Turkish-specific cohesive devices, especially for learners whose L1 discourse strategies do not align closely with those used in Turkish. Focusing on these discrepancies could improve overall coherence in their writing. The influence of L1 is evident in the way learners from languages rich in discourse markers, like Tagalog and Spanish, employ linking adverbials more frequently. This highlights the interplay between linguistic resources available in the L1 and learners' ability to leverage those resources effectively in the L2 context. Conversely, languages with less emphasis on explicit cohesion markers, like Kirundi and Portuguese, may lead to lower adverbial frequencies in Turkish. This suggests that learners from such backgrounds may require more explicit instruction and practice to internalize the importance of cohesive devices in Turkish discourse. Teachers could implement exercises that focus on the comparative usage of linking adverbials, encouraging students to identify both the similarities and differences between their L1 and Turkish. Such activities could enhance learners' metalinguistic awareness, helping them better understand the function of linking adverbials in creating coherence and cohesion.

This phenomenon supports theories of language transfer, which posits that learners apply familiar L1 discourse strategies in their L2 writing. These findings align with broader research in SLA, which highlights the importance of fostering metalinguistic awareness among learners. By explicitly teaching the functions and applications of linking adverbials, educators can help students better internalize these tools and apply them effectively in diverse contexts. These results suggest that L1 transfer can either facilitate or hinder learners' use of cohesive devices in Turkish. For example, learners from languages that share discourse patterns with Turkish may find it easier to adopt linking adverbials effectively. Conversely, learners from linguistically different backgrounds might face greater challenges, highlighting the need for L2 instruction that explicitly addresses these differences.

The study's findings have practical implications for educators and researchers working with Turkish language learners. For instance, teachers can tailor their instructional materials to account for the varying levels of transfer influence among learners, ensuring that those from linguistically distant languages receive targeted support. Additionally, integrating contrastive analysis between L1 and L2 adverbial use could provide students with concrete examples of how discourse

structures differ between languages, thus increasing their awareness and comprehension of Turkish discourse norms. Educators can also provide clear examples of Turkish adverbials in context, showing learners how to use them in their writing to ensure both grammatical accuracy and discourse coherence. Practitioners can benefit from recognizing the influence of L1 on learners' use of linking adverbials and implementing tailored instruction. Educators might emphasize the importance of adverbials in coherence and cohesion for learners whose L1s lack similar discourse markers. Exercises that target linking adverbial use in Turkish, alongside comparisons with learners' L1s, could improve learners' proficiency in constructing coherent texts.

For researchers, this study highlights the need for further exploration of L1 transfer effects in diverse linguistic contexts. Future studies could investigate the role of sociocultural factors, such as learners' attitudes toward Turkish and their perceptions of its rhetorical norms, in shaping their use of linking adverbials. This would provide a more holistic view of second language acquisition, taking into account not only linguistic factors but also the social and psychological elements that influence how learners approach and internalize a new language. Sociocultural influences can also play a significant role in how learners perceive the importance of cohesive devices. For example, learners from cultures that prioritize indirect communication may struggle to employ explicit linking adverbials as frequently as those from more direct cultures. Learners who come from more collectivist societies may be more attuned to indirect cohesion strategies, while those from more individualistic cultures may focus on explicit markers to establish clarity and structure in their writing. Investigating specific L1 groups and their discourse structures in greater depth could yield insights into effective L2 instructional strategies. Future research might also explore longitudinal data to track changes in linking adverbial use as learners' Turkish proficiency increases, offering a dynamic view of L1 transfer in second language acquisition. Analysing large corpora of written texts from learners of different language backgrounds could provide a more granular understanding of how linking adverbials are used in real-world L2 writing, highlighting areas where learners commonly make errors or show hesitation as well. By expanding our understanding of how L1 transfer affects the acquisition of complex discourse markers, we can refine teaching methodologies to better address the challenges learners face in mastering these crucial elements of L2 writing. Ultimately, these insights contribute to a more comprehensive understanding of the intricate processes underlying second language acquisition. They underscore the need for

pedagogical frameworks that not only address linguistic form but also consider the cultural and cognitive dimensions of learning.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics. Ethical approval for this research was obtained from the Ethics Committee of Pamukkale University, with approval number E.513027.

Proportion of Authors' Contribution

Author 1: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing – Original Draft.

Author 2: Conceptualization, Formal Analysis, Review & Editing, Visualization, Last Draft.

INTEGRATING AI INTO ELT MATERIAL DESIGN: PERSPECTIVES FROM FUTURE ENGLISH EDUCATORS

Kübra ŞIK KESER[1]

Integration of Artificial Intelligence (AI), into learning has transformed the way instructional materials are created for language learning purposes significantly. According to Ayeni et al. (2024), this advancement enables tailored responses to cater to the requirements of learners and streamlines content development timelines. Notably beneficial are AI applications that adapt reading levels and provide practice exercises; these tools are instrumental in language education settings, with students from different proficiency levels. Furthermore, social media platforms and online interfaces powered by AI encourage the utilisation of media elements. These may include activities such, as listening sessions that improve feedback accuracy by matching it with students' performance results (Ravshanovna, 2024).

Artificial Intelligence (AI) aids educators by helping develop language resources from language datasets that are crucial for creating educational materials (Pedro et al., 2019). Integrating AI into education poses challenges as some future teachers may not have the skills needed to interact effectively with AI technologies, which raises questions about the quality of education (Zhang & Aslan, 2021).

Furthermore, the ethical concerns revolving around bias and excessive dependence on technology are significant when integrating AI into settings. Educators are advised to analyse AI-generated resources to determine their suitability and educational value as highlighted by Ungerer and Slade (2022). Despite these challenges, the increasing adoption of AI technologies has led to notable advancements in education, particularly in enhancing teaching

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methodologies, a trend further reinforced by the growing implementation of AI tools.

This study examines future English language educators' views on AI's role in language material development. Prior research has explored AI's impact, but understanding how educators engage with these tools remains essential (Bajaj & Sharma, 2018).

There are two main research questions for the study:

1. How do senior students in English Language Teaching (ELT) programs perceive the integration of Artificial Intelligence (AI) tools in the creation of reading and listening skills materials?

2. What challenges do prospective English educators encounter when incorporating AI into the design of language teaching, mainly reading and listening, materials?

In summary, this research sheds light on AI's evolving role in English language education, emphasizing the importance of teacher training in AI competencies and the ongoing debate about innovation versus integrity in educational materials.

Method

The participants of the study are 48 bachelor's degree students in English Language Teaching (ELT) Department. All the participants took Material Design Course and they have background information about designing an ELT material for any proficiency level.

The data collection process included two rounds with each participant. A semi-structured interview (see Appendix) was used to get the perspectives and challenges reported by the participants. In the first round of the interviews, the researcher posed some questions to get a deeper understanding of the perspectives and challenges of using AI in material design in the field of ELT. The second round included member-checking sessions to ensure the validity of the study. In between these two sessions, the researcher analysed the data gathered in the first session and the second round was dedicated to the member checking of the roughly analysed data. Lincoln and Guba (1985) suggest that a researcher who secures the agreement of respondent groups on the credibility of their work has laid a solid foundation for persuading readers and critics of the work's authenticity.

The analysis of the interview data was done through thematic analysis, which is a widely used, flexible, and easy-to-understand method for analysing qualitative data. Mastering this approach equips qualitative researchers with the essential

skills required to explore and utilise other qualitative data analysis methods as suggested by Braun and Clarke (2012).

Findings and Discussion

Findings for RQ1

The first research question addressed the perception of the teacher candidates about the integration of artificial intelligence tools in the creation of educational materials:

RQ1: How do senior students in English Language Teaching (ELT) programs perceive the integration of Artificial Intelligence (AI) tools in the creation of educational materials?

The first research question in the study aimed to analyse the perceptions of prospective ELT teachers about the integration of AI tools in the creation of educational materials. The thematic analysis suggests that there are two important categories related to the codes:

Table 1

Findings for the RQ1

Themes	Categories	Codes
Perceptions of Prospective Teachers	Difficult to integrate	-training needed to use the AI tools
		-training needed to write effective prompts to create materials
		-AI does not work like a human brain
	Good source to create authentic and original material	-creating sources that appeal to students' proficiency level
		-creating authentic material
		-creating culturally diverse material
		-chance for immediate feedback
		-easy to create the material related to the topic teachers want

Difficult to Integrate

The prospective teachers find it difficult to integrate reading and listening materials and most of them talk about lack of training in ELT undergraduate programs. They focused on the difficulties of integrating AI tools in the material development phase of teaching by focusing on the training needed to use these tools and the difficulty of writing the correct prompt for AI tools without any initial training. The participants suggested these ideas by using the following words:

Excerpt 1

> …It is difficult to use some features of AI tools without training. I wish we had a course about how to use AI tools… (P3)

> …I think using AI tools becomes a headache when you do not know anything about it… (P35)

Excerpt 2

> …I am not very good at using computers and technological tools anyway. So, when I become a teacher, I plan to get a training about using AI tools, as I am afraid of using these tools not to make any mistake… (P22)

Prospective teachers expressed challenges in integrating AI tools into material development due to a lack of technical knowledge. As noted, English teachers must integrate technical, linguistic, and pedagogical knowledge. With increasing interest in AI, teacher training programs in ELT departments should be updated to reflect changes in technology and student profiles (Lei, 2009). While some researchers argue that teachers should take personal responsibility for development (Anderson & Stillman, 2013), this primarily applies to in-service teachers (Feldman, 2007). Prospective teachers need proper training, particularly in writing effective AI prompts, which is crucial for material development (Rowland, 2023).

There is ongoing debate about whether student teachers should use AI at all (Selwyn, 2019). Some researchers advocate banning AI in education (Yu, 2023), while others argue that teachers must be equipped to use all types of technological tools in their classrooms (Ruggiero & Mong, 2015). This study supports training language teachers in technology so they graduate with basic knowledge of contemporary tools. Additionally, the working style of AI, which differs from human thinking, presents a challenge for teachers, who sometimes need to adapt to this new approach.

A Good Source to Create Authentic and Original Material

Another perception reported by the prospective teachers in the study was AI being a perfect tool to create authentic and original materials. The participants suggested that after getting used to using the AI tools and writing the correct prompt, AI tools can create authentic sources and the materials produced match the profile of the students perfectly. The participants suggested these ideas by using the following words:

Excerpt 3

> *…AI can analyse students' reading levels, interests, and backgrounds to generate customised reading materials that are both engaging and educational. For instance, AI can provide texts that align with students' interests in specific topics like sports, technology, or history, making reading more relevant and motivating. (P15)*

Excerpt 4

> *With AI, instructors can curate culturally diverse reading materials from their own experiences and those of other people around the world. Such content is not only more relatable but promotes cross-cultural understanding and sensitivity among students… (P2)*

After implementing such AI tools, one pre-service teacher said: AI can give the solution to what will make resources engaging and interesting for the students, thus it can contribute to producing resources which will be more instructive as well as captivating. Although it is not surprising, as Zawacki-Richter et al. (2019), noted the capacity of AI to tailor learning materials by matching content with diverse learner needs enhances their relevance.

In addition, AI can support cultural diversity by creating content that is relevant to students of diverse experiences and backgrounds. A future teacher shared an idea of how AI could be used to develop culturally relevant reading materials, which is also echoed by Hwang, Sung, & Chang (2020). When it comes to listening comprehension exercises, AI can offer access to an extensive offering of accents and dialects thereby allowing the learner to become more accustomed to global varieties of English. Luckin et al. (2016) similarly highlighted AI's vital role in providing learners with diverse linguistic input.

AI is also capable of producing functional listening exercises that mimic everyday conversations such as ordering a meal or asking for directions, helping students become more confident to interact in a real situation. In this sense, Pérez-Marín

and Pascual-Nieto (2019) have concluded that the materials created using AI can be an accurate representation of the language in use. Also, according to Holmes et al. (2019), AI provides real-time response and this is required for the betterment of learning continuously.

In conclusion, there are plenty of advantages to start integrating AI into ELT, such as materials always being personalised for each ELL student, cultural inclusivity will improve and language exposure will increase that is more realistic. As AI technology matures, its influence in this area will grow to create novel and different methods that address distinct types of learners.

Findings for RQ2

The second research question was about the challenges that was created by the use of artificial intelligence in material design in ELT for the prospective teachers:

RQ2: What challenges do prospective English educators encounter when incorporating AI into the design of language teaching, mainly reading and listening, materials?

The second research question aimed to analyse the challenges that prospective teachers may face while integrating AI in material preparation phase. The themes, categories, and codes for the challenges are as follows:

Table 2

Findings for the RQ2

Theme	Categories	Codes
Challenges of using AI in material design	Technical Proficiency	-Limited knowledge of AI tools -Difficulty in integrating AI with existing technologies -Time-consuming learning curve
	Content quality control	-Inaccuracy in AI-generated content -Over-reliance on AI at the expense of creativity -Challenges in maintaining consistency
	Student Engagement	-Lack of adaptability to diverse learning needs -Difficulty in creating interactive materials -Potential for decreased student interaction

Technical Proficiency

The participants also found that AI tools were something not all educators would have an idea how to use as it requires good tech knowledge, hence the very steep learning curve.

Excerpt 5

> *AI and creating tailor-made language materials while AI has a tremendous amount of value to bring as more specialized language media is concerned, even on the techy tools like these might not be easy for educators who aren't particularly proficient. All of these AI tools are a bit too much to handle! I do not even know where to begin. (P19)*

One of the most expected advances in artificial intelligence (AI) is its implementation in education, specifically for the design of materials: AI can provide teaching support, the participants say and place it into a student´s learning environment. However, the people participating in this study note how difficult that might be with AI. However, AI often requires a level of technical prowess and advanced skills that surpass the capabilities of educators without an in-depth tech background. Luckin et al. (2016) note that despite the advantages of AI for the automation of tasks and customizing content, technical know-how remains a quite stubborn challenge. Participant 19 remarked, 'It is overwhelming for me to learn all those AI tools.'

Another challenge is the integration of AI with existing educational frameworks. Selwyn (2019) stresses that by and large, AI should be implemented with present pedagogical philosophies. Participant 46 agreed, saying, 'It's a very confusing process of integration,' thereby hinting at the obstacles in linking AI to ongoing setups. Mayer (2021) points out the strong need for professional development so that educators can adjust and respond to these pressures, echoing Participant 27: 'There is just less time, now, to create teaching materials because the other part is learning AI.'

So, in summary, while AI imagines enhancing education, the technical abilities facilitating the process should not be undermined. It is finally about finding a blend of simple tools and proper training for that knowledge integration.

Content Quality Control

According to the participants of the study, keeping AI-generated materials pedagogically valid, culturally appropriate, and curriculum-standards-aligned are some primary qualities. Here are some excerpts from the selected participants:

Excerpt 6

> *While AI-generated materials can be innovative, it is crucial to ensure that they align with curriculum standards and pedagogical goals so that educational integrity is maintained. However, the content generated by the AI isn't always accurate. I have to spend a lot of time fixing mistakes. (P45)*

Excerpt 7

> *One of the challenges when it comes to AI tools is that in producing something engaging and in alignment with the various culturally sensitive backgrounds of our students, it makes me feel paranoid that I'm relying too much on the AI without injecting enough of my creativity into the lessons. (P9)*

Curriculum standards must be aligned to ensure educational integrity. Although purportedly innovative, Ullmann et al. (2024) would remind us that AI tools may not attune themselves to specific educational objectives. *AI-generated materials cannot be viewed in this light because they deny integrity*, advised one participant; *I find myself angry that there are so many inaccuracies in the materials-I spend countless hours correcting AI mistakes.*

Cultural sensitivity towards AI content is a considerable challenge. Acay et al. (2024) explain that AI tends to overlook cultural intricacies, producing less-inclusive materials. One participant reported: *AI needs to generate content with a cultural awareness*, also voicing concerns about reliance on AI tending to curtail human creativity.

Lastly, ensuring that writing is above board, and producing AI-generated content entails deep human oversight. Watters and Garcia-Lopez (2024) argue that, however efficient, AI cannot do away with the need for quality control. Participants noted that due to the inconsistent nature of AI materials, they needed to adjust them repeatedly.

In conclusion, while AI offers great potential, educators should use their training to assess the quality, inclusiveness, and educational appropriateness of any given AI-generated resource.

Student Engagement

Balancing the use of AI and traditional methods is crucial in maintaining student involvement and preventing over-dependence on technology. Participants define

student engagement in terms of the changing roles in the context of the encroachment of technology. Here are representative quotes from the participants:

Excerpt 8

> *"The AI doesn't always address the different learning styles of my students, and that's a big problem. A lot of the time, the content generated by AI doesn't apply equally to all students, particularly my students with special needs. I think AI is a tool that can help you create content, but it's really not a very adaptable or very inclusive tool that can help you make content that would reach every one of your students." (P12)*

The advent of educational Artificial Intelligence (AI) has been remarkable, one of its best features being the engagement of students. Although AI has become well-known for authoring innovative content, there is plenty of doubt when considering the same technology for other diversified learners. One concern repeatedly recognized by the participants was the fact that AI is not providing content suitable for their learning variety. What Pedro et al. (2019) suggest is that since AI can write information on a large scale, it still falls short in meeting the varied needs of students. This view correlates with the fact AI needs to become more 'inclusive' as mentioned by some of the participants.

The second concern also raised by some contributors was that AI-generated content is not providing a positive interaction which influences student engagement. Woolf et al. (2013) state that AI does not concentrate on creating an interactive learning model which is the most vital when engaging students. The generated content is quite static and has the potential lack of creativity which might have an adverse effect on students. Additionally, reduced personal interaction is a concern. Guilherme (2019) highlights that over-reliance on AI may decrease meaningful teacher-student interactions, affecting classroom discussions. Participants worried that AI could diminish direct engagement with students.

It is suggested that a balanced hybrid approach that combines the strengths of AI with human interaction should be present. Mourtzis et al. (2023) suggest using AI for administrative tasks, in which needful human engagement is identified in the teaching, thereby establishing rapport with engaging teaching.

Conclusion

This research focused on optimism regarding the efficacy of AI tools for language teaching materials creation on the part of future language teachers. The future

teachers stated that even though AI tools have advantages in creating engaging reading and listening materials, their implementation without adequate training poses several issues. The insights into the obstacles put before these future teachers when employing AI for the conception of a variety of materials showed that technical skills, maintenance of content quality, and ensuring student engagement were overarching hurdles. Participants emphasized the need for educators to possess adequate technical skills and background knowledge for working effectively with AI tools and the continuous challenge of verifying the accuracy and consistency of the information generated by artificial intelligence. A significant concern raised was the balancing act between student input and teacher control for activities using technological learning tools.

While this study has unlocked some important issues regarding AI integration in language teaching, one should not forget the limitations that should be taken into consideration. The sample consisted of a small number of prospective language teachers, which may not adequately represent the greater population. Also, the research centred around AI tools in material design while it overlooked other potential areas in which AI could assist language educators. AI is suggested that future studies use a more varied and wider sample size to better generalize the findings. Longitudinal studies on the impact of AI integration in various perspectives of the teaching domain such as assessment and feedback could shed further light. In addition, the effects of professional development in cultivating teachers' competencies using AI tools could be investigated.

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Appendix

General Perception of AI Integration in ELT

1. How familiar are you with the Artificial Intelligence (AI) tools dedicated to language teaching?

2. What is your view of the use of AI for designing any reading and listening materials for English Language Teaching (ELT)?

3. In your view, does AI assist language learning experiences? Why and/or why not?

Experience with AI Tools in Material Design

4. Tell about the specific AI tools that you have either used or heard of for designing reading or listening skill materials.

5. How have you utilized AI tools for the design of materials for your language teaching? Please share your experiences concerning this.

6. To you, which property of AI tools is most useful for developing these materials?

Challenges Faced

7. What are the challenges with respect to the integration of AI tools in the reading and listening materials development that you have experienced?

8. Along with these, what are the bad things that you feel in the use of an AI tool for this?

9. In your view, are AI tools limiting the creativity or customization of teaching materials? Why or why not?

Impact on Teaching-Learning

10. In your opinion, what should be the impact of AI materials engagement on student learning outcomes in reading and listening skills?

11. Are there any situations in which you feel that AI tools tend to offer insufficient flexibility to adapt to different learners' abilities and orientations in your class?

Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

HUMAN VS. AI FEEDBACK ON ACADEMIC WRITING: A COMPARATIVE STUDY IN TURKISH CONTEXT

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The incorporation of artificial intelligence (AI), in education has revolutionized aspects of teaching and learning with a significant impact on formative feedback practices in particular. Formative feedback is essential in education as it helps students recognize their strengths and areas needing improvement to support their progress and growth. Numerous studies underline the role of detailed feedback that is constructive in enhancing student learning results (Hattie & Timperley 2007; Shute 2008). The growing dependence on AI technologies like *Chatbot GPT* for offering feedback has led to discussions about the effectiveness of AI generated feedback, in comparison to feedback from evaluators.

Several research projects have explored how well AI can offer feedback in educational settings. Instances include research by Kulkarni et al. (2015) and Luxton Reilly et al. (2018) demonstrating that AI driven feedback mechanisms can effectively aid learners through automated responses. This feature proves beneficial in classrooms where educators might find it challenging to cater to each student's unique needs. These research findings also suggest that feedback generated by AI frequently lacks the nuanced understanding and contextual awareness that human evaluators offer. This disparity is particularly noticeable in scenarios involving subjective tasks like composing essays (Violaine and Long, 2021).

Lately, research has been looking more at the quality of feedback given by AI and human evaluators in writing tasks. Nguyen and Walker (2016), for instance,

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discovered that AI feedback can be as good as feedback when it comes to fixing grammar issues and suggesting sentence structures. However, AI tends to fall when it comes to offering critical feedback on the content quality and argument effectiveness. According to research conducted by Williams and Lee (2023), feedback from AI tools like *ChatGPT* is generally broader and less tailored to the requirements of each student compared to the feedback given by human teachers.

Even though these important discoveries have been made, there is still a gap in the research when it comes to the differences in the feedback quality for essays of varying levels of quality between AI and human assessors. This research aims to bridge this gap by examining whether there are differences in the quality of feedback given by *ChatGPT* compared to that given by human assessors for essays categorized as quality. Exploring this issue aims to add value to the discussions on how AI influences education and its implications for teaching and learning methods based on the findings in this area of study. This research was conducted to find out how the quality of formative feedback provided by *ChatGPT* differs from that provided by human evaluators.

Theoretical Framework

The study's theoretical foundation is rooted in the concepts of assessment and feedback theory, alongside theories concerning the integration of intelligence, in education settings. Formative assessment refers to a collaborative approach utilized by educators and learners to pinpoint and address learning gaps with the goal of enhancing learning outcomes (Black & William, 1998). A key element of this method is feedback. Feedback plays a role in fostering self-regulation and enhancing comprehension while fostering enhancements in performance (Sadler, 1989; Nicole & Macfarlane Dick, 2006). Hattie and Timperley (2007) suggest that valuable feedback should tackle three queries: "Where am I headed?" (objectives); "How well am I progressing?" (advancement, towards objectives); What should I do next?" (future actions). The tripartite feedback model serves as the foundation for assessing the quality of feedback given by human assessors and AI systems like *ChatGPT*. Evaluating feedback effectiveness typically considers specificity, clarity, relevance and timeliness. All aspects are for enhancing student learning results (Shute, 2008).

The arguments about how AI advancements could enhance or even supplant conventional feedback systems are controversial issues in today's research. AI technologies in education leverage natural language processing (like *ChatGPT*) employing algorithms trained on data to produce responses that simulate comprehension and logic (Chaturvedi et al., 2021). The utilisation of models for

feedback signifies a shift in theory from assessments solely based on human input to a more automated and data-oriented approach. However, the use of AI to provide formative feedback raises significant theoretical concerns about the subtleties of human understanding, empathy, and contextual understanding that AI may lack. This study addresses these theoretical issues by comparing the quality of feedback provided by AI and human assessors for different levels of essay quality, thereby contributing to a broader theoretical debate about the evolving role of AI in formative assessment.

Literature Review

The realm of literature regarding feedback is vast and has been the subject of numerous studies highlighting its significance in enhancing student learning and progress. Hattie and Timperley (2007) emphasize the function that well-crafted feedback serves in connecting a student's present performance with their desired objectives. Shute (2008) expanded on this idea by outlining the characteristics of formative feedback such as precision, clarity and practicality that are essential for fostering student advancement.

The latest developments in AI have generated a lot of curiosity about how AI can help offer feedback in educational settings. For instance, research conducted by Kulkarni et al. (2015) and Luxton et al. (2018) has shown that AI powered feedback tools like automated essay evaluators and smart tutoring systems can deliver regular feedback to students. This proves to be especially beneficial in crowded classrooms where teachers find it challenging to give feedback to each student. These research findings indicate that feedback generated by AI can complement human feedback to address challenges and enhance the speed of delivering feedback promptly.

However, to cultivate the same, for most parts, AI generated feedback has been a target of criticism within the growing body of research. According to Violaine and Yongo (2021), AI tools can only supply basic surface feedback, especially with regard to aspects of grammar (e.g., spelling mistakes), but lack the depth in words analysing higher-order competences (e.g., critical thinking, reasoning, creativity). Nguyen and Walker (2016) also examined writing assignments and compared AI-generated feedback to human assessment, highlighting similar findings that AI feedback rarely provides the detailed, specific insights offered by a human assessor.

Building upon these conclusions, Williams and Lee (2023) argued that feedback like *Digital GPT* is often generic, impersonal, and does not reach the most relevant details. On the other hand, human feedback was more likely to have addressed

specific learning objectives and recommendations for improvement that could be actionable showing a deeper understanding of what the student needed. Nevertheless, a gap in the literature remains regarding the quality of AI feedback compared to human marker feedback for acceptable and insufficient essays. The literature provides consistent evidence of whether AI or human feedback is better in an overall comparison, but there is a lack of understanding about the factors that delineate these artifacts, for essays of low-medium and high-level quality, and which feedback -AI or human feedback- is more effective for each one. This gap is what this study seeks to fill by systematically evaluating the quality of formative feedback provided by *ChatGPT* and human assessors for essays of different levels of quality. In this way, the study intends to contribute to a wider discussion on the role of AI in education and its potential impact on teaching and learning practices.

Methodology

This study was designed as a quantitative study, which includes quantitative data gathered from the ratings based on the comparison for the quality of the feedback provided by the human evaluators and *ChatGPT*.

To evaluate the quality of feedback provided by *ChatGPT* and trained human scorers, a set of specific criteria that focused on four key aspects was used (Hattie & Timperley, 2007).

1. **Alignment with Assessment Criteria:** The degree to which the feedback was grounded in specific assessment criteria.
2. **Clarity of Improvement Suggestions:** How clearly the feedback offered directions or suggestions for improvement.
3. **Accuracy:** The correctness and precision of the feedback provided.
4. **Supportive Tone:** The extent to which the feedback was delivered in a constructive and encouraging manner.

Although timeliness is often highlighted as a characteristic of effective feedback (Hattie & Timperley, 2007), it was not included as an evaluation criterion in this study. This is because, while teachers may face various contextual limitations that affect their ability to provide prompt feedback, *ChatGPT* can deliver feedback immediately and on an iterative basis. Therefore, *ChatGPT*'s feedback is inherently assumed to be timelier. Furthermore, prioritization of essential writing skills was not included as a criterion for evaluation in this study.

Participants

50 university students who are advanced level of learners were the participants of the study. They are the students of English medium of instruction and they passed Prep. Class with B2 level according to Common European Framework.

The study involved two human evaluators who teach academic writing courses at a state university in Türkiye. One has been teaching English at the university level for 15 years, while the other has been teaching for 9 years. Both hold PhD degrees. At the start of each term, these lecturers undergo 3 hours of training on the academic writing rubric used in their courses, which was also employed for this study.

ChatGPT was trained to evaluate the essays based on the following prompt:

"You are a university lecturer offering academic writing courses. Now, you will evaluate argumentative essays written by students in an academic tone on [Prompt 1/Prompt 2]. Please carefully consider the following points":

1. **Alignment with Assessment Criteria:** The degree to which the feedback was grounded in specific assessment criteria.
2. **Clarity of Improvement Suggestions:** How clearly the feedback offered directions or suggestions for improvement.
3. **Accuracy:** The correctness and precision of the feedback provided.
4. **Supportive Tone:** The extent to which the feedback was delivered in a constructive and encouraging manner.

The rubric used in the evaluation is demonstrated in the appendix part (See Appendix 1).

Setting

During class, students were tasked with writing an academic argumentative essay within 60 minutes, incorporating relevant literature to support their thesis statements. The course enrolled 200 students, but for the purpose of this study, 50 essays were randomly selected for evaluation. The essay prompts were as follows:

Prompt 1:

To what extent should governments regulate social media platforms to prevent the spread of misinformation?

Prompt 2:

Is remote work more beneficial or detrimental to employee productivity compared to traditional office-based work?

Data Collection and Analysis

The data were gathered through the evaluation of 50 essays from the participants. The same essays were evaluated by two human graders and by *ChatGPT* by using the rubric (Appendix 1). After the evaluation process, the evaluations of both were rated from 1 to 5 according to the criteria of alignment with assessment criteria, clarity of improvement suggestions, accuracy, supportive tone. After the rating process, the data gathered from the ratings were compared by using one-way *ANOVA* model in *SPSS 21.0* (*Statistical Package for Social Sciences*).

Results

The descriptive statistics demonstrate the scores for human and AI feedback across various categories on a 1–5 scale (N = 50). The partial eta-squared effect size illustrates the proportion of variance in the dependent variable explained by a specific independent variable, while Cohen's d measures the magnitude of the difference between means. The findings show that human feedback outperforms AI feedback in every category except for criteria-based evaluation, where AI scored 0.24 points higher on average (p = 0.03). Using a one-way *ANOVA* model, the differences in ratings between human and AI feedback were statistically significant for several categories: providing clear improvement directions (p < 0.001), accuracy (p < 0.001), and using a supportive tone (p < 0.001).

Table 1

Results of Comparison between Automated Feedback and Human Feedback

Category	Effect size (Partial eta-squared)	Effect size (Cohen's d)	Human/AI	Mean	SD	Skewness	Kurtosis
Criteria-based	0.02	-0.23	Human	3.30	1.03	- 0.11	2.00
			AI	3.53	1.24	- 0.33	1.86
Clarity of directions for improvement	0.04	0.43	Human	3.75	0.98	- 0.23	2.52
			AI	3.37	0.89	0.11	2.35
Accurate	0.06	0.67	Human	4.65	0.84	- 1.65	2.34
			AI	4.10	0.83	- 0.89	2.50
Supportive Tone	0.03	0.37	Human	4.38	0.98	- 0.87	2.85
			AI	4.12	0.95	- 0.90	4.89

The mean differences between feedback types ranged from -.23 (in favour of AI) for criterion-based feedback (3.30–3.53), indicating that feedback from both sources was within one point of each other in all cases. The partial et-squared effect sizes for the variance explained by rater differences were small, ranging from .01 (criterion-based feedback), indicating minimal effect of rater type on feedback ratings. The analysis of criterion-based feedback revealed a small effect size with a partial et-squared of .02, indicating minimal variance between human and AI feedback. Cohen's d was -.23, indicating that AI feedback was slightly higher than human feedback. Human feedback was rated middle of the line with a mean score of 3.30 (SD = 1.03) and AI feedback a little higher at 3.53 (SD = 1.24). Human feedback skewness and kurtosis are 0.11 and 2.00, respectively, while the skewness and kurtosis values for AI feedback were −.33 and 1.86, respectively. These data imply a very modest preference for AI feedback, which was not statistically significant. A small effect size was found for clarity of areas for improvement (partial et-square =.04. Cohen's d was .43, which means at this end the bias was more towards human feedback. Mean rating of human feedback −3.75 (SD =.98, 2-tailed) and for AI feedback it was 3.37 (SD =.89). For human feedback, the skewness and kurtosis values were −.23 and 2.52, respectively, whereas skewness and kurtosis values for AI feedback were −0.11 and 2.35. These findings indicate that humans are able to give more specific direction with how one can improve than AI.

Consistent with the study hypotheses, a more salient effect size arose for the accuracy of feedback condition in relation to .06. Human feedback mean is =4.65 (SD =.84) and Mean score for AI feedback is 4.10 (SD =. 83). The skewness in human feedback was -1.65 and the kurtosis was 2.34, whereas AI feedback had a skewness of -.89 and a kurtosis of 2.50. This indicates that there was a high margin of accuracy but in directions that human feedback was more accurate than the AI recommendations. Finally, the analysis of supportive tone demonstrated a small effect size, with a partial eta squared value of .03. Cohen's d was calculated as .37, which indicates an improvement compared to human reviews. Average human rating was 4.38 (SD =0.98) and average AI review score was 4.12 for AI. The skewness of the human and code feedback was -.87 and 2.85 respectively, while the AI feedback had a skewness of −90 and kurtosis of 4.89. The difference between feedback from AI and human was small, even when feedback from a human was rated as sounding more supportive.

In the analysis, human-provided feedback was generally rated as more accurate and clearer in terms of improvement suggestions compared to feedback from AI. However, the differences between AI and human feedback were less pronounced

in criterion-based evaluations and supportive tone, with AI feedback receiving slightly higher ratings in these areas. Therefore, while AI feedback is useful for general concepts and overarching themes, it may be less effective for providing specific guidance in writing tasks.

Discussion and Conclusion

The findings of this study further contribute to the existing literature on formative feedback by highlighting the distinctions between responses from human evaluators and those generated by AI (specifically *ChatGPT*). Prior research has consistently indicated that human feedback tends to be more in-depth, personalized, and contextually relevant compared to AI-generated feedback (Carless & Boud, 2018; Shute, 2008). The results align with these previous studies, particularly regarding the clarity of improvement areas and accuracy, where human feedback was rated significantly higher than the AI-generated summaries. Human feedback demonstrated a moderate effect size, with an eta squared value of 0.04, indicating greater clarity and actionability in suggestions for improvement. This finding is consistent with prior research that emphasizes the ability of human assessors to identify the specific guidance a learner requires and to provide that support effectively (Nicol, 2010). Although AI can offer general directions, its effectiveness in delivering high-quality feedback is heavily context-dependent. Shute (2008) argues that AI can only make generalizations about performance to the extent that its underlying algorithms are designed to recognize individual differences. The substantial effect size observed in the comparison of human and AI feedback in this category, with Cohen's d = 0.43, reinforces previous studies examining the differences between machine-generated and human-generated feedback in educational contexts (Steinert et al., 2016). In terms of accuracy, there is an even more pronounced disparity between human feedback and AI, as indicated by eta squared =0.06 and Cohen's d =0.67; human feedback was consistently rated significantly higher than that of AI. This observation aligns with Sadler's (2010) argument regarding the subjective and interpretive nature of formative feedback, which has historically relied on an assessor's deeper content knowledge and more refined ability to interpret learner responses—skills that are critical for effective interpretation in AI approaches. Despite recent advancements in AI natural language processing technology, existing models like *ChatGPT* remain primarily based on pattern recognition and predefined knowledge. This limitation may explain the strong performance of human feedback in this context.

In the sole category of criterion-based feedback, AI feedback received a slightly higher score than human feedback (Cohen's d =-0.23), although this difference was not substantial. A significant advantage of AI systems lies in their ability to apply consistent evaluation criteria devoid of subjective bias, thus rendering them more robust in fixed-criteria assessments. Despite the small effect size (partial eta squared =0.02), this replication (Grassini, 2023) reinforces earlier findings that AI tools are most effective in domains governed by objective criteria, where human judges often encounter challenges in achieving reliability when attempting to develop a scale that accurately assigns ratings or labels based on desired customer reactions (De Boe et al., 2018).

In the supportive tone category, both human and AI feedback received relatively high scores, with human feedback holding a slight edge (Cohen's d =0.37). These findings align with existing literature indicating that human evaluators tend to infuse their feedback with empathy and relational engagement (Steinert et al., 2016). Nevertheless, recent studies have shown that AI can effectively replicate supportive language, particularly thanks to advancements in natural language models like *ChatGPT* (Fryer et al., 2019). The similar scores for AI and human feedback in this category indicate that while AI is capable, it still falls short of the nuanced emotional intelligence that human feedback naturally possesses. These findings align with earlier research that highlights the enduring importance of human raters in providing personalized, accurate, and context-sensitive feedback. While AI shows a slight edge in criterion-based assessments, indicating its potential significance in structured evaluations, previous studies (Johnson et al., 2017) suggest that a combined approach utilizing both human and AI feedback could offer a more balanced solution in educational environments where timely and scalable feedback is essential. Future investigations could examine how these feedback sources can be integrated to improve student outcomes, particularly in settings where human resources for assessment are limited.

This study adds to the growing evidence that, although AI feedback is becoming increasingly effective, it cannot fully replace human assessors, especially in tasks that require deep understanding and emotional insight. In conclusion, this research highlights the critical role of human assessors in delivering precise, clear, and actionable feedback. However, it also reveals that AI, like *ChatGPT*, has potential as a complementary tool to human feedback, particularly in structured, criterion-based evaluations. While the differences between human and AI feedback were statistically significant in most categories, the effect sizes were mostly small to moderate. This suggests that, although AI feedback may not fully match human

feedback in every respect, it holds promise for enhancing formative assessment processes.

These results have significant implications for educational settings, where a combination of human and AI-generated feedback may provide the most comprehensive and effective support for students. Future research should explore how integrating both sources of feedback can enhance learning outcomes, particularly in contexts with limited resources where human evaluators cannot provide timely feedback to all students.

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Appendix

Rubric

Criteria	Excellent (5)	Good (4)	Satisfactory (3)	Needs Improvement (2)	Unsatisfactory (1)
Content	Exceptionally clear, focused, and well-developed ideas. Original and insightful.	Clear, focused, and well-developed ideas. Minor gaps in development.	Ideas are clear but not fully developed. Some repetition or lack of clarity.	Ideas are unclear or underdeveloped. Repetition or lack of clarity impairs readability.	Very unclear, unfocused, or undeveloped. Lacks relevant content or ideas.
Organization	Logical, cohesive structure. Clear progression of ideas with excellent transitions.	Generally well-organized with clear transitions. Minor issues with flow or cohesion.	Some organizational issues. Transitions may be weak or unclear.	Poorly organized. Lack of clear transitions. Flow of ideas is disjointed.	No clear organization. Lacks logical flow, making ideas difficult to follow.
Grammar and Syntax	Consistently accurate use of complex grammar and varied sentence structures.	Mostly accurate grammar and syntax with some variety in sentence structures.	Occasional errors in grammar and syntax. Limited variety in sentence structures.	Frequent errors in grammar and syntax that affect clarity. Little sentence variety.	Numerous grammar and syntax errors that severely affect comprehension.
Vocabulary and Word Choice	Precise, varied, and advanced vocabulary. Skilful and appropriate word choices for academic writing.	Good use of vocabulary with some variety. Word choices are mostly appropriate and precise.	Adequate vocabulary but limited variety. Word choice is generally appropriate but lacks precision.	Basic or repetitive vocabulary. Some inappropriate or imprecise word choices.	Very limited or inappropriate vocabulary. Word choices are frequently imprecise.
Cohesion and Coherence	Strong and smooth cohesion with ideas logically and clearly connected.	Good cohesion. Ideas are generally connected but may have minor lapses in clarity or logic.	Some cohesion but connections between ideas are unclear at times.	Lack of cohesion. Ideas are often disjointed or poorly connected.	Very poor cohesion. No clear connections between ideas.
Mechanics (Spelling, Punctuation, etc.)	Error-free writing. Precise use of spelling, punctuation, and formatting conventions.	Few minor errors in spelling, punctuation, or formatting.	Some errors in spelling, punctuation, or formatting, but they do not interfere significantly.	Frequent errors in spelling, punctuation, or formatting that interfere with readability.	Numerous errors in spelling, punctuation, or formatting that make writing difficult to understand.

Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

Proportion of Authors' Contribution

Author 1: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing – Original Draft.

Author 2: Conceptualization, Formal Analysis, Review & Editing, Visualization, Last Draft.

STRUCTURAL AND PRAGMATIC SKILL DEVELOPMENT IN CHILDREN WITH AUTISM SPECTRUM DISORDER[1]

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The focus of this study is on morphosyntactic and early pragmatic development in children with autism spectrum disorder (hereafter ASD). ASD is a childhood onset neurodevelopmental disorder that has a broad manifestation of symptoms. The diagnostic prevalence in the United States is 1 in 36 children that are 8 years old in 2020 (Maenner et al, 2020). Behaviours that characterize the diagnosis include deficits in social communication and interaction and restricted and/or repetitive behaviours/interests. The diagnostic criteria for ASD set by the American Psychiatric Association (APA) are defined in the *Diagnostic and Statistical Manual of Mental Disorders 5th edition* (hereafter *DSM-5*) (Autism Speaks, 2024; American Psychological Association, 2024) as follows:

1) Persistent deficits in social communication and interaction across multiple contexts.

2) Restricted, repetitive patterns of behaviour, interests, or activities.

3) Symptoms must be present in the early developmental period, although symptoms may not fully manifest until later in childhood or adulthood if the individuals mask symptoms.

4) Symptoms cause clinically significant impairment in social, occupational, or other key areas of current functioning.

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[1] This study is the revised version of a chapter in the corresponding author's unpublished Master's Thesis titled "Are Syntactic Abilities a Relative Strength in Children with Autism" (Wayne State University, 2023).

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5) These disturbances are not explained by intellectual disability or global developmental delay.

Symptoms of ASD can become apparent before two years of age, but they become consistently visible in preschool years when social interaction becomes more frequent and necessary. Autism evaluations are lengthy, as they consist of parent/caregiver interviews, direct observation of the child, structured interactions with the child by the specialist, and other tests to rule out alternative developmental disorders.

Autism and Language Development

Children with ASD tend to have a delayed onset of expressive language, with the average age of the onset of spontaneous productive language being five years of age (Eigsti et al., 2007). Despite a common delay, most children with ASD develop functional language and many may go on to develop language on par with typically developing children (Eigsti and Schuh, 2016).

A wide variability of attained language skills is a hallmark of ASD, particularly with respect to structural language deficits. Some suggested that children with ASD are comparable to younger typically developing (hereafter TD) children or children with intellectual disabilities (Tager-Flusberg, 2006; Durrleman et al., 2016). There is extensive literature that attempts to draw parallels between ASD and Developmental Language Delay (hereafter DLD). For example, some researchers posited distinct ASD sub-types based on the presence or absence of co-occurring structural language deficits: ASD with language impairment (ASD-LI) as distinct from ASD (without language impairment). It was also suggested that ASD-LI partially shares aetiology with DLD (Tager-Flusberg, 2006). The literature makes a stronger case for shared aetiology between ASD and DLD than for distinct aetiology and superficial symptom similarity (phenomimicry) given an above change comorbidity between ASD and DLD, higher rates of language impairment in first degree relatives of individuals diagnosed with ASD or DLD, and shared genetic risk factors for both disorders (Bishop, 2010).

Numerous factors may impact language development in ASD, including cooccurring conditions severity of core symptoms, general cognition, as well as the linguistic input the children receive from caregivers. For example, researchers have found that when children in the TD and ASD groups matched on gender and maternal education were exposed to similar linguistic environments (quantity of unique words, word types, and utterance length), they had similar language abilities (Bang & Nadig, 2015). This suggests that differences in linguistic outcomes between the two populations may be due (at least in part) to differences

in their linguistic environment, and that parents of children with ASD may be modifying their language to adapt it to what they perceive as special needs of children with social-communicative deficits.

Some researchers suggested that the central reason why children with ASD experience language difficulties is a difficulty in information integration across context (Asberg, 2010). Another study that looked at factors that affect pragmatic language abilities in children with ASD have found that attention problems (inattention and impulsivity) and verbal working memory were significant predictors of pragmatic language ability, but structural language skills were not as strongly associated with them (Baixauli-Fortea et al., 2017).

In the *DSM-5*, 'language and communication' was removed as a diagnostic domain of impairment in ASD to deemphasize non-social (structural language) processes relative to communication impairments (Eigsti & Schuh, 2016). Consequently, treating language difficulties in ASD is not often prioritized (Reindal et al., 2023). This is somewhat paradoxical given that deficits in language may directly contribute to core ASD symptomatology: difficulties with social communication and interaction (due to the centrality of language for communication), and repetitive or restricted behaviours (as certain patterns of language use, such as echolalia and perseveration, can be part of a child's repertoire of repetitive or restricted behaviours). However, among reasons why families receive referrals for an ASD evaluation, the main reason is a delay in language development (Fein, 2011; DeGiacomo & Fombonne, 1998).

Structural Language in ASD

As mentioned previously, structural language skills are a common deficit in individuals with ASD, particularly noticeable in younger children. In comparison with TD peers, children with ASD often have difficulties with morphosyntactic development that affect their use of grammatical morphemes, sentence structure, and syntactic complexity (Reis, Teixeira, 2012; Peristeri, Andreou, & Tsimpli, 2017). Multiple studies have investigated syntactic skills in autism (Bishop, 2010; Durrleman et al., 2015; Durrleman & Delage, 2016; Eigsti, Bennetto, and Dadlani, 2007; Eigsti & Schuh, 2016; Lazenby et al., 2016; Levinson, Eisenhower and Bush, 2020; Peristeri and Tsimpli, 2017; Reindal et al., 2021; Riches et al, 2010).

For example, one study explored syntactic complexity of child utterances in the context of child-adult conversations during free play and found that children with ASD scored lower than TD peers on the quantity of verbal phrases, questions/negations, noun phrases, and sentence structure complexity (Eigsti, Bennetto, & Dadlani, 2007). Some studies have suggested that morphosyntactic

skills in children with ASD is commensurate with their mental age, and once the ASD group is mental-age-matched with a TD group, their morphosyntactic skills do not differ. Other studies reported that syntactic processing skills were a weakness in ASD even in high-functioning individuals (Durrleman et al., 2015). Thus, they (Durrleman et al., 2015) compared adults with autism compared to age-matched typically developing controls on comprehension of subject and object relative clauses. The results indicated that the ASD group with a history of language delay performed worse than the ASD group without language delay on subject relative clauses; however, regardless of language development history, both ASD groups performed worse than the controls with object relative clauses, suggesting subtle syntactic processing deficits even in the absence of documented language delay history.

Pragmatic Skills in Autism

Pragmatic skills are a combination of the use of language and social context to create the intended linguistic message. There are three major categories of pragmatic skills: communicative intentions, presupposition, and discourse management (Cutting, 2002). In early childhood, pragmatic language development begins with developing joint attention, comprehending and using pointing gestures as precursors of communicative skills built progressively throughout early and middle childhood. Among the earliest such skills are conversational skills: turn-taking, topic initiation, topic maintenance, and using and responding to conversational miscommunication with conversational repairs (Wong et al, 2022). As children continue to develop their linguistic skills and engage in conversations with adults, their conversational skills become more complex, they develop extended discourse genres, such as narrative language, understand social norms guiding conversation and interaction, and learn to modify their messages based on the needs of their listener.

Pragmatic deficits are widely acknowledged to be the most consistent linguistic deficits in individuals with ASD, independent of the level of structural language ability. These include difficulty using words in the appropriate context and in creating coherent streams of speech (Fein, 2011). Early signs of pragmatic deficits in autism include joint attention impairment, atypical or decreased use of gestural communication, decreased variety and frequency of communicative acts, deficits in turn-taking skills, and deficits in initiating or responding to requests for clarification or repairing conversational breakdowns (Reindal et al, 2021; Wong et al., 2022; Oren et al., 2021). Compared to TD peers, children with ASD show less diversity and flexibility in using language for social interactions in addition

to difficulty in following conversational rules or adapting their language for different contexts or listeners (Oren et al., 2021).

The analysis of early pragmatic language used in the present study is adapted from Bloom and colleagues (Bloom, Rocissano, and Hood, 1976), a longitudinal case study of four TD children between from 21 to 36 months of age. Using adult-child interactions, child utterances were classified as non-adjacent (i.e., made after a definite pause following the previous utterance or those made without a previous adult utterance) versus adjacent (utterances that proceeded immediately after an adult utterance), and their rate was tracked across MLU-stage-based development (Brown, 1973. Only adjacent utterances were further categorized, and split into non-contingent, i.e., those that do not share the same conversational topic as the previous utterance, contingent utterances, those that maintained the conversational topic and add information, and imitative (utterances that share the same topic as the previous utterance but do not add information). See Figure 1 for the classification of the utterance types. The results of that study indicated that the number of adjacent utterances was greater than non-adjacent utterances from the earliest age. Contingent utterances increased over time (see Figure 2), particularly utterances that provided a verbal expansion, replaced, or added constituents within a grammatical clause. Thus, even at Stage 1, children understood the turn-taking aspect of a conversation. During Stages 1-2 the children produced most non-contingent utterances despite understanding the turn-taking aspect of conversation. By Stage 5, the children increased the number of contingent utterances and often added information to the conversation.

Figure 1

Categories of Child Discourse Defined by Bloom, Rocissano, and Hood (1976)
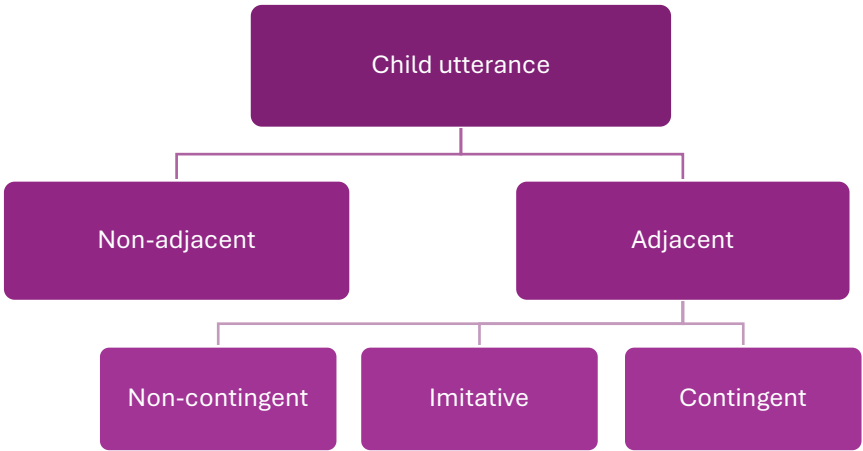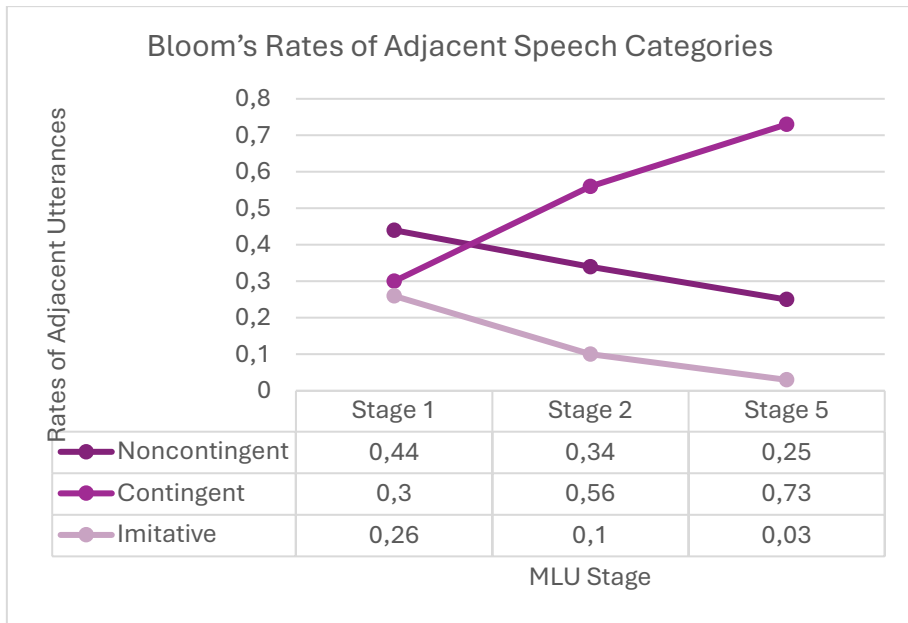
Figure 2

Rates of Adjacent Speech Categories by MLU Stage from Bloom et al. (1976)

Bloom's Rates of Adjacent Speech Categories

	Stage 1	Stage 2	Stage 5
Noncontingent	0,44	0,34	0,25
Contingent	0,3	0,56	0,73
Imitative	0,26	0,1	0,03

MLU Stage

Present Study

The goal of the present study was to investigate early pragmatic and morphosyntactic skills in children with ASD and to gain insight into the relationship between these two domains during early childhood. There are two sub-studies. One is a case study in which we analysed the rate of grammaticality and conversational adjacency/contingency to determine whether there is a relationship between the two. The second one is a group comparison between children with ASD and MLU-matched TD peers to understand whether language-level matching levels out morphosyntactic and/or conversational contingency differences between the two groups.

Sub-study 1

Research Aims

The study was aimed at detailing the morphosyntactic development of a child with ASD and explore its relationship with his early pragmatic skills. This study goal was to determine if grammatical performance is associated with pragmatic contingency. We hypothesized that discourse-contingent utterances are more

likely to be grammatical than noncontingent ones. This idea that contingent utterances are more likely to be grammatical stems from the notion that contingent responses will benefit from the scaffolding from the adult utterance and thus are more likely to be grammatically correct compared to noncontingent utterances that lack such scaffolding. If grammatical utterances indeed happen more often in contingent contexts, it suggests that grammaticality in children with ASD is a performance level phenomenon rather than competence-level. If correct, this would have important implications for interventions, suggesting that focusing on increasing contingency may increase overall grammatical performance in children with ASD.

The participant was a boy ("Tim", age =6;7) diagnosed with ASD. He was born and raised in southeast Michigan. According to his mother, he had a history of language delay (first words after the age of 3). "Tim" has a family history of ASD (an older sister diagnosed with ASD, who is nonverbal and relies on gestures). His diagnosis included impaired auditory processing, as he preferred visual cues over verbal cues during speech elicitation.

Methods

The interviewer (the first author) collected three 2-hour free play sessions, which were audio recorded (with parents' consent), conducted over two months in 2023. This was done in an unstructured manner because attempts to use standardized testing or structured language elicitation were unsuccessful. Creating an unstructured child-centred setting where the child was able to freely engage with objects and activities of his interest allowed for greater expressive opportunities in a naturalistic setting. All fully intelligible utterances were included in the analysis.

Transcription Coding:

The transcription was coded for grammaticality and analysed for pragmatic properties. Pragmatic properties included discourse management skills classified using Categories of Child Discourse (Bloom, Hood, & Rocissano, 1976). The utterances were coded as follows (see Figure 4 for examples):

A. Grammaticality

Grammatical (G): Sentence that contains all obligatory elements to express a complete thought.

> *Draw a bus.*

Ungrammatical (uG): Sentence that is missing obligatory elements or contains substitution error, incorrect word order, verb and argument disagreement, tense error, lexical errors, single word utterances without the appropriate syntactic context, idiosyncratic jargon:

> *Bus gone.* *
>
> *Park.* *

B. Discourse Categories (see Figure 4) (including adjacent utterances only):

Contingent: Child utterance is responding directly to the adult utterance or contextually appropriately shifts conversational topic, maintains current topic and adds new information to the conversation.

> Adult*: What do you want to eat?*
>
> Child: *Pizza*.

Non-contingent: Child utterance diverges from adult utterance by not responding to an interrogative or shifting the topic without an appropriate utterance.

> Adult: *What do you want to eat?*
>
> Child: *I like to play with cars.*
>
> Imitative: Repetition of adult utterance or own speech.
>
> Adult: *What do you want to eat?*
>
> Child: *What do you want to eat?*

Figure 3

Example of Transcripts and Coding of Utterances

|	
INT: What colour are the glasses? They're green	
CHI: Glasses, Glasses	*(imitation, ungrammatical)*
INT: What colour are they	
CHI: Glasses and eyes	*(noncontingent, ungrammatical)*
INT: They are for your eyes.	
They help you see better	
Are you laughing?	
CHI: Are you laughing?	*(imitation, grammatical)*
Look at my eyes.	*(contingent, grammatical)*
...	
Eyes, eyes, eyes, ears.	*(noncontingent, ungrammatical)*
Key: interviewer (INT), child (CHI)	

Data Analysis

The utterances were grouped by the contingency category (contingent, noncontingent, imative) and the ratio of grammatical to ungrammatical utterances in each contingency category was derived and compared. MLU in morphemes was also analysed after excluding imitations, rhyming, mazes (revisions, filled pauses, and repetitions), and single word answers.

Results

A total of 217 fully intelligible utterances were included in the analysis, but only 67 of these were used for MLU analysis. "Tim's" MLU was 3.78, indicative that he has a delay in grammatical development in comparison to age expectations. An MLU of 3.78 is expected for a TD child between 41-46 months of age (Brown, 1973). Although he had some age-appropriate utterances with an MLU greater than 5, only 18% of the utterances produced fell in this category. The child had more utterances with an MLU less than 3 at a frequency of 27% and most utterances were an MLU between 3 and 4. Figure 4 below illustrates the distribution of the MLU of the child's utterances across the 6 hours of recorded conversation.

Figure 4

MLU Distribution of Utterances Analysed for Grammatical Features
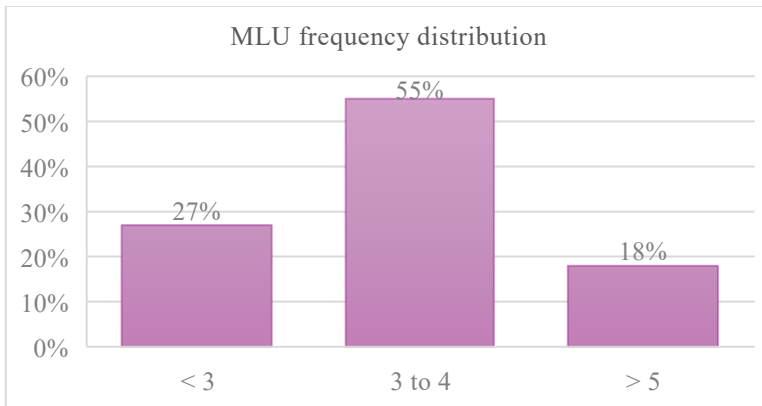
Additionally, we analysed Tim's" use of grammatical morphology and characterized that in terms of pragmatic ability, "Tim" over-relied on self-repetitions and adult imitations, with a greater number of infelicitous utterances than TD children with similar MLU (Bloom, Lois et al., 1976). Compared to the

younger TD children at the same MLU-based stage analysed by Bloom et al. (1976), "Tim" had a high percentage of imitative utterances (24%) compared to <15% in TD children, and a low frequency of non-contingent utterances (12%) compared to >20% in TD children. All non-contingent utterances were ungrammatical, while contingent was almost equally divided between grammatical and ungrammatical (see Table 1).

Table 1

Analysis of Grammatical by Pragmatic Contingency

Discourse Category(Adjacent)	Rate	Grammaticality
Non-contingent	12%	0% grammatical
		100% ungrammatical
Imitative	24%	44% grammatical
		56% ungrammatical
Contingent	64%	49% grammatical
		51% ungrammatical

Discussion

In the domain of morphosyntactic abilities, the child showed atypical patterns of morphemic acquisition, including unreliable use of grammatical morphology, including omissions of early-acquired morphemes, while using more advanced ones. A case study done on Indonesian-speaking children with autism found similar results when examining the MLU of 3 children: their language was delayed for their age and their performance unstable (Martanti et al., 2023).

As far as early pragmatic abilities, the participant over-relied on imitative utterances to engage in conversation compared to TD children of similar MLU reported by Bloom et al (1976). He also had a low rate of non-contingent utterances, which meant he initiated conversation less frequently than TD peers and over-relied on the adult to begin or transition conversational topics. Bids from the researcher to engage the child in communication, such as asking wh-questions, elicited imitation of the adult utterance. These imitations, however, were often ungrammatical as the child omitted obligatory parts of the sentences. Since the method of sentence imitation is used to gage children's linguistic competence, inaccurate imitation of adult utterances shows incomplete morphosyntactic

knowledge. Self-initiated and non-contingent speech by the child, such as narration during pretend play, tended to be less grammatically complex and lacked obligatory grammatical elements in the sentences. Moreover, the child only produced questions as imitations of the utterances from the researcher and classified as pragmatically infelicitous.

The main observation was that the felicity of the child's utterances was linked with grammaticality: noncontingent utterances (utterances that deviated from the conversational topic led by the researcher) had a 100% rate of ungrammaticality, compared to imitative and contingent speech, which had ungrammaticality rates of 56% and 51% correspondingly. In sum, the child's performance varies across pragmatic conditions. His competence shines through the most in certain pragmatic conditions, and his performance declines in others. The high variability in performance is based on whether his response is contingent or not to the adult utterances. Contingent non-imitative utterances had the highest rate of grammaticality at 49%, which may have been aided by scaffolding from the preceding adult utterance. The imitative utterances, somewhat unexpectedly, had a lower rate of grammaticality at 44%. The child omitted obligatory elements when repeating the preceding adult utterance that included all required elements. The errors in imitative utterances suggest that the child has morphosyntactic deficits that limits his ability to imitate an adult utterance. Overall, grammatical development of this child is atypical, as more than half of his fully intelligible utterances are ungrammatical.

Sub-study 2

Study Aims

This study sought to expand on the patterns observed in sub-study 1. The aims for this study were as follows:

1. To compare children with ASD with MLU-matched TD children to determine whether morphosyntactic skills in children with ASD are in line with what is expected for children at their MLU stage or whether their structural language exhibit deviant patterns not found in MLU-matched peers.

2. To compare children with ASD with MLU-matched TD children on conversational contingency categories to determine whether the ASD group will show pragmatic delays (i.e., persistent higher frequency of imitations and fewer instances of noncontingent utterances compared to MLU-matched TD peers.

3. To investigate whether there is an association between grammaticality and conversational contingency in children with ASD.

Method

Data Sources

English-speaking corpora from the *TalkBank* database were used as a source of language data: *ASDBank* and *Child Language Data Exchange System* (*CHILDES*). A total of 74 transcripts of children diagnosed with ASD and TD controls were analysed. The ASD language samples were taken from two corpora in the *ASDBank*: *Bang and Nadig corpus* (Bang & Nadig, 2015) and *Eigsti corpus* (Eigsti, Bennetto & Dadlani, 2007). Transcripts from 29 children with ASD were analysed after excluding one child because the transcription contained no usable child utterances. The TD language samples were taken from the *Warren-Leubecker corpus* (Warren-Leubecker, 1982) in the *CHILDES ENG-NA* database (n =45).

The *Bang-Nadig corpus* collected speech from English-speaking and French-speaking families of both ASD and TD children in Montreal Canada. Only English- speaking participants were included in this study. To be in the English-speaking category, the children had to be in environments where English was spoken for at least 75% of the time per week. Inclusion criteria for the ASD group was a clinical diagnosis of ASD, meeting ASD criteria on the *M-CHAT* and *ADOS*, and absence of other medical conditions and physical disability that would interfere with the completion of the study. The language samples were collected in the context of free-play tasks using toys provided by the researcher. The sessions lasted 10 minutes. The interactions were videotaped and transcribed from the recording research assistants that were native English speakers and were blind to the child's diagnostic group. Only 12 of English-speaking participants had the ASD diagnosis and the remaining 26 English-speaking participants were TD children used for the control group.

The *Eigsti corpus* had 16 transcripts from children with ASD aged 3-6 recorded in the context of free play sessions. The play sessions occurred in a lab with a standard set of toys and books, and the interaction between the child and a trained research assistant was videotaped through a one-way mirror. The research assistants had standardized prompts for when children did not initiate interactions or engaged independently with the toys. Only the first 100 utterances for each participant were included in the transcript.

The *Warren-Leubecker corpus* used a 'younger' age group (1;6-3;1), and the other half were placed in the 'older' age group (4;6-6;2). None of the participants had a diagnosis of language or speech disorder. Children were from nonprofessional middle-class white families in suburban Atlanta, Georgia, in the United States. Data collection was conducted in the child's home and used the child's own toys or books to encourage conversation. Parents were instructed to talk or play as naturally as possible with the only limitation being that neither child nor parent was allowed to read to the other; the free-play sessions lasted between 15 and 30 minutes. The experimenter either left the tape recorder behind or sat outside of the child's eyesight. The language samples were transcribed using English orthography and phonetic approximations for uninterpretable speech segments.

These corpora were chosen due to the considerable number of participants younger than 7 years old. Additionally, all the corpora contained parent-child interactions in the context of free-play. These features (many participants from a single corpus and free-play parent-child interactions) assisted in maintaining the conversations collected consistent. Participants from each experimental group, ASD and TD, were grouped by Brown's *MLU Stage* (Brown, 1973). The MLU was calculated using the 'MLU' feature in *CLAN* software in *CHILDES* for each transcript.

Data Analysis

The first author read and categorized all child utterances, and the second author revised and corrected categorizations if there were disagreements on the utterance type. All unintelligible utterances and non-meaningful vocalizations produced by the child were excluded from the MLU and pragmatic analyses. Imitative and perseverative utterances were also excluded from the morphosyntactic analysis as these did not provide additional information on the grammatical development of the children. Remaining utterances were coded in terms of grammaticality (grammatical versus ungrammatical), in which ungrammatical utterance received a description of the error type. The intelligible utterances were coded for pragmatic contingency (whether the utterance fit the context), an utterance can be classified as noncontingent because it was self-contradictory, redundant, irrelevant, or because it is somehow inappropriate for the context of utterance, as well as the category of discourse (Bloom et al, 1976). Imitative utterances were split into adult-imitation and perseveration (self-imitation) for a more fine-grained analysis. The following are descriptions of criteria for each grammatical and pragmatic category:

Grammaticality

Ungrammatical: Utterances with well-formed words that have an omission of obligatory items like articles or subjects, verb person or time agreement, non-pragmatically licensed ellipsis, mazes, word order error, lexical error (word choice)

> *Tower fall.**

Grammatical non-imperative: Any grammatically formed utterance that is not an imperative, including interrogatives, declaratives and exclamative. Pragmatically licensed prepositional, adjective, noun, and verb phrases were coded as grammatical.

> *The tower fell.*

Grammatical imperative: Grammatically formed imperative utterances, such as 'come here,' 'sing,' etc. These may have a simpler syntactic structure in terms of subject and object inclusion, and verbal conjugation.

> *Build a tower.*

No syntactic value (NSV), including

Single-word utterances/responses: such as locatives (here, there), affirmations (yeah, yes, right), negation (no, nah)

Imitative: Repetition previous utterance said by the adult or child

> Child: *Fish*.

> Child*: Fish fish fish fish.*

Non-word: verbal approximations (not fully formed words), idiosyncratic jargon (words made up by child to refer to a specific item/thing)

> *'kuh hee'* meaning "come here"

Pragmatic Felicity

Contingent: Child utterance is responding directly to the adult utterance or contextually appropriately shifts conversational topic, maintains current topic and adds new information to the conversation

> Adult: *What colour is this block?*

> Child: *Blue*.

Non-contingent: Child utterance diverges from adult utterance by not responding to an interrogative or shifting the topic without an appropriate utterance.

> Adult: *What colour is this block?*

> Child: *Baby crying.*

Imitative (adult): Repeats entire or partial adult utterance without adding new information to the conversation.

Adult: *Here you go.*

Child: *Here you go.*

Perseverative: Child repeats themselves without adding new information to the conversation

Child: Fish.

Child: *Fish fish fish fish.*

Ungrammaticality obscures meaning: Utterances that are ill-formed cannot be interpreted due to their ungrammaticality; never exceeds 5% of utterances in any participant and none appear at stage 5 and above.

Adult: There we go. (talking about building blocks)

Child: *Shoe.* *

Note that in sub-study 1 there was no NSV category, and these were classified as ungrammatical. The total number of analysable utterances for each child was used to calculate the percentage of utterances in the morphosyntax categories. For the pragmatic analysis, some tokens of non-words were excluded (sounds, onomatopoeias) but only verbal approximations were included for this portion of the analysis. Participants of each group, ASD and TD were arranged by MLU category, and the averages of each MLU stage for both groups were calculated. All descriptive and statistical calculations were derived with the *IMB SPSS Version 29* software for *Windows 11*.

Sample Characteristics

Table 2 describes the quantity of children in each MLU stage in the autism group and typically developing group. As far as the age at each stage of linguistic development, the age range in the ASD group is greater than that of the typically developing peers. For example, the mean age for stage one in the TD group is 1.75 years or 1 year and 9 months, while the mean age for stage one in the autism group is 4.37 years old. Moreover, the standard deviation for the ASD group is broader than that of the TD group in stages 1 through 4, indicating that there is greater variation in the age of linguistic development while the children in the TD group have more uniform abilities according to their chronological age.

Table 2

Demographics of the Participants per MLU Stages

Stage	ASD		TD	
	No. of participants	Mean (St Dev) Age	No. of participants	Mean (St Dev) Age
1 (MLU 1-2)	7 (5 male)	4.37 (0.78)	11 (8 male)	1.75 (0.26)
2 (MLU 2-2.5)	5 (3 male)	4.5 (0.87)	3 (2 male)	2.33 (0.29)
3 (MLU 2.5-3)	4 (3 male)	5.71 (0.59)	7 (4 male)	2.7 (0.36)
4 (MLU 3-3.75)	5 (5 male)	4.63 (1.07)	10 (3 male)	3.68 (0.99)
5 (MLU 3.75-4.5)	6 (5 male)	5.27 (0.93)	10 (5 male)	3.97 (1.72)
5+ (MLU >4.5)	1 (0 male)	3.92 (0)	4 (3 male)	4.98 (1.47)
Total	28 (21 male)	4.86 (.97)	45 (25 male)	3.1 (1.42)

Results

A t-test revealed that the two groups were significantly different on age [t=5.61; p< .001]. The children in the ASD group were older, with the mean age of 4.86 years old, compared to the mean age of 3.1 in the typically developing group. The groups were also significantly different on the production of imperatives [t=2.31, p< .05], noncontingent utterances [t=3.44, p< .001], and perseverative utterances [t=2.66, p< .01]. The children with ASD produced a greater number of imperatives, noncontingent, and perseverative utterances. None of the other comparisons were significant, including grammaticality, ungrammaticality, NSV, contingent, imitations (all p-values > .05), see Table 3 for these results.

Table 3

Whole Sample Descriptive Statistics of the Dependent Variables

Group		Min	Max	Mean	Std. Deviation
ASD (n=28)	Age***	3.30	6.50	4.86	.97
	Ungrammatical	.00	.31	.18	.07
	Grammatical	.00	.53	.25	.17
	Imperative*	.00	.44	.06	.08
	Single-word	.09	.63	.31	.13
	Non-word	.00	.33	.08	.09
	No syntactic value	.27	.88	.57	.15
	Imitation	.00	.50	.13	.11
	Contingent	.06	.89	.66	.20
	Noncontingent***	.00	.44	.14	.09
	Imitative	.00	.18	.07	.06
	Perseverative**	.01	.50	.12	.13
	Obscure	.00	.11	.02	.03
TD (n= 45)	Age	1.30	6.20	3.15	1.41
	Ungrammatical	.00	.51	.18	.12
	Grammatical	.00	.65	.28	.20
	Imperative	.00	.16	.03	.03
	Single-word	.00	.63	.28	.14
	Non-word	.00	1.00	.11	.25
	No syntactic value	.31	1.00	.57	.19
	Imitation	.00	.57	.11	.11
	Contingent	.00	.97	.74	.23
	Noncontingent	.00	.22	.08	.06
	Imitative	.00	1.00	.12	.21
	Perseverative	.00	.28	.06	.06
	Obscure	.00	.05	.01	.02

*Note, significant comparisons are marked as follows: *** p < .001, **p< .01, *p<.05*

To better understand the dynamics of morphosyntactic and pragmatic development in children with ASD compared to TD children, their performance was analysed by Brown's stages 1 through 5+ by running a one-way *ANOVA*. Additionally, the average performance of both groups was graphed by stage of MLU development for all morphosyntactic and pragmatic variables (see Figures 5 and 6; note: error bars represent standard error). The rate of utterance ungrammaticality was not significant across MLU stages for the TD group, but it was for the ASD group [F=3.164, p=.027]. The grammaticality of utterances was significantly predicted by MLU stage [F=9.998, p=<.001] in the ASD group as well. NSV utterances are significant in the ASD group [F=5.871, p =.001], indicating that the MLU stage the child is in will strongly predict a decreasing frequency of NSV utterances. Imitative utterances were also significant in the ASD group [F=5.216, p =.003]. In the TD group the following variable are significantly predicted by MLU category: grammaticality [F=20.182, p =<.001], NSV [F=10.785, p =<.001], contingent [F=13.697, p =<.001], and imitative [F= 4.993, p=.001]. MLU stage showed a significant contribution with p<.001 for the frequency of grammatical utterances in both groups. Thus, grammaticality will increase in both TD and ASD children as they progress through Brown's stages, although Figure 6 suggests that grammatical abilities do not develop at the same pace. Note that the values in Table 4 are those graphed in Figure 5, and the values from Table 5 belong to Figure 6.

Table 4

Mean Performance of Morphosyntactic Development by Brown's Stages

Brown's Stage	Ungrammatical		Grammatical		No Syntactic Value	
	ASD*	TD	ASD***	TD***	ASD***	TD***
1	9.26%	15.42%	2.36%	3.30%	69.23%	79.87%
2	18.88%	26.54%	20.85%	10.22%	54.0%	58.31%
3	19.39%	20.23%	31.88%	31.05%	43.11%	45.49%
4	22.95%	15.49%	30.67%	40.81%	43.16%	39.19%
5	19.78%	21.78%	40.97%	40.52%	31.74%	34.50%
5+	25%	11.11%	45.27%	47.54%	25.68%	39.22%

Note, one-way NOVA significance marked as follows: *** p < .001, **p< .01, *p<.05

Table 5

Mean Performance of Pragmatic Development by Brown's Stage

Brown's Stage	Contingent		Noncontingent		Imitative (adult)		Perseverative	
	ASD	TD***	ASD	TD	ASD**	TD***	ASD	TD
1	44.48%	42.70%	12.09%	10.04%	11.42%	34.70%	18.37%	10.11%
2	60.16%	79.79%	18.97%	7.85%	6.60%	2.73%	13.68%	8.55%
3	77.04%	81.55%	8.83%	8.05%	3.57%	4.17%	8.86%	3.99%
4	64.35%	86.77%	16.63%	6.94%	3.83%	2.62%	11.81%	2.70%
5	79.68%	82.42%	9.51%	6.25%	4.23%	5.41%	4.44%	5.19%
5+	89.12%	86.77%	9.52%	4.30%	0.0%	3.70%	1.36%	5.23%

Note, one-way NOVA significance marked as follows: *** p < .001, **p< .01, *p<.05

Figure 5

Average Morphosyntactic Development across MLU Stages
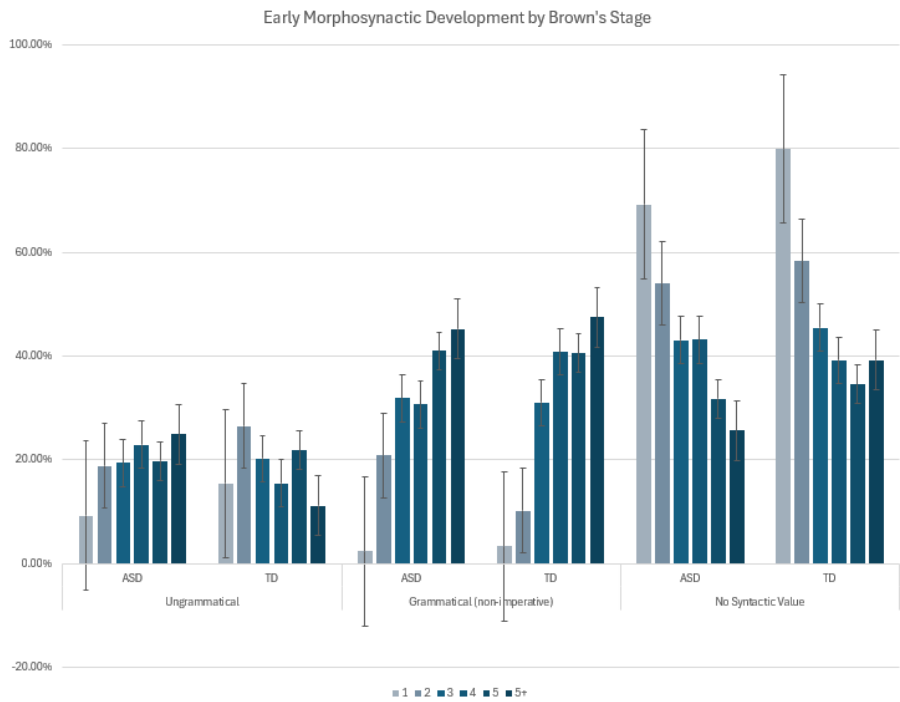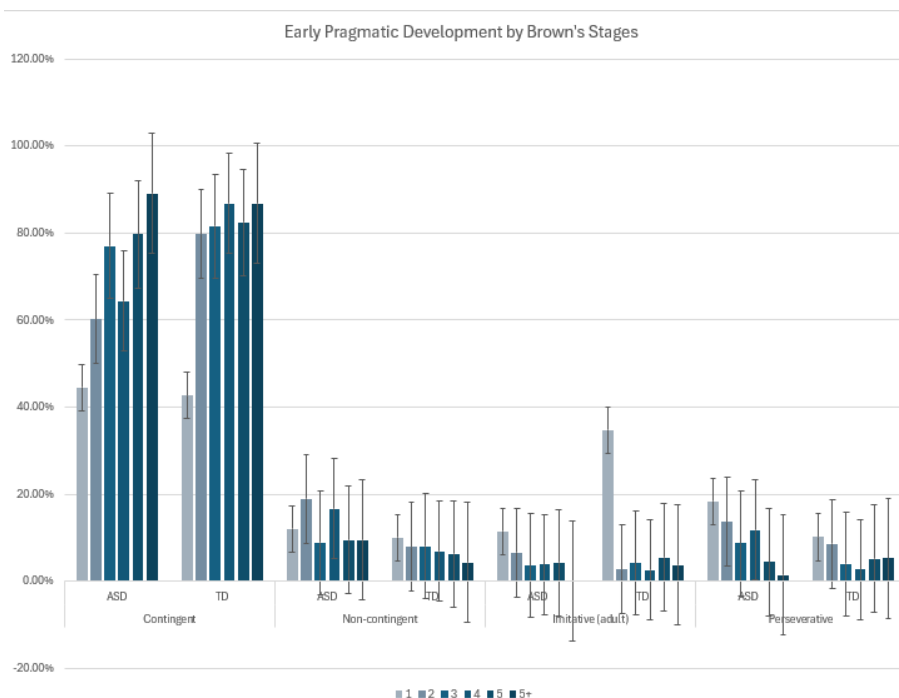

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Figure 6

Average Early Pragmatic Skills across MLU Stages

Next, Pearson's correlations (Lee Rodgers and Nicewonder, 1988) were conducted to investigate the interrelationships between study variables, including age, MLU, morphosyntactic, and pragmatic categories. for each variable, including age and MLU were conducted for ASD (Table 6) and TD (Table 7) groups separately. In the ASD group, a highly significant positive correlation was found between utterance ungrammaticality and MLU [$r=.554$, $p=.01$], indicating that with increasing MLU, ungrammaticality increases. Additionally, grammaticality and MLU also had a strong positive correlation coefficient [$r=.796$, $p=.01$]. This suggests that an increase in grammatical correctness is accompanied by a greater MLU. NSV utterances had a strong negative correlation with MLU [$r=-.689$, $p=.01$] and grammaticality [$r=-.795$, $p=.01$]. Thus, the frequency of NSV utterance production will decrease as the children's MLU, and grammatical skills increase. The frequency of contingent utterances had a strong positive correlation with MLU [$r=.538$, $p=.01$] and a strong negative correlation with NSV utterances [$r=-.524$, $p=.01$]. Contingent utterances become more frequent with increasing MLU, and NSV utterances become less frequent. Noncontingent utterance frequency was only strongly negatively associated with

contingency [r=-.526, p=.01], and negatively correlated with age [r=-.412, p=.05]. This means that the ASD group increases in MLU, their noncontingent utterances will be less frequent, and they will increase the frequency of contingent utterances. Noncontingent utterances in the ASD group were positively associated with NSV utterances [r=.383, p=.05]. As children increase their MLU, they produce less noncontingent utterances, and thus will also be less likely to produce NSV utterances. Adult-imitative utterances were strongly negatively correlated with MLU [r=-.641, p=.01] and contingent utterance frequency [r=-.624, p=.01]. As children with ASD increase their MLU and conversational contingency, they will produce less adult-imitative utterances. Imitative utterances have a strong positive correlation with NSV utterance frequency [r=.497, p=.01]. An increased number of adult-imitation utterances will show an increase in NSV utterances. Perseverative utterances were strongly negatively correlated with: MLU [r=-.477, p=.05], ungrammatical utterance frequency [r=-.563, p=.01], grammatical utterance frequency [r=-.659, p=.01], and contingency [r=-.833, p=.01]. This means that as these variables increase in frequency, the children will produce less perseverative utterances during conversation. Perseverative utterances were positively correlated with adult imitative utterances [r=.468, p=.05], indicating that if there is a greater incidence of adult imitation, there will also be more perseveration by the child. NSV utterances are negatively correlated with contingent utterances [r=-.524, p=.01] suggesting that as conversational contingency increases, the ASD children will produce less NSV language. Grammaticality was negatively correlated with NSV language as well [r=-.795, p=.01] and imitative utterances [r=-.761, p=.01]. These correlations suggest that the ASD children will produce a greater quantity of grammatical sentences as they decrease their imitation of adult utterances and NSV language. Notably, grammaticality was strongly associated with contingency [r=.792, p=.01], indicating that their conversational contingency increases alongside grammaticality.

Table 6

Correlations between Different Variables in ASD

Measure	1	2	3	4	5	6	7	8	9
1. Age	-								
2. MLU	.214	-							
3. Utterances	-.016	.258	-						
4. Ungrammatical	.230	.554**	.338	-					
5. Grammatical	.184	.796**	.297	.370	-				
6. No Syntactic Value	-.233	-.689**	-.175	-.145	-.795**	-			
7. Contingent	.253	.538**	.356	.308	.792**	-.524**	-		
8. Noncontingent	-.413*	-.148	-.039	.272	-.293	.383*	-.526**	-	
9. Imitative (adult)	-.088	-.641**	-.319	-.376*	-.761**	.497**	-.624**	.084	-
10. Perseverative	-.115	-.477*	-.297	-.563**	-.659**	.298	-.833**	.075	.468*

*Significance marked as follows: *** p < .001, **p< .01, *p<.05*

For the TD group, the number of utterances is strongly positively correlated with age [r=.529, p=.01], indicating that with increasing age there is an expected increase in the number of utterances the child will produce. The frequency of grammatical utterances is strongly positively correlated with the children's age as well [r=.776, p=.01] and the number of utterances they produced [r=.413, p=.01]. That suggests that with increasing age and utterance production, typically developing children will have a greater proportion of grammatically correct utterances. NSV utterance production frequency is strongly negatively associated with age [r=-.621, p=.01], utterance quantity [r=-.510, p=.01], and grammaticality [r=-.821, p=.01]; this means that there will be less NSV utterances as the child's age increases. There will also be a decrease in NSV utterances as children produce a greater quantity of utterances and increase their grammatical correctness. The rate of utterance contingency is strongly positively associated with the variables of age [r=.596, p=.01], utterance quantity [r=.411, p=.01], grammaticality [r=.712,

p=.01], and MLU [r=.316, p=.05]. This indicates that there will be a greater ratio of contingent utterances as the child's age, utterance quantity, and grammatical accuracy increase. Contingency was negatively correlated with NSV utterance [r=-.501, p=.01], suggesting that this type of speech will decrease as conversational contingency becomes more frequent in TD children. Noncontingent speech on the other hand, was negatively correlated with age [r=-.480, p=.01] and positively associated with ungrammaticality [r=.464, p=.01]. These association indicate that as TD children become older their rates of noncontingent speech will decrease, and that they will produce less ungrammatical sentences as they decrease the noncontingent speech. Frequency of adult imitation is positively correlated with NSV utterances [r=.498, p=.01], and negatively correlated with the following: age [r= -.357, p=.05], utterance quantity [r=-.375, p =.05], grammaticality [r=-.516, p=.01] and contingency [r=-.878, p=.01]. A positive association between NSV and adult imitation means that as children decrease the frequency of adult imitation, they will produce less NSV utterances. On the other hand, the negative correlation between NSV utterances with age, utterance quantity, and grammatical utterance production indicates that as these variables increase, the frequency of NSV linguistic behaviour will decrease. Perseverative utterances are positively correlated with ungrammaticality [r=.397, p=.01] and noncontingent utterances [r=.470, p=.01]; as children produce less perseverative speech, ungrammatical and noncontingent utterances decrease in frequency. Perseverative utterances are negatively correlated with age [r=-.400, p=.01], grammaticality [r=-.442, p=.01], and contingent utterances [r=-.357, p=05]. These utterance types will thus become less frequent as the children's age, grammatical ability, and contingent utterances increase.

Table 7

Correlations between Different Variables in TD

Measure	1	2	3	4	5	6	7	8	9
1. Age	-								
2. MLU	.187	-							
3. Utterances	.529**	.026	-						
4. Ungrammatical	.271	.053	.046	-					
5. Grammatical	.776**	.244	.413**	-.199	-				
6. No Syntactic Valué	-.621**	-.146	-.510**	.014	-.821**	-			
7. Contingent	.596**	.316*	.411**	.056	.712**	-.501**	-		
8. Noncontingent	-.480**	-.155	-.040	.464**	-.290	.002	-.221	-	
9. Imitative (adult)	-.357*	-.255	-.375*	-.304	-.516**	.498**	-.878**	-.195	-
10. Perseverative	-.400**	-.114	-.116	.397**	-.442**	.024	-.347*	.470**	-.071

Significance marked as follows: *** p < .001, **p< .01, *p<.05

Discussion

This study looked at 28 children diagnosed with ASD between the ages of one year old and six years old compared to an MLU-matched TD group. In sum, early structural language skills are not a relative strength in children with ASD when relative to their early pragmatic abilities. Both appear to follow an atypical path of development compared to typically developing peers matched on MLU. First notable finding was that in the ASD group, age was not significantly correlated with any of the language ability indicators (except one- noncontingent utterances, which diminished with age). In contrast, in the TD group, age was significantly correlated with multiple language indicators, including utterance quantity, grammatical sentence frequency, contingent utterances and noncontingent utterances. This reinforces the idea that language development in ASD is atypical since their morphosyntactic performance does not improve with increasing age. Secondly, structural language deficits have been reported to improve in school-

aged autistic children while the pragmatic delays become more prominent (Reindal et al., 2023), but this study suggests that in children below the age of 6 there are deviant patterns in both structural and pragmatic language. Their rate of not only grammatical but also ungrammatical sentences increases as their utterance length increases to a degree that reached statistical significance across MLU stages. In contrast, in TD children, a greater MLU is indicative of more advanced early morphosyntax, as evidenced by an increase in grammatical and decrease in ungrammatical sentences. The ASD group reduces the amount of NSV speech, like single-word utterances, but instead of becoming more adult-like, they make ungrammatical utterances more frequently than in earlier stages of linguistic development. As they learn Brown's morphemes, the children increase their MLU and may create the opportunity for error.

Pragmatic abilities appear delayed in autism, and there is a higher rate of imitation (adult and self) compared to the typically developing group. There were statistically significant cross-group differences of perseveration. The early pragmatic abilities in the ASD group did not show any significant correlations with the morphosyntactic abilities except in perseveration. Perseveration was negatively associated with grammatical and ungrammatical utterances in the ASD group. In the TD group, perseveration was negatively associated with grammatical utterances and positively associated with ungrammatical utterances. These findings suggest that pragmatic and morphosyntactic abilities are not dependent on each other in children with autism in early stages of linguistic development.

The findings of this present study contradict previous research (Reindal et al., 2020) that suggests morphosyntactic deficits are more pronounced in early childhood and co-occur with weaker early pragmatic findings. Early pragmatic skills only appear to be delayed compared to TD peers of similar language development, and perseverance may be a challenge for the autism group that persists. Morphosyntactic deviances become more pronounced as children with ASD increase their MLU, however. It is possible that as children with ASD practice using language and become more familiar with the intrinsic rules of their mother tongue, they outgrow the sustained production of ungrammatical utterances in later childhood.

General Discussion and Conclusions

Both studies included in this chapter were natural language analyses of conversations between adults and autistic children. The aim of the sub-study 1 was to explore if there is an association between morphosyntactic and early pragmatic abilities of children with autism. Sub-study 2 had three aims. Two were

to examine early language development in children with ASD compared to TD children at the same stage of MLU in the domains of 1) morphosyntax and 2) early pragmatics. The third aim was to test if the increased grammatical performance in contingent contexts occurred in other children with ASD as it occurred in the case study and compare their performance with MLU-matched TD peers.

The results from the case study showed that the child had language delays with high variability in his linguistic performance, and contingent utterances were more likely to be grammatically correct than noncontingent ones. The second study revealed that children with ASD are deviant in their morphosyntactic development: as they produce longer utterances, they increase the frequency of ungrammatical utterances, that is utterances with that lack obligatory elements, word order errors, verb agreement with subject or tense, among other errors. At the same time, the children with autism produced a greater proportion of grammatical utterances, but it is not at the same rate as their MLU-matched TD peers. Both grammatical and ungrammatical utterances can increase because their rate of NSV utterances decreased. A one-way *ANOVA* of the variables analysed showed that grammaticality was significantly predicted by MLU stage in the ASD and TD groups, where the frequency of grammatically correct utterances increases with increasing MLU stage. While age significantly predicted some domains of grammatical and pragmatic performance in the TD group, age did not correlate with any variable analysed in the ASD group. An interesting finding is that the literature has extensively documented that autistic children show deficits in imitation, at least in contexts when it is elicited. Study 2 shows that the ASD group had higher rates of imitation (of adult speech) than TD peers that persisted across MLU stages. The TD children had the highest rates of imitation during MLU Stage 1, but quickly decreased the frequency in subsequent stages. ASD children maintained a greater frequency of imitation but not to a degree that was statistically significant.

The age of children in each group for MLU categories was significantly different, where children with ASD had a greater mean age per MLU stage, suggesting that as a group they have delays in grammatical development. In both studies, children with ASD had improved morphosyntactic performance in contingent contexts, and in Study 2 this pattern reached statistical significance. Moreover, the findings from the case study and Study 2 reveal that children with ASD appear to follow an atypical path of morphosyntactic and early pragmatic development, as they have high rates of ungrammatical utterances and perseverant utterances.

Currently, diagnosticians face challenges in diagnosing or recognizing language deficits in autistic individuals. Traditionally standardized tests are used to evaluate

language abilities in individuals with autism. Alternative methods of language assessment include natural speech analysis, experimental tasks, and parental reports. Eigsti & Schuh (2016) suggest that more meticulous methods for language analysis in autism are needed to create effective interventions. Testing beyond standardized tests would allow individualized treatment plans according to the delays or deficits of each autistic individual. Psycholinguistic researchers encourage practitioners to include global language testing that includes pragmatics, morphosyntax, phonology, and lexical abilities as each child has unique strengths and weaknesses across their linguistic profile (Janke & Perovic, 2017; Reindal et al., 2021; Sturrock et al., 2020; Eigsti & Schuh, 2016). With the uniqueness of the language skills of each autistic person in mind, interventions can be based on their strengths and weaknesses to support their language development and social communication skills. Incorporating both direct observation and standardized testing for language would allow professionals to understand their linguistic performance in different contexts and highlight how their performance may be perceived versus their observed performance.

Future Directions

There is a significant need for longitudinal studies that explore language development of multiple domains because the bulk of the current research that focuses on language in autism is cross-sectional studies. A deeper analysis of the children's morphosyntactic ability that includes the type of phrases (noun phrases, verb phrases questions, negations) may also shed light on what clause types are more challenging for the clinical group. Additionally, future studies should include other abilities that may influence language development and production, such as theory of mind skills, verbal working memory, among others to determine if the performance in these variables may impact language performance in autism.

Since this work has found an association between improved grammatical performance and contingent speech, and further research should investigate whether increasing the rate of contingent speech in children with ASD will improve their grammatical performance. To increase the motivation for children with ASD to engage in contingent speech for future research in this relation, researchers should engage in conversations about preferred topics to the child as individuals with ASD tend to have restricted interests. Additionally, future research should examine whether increased complexity of morphosyntactic structures from caregivers to children with ASD is associated with improved grammatical performance.

Limitations

Both studies are cross-sectional in nature, which do not provide details about how different children in autism develop their morphosyntactic skills and there was no standard number of utterances; some transcript sources cut the adult-child conversation at a specific amount of time, and others after so many child utterances were produced. The current literature still lacks substantial information about the morphosyntactic development in autism. The study transcripts from *CHILDES* used for this have varying criteria to participate in the autism groups and there is limited information about the participants such as co-diagnoses that may exacerbate language abilities.

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Ethical Declaration

In this research, the principles of scientific research and publication ethics were followed. The data used in this study were publicly available and did not involve any identifiable or sensitive personal information, thus ethics approval was not required.

Proportion of Authors' Contribution

Author 1: Conceptualization, Investigation, Methodology, Data Collection, Formal Analysis, Visualization, Writing – Original and Final Draft.

Author 2: Conceptualization, Formal Analysis, Review & Editing, Visualization, Writing – Reviewing and Editing.

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TEACHING READING SKILLS IN FRESH WAYS AS GenAI EMERGES

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This past year, for the first time I taught first-year university students Reading Skills I, Reading Skills II, and Critical Reading and Writing. In previous years, I frequently taught basic English reading skills and EAP reading; however, these new classes provided an opportunity and created a necessity for re-thinking my approach to teaching reading. This was partially because most of the students were both high-level users of English *and* skilful bi- or multi-lingual readers as English Language Teaching candidate students, but the rethinking was largely due to the popular emergence of generative artificial intelligence (GenAI) and its effect on reading and education. However, it is not only GenAI (e.g. *ChatGPT*) that has changed what skills readers need to develop; software allowing cameras to recognize and copy text works with applications that translate an increasing number of languages. Thus, when a teacher asks a question about a text, students can 'produce' an analysed, translated response in seconds. All of this can theoretically be done without reading skills in the target language if one has technological skills. In daily life, this has wonderful possibilities; but for the development of readers and their reading skills, it can be devastating! The near-universality of these opportunities means that what readers need is to develop the skills which utilize these capacities without shortcutting the learning embedded in any good reading of a text. In other words, the need to gain both superficial and detailed information from a text has not changed much, yet the methods used to access texts are evolving. So, how do teachers encourage good reading, improve readers' skills, and prepare them for a future where opportunities continue to multiply? That is the challenge that teachers face as they try to boost students' reading skills, especially for language learners.

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In order to teach such skills, teachers require at least a basic understanding of how the new technology works as well as its strengths and weaknesses. I realized this most clearly when I read that "This version of *ChatGPT* is the weakest, most rudimentary artificial intelligence of its kind our students will ever use" (*ChatGPT*, Chatbots and Artificial Intelligence in Education, 2022). Those words crystallized in my mind that I had to learn to teach reading again in this new AI-affected world, and my students needed to be equipped to move forward effectively. Clearly, teaching well requires lifelong learning.

Literature Review

The modern reading student needs three key types of reading skills, none of which are really new, at least for the present generation. These can be categorized as traditional reading skills, 21st century literacy skills, and digital literacy skills, including the use of GenAI. Teachers should help readers develop each of these. To adapt Ingley and Pack's (2023) assertion, *teachers' goals should be to develop readers rather than reading*.

Traditional Reading Skills

Traditional reading skills encompass proficiencies like comprehension, speed reading, vocabulary recognition, skimming, scanning, and analysis. In her 1990 coursebook, Mikulecky produced a 'not exhaustive' list of 24 reading skills commenting, "These skills are not new; most are familiar to anyone who has taught reading" (pp. 25-6). Today these skills continue to be essential, just as people continue to need addition or multiplication skills despite the ubiquity of calculators. "Learning how to read, a core concern of education, is still of crucial importance even though students' everyday experiences of literacy, the texts they encounter, and their ways of accessing them may have changed quite fundamentally" (Merchant, 2020, p. 7). Basic reading skills must persist so that readers can depend on their own judgments, confirm that digital aids are accurate, and accomplish tasks even when technology is inaccessible.

Digital Literacy Skills

Competent readers also need to be fluent in handling both traditional writing or print as well as digital media, and digital sources require some ability with the technologies which are the vehicles for the texts (Burnett & Merchant, 2019). For many tasks, using digital tools for a quick extraction of information from a text may suffice, and teachers should prepare students to benefit from such

opportunities. Nonetheless, readers also need to learn or be taught both the benefits and the limits of such tools. *In what situations is GenAI likely to be reliable? When might it be less reliable? What are its weaknesses? Where can it simplify tasks and increase efficiency? Where may readers fall behind, be less informed, or expend extra time and energy if they do not use digital tools? Are there ways in which AI might weaken the user or the user's community if used inappropriately or excessively?* Questions like these need to be asked and answered by readers, and a teacher's guidance may smooth this process. The answers to such questions may also change over time, and so a part of this process should be to encourage students in healthy ways of thinking about technology, their own humanity, and the relationship between the two. As Stefania Giannini notes in a UNESCO (2021, np) report on AI and education, "Future learning and training systems must equip all people with core AI competencies, including an understanding of how AI collects and can manipulate data, and skills to ensure safety and protection of personal data". Understanding both the nature and current limits of a technology (e.g. AI's limitations based on imitating patterns) and developing an ethical approach to using the technology (e.g. the use of AI, plagiarism, and one's own development) are vital for readers (Pack & Maloney, 2024; Ingley & Pack, 2023). Teachers need to be clear about the downsides of AI for readers, but they also have a positive responsibility to show the benefits of these new opportunities.

In order to benefit from AI, readers will need to practice and experiment with reading both digital and non-digital texts as well as handling, evaluating, and responding to texts digitally and non-digitally. Furthermore, the multimodal nature of many resources can stimulate complex responses to complex input, especially with a teacher's prompting (Burnett & Merchant, 2015). To complicate things further, technology's continual evolution means that readers and their teachers cannot adjust to a particular set of devices, programs, or capabilities. Instead, they will need to learn what is currently possible, appropriate, and beneficial while developing the confidence to learn and experiment in years to come (Merchant, 2020). While such confidence will come naturally to many, for others it will be more difficult. In the fall of 2023, nearly a year after *ChatGPT* was released, many of my first-year students had still not used it. Others were unfamiliar with QR codes or the ability of many smartphone cameras to copy, paste, or translate text. Combining the use of such applications to get a quick translation and summary of a text was not beyond the capabilities that students held in their hands, but for some of them, it was beyond their prior knowledge. While others had these skills, thinking through the right time and place to use them

and how to take precautions against the existing weaknesses in the programs was important. In summary, encouraging the use of technology helps make classes engaging and practical, but encouraging the use of non-digital reading and responding is also important to ensure that *reading* skills are developed along with *technological* skills.

21st Century Literacy Skills

Thirdly, so-called 21st century skills are necessary for readers today. For example, Brad Hummel (2024; cf. Merchant, 2020) of iCEV lists six 21st century skills which seem meaningfully related to reading: critical thinking, creativity, collaboration, information literacy, media literacy, and technology literacy. Clearly, neither these skills nor the need for them is new[1]; however, their centrality to real-life success has increased. While GenAI will perform many basic jobs, humans will be needed for higher-order thinking. Equipped with these skills along with traditional reading and contemporary technological ones, readers can encounter a wide variety of real-world texts – both physical and digital – with fewer barriers to understanding and a greater capacity for benefit.

Method

What can be done to cultivate these sets of skills? Beyond that, how can teachers meet the institutional need to assess the skills development and to show whether readers have benefited from the class? Students, teachers, and institutions should all be able to see the connections between the goals set, the skills practiced, and the assessments given. Particularly, assessments should be designed with what Nation (2009) calls 'face validity,' saying tests "should clearly look like what they are supposed to be measuring" (p. 77). This will allow all participants to maintain confidence in the process.

Developing Traditional and Digital Literacy Skills

Mixing the development of skills across mediums is a key to the approach I am advocating. For instance, students need the ability to skim/scan text for main ideas or particular details either themselves or with digital tools. While teaching this skill, a teacher could have the students record the results they achieved without digital aids and how long the process took; then, the teacher might have the

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[1]Emphasis must be placed on the necessity of these skills, not their trendiness or age. Over a hundred years ago in *How We Think,* Dewey wrote in detail about the need for 'reflective thinking' (e.g. critical thinking) and pointed to others who had thought about it for centuries before him (n.d.).

students use GenAI to perform the same task. How do the processes compare in terms of accuracy and speed? Could either process be improved with practice? This comparative approach can be used in many ways in our teaching. It encourages focused practice that improves skills in parallel mediums and generates an understanding of when and where each approach might be suitable based on the desires of and pressures on the reader.

Due to the variety of assignments a student must submit each semester, this approach can also work well practically. For instance, I teach with a variety of analysis worksheets which guide students in investigating texts in different ways.[1] Often in class, I will start with one section of a worksheet, such as 'evidence used in the text,' 'author's purpose,' or 'outline the text.' The readers will work, usually in pairs or groups, to understand and answer the questions. Some readers will use a translation app to confirm or increase their comprehension, but most will *not* immediately use GenAI to do the analysis for them. Meanwhile, I go around seeing if they are on track, clarifying the questions, and seeing what answers have emerged. So far, this exercise is fairly traditional, but that changes as the tasks advance. Iterative (not simply repetitive) practice is key to good practice (Larsen-Freeman, 2017). This is especially true of good homework.

As homework, students are assigned a different text with the same analysis worksheet. Without fellow students to collaborate with or a teacher to monitor them, the temptation increases to use GenAI *as a lazy approach* to *not* reading or understanding the text. (As a teacher, I do not want to discourage appropriate AI use; instead, I want to discourage thoughtless use!) The worksheet will be submitted digitally, and the students are allowed to use AI-related tools as long as they do so to increase their ability, understanding, and accuracy. Thus, as a class, we discuss when and how to use AI to improve reading skills (e.g. checking understanding using translation or a GenAI summary). I also give guidelines about using GenAI to check and confirm answers, grammar, or vocabulary. As readers' abilities and comfort increase, I require them to use AI to proofread their responses. Simple grammatical or spelling errors result in lost points if students could easily have had *Grammarly*, *Google Translate*, *ChatGPT*, or similar software identify potential improvements.

But how can a teacher ensure that reading students actually do their homework themselves with only an appropriate amount of AI support? The simple answer is 'they can't.' However, I have used a couple of tools to encourage readers (two

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[1]Appendix A contains an example. Years ago, I was given several worksheets for EAP classes; I have gradually adapted, simplified and expanded them. A comparable example can be found online by searching "Analyzing a Written Text –Thomas" or at https://writing.colostate.edu/guides/teaching/co301aman/pop7b3.cfm.

classes of 66 students, and one class of 25) to do the work and to expose those who regularly use GenAI *without understanding* the text and questions. Beyond the worksheets, I also have readers fill out a weekly Google Form about their homework (see Appendix B). This survey requests details on what they read, how much time they invested, what percentage of the text they read, and what questions they have for class discussion. I adjust the survey based on the reading, but it typically includes points like, "*Write 2-4 questions that you wonder about based on the text or that you would like to discuss in class.*" or "*What was the most interesting sentence in the text? Or, what is something new that you learned?*" There might also be a question that asks the student to personalize the reading to their own experience. Now, GenAI is capable enough to answer any of these to an extent, but over time it becomes clear which students are seriously applying themselves and which are copying generated answers. Also, as suggested in the first question above, in class, students are expected to discuss their reading based on questions other students submit. In other words, students need some level of real understanding of each text. Naturally, some students cannot complete the homework[1]; still, in class, they can get an idea about the text from the others and participate by asking questions. Throughout this process, one can see the interwoven nature of traditional reading skills, digital skills, and 21st century skills as students read and respond with analysis, using electronic aids to check both their thoughts and their language while collaborating through discussing the text's meaning and value.

Other digital methods and tools can also enrich the classroom experience and foster reading skills. A favourite activity is 'debate the bot,' which often causes intense reading and passionate writing as well as having the potential to improve students' ability to build arguments (Dimitrakopoulou, 2024; Guo, Zhong, Li & Chu, 2023). This task allows readers to argue back and forth with *ChatGPT* on an assigned topic. Students have to present arguments to the chatbot and respond to its counterarguments, eventually handing in their results. This is an enjoyable way to engage in a debate while also reading, and it has a simple, measurable product.

Students also create and submit audio or video responses to their reading in-class or as homework. Neurologically and linguistically, verbal responses cause a different sort of processing than written ones (Rapp, Fischer-Baum & Miozz, 2015; Hillis, Rapp & Caramazza, 1999). In fact, when recording, students often

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[1] I only require students to do homework for 12 of 15 weeks. This encourages honest work by acknowledging that some weeks are hard, and students need breaks.

concentrate quite hard to frame their responses well, even going to the trouble of making multiple recordings.

Another tool is the online pop quiz, which is simple to create on Google Forms or Survey Monkey. Accessing these can also help the students get comfortable using QR codes to access information, although the number of students who are uncomfortable with this technology seems to be decreasing rapidly. Groups of students can also create their own surveys about the text to test other groups in the class.

Online reading speed calculators offer an enjoyable challenge for students which encourages them to read and provides a tangible result. Comparing these results across a couple of websites and languages gives readers a real sense of their reading speed and comprehension, plus an ability to measure their progress over time.

Two additional resources connect to readers' desire for speed. In the regular surveys I do to find out what students want to learn (both skills and topics) and what they have learned and enjoyed; speed reading is consistently a skill that students want to improve. This suggests that students are willing to do the work of reading, but they would like to be efficient, which will encourage them to avoid defaulting to AI for 'help'. One of the tools which I particularly enjoy using to help students practice skimming and scanning is an online teleprompter (e.g. https://cueprompter.com/) projected onto the whiteboard. The teleprompter forces the students to let their eyes glide over the text. Typically, I play a text twice, and then the students compare their answers. This method is simple for the students to practice by themselves, and it is effective for testing (more on that below). Vocabulary recognition is the second way I encourage faster reading. Digital flashcard websites or apps for vocabulary memory are quite valuable. I use a website like Memrise's Community Courses to encourage students to practice the Academic Word List for bonus points with either English or Turkish definitions (e.g. https://community-courses.memrise.com/community/course/655846/new-academic-word-list-english-definitions/). This encourages regular vocabulary memory while also keeping the resources at the students' fingertips.

Not all of these technological skills use AI directly, but together they give the students a regular link between their digital reading platforms and their assigned reading. For the less technologically inclined readers, in particular, they encourage practice with technology in productive ways. The more technologically inclined students may benefit more from the other skill sets, whether traditional or 21st century.

Developing 21ˢᵗ Century Skills

Some ways of intertwining key 21ˢᵗ century skills into teaching reading have already been revealed. Critical thought, creativity, collaboration, information literacy, media literacy, and technological literacy are woven into many of the examples above. However, a few particular illustrations may be useful in showing how these skills can be the focus. One week, I told students a traditional folk tale from my childhood about the folk hero Anansi the spider. Afterwards, I had them read the same folk tale from another region. The plot was the same, but the details were different. The students' task was to jointly analyse what was different and discuss what the reasons for these differences might be. This was a fairly enjoyable text and exercise, and yet it required the exact sort of analysis and critical reading skills that seemed so difficult when the students heard them theoretically. As a bonus, it encouraged valuable collaboration (Burnett & Merchant, 2015).

Another significant way of having students interact with the text is to have them write questions about the text. These could be either for quizzing or discussion. However, the function of the questions is to show a real understanding of the text and to see if the readers can extend their understanding. Introducing Bloom's taxonomy with its question-types can be a simple means to require analysis at different levels.

Testing the Skills

One area of teaching reading that needs separate discussion is formal testing or assessment. Humans tend to become more proficient at what they do repeatedly. So, reading students need to be actively reading in order to be actively improving in reading. Thus, homework and in-class participation were emphasized in my classes. Tests were an additional, motivating source of practice that offered a different degree of assessment of students' capacities. Naturally, the tests also fulfilled an institutional goal of measuring student ability and progress. However, their importance in terms of grade percentage was minimized as much as possible so learners could focus on the reading skills themselves. Thus, I attempted to remove almost all mystery from the tests. Before each test, we practiced a stylistically-identical test that included similar questions, although it contained more questions than the actual test. Students' challenge in each exam was to use the skills which they had practiced in class. In order to test the three types of reading skills, I made a three-part test. Part A was a practical test of speed-reading involving skimming and scanning carefully matched to the previous weeks' practices with the teleprompter. Part B was a fairly traditional test that primarily

questioned the text's organization, purpose, argumentation, or references (e.g. what does 'this' refer to above?), or the reader's prediction of what would follow. Part C tested digital literacy as students were strictly time-limited but technologically unlimited.[1] It had three questions; one of which required summarizing the text[2]. For this task, students needed to be proficient at getting the text (from the page, a QR code, or a friend), putting it into a chatbot, requesting a summary, and making any needed adjustments (e.g. adding the title and author of the text). They also needed to check that it had the proper word count and style, while maintaining good grammar and spelling. These latter points were highlighted since students were expected to use their devices to improve their production.

In this way, each test assessed each of the three reading skill types. Students engaged with two texts in multiple ways, finding out if they could get the necessary information from it themselves or with their devices. They attempted to do this quickly but thoughtfully using analysis, creativity, and potentially even collaboration in the testing.

To gather information on how effective the students found these methods to be, I discussed the class and methods both with individual students and groups. The most comprehensive feedback came when students took surveys in the middle and at the end of each semester evaluating texts, tests, and skills. These surveys helped me to identify weak and strong points in the lessons from the students' perspectives. They also identified which skills students felt they needed to improve most urgently and which ones they felt had already improved.

Discussion & Conclusion

By 2032, AI in education is expected to be worth over 32 billion dollars according to one report (Wadhwani, 2023). Teachers and students are already using it and will increasingly do so. "Digital literacy has become a significant aspect of full participation in society" (Merchant, 2020, p. 18). Therefore, teachers have a critical opportunity to both engage student-readers in profitable learning and to encourage them to think carefully about the practices that could either enrich or damage their lives and communities.

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[1]Students were informed that they could use *ChatGPT*, *WhatsApp, Google Translate*, or any other technological help they wanted. They could not simply copy and paste each other's answers although the GenAI would, of course, produce similar answers.

[2]Different texts were used for Parts A and B. However, Parts B and C shared a text. Parts A and B were on a single page and were collected before C was distributed.

Being a teacher must be synonymous with being an intentional learner experimenting and improving their craft alongside their students who are seeking to expand a variety of skills (Pack & Maloney, 2024). This is not particularly radical; the best teachers have always been lifelong learners. Palmer (2007) describes this when he says, "The techniques I have mastered do not disappear, but neither do they suffice." (p. 10) However, while the idea of a learning teacher is not radical, the pressure to learn constantly may have increased. A teacher who stagnates in their learning now may eventually find that they have little to teach.

The approach and strategies above are meant to stir thought and discussion; they are not intended as solutions. Listening to students and colleagues to find out what resources they are using will suggest future areas for technological exploration and growth. Without having to try every new device, website, or tool, teachers can use small but regular updates to their classroom toolbox to press forward in teaching reading skills in new and engaging ways.

Shortly after *ChatGPT* became an international hit, Marche (2022) pointed out that AI is going to reshape academia, and no one is ready. He then called for collaboration and continued learning between technologists and academics. This is a great invitation. If teachers learn the technology and students are invited to use it in class, a wide variety of opportunities are available for learning and reading.

As teachers, we can lead our students in learning from a variety of languages through reading and using digital tools. These tools will not be sufficient by themselves; reading will still require discernment, judgment, and experimentation for the human world. It will require learning new skills and doing the hard work of building literacy. It is also clear that this approach will require some re-thinking of reading assessment; students' reading will need to be examined in light of both traditional and current technological realities. Yet overall, there is a path to learning the needed skills and accessing the opportunities available to us.

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APPENDICES

Appendix 1

Sample of Text Analysis Worksheet

Consider the authors' perspective:
- What genre of writing is this text?
  ○ What is the writer's or publication's *expected* perspective (e.g. national, ethnic, religious, political, economic, etc.)?
- Does the text *seem to be* objective or subjective? Why?
- Do the authors *openly* show their own opinions and give evidence for why they are true?
- Do the authors give other experts' opinions which they disagree with? Do they talk about evidence which might *not* support their position?
- Do they show balanced perspectives? Should they? Could they?
 	
Consider the author's purpose:
- What was the author's purpose? What change did the author want to make in the reader?
- Do you think they accomplished this purpose for you, the reader?
- Do you think the author would have expected you to read this?
 	
Consider the evidence:
- What types of proof are used to support or defend the ideas in the text?
  ○ Facts (statistics, past events, original research, referring to or interpreting other works, personal experience)
  ○ Opinions (expert's, author's, critical analysis, etc.)
- What's the most common/important kind of proof in the text?
- Does the evidence logically support the authors' arguments?
- Are there other ways of interpreting this evidence? For example...
- *How am I biased as an evaluator of this text?*
 	
Consider the Argument:
- What is the key support for the authors' arguments? What examples or statistics or research are most important in this article? Why?	

What is the significance of this text **for you**? What **similar texts** have you read?	
What are the **strongest points** (even if you don't agree with them)? Why?	What do you **disagree with** in the article? What is the **weakest point** in the authors' arguments? Why?
What is the **outline** of the text? What are the most **important examples** or facts that support the main points?	**Summarize** the article; think about its main points and main examples. Make sure to include those in your summary. Be careful not to plagiarize even though you are expressing the authors' ideas.
What is the **author's conclusion**? What do they **want the reader to do** after reading?	

Appendix 2

Sample of Homework Reading Report

Weekly Reading Report - Reading Skills

Use this form to report your weekly reading. This will be used as part of your homework and participation grade.

* Indicates required question

1. **Full Name** *

   _____

2. **Date** *

3. Which section of the reading did you do? *

4. **Did you read this week's homework text(s)?** *

   Mark only one oval.

   ◯ Yes (at least 80%)

   ◯ No (less than 20%)

   ◯ Partially (20-80%)

5. **What aids did you use to help you understand the text(s)?** *

   Check all that apply.

   ☐ A dictionary (paper or online)

   ☐ Translation (if you used translation, please write which one and how much in the 'Other' box. For example, 'ChatGPT, one paragraph' or 'Google Translate, all of it')

   ☐ A friend

   ☐ None

   ☐ Other: _____

6. **How would you rate the difficulty of this week's text(s)?** *

   Mark only one oval.

       1 2 3 4 5

   Quit ◯ ◯ ◯ ◯ ◯ Quite difficult

7. **How would you rate your understanding of this text?** *

   Mark only one oval.

       1 2 3 4 5

   Very ◯ ◯ ◯ ◯ ◯ Very deep

8. **How much time did you spend with the text?** *

Mark only one oval.

◯ less than 20 minutes

◯ 20-60 minutes

◯ more than 60 minutes

◯ Other: _____

9. **Share what was the most interesting sentence or part of the text for you. Then** *
explain why it was interesting in 1-2 sentences. (If there is no explanation, full
marks are not given for the homework.)

For Example:

"To begin, the professor must genuinely *value* everyone's presence." (8) – This quotation reminds me of the potential value that every student contributes to our classroom and that I need to help our class reach this potential.

~~ ------- ⋮ ------- ~~

10. **Write 2-4 questions based on the text that you wonder about or that you would** *
like to discuss in class this week. (If only one question is given or the questions
are basically the same as the title, full points are not given for the homework.)

For Example:

1. What does this sentence mean: "Often before this process can begin there has to be some deconstruction of the traditional notion that only the professor is responsible for classroom dynamics"?
2. Is this optimistic view of a classroom really possible?

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

DISCOVERING THE BASIC PHONEMIC TRAITS OF RHOTIC AND NON-RHOTIC /r/ PHONEME OF ENGLISH LANGUAGE BY USING THE *AUDACITY* PROGRAM AND TEXT SPEECH LABS

Mehmet DEMİREZEN[1]

"The so-called r-coloured vowels, common in many North American English dialects, are often difficult simply because they do not exist in most other languages" (Ching, 2019, p. 231). The schwa+r (/ɚ/), being an *r-controlled vowel*, changes its articulatory and acoustic features when it is followed by an *r sound.* "An r-coloured or rhotic vowel (also called a retroflex vowel, vocalic r, or a rhotacized vowel) is a vowel that is modified in a way that results in a lowering in frequency of the third formant" (*Ladefoged and Maddieson, 1996, p. 313). In other words,* the F3 descents noticeably, into the F2 range in r-coloured vowels. *Additionally, "*Most transcribers, however, consider this sound to be a separate, contrastive vowel of English – a mid, central, rhotacized (or *r-coloured*) vowel – and use the symbol [ɚ]" (Zsica, 2013, p.64). The non-rhotacized form of schwa is shown a*s* [ə].

R-coloured vowels are exceedingly rare, occurring in less than one percent of all languages *(*Ladefoged and Maddieson, 1996, p. 313). General American (GE) English, also called, North American English (NAE) pronunciation has four *r-controlled vowel*s (Kuecker, Lockenvitz, & Müller, 2015; Mielke, Baker & Archangeli, 2016; Shea, 2021). R-coloured vowels occur in General American English, Canadian French, Irish English, some dialects of Portuguese, in some dialects of Danish, Mandarin Chinese, and in the Badaga dialect of India.

Phonemically speaking, the slashes (/ /) usually mark transcriptions of phonemes. As opposed to the transcriptions of phones are marked with brackets ([ ]). The /r/ phoneme is said to be an unusual sound. It's typically categorized and treated like

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a consonant. However, in the post-vocalic position, when /r/ comes after a vowel (a, e, i, o, u), it takes on vocalic properties. In terms of a narrow transcription notation, the correct IPA phonetic symbol for /r/ is [ɹ]. For simplicity in a broad notation, which is mostly used in foreign language teaching, /r/ is used in most dictionaries. In GA, /r/ is articulated everywhere. Since RP is a non-rhotic language type, /r/ after a vowel is not pronounced unless it is followed by another vowel. In the English language /r/ has so many phonetic representations. Here are some examples:

Table 1

The Types of /r/ Phonemes

Place of articulation	Phoneme
Alveolar approximant	/ ɹ /
Retroflex approximant	/ ɻ /
Alveolar trill	/R/
Alveolar tap or flap	/ ɾ /
Syllabic r	/ ɹ̩ /

R-Vowels of r-Coloured Words: [ɚ] versus [ɝ]

In the IPA system of sound notation in transcriptions, an r-coloured vowel is indicated by a hook diacritic ⟨˞⟩ added to schwa [ə] and is located to the right of the regular symbol for the vowel. For example, schwa sound ([ə]) gets the symbol added to its middle part, after which it takes on an appearance like [ɚ] and is termed as r-coloured schwa**. "**The [ɜ] symbol is often used to indicate a mid-central stressed vowel with r-colouring, as in bird [bɜd]" (Upton & Kretzschmar, 2017, p.21). On the other hand, the open-mid central unrounded vowel is denoted as **[ɜ]** gets a symbol like [ɝ], which is known as r-coloured (rhotacized) schwa in General American English. In Modern standard Turkish, the vowel [**ö**] a front short and rounded and is heard in the second syllable of the Turkish word "şoför (chauffeur)" (Göksel & Kerslake, 2005, p.11). The vowel quality of the second syllable of the Turkish word "şoför" (chauffeur), which is short and rounded, is almost equivalent to English words *bird, birth, fir, shirt,* and *sir.* Additionally, Turkish words such as *flört* (flirt), *sör* (sir), *sörf* (surf), and *Turk* (Turkish person) are almost equivalents of English their counterparts carrying the same **[ɜ]** sound with r-colouring.

In English, r-coloured vowels can be articulated in various ways; therefore, there are some types of *r-controlled vowel.* According to Clark, Yallop, and Fletcher (2007, p.66) "in words such as *start,* many speakers have r-colouring only in the coda of the vowel, rather than as a simultaneous articulation modifying the whole duration".

The following examples given below can represent the ways of articulation of the r-coloured words in GA:

If you listen closely to all those words given in Figure 1., you will notice that their vowel sound is taken over by the /r/. For example, in words with *schwa+r,* only the /r/ is heard, and the vowel is not heard because it is short. In terms of pronunciation, in the *schwa+r* sound combination the schwa sound directly merges with the /r/. That is the specific articulation nature of *schwa+r [ər].* The *schwa+r [ər = ɚ]* is not a preferable articulation because after their merge takes place, the notational appearance of /r/ disappears and thus the transparency of /r/ is lost, which can cause recognition problem for a great majority of non-native learners of English. Furthermore, the r-coloured vowel sound /ɝ/ (also indicated as /ɜː/) in the words *birth, burn, earn, earth, first, learn, thirst,* and *word* gets rhotacized, which adds one more layer of articulation difficulty because rhotacized articulation of /r/ requires curving of the tip of the tongue up to palatal area in the oral cavity, as seen in Figure 1:

Figure 1

Retroflex (Rhotacized-r) and Bunched –r)
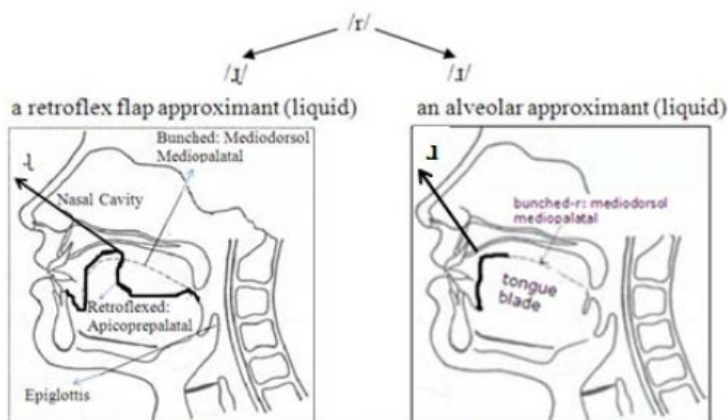
(Demirezen, 2011, p. 898; Bauman-Wrangler, 2009, p.140)

Spelling Issues for r-Coloured Sounds

R-coloured words are spelled with different vowel letters along with the letter <r>. Upton and Kretzschmar (2017) use the [ɜ] symbol for bird [bɜd], it must be noticed that the /ɝ/ or /ɜ:/occurs only in stressed syllables. In addition, /ɝ/ is both rhotacized and rounded, and is fully articulated as a rhotic-r in GE.

1. *<ir> : This is actually, schwa+ < r > that sounds as /ɚ/ and shown by a symbol like /ɚ/.* In the following words, /r/ sounds longer because its F3 value provides a relatively good indication of the overall vocal tract length for the speaker, as heard in such words *bird, birth, chirp, circle, circular, circus, dirt, earth, fir, girl, first, irk, shirt, sir, sirloin, smirk, stir, third, thirst, whir.*

Repeat (Audio Forms from Text to Speech Labs)

The birth

The birth of the Earth

The birth of the circular Earth

The birth of the circular Earth in dirt

2. *<ar> :* [ɑr] as in the words are, alarm, alms, arbitrary, armchair /ˈɑrmtʃɛr/, arc, arch, argue, arm, art, bark, bar, barn, bizarre, car, cart, cigar, dark, dart, far, farm, guitar, hard, harm, jar, lark, large, mark, part, registrar [ˈrɛdʒəˌstrɑr], star, tar. There is [ɑr] sound in 48% of English lexicon.

Repeat (Audio Forms from Text to Speech Labs)

A star

A bizarre star

A bizarre star in the car park

A bizarre star in the car park of a registrar

3. <or>: [ɔr] sound as in the words angora, corn, fork, fortune, for, gorgeous, mentor, north, orbit, oral, orange, oratory, orchard, orchid, organ, ore, origin, orphan, port, score, scoreboard, scorn, scorpion, short, store, sort, story, source, stork, storm, tutorial, worse:

Repeat (Audio Forms from Text to Speech Labs)

A stork	The origin
A gorgeous stork	The origin of the orange
A gorgeous stork in a storm	The origin of the orange in the orchard
A gorgeous stork in a storm in the north	The short origin of the orange in the orchard

4. <ur>: In the following examples, /r/ sounds longer because their F3 value delivers a relatively good symptom of the overall vocal tract length for the speaker, no matter male or female. But female speakers tend to have higher F4 values, which brings up attractiveness to their voices. Here are some examples: burn, blur, curd, curl, curve, fur, hurry, hurt, hurtled, murder, murmur, nurse, purple, purse, slur, spur, urn, turf, turn, turtle, turkey

Repeat (Audio Forms from Text to Speech Labs)

The curve

The curve of the fur

The burning curve of the fur

The burning curve of the fur for the nurse

The burning

The burning of the turtle

The burning of the murdered turtle

The burning of the hurtled and murdered turtle

5. <er> [ər] and <or> [ər]: after, better, brother, butter, butler, dealer, fiddler, father, matter, mother, tiger, walker, water; actor, ardor, armor, color, creator, donor, favor, honor, juror, labor, major, mayor, razor, rumor, tumor, tutor, vigor. There is <er> in 31% of English lexicon.

Repeat (Audio Forms from Text to Speech Labs)

A clerk

A perfect clerk

A perfect but nervous clerk

A perfect but nervous clerk in a hurry

6. <ear> [ör]: In the following examples, /r/ sound is heard a bit longer: early, earn, earnest, Earl, earth, earthen, heard, hearse, learn, pearl, research, unheard, unearth, search, yearn /yɚn/.

Repeat (Audio Forms from Text to Speech Labs)

A research

A research on Earth

An early research on Earth

To yearn for an early research on Earth

In Broad Transcriptions for r-coloured sounds in words

Coloured-r examples in unstressed words for [ɚ]:

Repeat (Audio Forms from Text to Speech Labs)

ardor [ˈɑrdɚ], corridor [ˈkɔrədɚ], dinner [ˈdɪnɚ], banker [ˈbæŋkɚ], barber [ˈbɑrbɚ], barrier [ˈbæriːɚ], better [ˈbɛdɚ], bitter [ˈbɪdɚ], butter [ˈbʌdɚ], carrier [ˈkæriːɚ], error [ˈɛrɚ], mirror [ˈmɪrɚ], murmur [ˈmɝ mɚ], partner [ˈpɑrtʔnɚ], porter [ˈpɔrdɚ], reporter [rɪˈpɔrdɚ], recover [rɪˈkʌvɚ], standard [ˈstændɚd], sister [ˈsɪstɚ], sorcerer [ˈsɔrsərɚ], terror [ˈtɛrɚ], warrior [ˈwɔriːɚ]

Coloured-r examples for [ɝ] (Repeat (Audio forms from Text to speech labs)

In stressed words: assert [əˈsɝt], bird [ˈbɝd], birth [ˈbɝθ], burden [ˈbɝdn], burner [ˈbɝnɚ], burglar [ˈbɝglɚ], certain [ˈsɝtʔn], circle [ˈsɝkəl] , cursor [ˈkɝsɚ], earn [ɝn], earnest [ˈɝnɪst], earth [ˈɝθ], fir [fɝ], first [fɝst], further [fɝrðər],girl [gɝl], her [hɝ], hearse, [ˈhɝs], hurry [ˈhɝiː], mirth [ˈmɝθ], heard [hɝd], learner [lɝrnɚ], occur [əˈkɝ], perception [pɝˈsɛpʃən], perfect [ˈpɝfɪkt], perfume, [ˈpɚfjuːm], perpetrator [ˈpɝpəˌtreɪdɚ], person [ˈpɝsən], personal [ˈpɝsənəl], personnel [ˌpɝsəˈnɛl], purpose [ˈpɝpəs], purse [pɝs], purser [ˈpɝsɚ], persecute [ˈpɝsɪˌkjuːt], persuade [pɝˈsweɪd], refer [rɪˈfɝ], pertinent [ˈpɝtʔnənt], recurrent, [rɪˈkɝ rənt], reinterpreter [ˌriːɪnˈtɝprɪtɚ], terminate [ˈtɝməˌneɪt], turn [ˈtɝn], worker [ˈwɝkɚ], worth [ˈwɝθ], worse [ˈwɝs]

The Issue of Length: Short and Long Schwar Sound

Short Form: [ɚ].

This short form is [ə] and [r] combination, which comes up as [ər]: after, butler, centre, confirm, dinner, letter, other, tiger (https://www.youtube.com/results?search_query=schwar+sound).

Long Form: [ɝ]

This long form is [ɝ], which is actually a merge of [ɜ] and [r]. circus, disturb, hurt, shirt, skirt, turtle, word.

Confusions in Recognition

There are certain differences in the analysis of r-coloured words. Such differences increase the problematic issues of the transcription of r-coloured vocabulary items. For example, "For r-ful dialects like GA English, the first thing to realize is that although a word like "fur" consists of three letters, there are only two sounds. The "er" sound is not a sequence of vowel+r, but a single rhotic sound: the tongue body is in a mid-central   position but the tongue front is raised (and for some speakers curled back), the same as or similar to the [ɹ] in "run" (Zsica, 2013, p.64).

Most transcribers, however, consider this sound to be a separate, contrastive vowel of English – a mid, central, rhotacized (or *r-coloured*) vowel – and use the symbol [ɝ]. In an unstressed syllable, as for the "-er" suffix, the symbol is [ɚ]. (Zsica, 2013, p. 64). So, one way to write the word "fur" would be [fɹ̩], with a syllabic consonant. (Zsica, 2013, p. 64). Thus, for an r-ful dialect, "murder" is [ˈmɝdɚ] and "further" is [ˈfɝdɚ].

Some difficulties of transcription:

Both [ɝ] and [ɚ] occur next to each other and creates a difficulty of articulation as well as recognition, as heard in the following words:

Repeat (Audio Forms from Text to Speech Labs)

burner [ˈbɝnɚ]	performer [pɚˈfɔrmɚ]
further [fɝrðɚ]	purpose [ˈpɝpəs]
murder [ˈmɝdɚ]	purser [ˈpɝsɚ]
murmur [ˈmɝ mɚ]	reinterpreter [ˌriːɪnˈtɝprɪtɚ]
learner [lɝrnɚ]	worker [ˈwɝkɚ]

Two of [ɝ] Sounds Occurring in the Same Word:

Repeat (Audio Forms from Text to Speech Labs)

pervert [pɚˈvɝt]	perversion[pɚˈvɝʒən]
perverse [pɚˈvɝs]	

In Words with No Primary Stress

Due to the mobility of the primary stress phoneme, suffixation triggers the active movement of the location primary stress back and forth in vocabulary items as well as sentences, the intonation of the utterances becomes harder and confusing to many non-native speakers of English language. Therefore, /ɝ/ does not show itself in stressed syllables. Here are some examples:

Repeat (Audio Forms from Text to Speech Labs)

circumlocution [ˌsɝkəmloʊˈkjuːʃən] perpetual [pɝˈpɛtʃuːəl]

circumnavigate [ˌsɝkəmˈnævəˌɡeɪt] perpetuate [pɝˈpɛtʃuːˌeɪt]

circumstantial [ˌsɝkəmˈstænʃəl] per se [ˌpɝˈseɪ]

perhaps [pɝˈhæps] persist [pɝˈsɪst]

perception [pɝˈsɛpʃən] persistence [pɝˈsɪstəns]

performer [pɝˈfɔrmɝ] persuasive [pɝˈsweɪsɪv]

perfunctory [pɝˈfʌŋktəri] perversion [pɝˈvɝʒən]

perplex [pɝˈplɛks]

So, it is true to say that [ɝ] sound can appear in the words that take the primary stress phoneme. Therefore, the students must on the alert to keep in mind that there are many exceptions to that rule.

/r/ as Approximant [r]

The approximant **[r]** is produced by the tongue tip while approaching the fronto-palatal area, to which it never touches. Besides, the tongue is slightly curled backwards with the tip raised, which means a retroflex position. In NAE it occurs before and after vowels. It is articulated in all environments, except when it is in a silent position, as in *myrrh* and *February*. The RP does not articulate /r/ after vowels and word-finally, but NAE does it audibly and vividly. In fact, this is the actual difference between non-rhotic and rhotic accents.

The sounds of language are classified and categorized into what are called phonemes. A phoneme is minimal unit of sound that has a meaning distinguishing semantic content. Therefore, phoneme *recognition* is an essential step in the development of a speech *recognition* system. Many non-native learners of English language as well as native ones are poor at phoneme identification. Phoneme identification means that learners can hear and distinguish the individual phonemes in spoken words accurately and automatically. Phoneme identification is a skill that will help students both with sounding out words and with spelling

words. In this regard, the /r/ phoneme and the preceding vowel combination in words make the identification, articulation and pronunciation of their togetherness harder by hardening their perception. For example, as mentioned before, r-coloured sound is spelled in various ways. What is more, the r- coloured sound pronounced with [ɚ] in unstressed positions in words and with c in stressed positions with the addition of an [ö] sound of Turkish language: this is a very crucial difficulty combination for their pronunciation for Turkish learners of English. The following indications are proposed to solve this pronunciation difficulty:

A Proposal

The r-coloured sounds, which are symbolized as [ɚ] and [ɝ], are problematic for many non-native learners of English because these symbols do not indicate the inherent sound [r] in their structure. In this way, their pronunciation and articulation transparency are curtailed; thence, their perception is endangered. Here is a proposal on the exposition of the *schwar* sound, respectively /ɚ/ and /ˈɜː ɹ/, for the perception and production of non-native learners of English language:

Figure 2

The Perception and Production of /ɚ/ By Non-Native Learners

	Old Indication	Spelling	
A proposal			
	/ˈæftɚ/	after	/ˈæftəɹ/
	/ˈbɑrbɚ/	barber	/ˈbɑrbəɹ/
	/ˈɔrdɚ/	order	/ˈɔrdəɹ/
	/ˈsɪstɚ/	sister	
/ˈsɪstəɹ/			
R-colored			sounds
	/ˈdɝt/	dirt	
/ˈdɜːɹt/			
	/ˈɝθ/	earth	/ˈɜːɹθ/
	/ˈfɝ/	fir	/ˈfɜːɹ/
	/ˈʃɝt/	shirt	/ˈʃɜːɹt/

Conclusion

The *schwa+r* sound is a difficult sound for many non-native speakers to understand. In words pronounced with *schwa+r*, the *r sound* overtakes the vowel sound, and the pronunciation transitions directly into the *r sound*. Additionally, the role of syllable stress is often overlooked when it comes to *schwa+r*. Any vowel+r spelling is likely to be pronounced as *schwa+r* in an unstressed syllable. A great majority of non-native learners of English fail in articulating and doing the transcriptions of the *schwa+r* words because /r/ phoneme does not take place in the transcription. The inexistence of the /r/ phoneme in the transcription impedes the correct learning of pronunciation of the words with r-colour. There are pedagogical benefits if the /r/ phoneme is utilized in the transcription of r-coloured sounds in words.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics.

MARKING THE LOCATION OF TONIC STRESS IN ENGLISH SENTENCES BY USING THE TEXT TO SPEECH LABS AND *AUDACITY* PROGRAM

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Intonation is generally described as the natural music, tune, or melody of language. Intonation is the rise, pause, and fall of the voice by means of pitches when we speak. There are a number of different ways we can change the pitch to change the meaning of words, phrases, and sentences. In many cases, it's just as important as the words, phrases, clauses, and sentences in expressing what we want to say. That is why using the right intonation can actually change the meaning of your words. At this junction, the tonic stress comes to the stage. Intonation is all about the tone and pitch of the voice and its modulation throughout the sentences, clauses, and phrases. Shifts in the intonation of them can convey subtle information about the speaker's attitude and emotions. "Intonation and stress are supra-segmental features which are in 'complementary distribution" (Anyanwu, 2012, p. 57). This means that intonation and stress phoneme go in embrace and hand in hand.

Listening Comprehension and Intonation Relations

Listening is a core competency that helps the learners to make progress in foreign language learning. Listening is a key component of effective communication skills that build the communicative competence because listening is the most important part of communication. It must be noted that listening goes deeper than just hearing. Listening to authentic texts and recordings in forms of different types of sentences, paragraphs and dialogues assist the non-native learners of English to acquire a lot of vocabulary items and expressions about everyday conversations,

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both improving pronunciation, intonation, listening and speaking skills. One of the effective techniques of listening is known as *discriminative listening*.

Everyone hasn't got discriminative listening skills innately. Discriminative listening style involves paying extra attention to the stress phoneme and tone of voice, verbal cues, and other changes in the units of sounds. *Discriminative listening* allows you to analyse tone and inflection to get an idea of what is going on during the communication process. So, "Discriminative listening is important when learning a new language. It involves paying attention to the sounds and intonation patterns of the language in order to distinguish between different words and meanings" (https://kidoneo.com/discriminative-listening/).

Secondarily, discriminative listening also uses nonverbal cues to listen and analyse. For example, someone's facial expressions, body language, and other mannerisms can give us a lot of information about the meaning of someone's intended message. "Discriminative listening is used in speech therapy to help people with speech disorders to distinguish between different sounds and to improve their speech production" (https://kidoneo.com/discriminative-listening/). Therefore, discriminative listening paves the way for pronunciation and intonation defossilisation.

This listening style, titled discriminative listening, is fundamental to understand the delicate cues in an utterance and conversation. "Discriminative listening allows the listener to understand the nuances of the speaker's tone, pitch, and emphasis on certain words or phrases (https://kidoneo.com/discriminative-listening/). Additionally, discriminative listening as a skill "is particularly useful in situations where the speaker has an accent or speaks in a language that the listener is not familiar with" (https://kidoneo.com/discriminative-listening/).

Listening Comprehension and Sound-scripting Method with Tonic Stress

Speech rate is the pace of one's articulation, including usually the pause time between thought groups, phrases, clauses and sentences. According to Miller (2003, pp. 16-19), "more than 40% of our daily communication is spent on listening, 35% percent on speaking, about 16% percent on reading, and only 9% percent on writing." Apparently, listening is also crucial if you want to learn correctly and effectively. Word stress and intonation in the sentences are very crucial for pronunciation. In Mark Powel's book titled *Presenting in English* (2002), there are sound scripting exercises to improve sentence intonation. The sound scripting method is based on bolding the syllables of the key content words and capitalizing them as tonic stress chosen for the best emotional impact on the utterances. In this regard, *tonic stress* refers to the syllable in a word which

receives the most audible *stress* in an intonation unit. Yet the exercises in Powel's book carry some mistakes, omitting some words with primary stress phoneme, and miss the exact syllable that bears the primary stress.

The Sound Scripting Method with Tonic stress

The Sound Scripting Method of Mark Powel (2002) was modified and refined by Demirezen (2013), under the title "The Sound-scripting Model with Tonic-based Stress by Using Audio Recorder and Editor Software in Teaching Paragraphs". In the structure of Demirezen's (2023) refinement, there is *discriminative listening process* in which the learners listen to sentences, dialogues or paragraphs and mark the syllables of words in intonation units that carry the primary stress, which are, in fact, syllables bearing tonic stress disguised as the primary stress phoneme. So, Sound-scripting Method with Tonic Stress rests on discriminative listening skill. It is important to bear in mind that a sentence can have more than one intonation unit, which necessitates the placement of more than one tonic stress (Beare, 2020).

The *Audacity (2.0.3)* and *Microsoft Recording* by VAW

The recordings of the sentences and the dialog given below are made via *Audacity (2.0.3)* recorded in 44100 project rate. The types of sentences are converted into an oral text via Audacity 2.0.3 VAW Microsoft, Mono 44100Hz 32-bit float mute in audio tract. In this respect, WAV (Waveform Audio File Format) is often considered one of the highest quality audio formats because it is a lossless format that can store audio in uncompressed form, preserving the original sound quality. There is never loss in quality. But people complain about the lossy quality of MP3 files. There are *FLAC* (Free Lossless Audio Codec), *ALAC* (Apple Lossless Audio Codec), *AIFF* (Audio Interchange File Format), *DSD* (Direct Stream Digital), and so on. For professional use, *WAV* (Waveform Audio File Format) or *AIFF* (Audio Interchange File Format) may be preferred for uncompressed and lossless audio quality

The Richness of Internet with Text to Speech Labs and Download Programs

On the internet, as a web-based system in today's fast-paced digital world, there are many *voice* generators that can deliver high-quality, human-like speech in many languages. The use of internet-enabled programs and speech labs, which are easy and inexpensive, is on the rise. They are user-friendly to everyone, regardless

of their abilities or limitations. In this study, the benefits of TTS and *Audacity* program will be explored to show the applicability of the sound-scripting method with tonic stress to spot the places and numbers of syllables bearing the primary stress phoneme in compound-complex sentences and dialogues so as to demonstrate the importance of intonation.

Application 1: The Identification of Compound-complex Sentences with Tonic Stress

This is where Text-to-Speech (TTS) technology comes into play in cooperation with the *Audacity program*. Firstly, the researchers specified the sentences to take down from the *Longman Dictionary* (2008). Secondly, they downloaded the dialogue by the same *Audacity Program 2.0.3*. And thirdly, they applied the sound-scripting method with tonic stress (Demirezen, 2013; 2023) to the words of compound-complex sentences and to a dialog by marking the syllables of the words with capitalized letters. The fact of the matter is that the marked-up syllables of the words are exact places of the primary stress phoneme are uttered by the native speakers. The result takes place as follows:

You're going to miss your ˈ**SIS**ter since she's ˈ**MAR**ried, ˈ**AREN**'t you?

It isn't offiˈ**CI**al yet, but you can take it as ˈ**READ** that you've got the ˈ**CONT**ract.

I ˈ**TOLD** her I had gotten the last two on the ˈ**SHELF**, but I ˈ**OF**fered her one of mine.

I didn't know whether you'd want the cappuccino or the frozen ˈ**HOT** ˈ**CHOCO**late, so I got you ˈ**BOTH.**

Compound-complex Sentences with CONTACT CLAUSES:

The relative pronun «THAT» is omitted:

Main Clause	Contact Clause	Main Clause
I wish	I ˈ**COULD**,	but I ˈ**CAN'**t.
I could ˈ**SEE**	he felt emˈ**BAR**rassed,	so I ˈ**CHANGE**d the ˈ**SUB**ject.
I ˈ**KNOW**	he's innocent,	and I'm going to ˈ**PROVE** it to you.
I thought	he was really ˈ**HURT,**	but he was just ˈ**FAK**ing it.
It'll take a ˈ**LOT** of planning,	but I think	it can be ˈ**DONE.**
I ˈ**DON'**t think	it's necessary for me to sound like a native speaker	I just want to be able to speak ˈ**FLU**ently.

Initially Extended Compound-complex Sentences:

At ˈ**FIRST** I thought he was ˈ**WEIRD**, but ˈ**NOW** I really ˈ**LIKE** him

ˈ**JEN**ny, I know you like ˈ**JACK** a ˈ**LOT**, but what do you ˈ**LIKE** about him?

At first, I disagˈ**REED**, but on ref ˈ**LEC**tion I reaˈ**LIzed** she was right.

Apparently, compound-complex sentences have at least two main clauses and one subordinate clause, so they are long utterances. Therefore, it is very hard to hear which syllables bear the tonic stress. In this regard, sound-scripting method with tonic stress will easily signal that prominent the syllables marked-up with tonic stress phoneme turn out to be central to the formation of the unique message that the speaker is trying to convey. In other words, it will definitely indicate how the speaker's intended meaning goes to the listener. Additionally, the sound-scripting method with tonic stress shows that there are still a lot of speech situations where the last lexical item does not carry the tonic stress in the utterances, and furthermore there may be more that syllables bearing the tonic stress in every part of the utterances.

Application 2: Using the Tonic Stress in a Dialogue

Dialogues have action words, action tags, speech tags, and dialogic conversations that indicate what the characters are doing or feeling. The term dialogic denotes the use of conversation or shared dialogue to explore the meaning of something. Especially, in a dialogue, dialogic conversation is meant to find room for reciprocal accommodation, not resolution. Apart from including a standard language, a dialogue may include the use of nonstandard vocabulary, such as slang or jargon, or favourite idiomatic expressions. In this respect, tonic stress placement applications can be used in *dialogue-based learning type*, which is a process that involves using dialogue as a means of instruction and assessment.

As it is seen in the dialogue given below, there is a bare text, which has no profitable indications of showing the phonemic function of the *tonic stress* in the lines of the dialog.

The Beatles

A: The Beatles are the best.
B: They are the best musical group ever.
A: I love all their songs.
B: I don't know which one I like the best.
A: I like the ones I can sing along with.
B: So do I, like She Loves You.

A: "She loves you, yeah, yeah, yeah!"
B: "And you know you should be glad!"
A: What a great song.
B: How about "Let It Be"?
A: Oh, yes! "Let it be, let it be!"
B: "There will be an answer, let it be!"

The Beatles

A: The Beatles are the ′**BEST**.
B: They are the best musical group ′**Ever**.
A: I ′**LOVE** their songs.
B: I ′**DON**'t know which one I like the ′**BEST**.
A: I like the ′**ONE**s I can sing a′**LONG** with.
B: So do ′**I**, like ′**SHE** ′**LOVES** ′**YOU**.
A: "She loves you, ′**YEAH**, ′**YEAH**, ′**YEAH**!"
B: "And you ′**KNOW** you should be ′**GLAD**!"
A: ′**WHAT** a ′**GREAT** ′**SONG**.
B: How about ′**LET** ′**IT** ′**BE**?
A: ′**OH**, ′**YES**! "′**LET** ′**IT** ′**BE**, ′**LET** ′**IT** ′**BE**!"
B: "There will ′**BE** an answer, let it ′**BE**!"

(Taken from http://www.beatlesinterviews.org/db64.html)

After the Application

Apparently, teaching dialogues through *sound-scripting method with tonic stress* facilitates contextual understanding of the intonation in utterances. It can help to show that English language is a stress-timed language because sound-scripting method with tonic stress signals that not only one syllable, but at least more than one of the syllables are markedly more prominent through sounding louder and longer, accompanied by change in pitch than the other syllables of the utterance.

Foreign language teachers' profession is to make learning process as easy as possible for learners. Right at this junction, we can state that tonic stress is worth teaching because it can show that intonation is the melody of language. Thus, sound-scripting method with tonic stress plays a crucial role in giving the melody or intonation of English speech. In English, since stress patterns are closely tied to the rhythm and melody of spoken language, the relations of tonic (or primary)

stress can give crucial information on certain syllables in words, phrases, clauses, sentences or dialogues.

Finally, the sound-scripting method operates with tonic stress, incorporating rises and falls in pitch across phonemes. The stressed syllable in a word (or the stressed word in a sentence) tends to be the highest or most prominent point in the melodic contour. English is a stress-timed language, meaning that stressed syllables (tonic stresses) occur at roughly equal time intervals, while unstressed syllables are shorter and fill in the spaces between them. This gives English its characteristic rhythm. The stress pattern, which is often marked by the tonic stress, determines the overall rhythm and pacing of the speech, helping to create its melodic structure.

All in all, tonic stress is integral to English melody because it influences the pitch contours, rhythm, and emphasis within speech. Stressing key words or syllables sets the melodic flow of a sentence, signalling what's most important and contributing to the natural musicality of spoken English. Sound-scripting method with tonic stress makes pronunciation and intonation learning process as easy as possible for learners.

Conclusion

In colloquial use of English, the hearer depends on the intonation patterns of the speaker to determine both the punctuation markings, pacing, and the speed, of the sentence. In terms of sentence intonation, the punctuation marks, which are used to bridge a compound-complex sentence, help to specify the pause length and changes in pitch contour, providing into national information in terms of structural function, accentual function, attitudinal function, and discourse function (Skandera & Burleigh, 2022).

It must be noted that in some cases, it is often impossible consistently equate intonation units with punctuation in accordance with the speakers intended meaning in connected speech. Therefore, punctuation is a rather poor representation of what intonation does to speech. So, intonation does so much more in that caused by the convenience of the speaker, intonation can change the speakers meaning in a way that punctuation cannot. So, it would be a serious error to think that all intonation does is what is captured by punctuation.

As mentioned before, word, phrase, clause, and sentence match up with intonation units in into national punctuation. But not all into national choices stem from punctuation choices. Carter (1995) states that there are grammatical intonation and phonological intonation. But according to (Huddleston & Pullum, 2005, p.187)

"Punctuation does not provide quite as reliable a criterion as intonation. This is because speaker's convenience does not recognize any grammatical or intonation rules, which becomes a further difficulty on capturing the tonic stress in sentences in relation to sentence intonation.

Intonation cues are preserved in writing by means of punctuation marks. According to Wells (2006), some of this intonational meaning is shown in writing, through the use of punctuation, but most of it is not. Especially in connected speech, punctuation marks get to be unreliable; therefore, sometimes, it is often impossible consistently equate intonation units with punctuation in accordance with the speakers intended meaning in connected speech. "Using this listening skill can help you read between the lines and hear what remains unspoken" (https://www.betterup.com/blog/types-of-listening).

The grasp of the tonic syllable can be practically managed by the application of sound-scripting method with tonic stress is possible because this method is mainly based on discriminative listening technique, which creates a direct mapping between a tonic syllable and its place in the sentence. Discriminative listening is important for effective learning. "It enables the listener to distinguish between different sounds and words, which are particularly useful in language learning" (https://www.betterup.com/blog/types-of-listening).

Thus, sound-scripting method with tonic stress assists the learners to perceive the following benefits of spoken English by matching the most prominent syllable along with audible perception:

1. The Attitudinal Function which helps us express our feelings and emotions, by adding emotional colouring to utterances (anger, sadness, excitements, curiosity, mocking, etc).

2. The Grammatical Function helps a great deal in grammar studies. It helps identify grammatical structures in speech, rather as punctuation does in writing.

3. The Accentual Function. The term accent has something to do with tonic stress because it signals the accent background of the speakers.

4. The Discourse Function signals how groupings of phrases, clauses and sentences go together in spoken language. It enables the people who take place in the discourse to signal whether or not one they have reached to the conclusion of the sentence

Overall, sound-scripting method with tonic stress also shows how another speaker takes a turn in the conversation. Sound-scripting method with tonic stress will help to specify the pause length and changes in pitch contour, providing intonational information. To improve your intonation, you will first need to become aware of

it with respect to tonic stress. If you make intonation mistakes, you'll sound strange, even if you have good grammar and vocabulary. If you do not commit intonation errors, you will sound natural and at least *near native-like* in pronunciation and intonation (Levis, 2005; Bai & Yuan, 2019; Levis, et al., 2016) and remove misunderstandings in cases of *socio-*pragmatic failures (Thomas, 1983; Schauer, 2011; Bardovi-Harlig, 2013; Alkawaz, et al., 2023, pp. 1-17).

Additionally, it is true to say that tonic stress plays a significant role in communication, particularly in spoken language. Also, it contributes to the prosody (the rhythm, melody, and intonation) of speech, which can influence how messages are interpreted. However, whether tonic stress can completely "remove" socio-pragmatic failures is more complex. Socio-pragmatic failures occur when a speaker's communication does not align with social norms or expectations in a given context. This can involve misunderstandings of politeness, tone, formality, or the intended social relationship between the speaker and listener.

Tonic stress can help mitigate or amplify the clarity of the speaker's intentions, but its influence on socio-pragmatic failures is more nuanced. It primarily affects how the message is delivered rather than the appropriateness or social acceptance of the message itself. The social norms regarding register, politeness, and conversational cues depend on more than just intonation patterns; they require a deeper understanding of relationships, power dynamics, and cultural expectations. Overall, tonic stress without sound-scripting method application on politeness, tone, formality, or the intended social with respect to social norms regarding register, politeness, and conversational cue relationship will fall short to remove the socio-pragmatic failures.

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Text to Speech Labs.

Ethical Declaration

In this research, the principles of scientific research and publication ethics were followed.

Proportion of Authors' Contribution

Author 1: Theoretical framework, methodology design, and literature review, identification and analysis of tonic stress patterns in sentences.

Author 2: The implementation of the study using the Audacity Program and Text to Speech Labs, data collection, and analysis, interpretation of results and final revisions of the manuscript.

REDEFINING WRITING INSTRUCTION IN ELT: PEER AND AI FEEDBACK AS POWERFUL TOOLS

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The integration of technology into English Language Teaching (ELT) has undergone remarkable advancements over recent decades, fundamentally altering traditional teaching practices and methods. Notably, writing instruction has experienced the most significant transformations, particularly with the rise of artificial intelligence (AI)-driven writing tools. Tools such as grammar checkers, style enhancers, and plagiarism detection software have become integral to educational environments, providing instant feedback and tailored writing support. At the same time, peer review continues to play a crucial role in writing education, fostering collaborative learning and encouraging critical analysis of written work.

Feedback is widely recognized as a vital instrument for improving learning outcomes (Ban-ihashem et al., 2022). It is generally defined as the information provided by various sources, such as teachers, peers, self-assessment, artificial intelligence, or technology, regarding an individual's performance or comprehension (Hattie & Timperley, 2007). This process enhances students' self-awareness by highlighting their strengths and identifying areas that need improvement, while also offering actionable strategies to boost their performance (Ramsden, 2003). A wealth of research underscores the beneficial effects of feedback on various aspects of students' educational experiences, including increased motivation (Amiryousefi & Geld, 2021), enhanced active engagement (Zhang & Hyland, 2022), the development of self-regulation and metacognitive

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abilities (Callender et al., 2016; Labuhn et al., 2010), and the overall enrichment of learning outcomes (Gan et al., 2021).

Traditionally, teachers have primarily taken on the responsibility of providing feedback, offering insights into students' performance on specific assignments or their understanding of particular subjects (Konold et al., 2004). This duty has naturally been assigned to teachers due to their expertise in the subject matter and their ability to deliver constructive feedback (Diezmann & Watters, 2015; Holt-Reynolds, 1999; Valero Haro et al., 2023). However, the role of teachers as feedback providers has come under scrutiny in recent years, particularly with the increase in class sizes driven by rapid technological advancements and the widespread adoption of digital tools that promote flexible and accessible education (Shi, 2019). The rise in class sizes has resulted in a heavier workload for teachers, creating a significant challenge. This development has directly affected their ability to offer personalized and timely feedback to each student, a capability that has faced considerable constraints (Er et al., 2021).

In addressing this challenge, a variety of solutions have surfaced, with peer feedback emerging as a promising alternative instructional strategy (Er et al., 2021; Gao et al., 2024; Noroozi et al., 2023; Kerman et al., 2024). Peer feedback involves students taking on the role of evaluators rather than relying solely on teachers for assessment (Liu & Carless, 2006). Engaging students in the feedback process can enhance educational outcomes in multiple ways. Research shows that when students act as assessors, they engage in deeper and more effective learning by critically evaluating and analysing their peers' work (Gielen & De Wever, 2015; Li et al., 2010). Additionally, involving students in feedback can improve their self-regulatory awareness, foster active engagement, and boost their motivation to learn (e.g., Arguedas et al., 2016). Furthermore, integrating peer feedback has the potential to significantly reduce teachers' workloads by shifting their focus from providing feedback to facilitating peer review processes, thereby creating a dynamic learning environment where students are actively engaged in their educational journey (e.g., Valero Haro et al., 2023).

However, despite the benefits of peer feedback, delivering high-quality feedback to peers presents challenges. Several factors contribute to this issue. First, providing effective feedback requires a solid grasp of feedback principles, which peers often lack (Latifi et al., 2023; Noroozi et al., 2016). Additionally, the task of giving high-quality feedback is inherently complex, necessitating considerable cognitive effort to thoroughly assess peers' assignments, identify problems, and suggest constructive solutions (King, 2002; Noroozi et al., 2022). Moreover, delivering valuable feedback demands a significant level of domain-specific

knowledge, which students do not always possess (Alqassab et al., 2018; Kerman et al., 2022).

A significant development in educational technology is the introduction of a new Artificial Intelligence (AI) tool called "*ChatGPT*," which has ignited a worldwide conversation regarding its potential influence on the education system (Ray, 2023). This innovation has prompted discussions about the substantial ways AI can enhance educational practices (Bond et al., 2024; Darvishi et al., 2024). In terms of feedback, AI-driven *ChatGPT* offers what is known as AI-generated feedback (Farrokhnia et al., 2023). Although existing literature indicates that *ChatGPT* could improve feedback practices (Dai et al., 2023; Katz et al., 2023), the body of research is limited and largely non-empirical, highlighting our restricted understanding of its capabilities in this area. Consequently, we currently lack a thorough insight into how *ChatGPT* can effectively enhance feedback practices and the extent to which it can improve the timeliness, effectiveness, and personalization of feedback, which remains significantly underexplored at this stage.

It is crucial to address the challenges associated with peer feedback, particularly in evaluating whether AI-generated feedback, specifically that produced by *ChatGPT*, can deliver high-quality insights. Currently, there is a lack of comprehensive knowledge and significant research gaps concerning the effectiveness of AI tools, especially *ChatGPT*, in improving feedback quality when compared to traditional peer assessments. Therefore, our research seeks to assess the quality of feedback generated by *ChatGPT* in the context of essay writing and to compare it with feedback provided by students. This study has the potential to significantly enhance the existing literature on the role of AI, particularly *ChatGPT*, in educational settings. It aims to highlight the differences in quality between AI-generated feedback and peer-generated feedback, while also demonstrating the practicality of AI tools like *ChatGPT* as efficient automated feedback systems. Additionally, the findings of this study could provide valuable insights into reducing the feedback-related workload faced by educators through the strategic use of AI tools (e.g., Banihashem et al., 2022; Er et al., 2021; Pardo et al., 2019).

There may be a discussion regarding the justification for conducting this study specifically in the context of essay writing. To address this potential concern, it is important to emphasize that essay writing is one of the most common yet intricate tasks faced by students (Liunokas, 2020). This task presents various challenges, as a substantial amount of literature indicates that students frequently struggle to achieve the expected standards in their essay writing (e.g., Bulqiyah et al., 2021;

Noroozi et al., 2016, 2022; Latifi et al., 2023). Additionally, educators often express dissatisfaction with the depth and overall quality of students' essays (Latifi et al., 2023). Many teachers find that their feedback tends to be superficial due to the considerable time and effort required for thorough assessment and personalized feedback (Noroozi et al., 2016, 2022). Unfortunately, these limitations hinder their ability to engage more deeply in the evaluation process (Kerman et al., 2022). Therefore, focusing on the comparison of feedback quality from peers versus that from AI in the context of essay writing provides significant value for both research and practical applications. This study contributes to academic discussions and informs practical strategies by offering insights into the effectiveness of feedback quality from both peers and AI in essay writing. This investigation is a vital step in assessing whether the feedback provided by peers and AI is sufficient to improve essay writing skills. The implications of addressing this issue are significant. Primarily, it could greatly reduce the workload for teachers involved in essay evaluation. By determining the effectiveness of feedback from peers and AI, educators may be able to lessen the time and effort required for essay reviews.

This study holds the promise of enhancing the quality of essay writing. The interaction between students offering feedback to one another, coupled with the use of AI-driven feedback tools, can create a setting where essays are not only assessed more effectively but also improved in both content and structure. In light of this, we intend to address the following critical questions within the framework of this research: RQ1. How does the quality of feedback generated by peers compare to that produced by *ChatGPT* in the context of essay writing? RQ2. Is there a correlation between the quality of essay writing performance and the feedback quality provided by peers and *ChatGPT*?

The growing accessibility of various feedback methods in the EFL environment, coupled with ongoing technological innovations, encourages educators and researchers to explore students' perspectives, appreciation, and preferences regarding these feedback options. Some learners may favour the collaborative nature of peer feedback, while others might value the insights provided by immediate and impartial evaluations offered by AI. Gaining an understanding of students' opinions and preferences is crucial for enhancing engagement and motivation, as well as for establishing a foundation for potentially integrating student choice in future writing assignments through a more student-centred approach that addresses individual preferences. To date, there appears to be a lack of research investigating EFL students' perceptions of peer feedback and *ChatGPT* feedback in conjunction. Therefore, this study aims to address this gap

and offer insights into how EFL students view these feedback methods. Additionally, it seeks to analyse the distribution of feedback across specific writing components while considering students' revisions to gain a deeper understanding of the feedback process.

This research aims to investigate and compare two key feedback mechanisms in ELT writing instruction: peer feedback and AI-assisted writing tools. The study specifically seeks to evaluate the effectiveness of each method in enhancing students' writing abilities, motivation, and critical thinking skills. Additionally, it examines students' perceptions of both feedback types to determine their preferences and the feasibility of a combined feedback approach that integrates both methods.

Literature Review

The significance of feedback in writing education is widely recognized, supported by various studies that highlight its crucial role in enhancing writing skills and language proficiency. Historically, feedback has been delivered by educators or fellow students, allowing learners to participate in reflective and analytical thinking regarding their writing (Hyland & Hyland, 2006). Notably, peer review has been praised for promoting collaborative learning and enriching comprehension through mutual evaluation (Topping, 1998).

Collaborative writing significantly improves writing skills through the immediate exchange of feedback among students. According to Hattie and Timperley (2007), written feedback is crucial in this context as it raises awareness of different elements of writing performance. Furthermore, collaborative writing encourages collective scaffolding, a concept introduced by Donato (1988, 1994), where students share their language knowledge. Research indicates that collaborative writing not only enhances attention to form but also supports L2 vocabulary development and overall writing competence (Garcia Mayo & Imaz Agirre, 2019; Villarreal & Gil-Sarratea, 2019; Fernandez Dobao, 2014; Kim, 2008; Shehadeh, 2011). In modern educational environments, various methods of written corrective feedback are utilized in EFL classrooms, including peer feedback and AI-assisted approaches.

Peer feedback represents a contemporary development in education, where students provide critiques on each other's writing, thereby cultivating a collaborative learning atmosphere. This approach has emerged as a novel alternative to traditional teacher-centred written corrective feedback (WCF), where educators typically assume a primary role in delivering feedback throughout the writing process. The literature has increasingly focused on peer

feedback (Hewett, 2000; Liu & Hansen, 2002), revealing a multitude of advantages. Research (Connor & Asenavage, 1994; Cho & MacArthur, 2010; Storch, 2005; Topping, 1998) indicates that peer feedback enhances students' writing skills and competencies from cognitive, affective, social, and linguistic perspectives. Some scholars, including Sato (2013), Sato & Lyster (2012), and Sippel & Jackson (2015), argue that engaging with peer feedback can facilitate second language acquisition and transform students from passive recipients of knowledge to active contributors. Through peer interactions, students actively analyse their peers' writing, which can lead to a more profound awareness of their own writing deficiencies. Peterson and Portier (2014) assert that the benefits of peer feedback extend to both the recipients and the providers. Additionally, it fosters the development of critical thinking and language analysis skills (Ferris & Roberts, 2001). As students become more adept at using established criteria to assess writing, their self-evaluation skills improve (Lundstrom & Baker, 2009). Consequently, peer feedback is recognized as an effective strategy for enhancing students' writing abilities (Xiao & Lucking, 2008).

Some researchers, including Adams et al. (2011), Philp et al. (2010), and Zhang (1995), express scepticism regarding the educational value of peer feedback, citing issues such as students' lack of confidence in their own and their peers' linguistic abilities. Ruegg (2015) discovered that teacher feedback was more effective in addressing grammatical errors compared to peer feedback. While certain studies indicate that student writers favour feedback from teachers over that from peers, other research highlights the advantages of peer feedback in enhancing the writing process (Yang et al., 2006). It is proposed that English as a Foreign Language (EFL) learners can benefit from both teacher and peer feedback to enhance their writing skills. Tai et al. (2015) examined the impact of combining teacher and peer feedback against relying solely on teacher feedback within a collaborative online learning environment. Their findings showed that students receiving combined feedback made more significant progress in holistic writing skills and specific areas such as content, organization, grammar, mechanics, and style compared to those who only received teacher feedback. However, due to their limited linguistic knowledge and writing abilities, students were capable of identifying errors from a reader's viewpoint but struggled to provide consistent, comprehensive, and persuasive feedback. Overall, students perceived peer review as a challenging yet beneficial task. Lee (2008) emphasizes the importance of offering appropriate guidance to peers to facilitate accurate error detection and constructive feedback.

The latest advancement in the realm of writing feedback is the integration of AI feedback. In recent years, artificial intelligence has made remarkable strides, and its application in education is gaining traction. There are various methods to incorporate AI-driven tools within student learning environments. Steiss et al. (2024) argue that AI can serve as an automated writing evaluation system, enhancing the volume of feedback available to students while alleviating the pressure on educators to provide consistent feedback to large groups. Wu (2024) highlights that AI technology has significantly improved in areas such as vocabulary development, grammar correction, and discourse generation. These AI tools can assist learners both during the writing process and in subsequent revisions. Beyond merely checking grammar and spelling, AI technology offers comprehensive support in pinpointing writing issues and recommending enhancements (Alharbi, 2023). One notable AI application is *ChatGPT* (Chat Generative Pre-Trained Transformer), a chatbot that has gained considerable popularity since its introduction by *OpenAI* in November 2022. *ChatGPT* engages users in a conversational manner, addressing inquiries and requests interactively (*OpenAI*, 2023). This tool, driven by an extensive language model, is capable of understanding and generating human-like responses across diverse subjects by utilizing computational techniques and a vast repository of information to connect concepts and interpret prompts contextually (Barrot, 2023). Wenzlaff and Spaeth (2022) assert that *ChatGPT* is comparable to humans in generating explanatory responses.

ChatGPT serves as a valuable writing resource in second language classrooms by meeting various writers' needs and providing essential features for writing assessment, such as timely feedback. When prompted for feedback, *ChatGPT* can pinpoint the strengths and weaknesses of a text and suggest areas for improvement. It is also capable of assessing the clarity, focus, and structure of written work (Barrot, 2023). Numerous studies have explored the effectiveness of *ChatGPT* as a feedback mechanism, yielding a range of results (Steiss et al., 2024; Wu, 2024). Notably, research by Dai et al. (2023) examined the practicality of using *ChatGPT* to deliver constructive feedback to students, aimed at enhancing their learning experiences. The results indicated that *ChatGPT* consistently generates more comprehensible feedback, which helps students understand and improve their work. However, it was observed that *ChatGPT* does not match the reliability of instructor evaluations of student performance. Additionally, *ChatGPT* demonstrated a strong ability to provide process-oriented feedback, which was found to be more effective in influencing students' task strategies compared to feedback focused solely on the tasks. Overall, the findings highlight

ChatGPT's considerable potential in assisting students to refine their skills and promote the development of learning competencies.

Su et al. (2023) investigated the potential uses of *ChatGPT* in assisting students with various academic tasks, such as preparing outlines, revising content, and proofreading. By supplying *ChatGPT* with an argumentative writing outline and an evaluation rubric, the researchers noted its capability to assess the coherence between main claims and sub-claims, evaluate the quality of supporting evidence and counterarguments, and propose alternative claims and counterarguments. This method could significantly improve the structural integrity of argumentative writing. In the editing phase, *ChatGPT* was given evaluation rubrics for the content of argumentative writing. The feedback it generated effectively identified the strengths and weaknesses of the writing, providing useful suggestions for enhancement. However, the researchers pointed out that due to *ChatGPT*'s limited generative abilities, some of its suggestions were vague and abstract, requiring further clarification. During the proofreading phase, an evaluation checklist focusing on lexical devices, syntactic structures, and textual elements was provided to *ChatGPT*. Although the feedback was primarily evaluative, it lacked depth, which limited its effectiveness in promoting learning. Additionally, the consistency of *ChatGPT*'s feedback was a concern, as it produced varying responses for each submission of student work, which reduced the overall utility of the feedback. Despite these challenges, the researchers acknowledged *ChatGPT*'s effectiveness as a proofreading tool. When tasked with evaluating individual sentences for grammatical correctness, *ChatGPT* was able to assess grammatical accuracy, clarify the intended meaning, and suggest alternative phrasing. Nevertheless, the researchers emphasized that it is ultimately the students' responsibility to critically evaluate and decide whether to accept the revisions suggested by *ChatGPT*.

Yoon et al. (2023) conducted an assessment of the feedback quality generated by *ChatGPT*, focusing on the coherence and cohesion of essays authored by English language learners. Their study involved the evaluation of 50 argumentative essays using a structured rubric. The feedback evaluation was carried out in two phases. Initially, each feedback sentence was classified into specific subtypes based on its purpose, such as positive reinforcement or problem identification. Subsequently, the accuracy and usability of each feedback sentence were assessed according to these classifications. The findings from both the feedback type analysis and the accuracy evaluation indicated that a majority of the feedback sentences were overly abstract and generic, lacking specific suggestions for improvement. The ability to identify repetitive ideas and incorrect use of cohesive devices was often

based on superficial linguistic characteristics, leading to frequent inaccuracies. The researchers concluded that *ChatGPT*, in the absence of targeted training for feedback generation, was ineffective in providing constructive feedback on coherence and cohesion in the students' essays. When students receive feedback, they have the opportunity to enhance their writing. In a process-oriented teaching approach, educators have encouraged students to produce multiple drafts and have investigated various feedback strategies to facilitate improvement at each stage of the writing process (Ferris, 1997). Beason (1993) emphasizes that "feedback and revision are valuable pedagogical tools...research generally shows that high school and college students enhance their drafts after receiving feedback" (p. 396). Written corrective feedback (WCF) aims to equip students with skills that enhance their writing proficiency, resulting in texts with fewer errors and greater clarity (Williams, 2003). The combination of collaborative writing with diverse feedback sources peer and *ChatGPT* may provide a comprehensive context for understanding students' perceptions and preferences regarding different feedback mechanisms.

Research on the comparison between peer feedback and AI feedback within the realm of English Language Teaching (ELT) writing instruction is still limited. Although each approach presents unique benefits, the existing literature provides limited direct comparisons that explore the relationship between peer feedback, AI tools, and student performance. This study seeks to address this deficiency by methodically assessing the effects of both feedback types on student motivation, writing quality, and critical thinking skills.

Method

The aim of this research was to evaluate students' views on the effectiveness of various feedback methods and to determine their preference for receiving feedback. Another goal was to identify the proportion of feedback directed towards specific writing components while taking into account the revisions made by students, in order to obtain further insights into the feedback processes.

This research utilizes a mixed-methods approach to explore the relative effectiveness of peer feedback versus AI-driven writing support in improving students' writing abilities. The study involved 60 students participating in an intermediate-level English writing course at a university. The students were split into two groups: one group received feedback from their peers on their writing assignments, while the other group utilized AI writing tools for feedback.

Quantitative Data Collection

In order to evaluate writing quality, students provided three drafts throughout the semester, each receiving feedback from either peers or AI tools. The quality of writing was assessed using a rubric that examined grammar, coherence, structure, vocabulary, and argumentation. This rubric was applied uniformly across all drafts and types of feedback. Furthermore, student motivation was gauged through a pre- and post-course survey assessing their engagement and attitudes towards writing.

Qualitative Data Collection

Comprehensive interviews were carried out with a group of 10 students from each cohort to collect insights into their perceptions of the feedback systems. Students were prompted to consider the usefulness of the feedback they received, the ease of incorporating it, and their overall satisfaction with the process. The interviews also delved into students' opinions on the relational dynamics of peer feedback in contrast to the more impersonal nature of AI-generated suggestions.

Results

Writing Quality

Initial findings indicate that students who utilized AI tools for feedback experienced notable enhancements in grammar and sentence-level issues, especially in their initial and subsequent drafts. The AI tools delivered immediate and precise feedback, allowing students to promptly and effectively make corrections. However, students involved in peer review exhibited more significant advancements in higher-order writing skills, including coherence, argumentation, and overall essay structure. The peer feedback process encouraged a deeper reflection on the organization of ideas and the clarity of arguments, areas where AI tools were found to be less effective.

Student Motivation

Data from surveys indicated that students participating in peer feedback felt more motivated and engaged in the writing process. The peer review method fostered a sense of accountability and social interaction, motivating students to take their writing seriously and to engage in constructive critiques of their peers' work. In contrast, students who relied on AI tools expressed a sense of ease but reported

lower motivation levels to revise their submissions, as the feedback from AI lacked the interpersonal interaction that typically enhances deeper engagement.

Critical Thinking

Students receiving peer feedback exhibited elevated levels of critical thinking in their writing. The peer review process prompted students to evaluate not just their own work but also that of their classmates, leading to a more thorough understanding of writing conventions and argumentative frameworks. Conversely, while AI feedback was beneficial in pinpointing errors, it did not encourage students to critically assess the content of their writing.

Discussion

The research also emphasizes the promise of a blended approach that leverages the benefits of both feedback types. For instance, AI tools could serve for preliminary error identification and superficial corrections, whereas peer review could be utilized for more in-depth feedback regarding content, structure, and argumentation. This combined approach would enable students to take advantage of the efficiency provided by AI tools, while simultaneously developing the critical thinking and collaborative skills that peer review encourages.

Conclusion

This study adds to the ongoing conversation about writing instruction in English Language Teaching by presenting a comparative analysis of peer feedback and AI-based writing assistance. The results indicate that, although AI tools are helpful in addressing surface-level mistakes, peer review is crucial for promoting deeper engagement and critical thinking skills. A combined method that utilizes both feedback approaches could enhance student learning outcomes, offering a thorough and tailored approach to writing education. Additional research is necessary to investigate the long-term impacts of blending these feedback methods and their influence on students' overall language acquisition.

Moreover, the combination of AI-driven tools with peer feedback could present an inventive strategy to meet the varied needs of students at different skill levels. AI has the potential to act as a reliable and available resource, providing instant feedback on grammar, spelling, and the overall structure, which can assist students in honing their technical abilities. Conversely, peer feedback encourages the cultivation of higher-order thinking skills, including argumentation, coherence, and style, by prompting students to critically engage with one another's writing. This integration not only aids in skill development but also fosters a cooperative learning atmosphere where students benefit from both technological assistance and collaborative insights from their peers.

That said, it is crucial to recognize the possible drawbacks of both AI and peer critiques. While AI tools can be efficient, they may sometimes miss the subtlety needed to tackle intricate writing issues, such as tone or rhetorical techniques. Likewise, peer feedback can occasionally be uneven or coloured by individual biases, depending on the expertise and familiarity of the reviewers. To address these challenges, teacher support and structured feedback systems may be necessary to ensure both approaches are effective.

Looking ahead, it will be important for educators and researchers to investigate how these feedback methods can be refined to function together effectively. Exploring how AI can enhance peer feedback in real-time collaborative environments and how these technologies can be integrated into various educational settings will be vital for progress in writing instruction. As we continue to examine the intersections of technology and interpersonal interaction in language education, we may uncover new opportunities that enhance student writing skills and overall language proficiency.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

Proportion of Authors' Contribution

Author 1: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing – Original Draft, Review & Editing, Visualization, Last Draft.

Author 2: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing – Original Draft, Review & Editing, Visualization, Last Draft.

TRANSFORMATIVE AI IN ENGLISH LITERATURE EDUCATION: EVALUATING THE IMPACT OF *CHATGPT* AND *GEMINI* ON STUDENT LITERARY ANALYSIS AND WRITING PROFICIENCIES

Met'eb ALNWAIRAN[1]

During the last couple of decades, AI has emerged as a transformative force in many cognate areas of education, new tools, and methods for improving learning experiences. While the traditional home for AI applications in higher education has been in the cognates of science, mathematics, and technology, its integration into the humanities generally and literature education specifically offers some singular opportunities and challenges. Unlike more rule-based or procedurally-oriented subjects, English literature education places a high premium on subjective interpretation, critical thinking, and creativity. However, with AI entering this arena, there are some very strong questions attached to it: while practice is steeped inherently in perspective and nuance, how does such disciplined analysis and writing skills develop among students through AI? To what extent would AI actually improve or even harm traditional skills in literature?

AI tools like *ChatGPT* and *Gemini* use advanced NLP to understand, generate, and build text, thus helping students a great deal while tackling excessively complicated literature or composing particular analysis essays. Such tools would provide opportunities for students to think on a higher-order level by creating different perspectives of viewpoints on the themes of literature, finding symbolic meanings, and improving writing mechanics such as grammar and coherence (Burkhard, 2022; Marzuki et al., 2023; Nazari et al., 2021). These features hold great promise for transforming the ways of a traditional classroom experience in

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English literature, where students often struggle through complex texts or the writing of sophisticated analysis.

However, there are a number of pedagogical questions concerning the integration of AI in literature education. As Iskender (2023) points out, there is a great risk that AI-based tools could stand in the way of student independence since students will likely become dependent on automated suggestions provided during an analysis instead of developing their own means of analysis and interpretation. Moreover, some educators welcome AI's capacity to assist students in their analysis of literature, whereas others fear that such tools would suppress creativity; that is, students who rely too much on an AI interpretation would not think originally. Gültekin et. al. (2023) underline these critiques and point out the necessity of research that would address both benefits and potential drawbacks of AI tools serving the purposes of an educational context in which individuality and critical analysis are something important.

The present study focuses on the specific implications of *ChatGPT* and *Gemini* for students' skills in literary analysis and writing competencies, in order to establish how these could support or challenge the goals of a curriculum in literature. Importantly, the research uses a qualitative design to capture the ''rich'' experiences of students and educators. It also examines subtle impacts of AI on student engagement, interpretive skills, and writing quality through in-depth interviews and focus groups. Moreover, it serves to deal with educators' views-developing the role that AI can play within an academic environment ruled by creativity and analytical depth.

Consequently, this paper contributes to the bigger conversation on the place of AI in education through an investigation into the role *ChatGPT* and *Gemini* could play in performing literary analysis and writing in the classroom. The insight gained from such a study would be particularly significant to educators, curriculum developers, and policymakers, who are struggling to keep up with the implications of rapid integration of AI into academic life. Ultimately, this study also aims at providing an insight into how AI can be effectively and ethically integrated into the teaching of English literature so as to improve student outcomes without sacrificing critical and creative competencies that are at the core of literary studies.

Literature Review

The use of Artificial Intelligence in educational contexts has received interest from various disciplines, especially in exploring the possibility of its role in aiding and improving student learning. Despite AI's very common usage in the fields of

science and technology, recent research investigates its role and impact in humanities education to include English literature. The paper reviews the literature on the role of AI in educational contexts, particularly in the humanities, while weighing benefits and limitations of employing AI tools such as *ChatGPT* and *Gemini* in constructing student competency in both the analysis of literature and writing.

AI in Education: Transformative Potential and Pedagogical Shifts

Recent literature emphasizes that AI will revolutionize education through the provision of personalized, instantaneous feedback or application to complicated problem-solving activities. Instead, the power of AI in literary studies surpasses mere procedural support to reach complex interpretive tasks, such as the analysis of themes, interpretation of symbolism, and understanding of character dynamics.

But, with growing indetermination AI brings into the learning process, different researchers point out the potential change to pedagogical practices. Haleem et al. (2022) have argued that while AI can raise the engagement of students with extra learning support, its use in literature education may need adjustment in the traditional pedagogical approach. The fact that AI is supposed to play a supportive role, rather than replace the instructor, would therefore suggest that educators need to be tacitly balanced in integrating AI to emphasize individual interpretation and critical thinking found traditionally in literature studies.

Artificial Intelligence and Critical Thinking in Literature Teaching

The potential of AI to cultivate critical thinking has emerged as a point of interest among educators. Large language models, including *ChatGPT* and *Gemini*, use natural language processing to provide extended responses that can lead students to reflect on multiple viewpoints about a text. Colney (2023) and Tambunan et al. (2022) noticed that students' engagement with the text in cases where AI tools intervene might just be deeper. AI models make interpretive moves and also connect ideas in subtle ways that might not have readily appeared to a student. This assertion agrees with Zhao (2022) who noted that when students use AI in writing classes, they develop a much better capacity to reflect complex themes underlying a text and the use of symbols.

Not all studies uniformly conclude on the unqualified benefits of AI for developing critical thinking skills. Bianchi (2024) referred to the concern that AI tools may facilitate an over-reliance on such pre-generated analyses, with potential consequences for students accepting AI interpretations without engaging in the deeper processes of independent thought themselves. This again can be very

relevant for literature study, as personal insight and individual interpretation are crucially part of the learning process.

AI and Improvement of Writing Skill

While improving critical thinking skills, AI tools mostly act as extensive supports for writing skills-the bedrock in the learning of English literature. In respect of AI's sectoral role in improving writing, research indicates that AI-powered tools such as *ChatGPT* and *Gemini* have the potential to improve students' grammar, vocabulary, coherence, and style while writing, among other things. The AI-automated feedback allows students to revise and make finer changes in their writing over time, which would lead to more refined writing outputs. For instance, AI tools may indicate the repetition of passive voice or ungainly sentence structures in a passage and point out specific suggestions for revision.

Some educators, however, raise concerns about the impact AI has on creativity and originality. When students are using AI to help them write, they sometimes lapse into formulaic modes of expression devoid of voice or creativity (Krullaars et al. 2023). Furthermore, students who rely too heavily upon suggestions given by AI likely impede their own development in finding a manner of writing and ways to express themselves (Iskender, 2023; Ferrajão, 2020; Pokkakillath & Suleri, 2023). These results suggest that while AI can be a great technical help, there is a need to encourage students in the balanced use of AI so that it acts as a guide rather than being a crutch.

Teachers' Perspectives toward AI Integration in Literature Classrooms

Educators have been at the vanguard of determining how AI has been introduced-and received-within the classroom. Research highlights a broad range of educators' perspectives on the effectiveness and the ethical implications of the use of AI in literature teaching. Educators generally agree that AI tools, such as *ChatGPT* and *Gemini*, may have positive impacts on students' learning processes in terms of immediately assisting them with complex texts or improving technical writing skills (Pokkakillath & Suleri, 2023). For instance, Cahyono et al. (2023) claim that educators find AI and mobile technology of particular use with students who might struggle a bit with textual analysis, thus helping such students approach difficult texts with considerable amounts of confidence.

However, teachers have also raised concerns regarding how potent AI may be challenging the conventional process of learning. Teachers were worried over the fact that students may heavily rely on AI at the expense of their capacity for critical thinking and independent analyses (Lee et al., 2023). Ethical issues also arise regarding originality and academic integrity because teachers believe students

could use AI to produce well-structured answers that are essentially devoid of genuine personal input. These findings call for the training of students on responsible ways to use AI, teaching them how to treat such tools like supplements and not replacements for their analytical skill.

Ethical Issues and Future Directions of AI in Literature Education

With increased participation of the AI tools in the classroom, the ethical issues related to their usage become grave. Originality, academic honesty, and intellectual dependency are still at risk. Clear guidelines should be set to avoid misuse in the use of AI on assignments (Lukac & Lazareva, 2023). Educators should point out clearly how to incorporate the suggestions provided by AI into the work with ethics. Besides that, researchers support the teaching approach that allows students to be digitally literate to understand the limitations and potential biases of AI models.

Future directions for AI in literature education should focus on maximizing benefits with the preservation of traditional aims in literary studies, including critical inquiry and personal interpretation. Pokkakillath and Suleri's (2023) study reflects the need for further research studies to establish how different types of AI tools may be treated with optimization for varied facets of education. Other long-term effects that AI is likely to have on student learning outcomes, such as critical thinking and creative expression, will be important to investigate further to help shape appropriate integration of AI into educational settings.

Method

The current qualitative research focuses on how AI tools, such as *ChatGPT* and *Gemini*, influence the literary analysis and writing competencies of students within the context of English literature education. In the present research, a case study design has been applied to provide an in-depth insight into participants' experiences, capturing the complex role of AI in this educational context.

Research Design

This is a qualitative exploratory study aiming to answer the following three research questions:

1. How do *ChatGPT* and *Gemini* influence the literary analytic performances of students?
2. What effect do these tools have on the writing skills of students?
3. How do educators evaluate the role of AI in reinforcing or disputing conventional ways of learning about literature?

Sampling

Participants

Purposive sampling comprised 20 students and five educators in two institutions in Jordan where AI tools are integrated into their English literature classes. The selection of participants is based on their experience in the use of *ChatGPT* and *Gemini* in their coursework.

Data Collection

Interviews and Focus Groups:

Data collection consisted of 45-60-minute semi-structured interviews and 90-minute focus groups. Interviews with students and educators documented participants' first-hand experiences related to AI tools, while focus groups fostered discussion on perceived benefits and challenges associated with AI use in literature education. The interview questions were:

- How has AI impacted your approach to literary analysis?
- What changes have you noticed in your writing skills?
- How has the use of AI tools like *ChatGPT* and *Gemini* impacted your understanding of literary themes and concepts?
- What specific aspects of literary analysis (e.g., character development, symbolism, narrative structure) have you found easier to understand with the help of AI tools?
- What do you perceive as the potential drawbacks of relying on AI tools for literary analysis in your own or your students' work?
- Do you feel your writing style has been influenced by the suggestions and feedback provided by AI tools like *ChatGPT* and *Gemini*? If so, in what ways?
- How do you think the use of AI tools like *ChatGPT* and *Gemini* affects your ability to critically analyse literature, compared to traditional methods?
- What changes have you observed in your students' critical thinking and writing skills as a result of using AI tools?

Recording and Transcription:

All the sessions were audio-recorded, with participant consent, transcribed, and anonymized to make sure confidentiality was maintained.

Data Analysis

Thematic analysis, as set out by Braun and Clarke (2006), was utilized to identify patterns that recurred. Some of the key steps included:

- **Familiarization:** re-reading transcripts to conceptualize an idea of participants' insights.
- **Coding:** the process by which specific definitions are developed for recurring phrases, such as 'over-reliance on AI' or 'enhanced comprehension.'".
- **Theme Development:** Codes are further organized under broader themes such as "AI as an interpretative aid" and "Impacts on originality.
- **Reporting:** This involves summarization of major themes with quotes to support the findings.

Ethical Issues

Ethical approval was obtained, and all participants provided informed consent. Confidentiality and volunteer participation were emphasized in addition to security of data.

Findings and Analysis

Three key themes were identified that point to the influence *ChatGPT/Gemini* would have on literary analyses, writing skills, and educators' opinions about AI in literature education.

AI as a Tool in the Betterment of Literary Analysis

The students and educators reported that *ChatGPT* and *Gemini* helped break down complex literary texts in ways so that students were better able to grasp associated themes, character motivations, and associated symbolism. Many students spoke to how AI gave them different perspectives, encouraging them to go on and consider interpretations which they may never have considered themselves. For instance, one of the students mentioned, "*ChatGPT* made it easier sometimes to understand the subtleties of texts such as Hamlet, when the language is complex." Some teachers observed that AI tools made the students participate in a more active way when discussing complex texts, indicating how AI would make literature more accessible.

But it remained a repeated issue throughout-the fear of dependency on the artificial intelligence-produced interpretations. The majority of educators asserted

that although AI can offer fresh ideas, sometimes the whole process constrains student minds from thinking independently critically about the given ideas. Some students believe that their colleagues take on insights from AI without raising critical thoughts or elaborating upon the idea. This inference appears to be pointing out some tactics to get students to think actively with AI-proposed interpretation and not passively accepting.

AI Effects on Writing Skills

The students mentioned that AI had helped them in many grammatical, vocabulary enhancement, and sentence formation-suggesting quite useful ideas from both *ChatGPT* and *Gemini* regarding refining the drafts themselves. A student voiced her opinion saying: "*ChatGPT* helped to rewrite awkward sentences and brought some vocabulary to the final drafts." Educators can testify that the general standard of the technical aspects of students' writing has improved, by and large.

Despite these advantages, however, some students also felt this level of reliance on AI leads to formulaic writing. One student explained: "Sometimes, I feel like my essays start to sound the same because I am following the AI suggestions very closely." Interestingly, educators have certainly shared similar fears that students' writing had the potential to become too uniform and lacking a personal voice along with creativity. This underlines the importance of balancing out AI assistance with the possibility to express creativity and therefore suggests that AI tools are just assistants in writing activity, without offering a complete solution.

Teachers' Perspectives on the Use of AI in Secondary School English Literature Classes

Educators expressed diverse views on the role of AI in literature education. Many considered AI a support tool, especially for students who struggle with comprehension or mechanics of writing. For example, one educator said, "AI can be a fantastic support, especially for students who might feel intimidated by classic literature." Yet, educators also spoke to ethical and pedagogical concerns about originality and academic honesty. Some teachers noted that at times students would submit work with the help of AI that seemed inappropriately polished, calling authenticity and effort into question.

Several instructors showed the need for guidelines on how AI can be used to teach literature. They encouraged the instruction model to indicate ethical uses of AI by guiding the student to use the AI as a complement, not an alternative for original

thought. This forms part of a larger call for AI literacy in schools, including knowledge of the capabilities and limitations of such tools.

Discussion

The present study has explored how *ChatGPT* and *Gemini* intervene in students' skills of doing literary analysis and in their writing, as well as the benefits accrued and challenges presented by AI to the teaching of English literature. The findings are in tune with past literature, extending new insights into how AI may shape learning experiences within the humanities.

Widening Access to Complicated Texts and Various Perspectives

This means that AI can be of great use in supporting students' work with complicated literary texts to make difficult language and abstract themes more understandable. The findings support the study of Haleem et al. (2022), where it has been found that AI was able to provide new visions to make subtle meanings clearer for comprehension. The AI chat tools, *ChatGPT* and *Gemini*, by providing interpretations on such things as symbols, themes, and character motivations, just help students concoct understanding from the literary works in an easier way.

Conversely, reliance on the interpretations that AI can provide becomes destructive with regard to the students' independent critical thinking. While it is true that AI can make some useful interpretations, based on the results of this research, students may end up accepting those interpretations uncritically-a view echoed by (Lee et al., 2023)-which needs to be balanced by independent analysis when AI is used. It may also prove helpful to suggest to the students that they should question and assess some of the insights generated by AI if the educational benefits of AI in literature education are to be increasingly realized.

Balancing AI Assistance with Writing Skill Development

The findings showed that AI tools can perform exceptionally in improving grammar, vocabulary, and coherence dimensions of students' writing. Indeed, this aligns with observations by Pokkakillath and Suleri (2023) that AI feedback may enhance learning through immediate, specific suggestions for improvement. Such capabilities assist students with needs for further support in foundational writing skills and thus can produce more transparent and refined compositions.

On the other hand, the current research also disclosed the risk of students' writing turning formulaic because of reliance on AI-generated suggestions at the cost of personal expression. This concern was also recorded by Bianchi (2024), who

averred that over-reliance on frequent use may get writing to be exactly uniform, reducing originality and creativity. This again brings in the role of an educator with regard to the balance between getting help from AI and shaping a distinctive voice. Perhaps, guiding students how to use AI as a point of departure for revising, in opposition to following its dictates as a given, may give rise to work that is considered authentic.

Ethical Considerations and the Function of the Educator

Subjects in this research showed concern for academic integrity and originality, as sometimes students' submitted work, assisted by AI, was too polished. This again serves to support Lukac & Lazareva's (2023) argument that the use of AI raises ethical issues in education, such as authenticity and effort on the part of a student. As such, it calls for guidelines in the use of AI in literature education that should foster ethical use and emphasize genuine engagement with the assignments.

It is here that educators become all the more important in the formation of these ethical benchmarks and in guiding students on responsible use of AI. By fostering a class culture that values originality, educators have an opportunity to teach students why personal insight and imagination are so essential to analysis. AI literacy within the curriculum might better prepare students in knowing when and how to use AI to act as an enhancement of learning, not simply a means to complete an assignment.

Implication for Practice

The findings from this study bear several practical implications for effective integration of AI into the teaching of English Literature.

- **Critical Engagement:** Educators should provide impulses for critical treatment by students of insights generated by AI. They should become acquainted with the fact that they do not have to receive uncritically the interpretations but rather give some time for reflection. Classroom activities, reflective activities in particular, may foster the habit of proliferation or expansion of responses generated by the AI.

- **Balancing Technical Improvement with Creativity:** While AI improves a student's technical writing skills, a teacher must find the balance in the work assigned that is creative and encourages self-expression. Educators are applying AI while giving the first feedback regarding coherence and grammatical sentences, but then emphasizing

further that final revisions must be made to reflect students' unique voices.

- **Setting Ethics Rules:** The use of AI needs to be regulated with schools and educators putting in place guiding principles on its use, emphasizing originality and academic honesty. The students will be in a position to know when to use or not to use AI, and how to attribute to the contributions of AI literacy training.

Limitations and Avenues for Future Research

This study provides useful insights; however, some limitations have to be acknowledged. The first one refers to the insufficient sample size, since only a small group of students and educators took part in the study, which cannot fully represent the wide variety of experiences prevalent in different educational contexts. Further studies can expand on this study by including a greater and more varied sample in order to elicit a broader range of perspectives. Longitudinally, such a method would help in the determination of how AI influences critical thinking and writing skills over a couple of academic years.

Other directions for further studies may involve determining what kinds of roles different AIs play in literature education, comparing the effectiveness of such tools as *ChatGPT* and *Gemini* against emergent models. Such a study on explicit AI literacy training within the literature curriculum could give further best practice perspectives on effective AI integration.

Conclusion

The current research has explored how *ChatGPT* and *Gemini* AI tools might influence enhancing student skills in the literary analytics and writing process within education in English literature. The results reveal both transformational potential and complications associated with embedding AI into learning environments in the humanities. AI tools provide extensive support for deconstructing complex texts, giving leeway for students to seek alternative perspectives and refine the technical dimensions of writing concerning grammar and coherence. On the other hand, it also points to some challenges that might include overdependence on AI interpretation and formulaic trends in writing.

While AI has its limitations, educators bear great responsibility in harnessing its benefits. Thus, educators enhance responsible use of AI as an assistive technology and not a replacement for independent analysis by encouraging critical engagement, personal expression, and establishing ethical guidelines. These are

necessary strategies that will ensure the enhancement of AI in student understanding and skills without compromising creativity and critical thinking foundational to studies in literature.

As AI technology continues to evolve, further research is needed in order to understand the long-term impact on student learning and best practices in how to embed AI into literature education. Contributing to the larger conversation about AI in the classroom, this research provides credence to educators, curriculum designers, and policy-makers to make informed decisions regarding the ethical use of AI in humanities education.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

BEYOND THE VEIL: WOMEN'S AGENCY AND PROTO-FEMINIST DISCOURSE IN THE PREMODERN WORLD[1]

Mustafa KARA[2]

The Medieval and Renaissance periods, characterized by their rich tapestry of cultural, social, and intellectual upheavals, serve as epochs of profound transformation in Western history. While often remembered for their towering figures in art, literature, and politics, these eras also bore witness to subtle yet significant shifts in gender dynamics, with women asserting agency in varied spheres of life. Within the framework of proto-feminism, a term retrospectively applied to movements advocating for women's rights before the emergence of modern feminism, lies a mosaic of voices and actions challenging the patriarchal norms of the time. This article seeks to illuminate the often-overlooked contributions of women in the Medieval and Renaissance periods, exploring their struggles, writings, and societal roles as agents of change. By delving into diverse historical and literary sources, this study aims to unravel the intricate web of proto-feminist attempts, shedding light on the complex interplay between gender, power, and resistance in these transformative epochs.

The Medieval era, spanning from the 5th to the 15th century, was a period marked by feudalism, religious fervour, and the consolidation of patriarchal structures. Despite the prevailing constraints imposed by the dominant discourse on women's inferiority and subservience, glimpses of proto-feminist consciousness emerged, challenging the established order. From the mystical writings of visionaries like Hildegard of Bingen to the defiant actions of figures such as Christine de Pizan, women carved out spaces for themselves beyond traditional gender roles, albeit

within the confines of religious or aristocratic frameworks. Moreover, the medieval period witnessed the proliferation of vernacular literature, providing a platform for female voices to articulate their experiences and aspirations. Through references to texts such as Christine de Pizan's *The Book of the City of Ladies* and Julian of Norwich's *Revelations of Divine Love*, we can discern proto-feminist discourses that questioned prevailing notions of female virtue and intellect, advocating for a more equitable society.

As Europe transitioned into the Renaissance, characterized by a revival of classical learning, artistic innovation, and humanist ideals, opportunities for female agency expanded, albeit unevenly across different regions and social strata. Renaissance women, often depicted as muses or objects of desire in art and literature, actively participated in the intellectual and cultural ferment of the period. From the salons of noblewomen to the convents fostering female education and creativity, women found avenues to assert their intellect and influence. Notable figures defied gender norms, leaving enduring legacies in fields traditionally dominated by men. Moreover, the rise of printing facilitated the dissemination of feminist ideas, with works such as *Poems and Fancies* by Margaret Cavendish challenging misogynistic stereotypes and advocating for women's autonomy and dignity.

However, it is essential to recognize the limitations and contradictions inherent in proto-feminist attempts within the Medieval and Renaissance contexts. While some women managed to navigate patriarchal structures to wield considerable influence, their agency was often circumscribed by intersecting factors such as class, race, and religion. Moreover, proto-feminist movements were not monolithic but comprised a diverse array of voices and agendas, reflecting the complex intersections of gender with other axes of power and identity. Additionally, the historical records themselves are often fragmentary and subject to interpretation, requiring careful scrutiny to discern women's agency amidst the prevailing patriarchal narratives.

In light of these complexities, this article adopts an interdisciplinary approach, drawing insights from history, literature, art history, and gender studies to illuminate the multifaceted nature of proto-feminist attempts in the Medieval and Renaissance periods. By situating women's experiences within broader socio-political contexts and interrogating the nuances of their agency, this study seeks to deepen our understanding of the dynamics of gender and power in premodern Europe. Through a nuanced analysis of primary sources and secondary scholarship, it is aimed to unveil the hitherto obscured contributions of women to intellectual, cultural, and social transformations, complicating simplistic

narratives of female passivity and marginalization. Ultimately, this exploration of proto-feminist struggles serves not only to enrich our appreciation of the past but also to inspire critical reflections on the ongoing struggle for gender equality in the present day and beyond.

The Roots of Feminism: Early Contributions from the Medieval and Renaissance Periods

While the term "feminism" did not exist until the late nineteenth and early twentieth century, there were still efforts made towards gender equality before that time. Throughout history, people from all backgrounds have worked diligently to emphasise the importance of granting women the same privileges to men. Contrary to the expectations of the time, both women and men were involved in advancing women's rights throughout that period. The challenges faced by women during that time period led to the development of the first, second, and third waves of feminism. Essentially, it can be concluded that the challenges faced by women during that time were similar to those that sparked movements in the late nineteenth century, due to comparable hardships, conflicts, inequalities, and societal hypocrisy.

Hildegard of Bingen, born in 1098 in Bermersheim, was a dedicated nun who acknowledged the vulnerability of women despite writing numerous letters during the Mediaeval Age, a time when writing was predominantly reserved for men. From her own letters, it may be deduced that she sought refuge in God, recognising that her words held no more value than waste. She sought assistance from the monk of Eberhard, who served as the Bishop of Bamberg, by sending him a letter, confessing as follows:

> Father, I, a poor little woman, am able to expound upon the question you asked me, because I have looked to the True Light, I and I am sending along to you the answer I saw and heard in a true vision not my words, I remind you, but those of the True Light, which has no imperfection. (Hildegard, 1994, p. 95)

Upon closer examination, it is evident that she was afraid of the severe and unforgiving punishments of that time since she claimed that the content of the document was not her own but was instead created by 'the True Light'. In addition, the phrase 'a poor little woman' appears frequently in all of her texts, vividly illustrating the plight of women during that era. Barbara Newman (1997) argues that Hildegard of Bingen's visionary style and prophetic authority served as forms of empowerment for a woman who would not typically have the freedom to talk, write, or preach about religious matters (p. xvii). She underestimated

herself and spoke her own intuitions, observations, and desires. Baird and Ehrman (1994) also portrays how Hildegard of Bingen finds her way through the religious bars as follows:

> "The Living Light has said to me"; "In the inspiration of a true vision, I saw and heard these words"; "The Fountain of Waters cries out to you"; "He Who gives life to the living says"; "The one who was, and is, and is about to come speaks"; "In a vision I saw," et cetera … [are] means of gaining authenticity for her word, the bid of "the poor feminine creature" for authority in a very masculine world. (p. 14)

Such prophetic speech not only secured her opportunity to write but also guaranteed her an audience. Without the visions, she would not have engaged in preaching or writing at all (1997, p. 34). Hildegard of Bingen, known as a visionary, used her insights to construct her own unique world and share her inner thoughts with the public. Her biography indicates that she began sharing the visions she had been experiencing since infancy with the public and other religious figures around the age of forty-three. This is more evidence of limitations faced by women, as she delayed all her life's work until the age of forty-three, highlighting another negative aspect of the era.

Moreover, Latin was the official language of the era, and women were prohibited from using it under any circumstances. Carolyn Dinshaw (2007) contends that while higher education and official Latin culture were inaccessible to women, women, both lay and religious, did engage in reading and writing in vernacular languages such as English and French in later mediaeval England. A small number of women may have even acquired enough knowledge to be considered literate in Latin (pp. 12 – 13). Historically, women were excluded from the Latin language following proto-feminist trends. Men did not utilise the vernacular language since it was thought to feminise them by associating them with non-Latin women (Wogan-Browne et al., 1999, pp. 121 - 122). Languages were split into two to elevate one gender while diminishing the other. The border lines separating the two parties were so clearly defined that very few women were able to cross it for many centuries. Thus, women seeking a supernatural refuge, like Hildegard of Bingen, was not an uncommon occurrence, as they sought to express their own beliefs and objections. Despite being historically male-dominated, language has always been a crucial tool for expressing independence throughout human history. The prohibition of women from utilising it led to their exclusion from society, resulting in their classification as a second-class gender, a sociological construct rather than a biological fact.

Julian of Norwich, another nun in the Mediaeval Ages, was also a trailblazer in the proto-feminist movements. She opposed those who claimed that the Bible forbade women from participating actively in any social sphere. She acted as a revolutionary by going against the norm that prevented women from utilising Latin effectively. Despite using writing to protect herself and others, she remained confined within the patriarchal system, for she could stand up for herself merely by highlighting the inferiority of her own gender. She vehemently objected to the notion that she was unable to document her experiences and adamantly refused to be silenced by interrogating as follows: "Ought I to believe, simply because I am a woman, that I should not tell you of God's goodness? When I saw the vision I also saw that he wants it to be known" (Norwich, 1998, p. 33). By presenting her most famous notion, she questioned if women could see God's benevolence and if she could convey her personal experiences via the written word. Similar to Hildegard of Bingen, she confidently relied on her beliefs and God's authority to gather an audience and establish a solid platform for promoting and defending her views about the male-dominated culture and the order that she was part of.

Margery Kempe, a figure from the Mediaeval Age, was a contemporary of Julian of Norwich and was known for her misery. She created a record of her life, which was considered to be the very first autobiography. She observed her husband's severe attitude and despite the pain of childbirth, Kempe could not escape his constant desire for sexual intercourse. She experienced excruciating pain during childbirth and eventually reached an agreement with her husband. This resulted in her gaining more sexual freedom after having fourteen children, which was not without benefit for her husband. In exchange, he had Kempe settle his debts and convinced her to give up her strict Friday fasting so they could eat and drink together. He concurred with Kempe and spoke those renowned sarcastic and ironic words, which have resonated ever since: "May your body be as freely available to God as it has been to me" (Walters, 2005, p. 8). Kempe's husband compelled her to have sexual relations with him solely based on her gender, highlighting the idea that women were confined within their physical forms. Kempe's autobiography further illustrates how women's bodies were viewed as objects for men's pleasure and control. He suggested that he had utilised his wife's body extensively and now it was her turn to offer her body to God, as he intended to use it according to his preferences. Kempe's husband's comments were not insincere or meaningless; he spoke in an ironic manner because Kempe experienced a vision of Christ, who spoke to her as follows:

> Dowtyr, thow desyrest gretly to se me, and thu mayst boldly, whan thu art in thi bed, take me to the as for thi weddyd husbond, as thy derworthy derlyng, and as for thy swete sone for I wyl be lovyd as a sone schuld be lovyd wyth the modyr and wil that thu love me, dowtyr, as a good wife owyth to love hir husbonde. And therfor thu mayst boldly take me in the armys ofthi sow le and kyssen my mowth, myn hed, and my fete as swetly as thow wylt[1]. (Kempe, 1996, pp. 94 - 95)

The message to be extracted from the passage is not what Kempe's husband anticipated. Kempe used this way to escape her husband's insistent desire for sex. Kempe's vision may have been a form of self-exploration aimed at achieving the highest level of spirituality and gaining mastery over her body and sexuality by transcending her physical limitations. She may have been seeking an ideal husband and wife, mother and son connection, which was not available in the male-dominated society of the Mediaeval Age. Margery Kempe sought refuge in the Divine, like Hildegard of Bingen and Julian of Norwich. She had to give up fasting to gain independence in sexual and familial matters, breaking away from traditional roles in a patriarchal society.

Christine de Pizan was born in 1363 to an Italian family in Venice and was a prominent advocate for women's rights. Despite facing hardships such as the loss of her husband and father before the age of twenty-five, becoming a widow with three children and an elderly mother to care for, the death of all the male members of her family ultimately proved to be beneficial for her writing career. Her father, Thomas de Pizan, served as the astrologer, physician, and alchemist under Charles V of France. Christine de Pizan accompanied her father to the palace, where she had access to the royal library. This opportunity allowed her to study French and excel in classical literature. The male influences in her life were removed, leading her to start working as a scribe (Dufresne, 1996, pp. 29 - 30). She believed that Fortune transformed her into a man so she could provide for her family through intellectual endeavours. Although facing losses and a dire position when women were prohibited from working in literary circles to support themselves, she managed to persevere and care for her family using her intelligence. The word indicating that fortune transformed her into a man is key as it highlights that she was biologically female but held a higher social status typically associated with

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[1]Daughter, you greatly desire to see me and when you are in bed you may boldly take me to you as your wedded husband, as your beloved darling as your sweet son, for I want to be loved as a son should be loved by his mother and want you to love me, daughter, as a good wife ought to love her husband. And therefore, you may boldly take me in the arms of your soul and kiss my mouth, my head and my feet as sweetly as you want.

males. Otherwise, she would be unable to provide for herself and her family. She was grateful to her father for emphasising her education in classic literature and to Charles V for granting her access to the royal library. Without them, she would not have had the opportunity to become renowned in a predominantly male community.

One of Pizan's initial responses was to criticise male authors who portrayed women as weak and insignificant in literature. She expressed a grievance to her audience while embodying Cupid, the god of love, in her poetry, *The Letter of the God of Love*. As Dinshaw (2007) proposes, to Pizan, male writers are unfairly defaming and abusing women. The letter clearly criticises the patriarchal and anti-feminist nature of the education system, highlighting the personal bias of the clerks who oppose women. Misogynistic scholars within the anti-feminist tradition rely on deceitful literature to influence young boys in school (p. 19). Christine de Pizan argued that literature is fictional and that society's perceptions of women are only constructs created by readers. Boys were taught from a young age that women were inferior to males in all situations. She suggested that women may have resisted patriarchal influences if they had created artistic works to defend themselves against the male authors who developed those components.

Christine de Pizan argued that males became misogynists not only because of the education system, but also due to literature such as novels, poems, and other literary works that portrayed women as victims. Guillaume de Lorris and Jean de Meun completed their courtly poem, *Roman de la Rose*, together. During that period, a woman was mistreated by her husband. Pizan protested as follows:

> Not long ago, I heard one of your familiar companions and colleagues, a man of authority, say that he knew a married man who believed in the *Roman de la Rose* as in the gospel. This was an extremely jealous man, who, whenever in the grip of passion, would go and find the book and read it to his wife; then he would become violent and strike her and say such horrible things as, 'These are the kinds of tricks you pull on me. This good, wise man Master Jean de Meun knew well what women are capable of'. And at every word he finds appropriate, he gives her a couple of kicks or slaps. Thus it seems clear to me that whatever other people think of this book, this poor woman pays too high a price for it. (Baird & Kane, 1978, p. 136)

Christine de Pizan's feminist critique highlights her intolerance towards the portrayal of women as evil or villainous characters in literature, despite their lack of association with such depictions. This certainly impacted their everyday routines. She clearly acknowledged that the authorities and competent scholars of

the time were able to influence readers' reactions. Christine de Pizan's understanding of her own gender differed from the assumptions made by scholars and authorities, which were more widely accepted by men of that era.

Christine de Pizan differed from Julian of Norwich and Hildegard of Bingen in their approaches to defence, despite sharing a common purpose. The latter relied on their religious beliefs for support, whereas Pizan promoted herself and her peers based on her intellectual and educational qualifications, without concern for the male-dominated society. During the Mediaeval Ages, there were some unintentional efforts to form the school of feminism. The pioneers of the era wrote and acted against the prevailing patriarchal system to defend themselves and their peers. They established a strong foundation for future generations that lasted for almost six hundred years, making them key characters in the development of feminism.

Continuing into the Renaissance era, the ascension of Elizabeth I to the throne in 1558 provided an enhanced opportunity for women to emphasise their presence in society. They were able to defend their rights by referencing or suggesting the noble dynasty in their works. Nevertheless, beside certain improvements in line with the new era, the chances of the new century were also quite similar to those of the Middle Ages. The Queen even acknowledged her inferiority when addressing her men in Tilbury: "I know I have the body but of a weak and feeble woman; but I have the heart and stomach of a king" (2005, p. 700). Her words can be interpreted in two ways: one suggesting her courage in asserting her autonomy as a female ruler, highlighting her position as queen of England and Ireland based on her gender, while the other implies she gained power through her royal authority due to being perceived as physically weak because of her sex. Regardless of the content of her speech, both interpretations could be seen as inadequate because if she intended the first interpretation, she would have needed considerable courage to refer to herself as the leader of the country despite being perceived as weak and feeble due to her gender. Conversely, if she meant the latter, she essentially categorised herself as inferior, implying that women as a whole are subordinate to men in social status.

Queen Elizabeth I was not the sole example of the era; there were several unconventional and revolutionary advances involving women in society. Women writers used pseudonyms to shield themselves from the anticipated repercussions of the misogynistic culture they resided in. In the early seventeenth century, some women wore trousers like males and exhibited behaviours typically associated with the opposite sex, which contradicted the traditions of the time given the circumstances. Little evolved after the Middle Ages for women. Their efforts to

promote gender equality were unsuccessful as they were still unable to vote or run for office, were identified by their male relatives, had limited access to education, and were primarily responsible for domestic duties.

According to religious beliefs, women were blamed for the initial sin committed by Eve, which led to the fall of humankind and the loss of God's grace, marking a stain on their future. John Donne highlighted this issue in his poem *An Anthology of the World: The First Anniversary* from the eighteenth century, attributing blame to women as well: "One woman at one blow, then killed us all, / And singly, one by one, they kill us now" (2000, pp. 106 - 107). Donne, an iconic figure in English literature, articulates the rationale for humanity's existence on earth and not in Heaven. Eve's convincing demeanour led to Adam's downfall when they ate the forbidden fruit. Donne stated that this was how a woman murdered all males. Historically, women have been the primary group that males have despised within the religious environment. In addition, during the Renaissance period, traditions evolved, including the rise of female authors who sometimes used pseudonyms. Donne believes that women collectively harm men by their changing dress codes, behaviour, and writing activism, suggesting that men will face consequences as a result.

During the seventeenth century in England, approximately 10 percent of the female population had access to schooling. The remaining population, which was undoubtedly a substantial number, was illiterate. Some women were given educational opportunities not to empower them to express their own thoughts and opinions, but to teach them to admire men and become virtuous and holy women, as noted by Josephine Kamm (2010) by referencing to Juan Luis Vives as follows:

> Vives did not seek to deter an intelligent girl from studying, but he considered that her field of study should be severely restricted … 'Women should study wisdom, which doth instruct their manners and inform their living, and teacheth them the way of good and holy life. … When a girl had learned to read 'let those books be taken in hand, that may teach good manners. And when she shall learn to write, let not her example be void verses, nor wanton or trifling songs, but some sad [serious] sentences prudent and chaste, taken out of Holy Scripture, or the sayings of philosophers … Let a woman learn for herself alone and her young children, or her sisters in the Lord. (p. 30)

However, certain affluent women such as Anne Bradstreet, who had the opportunity to acquire literacy skills, were able to express their own thoughts and insights. Despite being few in number, they attempted to show that women were victims of maltreatment by the patriarchal order and those who supported it.

Additionally, the shared viewpoint on women's education, closely resembling Vives', inspired female students to adopt a fresh outlook on their gender. They were highly motivated to create original works and they challenged the concept of 'author', viewing it as a male-centric construct. By doing this, it can be asserted that they actively contributed to the creation process of the women writers. Helen Wilcox (2007) suggests that women who claimed the title 'author' in their prefatory poems were presenting a proto-feminist challenge to the traditional concept of the 'author' as male, based on a masculine God (p. 32).

Anne Bradstreet was a clever and outspoken woman who used her humour to challenge societal norms. She was born in England in 1612 and later relocated to a British North American Colony with her husband and parents around 1630. Anne had the opportunity to receive a comprehensive education in history, language, and literature due to her father's role as a steward for the Earl of Lincoln. Bradstreet (1962) strongly criticises the male-dominated literary community and highlights the challenges faced by women in literature:

> I am obnoxious to each carping tongue
> Who fays my hand a needle better fits,
> A Poets pen all fcorn I fhould thus wrong.
> For fuch defpite they caft on Female wits:
> If what I do prove well, it won't advance,
> They'l fay it's floln, or elfe it was by chance. (p. 101)

Bradstreet's poem clearly depicts the position of women in a male-dominated society. Men during that time believed that women's roles were limited to household duties and caring for the family members in the house. She responds to such men with a disdainful and detesting tone, suggesting that women should not spend their time on activities like needlework, cleaning, cooking, and washing. Furthermore, she explains that she is despised in various ways for not conforming to societal expectations since it is "debilitating to be *any* woman in a society where women are warned that if they do not behave like angels they must be monsters" (Sandra M. Gilbert, 2001, p. 2029). She expresses her disappointment at the unfair treatment of women writers, stating that if their work is successful, they are hindered from progressing in their profession, and if not, they are unjustly labelled as thieves, leading to personal and professional humiliation within the community. Women's situation in the seventeenth century, distinct from the Mediaeval Ages, becomes evident when examining their behaviour; what women display is seen as either theft, chance, or necessitates a barrier to prevent other women from imitating them. As Walters (2005) points out, several women such as Catherine Trotter, Mary Manley, and Mary Pix became playwrights and had their plays

produced. However, they were ridiculed in a play by 'W. M.' that was performed in 1696 (p. 23). Bradstreet's poetry resonates authentically with women's lived experiences.

In addition, the opposing faction consisted of both men and women, such as Dorothy Osborne, who was engaged to Sir William Temple. When *Poems and Fancies* by Margaret Cavendish was disseminated, Osborne sent a letter to her fiancé requesting a copy in a contemptuous and insulting manner:

> For God's sake, if you meet with it, send it me; they say 'tis ten times more extravagant than her dress. Sure, the poor woman is a little distracted, she could never be so ridiculous else as to venture at writing books, and in verse too. If I should not sleep this fortnight I should not come to that. (Walters, 2005, p. 23)

It goes without saying that women were not permitted to perform on stage at the time, nor were they permitted to express their own opinions, beliefs, observations, reactions, or objections in writing. As women were prohibited from performing on stages, albeit unofficially, during that era, males dominated the acting industry by portraying female characters. Judith Shakespeare's conception as a fictitious sibling of William Shakespeare was influenced in part by this. Evidently, the fact that the women performing on stage were frequently "treated as if they were, in essence, mere prostitutes" (Walters, 2005, p. 23) was justified by John Wilmot, the Earl of Rochester's renowned lines: "That whore is fcarce a more reproachful name, / Than poetefs" (1794). Unsurprisingly, upon contemplation of these lines, the identical notion regarding the allocation of domestic duties among women resurfaces. The blind and covert patriarchal society marginalised them in such a way that was both relentless and potent that the women were compelled to accept every obstacle and attempt to forge their own paths despite the perilous conditions. Given the circumstances surrounding the women writers' examination of the term author, their arduous struggle to assimilate all the humiliations they encountered, and their efforts to present their own unique perspectives, one could argue that this initiated the first conscious feminist literary movement.

In addition to the resistance against women writers mounted by the male-dominated society and its female adherents, the female representation in literary works constituted an additional disorderly issue that undoubtedly constituted an extra lamentable outcome of the enthralling community. The female characters that were commonly recognised by the readers included prostitutes, doormats, murderers, avengers, "the inconstant lover[s], the nagging [wives], the shrewish spinster[s], the disdainful mistress[es] or the seducing whore[s]" (Wilcox, 2007, p. 34). Notwithstanding these implausible portrayals, the female authors devised

alternative personas; nevertheless, their efforts to rationalise these newly-fashioned female characters were futile, as they, too, were ethereal from reality. As per Toril Moi, the endeavour that was undertaken was fruitless, given the impossibility of faithfully portraying the characters in the same manner that human beings are. Studying 'images of women' in fiction, according to her, is tantamount to examining erroneous depictions of women in works of fiction written by authors of both sexes. In literature, the depiction of women is consistently portrayed as diametrically opposed to the 'real person', an aspect that the author never quite captures in the 'image' (Moi, 1985, pp. 44 - 45).

Conclusion

Consequently, the clash of genders in literature produced dishonest protagonists; however, the women's efforts to defend themselves remain a crystal-clear illustration of their resistance against the societal and literary systems that were accessible to them. Furthermore, their endeavour may be classified as the impetus for the first feminist literary movement, given that women not only authored but also consumed texts, notwithstanding the societal opposition that was customary in nature. This unquestionably increased the number of female authors, albeit of two distinct varieties: public and private. Furthermore, women had limited access to literary traditions and culture, including universities and libraries. Nevertheless, they began to challenge this significant issue through their literary works, which was undeniably quite audacious in light of the opposition's reactions. Upon careful examination of the various transitions that occurred among women during the seventeenth century and Renaissance, it becomes evident that while these women were unable to develop a feminist literary theory themselves, they did pose pertinent and succinct inquiries regarding feminism with the intention of inspiring their descendants to do the same.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics.

THE IMPACTS OF NEOLIBERALISM ON TÜRKİYE'S LANGUAGE POLICIES: INSIGHTS FROM UNIVERSITY STUDENTS

Pınar KIR[1]

> *"English is destined to be in the next and succeeding centuries more generally the language of the world than Latin was in the last or French in the present age."* (ctd. in Phillipson, 2008, p. 14)

These words stand out as the early traces of efforts which aim to globalize English. Indeed, they are the indicators of the inevitable mission of the USA to become the ultimate ruler of the world. In this mission, using the language to spread cultural imperialism was inevitable (Phillipson, 2008) and in Rothkopf's words "English is linking the world" (1997, p. 45) at that time. In time, with the raise of neoliberalism in economy and politics and then its effects on a variety of disciplines, especially in applied linguistics, the dream came true. English had a new form around the world with the influence of neoliberal philosophies. With the help of fall of communism in East Europe, English managed to be accepted among solutions of applying neoliberal economy (British Council, 1991–92). Establishment of British Council was one of the first steps of these solutions by marketing cultural, educational, and economical concerns throughout the world. The foundation of TESOL (the Teaching of English to Speakers of Other Languages) stands out as another huge step of standardizing English and all stakeholders of English such as its teaching materials, know-how language and the qualities of teachers. With respect to testing of English proficiency, the TOEFL test of English language proficiency is another dimension of the perfect assessment system of English which guarantees valid proficiency. All these

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endeavours are the concrete images of English linguistic neoimperialism (Phillipson, 2008).

In this new form, English has become the indicator of the social hierarchy in several societies such as Singapore in time apart from being only a communication tool. The image of English has totally changed on the learners' mind. Language learners aspired to learn English to be a part of an imagined community (Ryan, 2006). They gain a privilege as English speakers in the hierarchy of the world (Phillipson, 2008) as neoliberal citizens. For these reasons, it was located as the primary foreign language taught in Europe (Phillipson, 2006). All these effects of neoliberal policies on language policies were observed all over the world. As one of the frontier countries in promoting English, Türkiye is full of English medium instruction (EMI) universities which regard English instruction as academic excellence trying to raise neoliberal citizens who are perceived as prospective entrepreneurs of the society. In this vein, a bunch of students is obliged to learn English in English preparatory schools of universities as a prerequisite to start their departments. However, there is an urgent need to understand the effect of these top-down policies on students. Therefore, this research aims to reveal Turkish university students' perspectives towards the influences of linguistic neoliberalism in Türkiye.

Literature Review

Neoliberalism

Neoliberalism was first coined as an economic doctrine which propounds advanced capitalism (Piller & Cho, 2013) with the help of *laissez-faire* (free market) approach. Dardot and Laval (2013) defines neoliberalism as a "form of existence" (p. 280) in lieu of an ideology; therefore, its global existence is enhanced with specific local cultures and histories. Capitalist principles shape its economic policies (Block, 2017); thus, it reshapes the total understanding of societies and their daily life. It creates individuals behaving like an entrepreneurial entity in every part of life (Brown, 2005) and deepens the gap between the poor and rich (Piller & Cho, 2013).

The idea of neoliberalism was promoted by Margaret Thatcher in Europe (Phillipson, 2008). Even though it can be applied both at individual and in institutional levels, most countries including European Union have adopted and applied it in many ways. Defending competition freedom in the only market, neoliberalism propounded new forms of economy. Today, entrepreneurship has a

great and profound impact on young people in European countries such as Spain to improve their countries (Block, 2017).

After the success of neoliberalism on economy and politics, it has reframed applied linguistics like its influence on several other disciplines. Regarding its effect on language, new definitions and descriptions were formed. Phillipson (2009) described it as

> top-down process of what a state, or combination of states, or an institution such as a corporation or a university, does to achieve its goals, which include the way it manages linguistic capital [and] the way economic power flows across and through continuous space, toward or away from territorial entities (such as states or regional power blocs) through the daily practices of production, trade, commerce, capital flows, money transfers, labour migration, technology transfer, current speculation, flows of information, cultural impulses, and the like. (p. 132)

With this new framework, English has been the mediator to reconstruct contemporary societies by forming neoliberal citizens (Block, 2017). The language itself has been regarded as an instrument to transfer individuals into ideal citizens albeit their different nationalities and countries. A good command of English was correlated with a good career opportunity and a good citizen. For this reason, middle and upper class endeavoured excessively to ensure the acquisition of English (Park, 2013). To illustrate, many families in Korean society struggle a lot to equip their children with a high proficiency of English. The admire of English has pushed them to extremes including prenatal classes, tongue surgery to enable them produce l and r sounds and sending young children overseas to study (Park, 2013). The same English fever was observed in many East Asian contexts such as Taiwan (Price, 2014), China (Butler, 2013), and Japan (Seargeant, 2009). One of the reasons why people are inclined to learn English is "language commodification" (Heller, 2002, p. 48). Language commodification emphasizes English's being the key skill in job advertisements. Block (2017) refers this situation as the transformation of language and identity. English has turned into a commodity that can be bought and sold easily in all societies.

In some contexts, English has been linked to social hierarchy, too. To illustrate, Singapore has three different forms of English which determine the social classes (Pakir, 1991). Acrolect and mesolect are known as Singapore Standard English and regarded as high standard English, which is spoken by highly educated people, whereas basilect is used by less educated people. Similar impacts of English on social hierarchy are also possible in other post-colonial countries, such as India (Ramanathan, 2005).

With the competitive environment of neoliberalism, English is highly correlated with everything that surrounds it, such as educational, social, political, economic, and cultural aspects. Dating back to the origin of English linguistic market, it is obvious to see several endeavours on that point. Actually, the contribution of the scholars to this linguistic market cannot be ignored. Including all the elements of English and setting a system on the basis of these elements, academics excluded multilingual perspectives, which leads to the dominance of English (Phillipson, 2008). In some countries such as India, English was accepted the only medium of instruction (Phillipson, 2008). Additionally, the language was regarded as the source of academic excellence itself (Piller & Cho, 2013), which turns into academic capitalism (Slaughter & Rhoades, 2004).

Neoliberal policies are observed all around the world. To give a mundane example, although European Union includes a bunch of native languages and promote linguistic diversity, English still dominates the union (Phillipson, 2003). Also, some voices claim the adoption of English as the official language of the union trivialising all other languages. However, Block (2017) suggested new approaches that focus on language diversity management and raise awareness in line with neoliberal language policies. For instance, some contexts posit different approaches towards acquisition of English. In that sense, Kubota (2011) revealed that Japanese people do not learn English to be a part of noble cosmopolitan, instead they acquire the language only with business purposes.

Background to the Neoliberal Policies in Türkiye

Like Margaret Thatcher in Europe, Turgut Özal was the pioneer leader introducing neoliberal economic policies in Türkiye in 1980s (Sipahioğlu, 2020). Following the politic and economic policies, neoliberalism changed education in many ways in the country. Also, similar to the changes of language policies all around the world, Türkiye has adopted new language ideas and policies came with neoliberalism. For instance, some Turkish scholars supported the neoliberal policies by initiating the establishment of EMI universities (Kırkgöz, 2005). Although several studies are conducted all around the world to assess the influences of neoliberal policies on language education and language, the Turkish EFL context has relatively less research. Few available studies are conducted through discourse analysis (e.g., Ulum, 2020) or document analysis (e.g., Sipahioğlu, 2020). Nonetheless, there is no field research analysing the perspectives of the primary subjects of neoliberalism. To shed light on this unresearched part of the literature, the current research aims to investigate the

influences of neoliberal policies on Turkish university students as the primary stakeholders of these policies.

Method

The current research attempts to find out to what extent English preparatory school students perceive and adopt the effects of neoliberal language policies in Türkiye.

Research Model

This research adopted a pure qualitative research paradigm to have deeper insights on the topic.

Population and Sample

30 volunteer English language learners (20 females and 10 males) were recruited for this study. The participants were selected through convenient sampling. Eligibility criteria required students to be a student at English preparatory schools of a top-level state university in Türkiye ranked 142nd in engineering and technology by QS World University rankings. Also, all of the students were enrolled in different programs. All the participants were aged between 18 and 25.

Regarding the language education in higher education, universities in the Turkish EFL context adopt two different approaches. Some universities offer 100% or 30% EMI in all faculties. Students must participate 1-year English preparatory school education at these universities to start their departments. In the other universities, all the lessons are taught in Turkish, and English lessons are provided as mandatory courses throughout 4-year of departmental education.

Data Collection Tools

A participant background questionnaire was administered to the students to gather information about their profiles. To collect the data, semi-structured interviews were conducted with the individual participants. Also, two different focus groups including four participants were formed. Twelve interview questions were prepared based on the neoliberalism literature. The protocol included two main sections: 1) the place of English in social life and 2) the place of English in academia. Two field experts reviewed the questions.

Procedure

Prior to commencing the study, the participants were informed about the study and signed the participation form. After planning the time of interviews, the

participants were sent a participant questionnaire to learn their educational background. Next, each interview was conducted with each participant by the researcher on *Zoom* and the interviews took nearly 45 minutes. Also, two focus groups were formed including 4 participants and groups came together on *Zoom* for 1.5 hour.

Data Analysis

The interview and focus group data were recorded and transcribed verbatim. All participants were given pseudo names during the analysis. In accordance with the steps of thematic analysis by Braun and Clarke (2006), occurring themes were determined and analysed.

Results

The data from semi-structured interviews and focus groups revealed four main themes: a) the importance of English in Türkiye, b) the share of English in Turkish economy, c) the effect of English in creating social hierarchies, and d) the effect of EMI universities.

Regarding the importance of English in Türkiye, all participants agreed upon the critical role of English in Turkish business, academic and social life. Knowing English contributes to personal development and academic life as most of the sources are in English. The language is the tool to reach correct and profound information. As it is the lingua franca, it enables people to communicate with other people around the world. Besides international benefits, it is vital to be recruited in Turkish companies.

Excerpt 1

> *As a country we don't produce much, so we are dependent on other countries. For this reason, there are many foreign origin countries in our country. To be able to work in these countries, we need to speak English.* (Melis)[1]

Most of the people learn English primarily to have good job opportunities that they can communicate internationally easily. However, some others posit they acquire the language to be a high-minded cosmopolitan because with the effects of social media they want to be like the other people they see. Also, they want to watch movies, series, and programs. Another reason is to get a valid score in YDS

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[1]All excerpts are researcher-translated versions of the original Turkish data.

(National Foreign Language Exam), which is a prerequisite to be an academic or to continue higher education or to be an officer.

Excerpt 2

80 % of people learn English for their jobs, yet to be a high-minded cosmopolitan is very important. It is the point that we need to reach. (Derin)

To learn English, Turkish people look for a variety of ways. The most common ones are private language schools. Also, they attend to language camps, study abroad, watch English TV series and movies, and have foreign friends on online chat platforms. In this regard, the impact of global platforms such as *Netflix*, *YouTube* and *Spotify,* is profound. With the content they provide, they are applied at first place.

Excerpt 3

Most of the people listen to podcasts on Spotify to learn English or watch videos on YouTube. (Ahmet)

As for the second theme, the share of English in Turkish economy, the participants revealed similar opinions. English holds a huge market in Türkiye. Firstly, many private schools in primary and higher education provide English education. It is also common in nursery schools. There are millions of private language courses in metropolitan cities, yet the number of them keeps increasing even in small towns. A myriad of books for adults and kids are sold in every bookstore. What is more, several games and applications are available to improve English. Most of the clothes or goods have English phrases or sentences on them.

Excerpt 4

5 years ago, it was not as common as it is now. However, it is a huge market now. People send their kids to nursery schools that give English education so that they can speak English. (Melis)

Excerpt 5

Even the T-shirts we wear have some English words on them. It is important for people to wear them. (Şevval)

In this immense market, according to the participants, the buyers of English are all people from every status of the society. People from lower classes struggle to learn English to have a better life opportunity. What is more, Türkiye is a touristic country and to be able sell some goods to tourists, salesmen must learn English. On the other hand, high class people are aware of the world facts; thus, they want

to learn it, too. Also, even if rich people are not aware of the fact, the school they attend provide language education. Therefore, they learn it anyway.

Excerpt 6

Poor people have less chances of learning a second language, but they are more willing to do as it will open the doors of a better life for them. (Derin)

According to most of the participants, in the construction process of English market in Turkish economy, the role of certification posits a vital place. English language certificates or diplomas from EMI universities are very important for companies in job interviews. This situation is not only valid for international or high scale companies; instead, to be able to work in a relatively small-scale job such as hotels or restaurants, people need to show their English certificates. Nonetheless, some participants asserted that certification may not be so important if people can prove that they can speak English fluently.

Excerpt 7

Most certificates have 2 years of expiration date; therefore, it is more important to demonstrate your English-speaking skills. (Kazım)

As the final comment regarding the share of English in Turkish economy, most of the participants think that English has a great and profound role on the economic development of the country. If most of the society can speak English, their commercial connections with other countries will be better and import and export rates will increase. Only few participants stated that they are not sure about the positive effects of English.

Excerpt 8

We are not a country that does off its own bat, so we need to buy goods from other countries and sell goods to them. For this reason, it is a must to learn English to have a better economy. (Melis)

With regard to the third occurring theme in the data, the participants think that English posits an impact on determining social status albeit not so sharp. They believe that everything people have as an extra has a value on raising up their status in the society. English is one of these positive constructs and it puts people one step beyond others. Although it is not a difference that can be seen in daily life, for some situations it is distinctive. Not knowing English is not regarded totally negative, yet speaking it is very positive.

Excerpt 9

> *Yesterday, I helped a tourist in the subway. No one else could understand and help him. Even though my English is A2 level, I helped him. The other passengers were impressed and told me "Good job".* (Şevval)

Furthermore, having a native-like accent is regarded more prestigious among people. While people admire native-like accents, they do not like Turkish accent during English speech. To illustrate, the participants stated that a CEO and a salesman have different fluency levels and accents of English. While the CEO has to speak with a better accent, the salesman does not need to have a perfect English. Therefore, English accent comes along with people's jobs.

Excerpt 10

> *Native-like accent gives us a hierarchical superiority in the society.* (Kazım)

The last occurring theme is the effect of EMI universities on language learners. Students had different views about EMI at their universities. Firstly, most of them appreciated being a student at EMI universities as it will give them better job opportunities both in Türkiye and abroad. English is a prerequisite in nearly all the jobs; thus, it is very advantageous to learn it at university. What is more, some jobs are only possible with English such as computer engineering. In contrast, some others were not sure about the quality of education offered in English. They complained about the validity of their diplomas abroad. As they must take equivalency tests again to work abroad, they think it is unnecessary to have an EMI education. Additionally, some professors do not have a good command of English; therefore, they cannot teach their full knowledge to the students. For these reasons, students prefer 1-year English preparatory school education and 4-year departmental education in Turkish.

Excerpt 11

> *There is no need for 100 % EMI education as our diplomas are not valid abroad. We have to take equivalency tests again and again. Also, our professors cannot speak English very well and cannot teach us what they want to teach in English.* (Derin)

Discussion & Conclusion

The current study contributed to the literature by determining four main themes in accordance with the influences of neoliberalism on language in the Turkish EFL context. First of all, as for the importance of English in Türkiye, the findings revealed that English is *sine qua non* of academic, business and social life in these

days. It is the language of academy and academic excellence. These findings are in line with the previous literature (Piller & Cho, 2013; Phillipson, 2008). Also, speaking English is the key element in job applications as the primary skill both in national and international companies. This finding supports Heller (2002) who claims the new place of English in business. This finding demonstrates how international neoliberalism language policies are borrowed in local contexts without changing and adopting it. Apart from these, findings similar to Kubota (2011) revealed that being a high-minded global citizen is important for Turkish people; therefore, they benefit from as many sources as possible to learn the language. *Spotify*, *Netflix* and *YouTube* are the most common platforms people use to practice English. In that point, it is obvious to see the dominant influences of neoliberalism. It is the cause and the result at the same time. While it obligates people to learn the language to find a good job because a good command of English brings a good job (Park, 2013), it imposes global ways to acquire the language. It aims to impose one kind of neoliberal citizen profile created in these movies, series, and podcasts to all people around the world.

The results from the second theme indicated the huge share of English in Turkish economy with all language schools, private primary, secondary schools, universities, materials, games, applications, and clothes. This big market share of English can be explained with its association with a better life opportunity. All people relate the language as a magic wand that can open the doors of a better world. For this reason, many people from all social hierarchies try to acquire the language in contrast to some context where only middle- and upper-class members struggle to learn English (Park, 2013).

Related to third theme, the data showed that English has an influence in creating social hierarchies similar to findings in the literature (Pakir, 1991). This situation can be linked the overall culture of the Turkish society. Turkish people try to prove themselves with the qualifications they have as it is difficult to be present as themselves in the society; thus, English that people can show off in every chance posits a high importance among the social classes. It is regarded as a more elite and foreign related perspective, so speaking English is perceived as being a member of the higher class. What is more, native-like accent adds more value to the social status of the people. One reason can be its indication of richness. In the society, only rich people can go abroad and have a native-like accent. For this reason, having a native-like accent is associated with richness and higher class.

The last theme from the findings is the effect of EMI universities. Although EMI universities are regarded to have an important role in language acquisition and to raise entrepreneurial entities in line with Brown (2005), some participants

delineated its positive influences by claiming it as an unnecessary endeavour due to invalid diplomas abroad. It seems possible that EMI education rises some questions among students, and they question the validity of their diplomas, or they try to reach the best education whether in Turkish or in English. This can be commented as a valuable reaction towards the top-down language policies and their effects.

All in all, this research set out to seek for the perspectives of university students on neoliberal language policies. The evidence from the study suggests that there is a big dominance of neoliberal English policies in every field in Türkiye. Its global effects are borrowed without questioning in the Turkish EFL context. This research extends our knowledge of neoliberal language policies in Türkiye, yet it only examined university students' perspectives. The future research should focus on other stakeholders of English

Even though these important discoveries have been made, there is still a gap in the research when it comes to the differences in the feedback quality for essays of varying levels of quality between AI and human assessors. This research aims to bridge this gap by examining whether there are differences in the quality of feedback given by *ChatGPT* compared to that given by human assessors for essays categorized as quality. Exploring this issue aims to add value to the discussions on how AI influences education and its implications for teaching and learning methods based on the findings in this area of study. This research was conducted to find out how the quality of formative feedback provided by *ChatGPT* differs from that provided by human evaluators.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

INVESTIGATING LANGUAGE TEACHERS' PERSPECTIVES ON UTILISATION OF GenAI TOOLS IN TEACHING AT THE TERTIARY LEVEL

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Fast-growing technology has always found a place in English Language Teaching (ELT), more broadly in education. After the swift accession to the internet worldwide, the most notable shift in recent years is the application of artificial intelligence (AI) tools to education. To exemplify, the Eindhoven Technology University of Holland recently announced that they will collaborate with the Universities of KU Leuven, Belgium, and RWTH Aachen, Germany. They explained that they aim to take AI research and education in the three countries and in a European context to what they call "the next level" (Eindhoven University of Technology, 2023). Also, the advancement of AI and the widespread use of the internet have given language teachers easy access to various AI tools to foster their teaching methods and techniques. Although AI tools have been gaining more popularity than ever, the question of "On what level is receiving AI help ethical?" remains.

This study investigates language teachers' perspectives on using AI in the language teaching process. By examining the frequency, purposes of AI utilisation, and teachers' perception of the GenAI tools, the present study seeks to answer the following research questions:

1. Do ELT teachers in the School of Foreign Languages (SoFL) draw on GenAI tools to assist their English language teaching (ELT) process?

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2. How frequently does integration of GenAI tools occur in lesson planning, teaching, and assessment processes?

3. Do participants possess a particular purpose for utilizing the GenAI tools in the ELT process? If so, what are they?

4. How do the participants perceive the benefits and detriments of utilizing GenAI tools in ELT at SoFL?

5. What ethical concerns do the participants bear regarding using GenAI tools in ELT at SoFL?

Literature Review

Previous research in AI in education has focused on learners' perspectives and how language teachers perceive and utilize these technologies. Because the use of AI tools for educational purposes is escalating and has never been this high before, there is still a gap in the literature regarding the perspectives and experiences of language teachers in utilizing these technologies effectively. Addressing this gap has become necessary since teachers play a crucial role in effectively utilizing these AI tools for educational purposes. Therefore, the present study will contribute to the education field by understanding their perspective and experiences. Zawacki-Richter et al. (2019) suggested that despite the growing interest of educators in AI, there is still a need for further exploration of the pedagogical opportunities AI can offer.

Recent attention has focused on the provision of research on artificial intelligence (AI) in language education, addressing both students and teachers. Research focusing on students' viewpoints emphasizes AI's potential for customized learning, providing instant feedback, and participating students in interactive tasks (Lee & Lee, 2022). Nevertheless, Graham and Ulijn (2018) stated that the role of AI tools in understanding the language teaching process from the instructors' point of view requires further investigation. Deciding that teachers mainly use AI while assessing, lesson planning, and organizing resources, Lin and Chen (2023) also remark on this research gap. On the other hand, the integration of AI in education is on the rise, and specific ethical issues are on the fore accordingly. Even though Sánchez and Arroyo (2020) argue that there may be some potential advantages of AI usage in the field of education, such as lessening teachers' burdens and enhancing efficacy, questions about data privacy, systematic bias, and the risk of replacing human presence and interaction in classrooms remain. Examining instructors' views apart from the students may ensure a significant

contribution since they are the organizers and starters of the entire teaching process.

As the influence of AI technologies cannot be undeniable in our daily lives, new general AI-generated tools have been developed for various aspects of life. Bran and Grosseck (2024, p.51) describe GenAI (generative AI) tools as a "specific type of AI capable of generating new content," while general AI tools are defined as "any technology that is capable of intelligent behavior." They report that people are already familiar with general AI tools, such as *Netflix*, *Google Translate*, or GPS since they constantly use them. The emergence of GenAI tools like *ChatGPT* has opened a new and exciting chapter in the field, while research on AI in language education has mainly addressed general AI applications. These tools, capable of creating human-like text, offer substantial possibilities for ELT. According to Barrot (2023), *ChatGPT* and similar AI technologies can help with second-language writing by providing tailored feedback, improving students' lexical variety, and error correction during the writing process. Hwang et al. (2022) also demonstrated that EFL learners using AI chatbots improved considerably in fluency and pronunciation, outperforming learners depending on traditional methods. Still, this growing field also causes ethical concerns about the implications of using AI-generated content in education, specifically regarding plagiarism, authenticity, and the potential to replace human interaction. Further research is needed to investigate the pedagogical pros and cons of integrating GenAI AI into the ELT scene. By exploring Turkish ELT instructors' perspectives and ethical considerations at the tertiary level, this study seeks to add a more extensive understanding of teachers' prospects for AI-integrated approaches in ELT.

Method

Research Model

This research is a qualitative psychological phenomenological study. Because the research has strived to draw on participants' experiences and perspectives on the utilisation of AI technology in the ELT classroom and bracketed out the significant statements and codes, phenomenological research design seems to be an appropriate approach to the study. Creswell et al. (2016) state that "whereas a narrative study reports the life of a single individual, a phenomenological study describes the meaning of several individuals of their lived experiences of a concept or a phenomenon" (p. 57). Furthermore, Creswell et al. (2016) narrate that "Phenomenology is not only a description, but it is also seen as an interpretive

process in which the researcher makes an interpretation of the meaning of the lived experiences." Moustaka (1994, as cited in Creswell et al., 2016) advocates that transcendental or psychological phenomenology examines descriptions of the participants' experiences and perspectives rather than investigators' interpretations of lived experiences and perspectives. In another saying, the psychological "transcendental" type refers to "in which everything is perceived freshly, as if for the first time." (Moustaka, 1994, as cited in Creswell et al., 2016).

Universe-Sample

Participants were selected from the target population of EFL instructors serving in SoFL at one of the state universities in Türkiye. Since it is a qualitative phenomenological study, a non-random convenience sampling method was adopted, and six participants were selected among 57 instructors in SoFL.

Semi-structured Interviews

This research has adopted a semi-structured interview tool and directed the two demographic and seven content questions to interviewees. As the research has internalized the interpretivist paradigm and interviewees' experiences and perspectives, the research is conducted with semi-structured interviews to promote participant autonomy along with a prefabricated interview protocol. As for questions, they are asked in a logical order: the previously asked questions gave insights into the following questions. The research questions also involve probing interrogative sentences that help the interviewees to be elaborative and feel secure during the process. The interview protocol is shared in Appendix A. The interview schedule is demonstrated in Appendix C for trustworthiness for the sake of the interview. As the schedule provides a planned procedure, moderating the interview is more straightforward for the researchers.

Data Analysis

As for the data commentary and analysis stage, researchers analysed transcripts and used "theory-led thematic analysis." Brown and Clark (2006) state that thematic analysis is "a method for identifying, analysing and reporting patterns within data." The researchers adopted data analysis for these phases based on Brown and Clark's (2006) methodology and the six phases they introduced. As the occurrence and analysis of themes provided the researchers with a clear understanding of themes and codes that emphasize the effect of findings, the researchers drew on thematic analysis (Zeng & Mahmud, 2023). The phases are

demonstrated in Table 1. The codes' frequency of mention was elicited from the participants' significant statements, and related codes were shared in the results according to frequency order. Their significant statements were provided in the research to validate the availability of the codes that emerged during the process.

Table 1

Six Phases in Theory-Led Thematic Analysis (Braun & Clarke, 2006).

Phases	Description of the Process
Familiarizing yourself with data	Transcribing the interviews, reading and rereading the data, noting down initial ideas and reflections
Sort the data according to the research questions	Categorize the interview answers according to which questions they correspond to.
Group the responses in subgroups/search for potential themes	Group the answers to the questions into smaller groups and search for potential themes
Review potential themes	Review potential themes and match responses.
Formulate potential themes in response to the questions	Define the final themes, generate clear definitions, and name the themes.
Write the report chapter	Write the report and present the thematic analysis results in order of the research questions.

Verification, Validation & Validity

Fraenkel et al. (2012) propose that for qualitative research, valid instrumentation constitutes the backbone of research to be meaningful, trustworthy, and transferable. If data drawn from participants are trustworthy and meaningful, this situation ensures the data analysis and study are quality and replicable. Meadow and Morse's evaluative approach to quality research was embraced to evaluate such criteria. Verification refers to creating a valid research project by developing an appropriate instrument and employing it according to the nature of the research; validation corresponds to evaluating data collection instruments by external audits and member checks. Lastly, validity evaluates the product and its analysis regarding trustworthiness and transferability based on external reviews (Morse et al., 2002). The interview protocol was tested by research members and reviewed by external audits to ensure objective evaluation and validation. Among researchers, the interview was piloted to predict any possible misunderstanding

and prevent these by developing precautionary instrumentalization strategies such as probing and elaborative questions and scenarios.

Results

As for the elicitation and analysis of emerging codes and themes, Braun & Clarke's (2006) phases of thematic analysis were adopted. After analysis of six participants' interviews, findings indicated that the participants were well aware of the contributions the GenAI tools granted to lesson planning, instructional material design, teaching, and assessment stages of English language teaching. Table 2 was tabulated to demonstrate codes and frequencies of mention in the iterative and back-and-forth analysis of possible codes and themes.

Table 2

The Thematic Analysis of Interviews.

Themes	Codes	Frequency (*f*)
Frequency of AI Utilisation	Time Duration	2
	Instructional Stage	2
	Rate	2
Purpose of AI Utilisation	Material Design	4
	Enrichment	5
	Learner Autonomy	2
	Assessment	1
	Teaching Efficiency	2
Benefits of GenAI Tools	Teacher Assistant	4
	Source of Inspiration	3
	Student Motivator	2
	Assessment Tool	5
Detriments of GenAI Tools	Student Deskiller	3
	Source of Cheat	2
	Unsuitability	2
Ethical Concerns of AI Utilizaiton	Source of Plagiarism	4
	Source of Cheat	3

The study strived to discover participants' purposes, frequency of using GenAI tools in language teaching, and their perspectives on these tools' benefits, detriments, and possible ethical concerns they bore. For this purpose, five content questions were asked of the participants, and five themes were constructed out of their answers. The findings portrayed that each participant had a unique and invaluable input to the study. When asked about their purposes and perspectives of utilizing AI tools in the classroom, the most prominent codes (*f=5*) were concerned with enriching students' learning by providing them with AI-assisted activities and assessing students' performances and tasks given to them by drawing on AI tools' feedback and correcting mechanisms. The second most frequent codes (*f=4*) were material design, teacher assistant, and source of plagiarism codes. Following these, other codes are examined separately.

Theme 1: Frequency of AI Utilisation

When asked how frequently they used the GenAI tools for teaching purposes, the participants' data indicated that they used the GenAI tools at some point. However, due to their perspectives and purposes of using the tools, they had distinctive input regarding their frequency of utilisation. The participants mentioned the presence of the GenAI tools in three different time-wise terms: "Time Duration" *(f=2)*, Instructional Stage *(f=2)*, and Rate *(f=2)*. Regarding incorporating AI tools in teaching, P3 stated that from the perspective of the instructional stage:

P3: "In the beginning, we were busy getting to know their and our expectations. For ELT students, I had to establish rapport."

On the other hand, P1 pointed out that the time she utilized the GenAI tools was every week of the academic term, and she remarked that in the time duration sense:

P2: "I have 20 lesson hours a week, and I may use the AI for 1-2 minutes in every course to check our answers."

It could be inferred that teachers' preferences for using GenAI tools in courses differed. However, every participant expressed that they utilized these tools at a point, indicating that they all had purposes and inclination to use the GenAI tools one way or another.

Theme 2: Purpose of AI Utilisation

Five codes were inferred from the participants' answers regarding their purposes for using the GenAI tools. Their answers were transcribed as quotations and verb phrases to facilitate the code-creation process. When asked about their prior and emergent purposes for utilizing the GenAI tools, participants most frequently (*f=5*) pointed out that they considered using the GenAI tools to enrich English learning in the classroom and provide additional practice materials while learning. The second most frequent code was material design (*f=4*), and the participants pointed out that the GenAI tools inspired and assisted them while preparing their lesson plans, teaching materials, and assessment tools. Regarding enrichment purposes, P1, P5 and P6 transferred as:

> P1: *"It is my purpose to use AI in classes to be more creative and fun."*
>
> P5: *"I try to get help from the AI. It is like, "Can I explain specific grammar points or lexical items better with it?"*
>
> P6: *"I wanted to take advantage of the possibilities offered by AI technologies to make the course content more interactive and engage students."*

Along with other emerging codes, findings demonstrated that the participants utilized the GenAI AI tools to help students learn English more conveniently.

Theme 3: Benefits of GenAI Tools

When the emergent codes of Theme 3 were considered, it was evident that GenAI tools served as scaffolding for teachers in lesson materials design and planning stages and for students to activate their knowledge, feel more motivated, and receive feedback on their performances in the classroom. The most frequent codes were "Assessment Tools" *(f=5)* and "Teacher Assistant" (*f=4),* as these were mainly observed in the teachers' experiences, which they conveyed in the interviews. Regarding the assistance on the assessment process the AI tools provide to teachers, P1 stated that:

> P1: *"As you said, it makes our job really easy. For example, while reading and grading essays, we get help from ChatGPT as you can upload your students' essays on ChatGPT and make it evaluate essays according to the rubric you preloaded."*

On the GenAI tools being a "Source of Inspiration" for the teachers, P3 uttered as:

P3: *"ChatGPT provided great assistance to me while I was preparing activities for the students in the Kahoot."*

In addition, P4 touched upon another crucial benefit of AI tools as them being students' motivators:

P4: *"They are very useful for digital natives because they laugh, share, put stars, give each other chocolate, and we have a surprise for the best introductory paragraph or best concluding paragraph."*

Considering the codes and the participants' significant statements, we may infer that the participants were well affected by GenAI tools in the classroom. They admitted that these tools contributed to language learning in different aspects. However, they also mentioned their detriments in the classroom.

Theme 4: Detriments of GenAI Tools

The detriments of utilizing GenAI tools were registered as three codes, namely "Student Deskiller" *(f=3)*, "Source of Cheat" *(f=2),* and Unsuitability *(f=2).* The participants' responses mainly portrayed their concern regarding the students' aptitude for utilizing these tools out of their assistive and ethical usage. The teacher pointed out that the students were inclined to use these tools to facilitate their workload by consulting immoral approaches to using AI. Within this line, P2 narrated that about the danger of deskilling:

P2: *"They are making the students lazy."*

Besides, P1 conveyed her concerns about cheating:

P1: *"You are making huge efforts to teach your learners how to write an essay. However, in the end, they really do not want to learn, and they make AI write it."*

Lastly, P6 touched on such an intriguing and critical point regarding the tools' possible unsuitability:

P6: *"Course materials prepared entirely by AI may lack originality or be inappropriate for student needs, which may negatively affect the quality of teaching."*

Based on the quotations, it may be understood that the participants were concerned about how the students might have used these GenAI tools to achieve their tasks.

Theme 5: Ethical Concerns of AI Utilisation

Although the "Source of Cheat" was a code elicited for the "Detriments of GenAI Tools**"** theme, it *(f=3)* was classified iteratively for the "Ethical Concerns of AI

Utilisation." Furthermore, another critical ethical code (*f=4*) was created because of data analysis, which is the "Source of Plagiarism." Only one participant mentioned the last code (*f=1*). Nevertheless, "Equality of Opportunity" contributed a distinctive and innovative value to the results. The "Source of Cheat" was the most frequently uttered code, and P4 stated that:

> P4: *"I am sure some of my students are not giving me their own papers, but it is AI- created."*

In addition, P4 shared her motto regarding properly utilizing GenAI tools in the classroom.

> P4: *"Human touch is always needed."*

On the second most frequent code, P1 shared her opinions as:

> P1: *"During the earthquake period, we did our exams online, and students had to write in front of screens, and there are multiple ways to cheat in online environments. They even phoned each other, got help from AI programs, and did not write their essays themselves."*

Despite P1 and P4 sharing their concerns about the ethical concerns directed toward the students, P6 adopted a different interpretation of the utilisation of the GenAI tools:

> P6: "*Creating inequality of opportunity between students who do not have access to these technologies and those who do can create an unfair learning environment in the classroom."*

Considering all the data analyzed and codes constructed from these, one could conclude that the teachers were aware of both the benefits and detriments of utilizing GenAI tools, and they used these tools at some point, even if each used them at different frequencies and timelines. In addition, the participants provided some advice to solve the ethical concerns and maximize the output perceived using these tools, such as attending seminars about incorporating AI technologies, teaching the learners digital literacy, and researching ethics.

Discussion and Conclusion

The study revealed that every teacher received help from GenAI tools and was aware of their motives, benefits, and detriments. When their statements and speech tones were analysed thoroughly, it was interpreted that they bore concerns about these tools' excessive and unethical usage. Therefore, they adopted a timid demeanour towards using GenAI tools all the time and as the sole instructional material. AI integration into ELT has been both beneficial and challenging. On

the one hand, studies like Barrot (2023) and Hwang et al. (2022) highlight the potential of GenAI tools such as ChatGPT to improve student writing, fluency, and pronunciation offering customized and immediate feedback that traditional methods often lack. Nevertheless, this study's findings cooperate with previous research that also points to significant ethical concerns.

Considering the rise of GenAI tools' integration in ELT courses and their versatile benefits to the language teaching process, it is crucial to follow the development of AI technology in ELT. Along with the following possible advancements for blended learning with the GenAI tools' assistance, material developers, educators, and pre-service teachers must comprehend the benefits, detriments, and ethical concerns of drawing on GenAI tools and using these opportunities wisely and effectively. For the material developers, the research possesses considerable implications in that they may need to develop materials that could be practiced with the GenAI tools concurrently, but at the same time, motivating students to perform English autonomously and ethically without slipping into cheating or plagiarizing habits. It proposes precautionary implications for educators, including educating language learners to use these tools effectively and morally. The teachers may internalize the worries of other educators and strive to prevent any possible instructional and inconvenient acts. For the pre-service teachers, this research may guide them to utilize the GenAI tools in their future professions and courses to receive assistance from the tools to create prolific and innovative lesson materials and plans, enrich language learning, and activate students' schematic knowledge by providing them with unprecedented learning experiences.

Since the current research was conducted at the SoFL of one of the state universities in Türkiye, the findings and inferences made from the findings may not be transferable to other SoFLs and universities. Since the research adopted a qualitative psychological phenomenological design, the data retrieved by the participants were interpreted using qualitative data collection and analysis methodologies. Mixed-type research may have ensured that the research was representative, trustworthy, reliable, and valid.

Aside from the codes of the research, the participants contributed invaluable insights regarding their experiences using the GenAI tools for their academic endeavors. However, as the nature of the research did not embrace such a research problem, their responses were disregarded. Nevertheless, various researchers may conduct replicable studies to discover the participants' perspectives on utilizing these tools for academic work. Another suggestion is that future research could broaden their studies to investigate the ethical considerations of AI users at length.

The research strived to discover how utilizing GenAI tools in English courses was perceived by the English teachers serving at SoFL in one of the state universities in Türkiye, considering their purposes and frequency of utilisation, benefits, detriments, and ethical concerns of receiving help from these tools. The results demonstrated that the English teachers were familiar with using these tools, literate on using them, and glad to receive their assistance in due course. Conversely, they uttered their concerns about the detriments they brought to the classroom and their ethical apprehension upon misusing them. On top of that, the research provided considerable implications for material developers, teachers, and pre-service teachers to take lessons from. Thus, research can potentially empower readers and inspire future researchers.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed. To maintain confidentiality and establish professional and ethical rapport between researchers and interviewees, the researchers delivered interview consent forms and briefly explained the research and the study process. Appendix B comprises participation details and conditions the interviewers must agree. All participants' personal information was kept confidential, and data was presented with numerical data.

Proportion of Authors' Contribution

Author 1: Conceptualization, Data Analysis, Data Collection, Decoding, Development of Data Collection Tool, Discussion, Methodology, Results

Author 2: Conceptualization, Conclusion, Data Collection, Development of Data Collection Tool, Decoding, Discussion, Literature Review, Visualization

Author 3: Coding, Conceptualization, Decoding, Development of Data Collection Tool, Discussion, Introduction, Review, Last Draft.

Appendices

Appendix A

Reflection Paper

1. Did you teach any preparatory students English in 2023-2024 academic year?
2. In what program were the preparatory students enrolled?
3. Have you ever needed any help from Al tools during this year in your classroom?
4. In what instructional stages did you need help?
5. How frequently have you used Al tools in your courses?
6. Did you have any specific purpose in your mind before using Al tools in your courses? If yes, what were these purposes?
7. Do any ethical issues come to your mind regarding the utilisation of AI in English teaching classrooms committed by teachers?

Appendix B

Interviewer Consent Form

Research Title: English Language Teachers' AI Perspectives at a Tertiary Level
Researchers: Salih DEMİR, Sena Nur ÖZDEMİR, Soner ELASLAN
Research Participant's Name:

Thank you for agreeing to be interviewed and for your valuable contributions. We understand that if you ever feel reluctant or insecure about continuing to participate in the research, you have every right to withdraw from the interview.

The ethical considerations regarding the research and ethics require that interviewees willingly and explicitly agree to be interviewed and that their answers be used in the research. This form is critical as it demonstrates that you comprehend your involvement's purpose and significance and agree to the participation conditions stated on the Interview Consent Form.

Would you please read the conditions and sign this form to certify that you approve the following:

- ✓ The interview will take place in the interviewee's office and be recorded with the camera; answers and emergent field notes will be noted down simultaneously.
- ✓ Each researcher will transcribe and check the contributions.
- ✓ The transcripts will be analysed and classified by all the participating researchers.
- ✓ Access to raw data will be limited to only the researchers and participants.
- ✓ The suggestions and demands of participants will be taken seriously and wholeheartedly.
- ✓ Any variation of conditions will be immediately communicated to the participants.

Quotation Agreement

- ✓ I am also aware that my words are to be quoted directly. With regards to being quoted, please sign the listed statements that you agree with:
- ✓ I wish to review the notes, transcripts, and other data collected during participation.
- ✓ I agree to be quoted directly.

Research Participant

Appendix C

Interview Schedule

The researchers have organized an interview schedule and negotiated with each other on interview planning and scheduling.

The researchers: Salih DEMİR, Sena Nur ÖZDEMİR, Soner ELASLAN
Interview Duration: 10- 20 minutes

Participants	Place
P1	Zoom Workplace
P2	Zoom Workplace
P3	Zoom Workplace
P4	Zoom Workplace
P5	Face to Face/Office
P6	Zoom Workplace

GENDER BIAS IN AI: HOW TO DISMANTLE PREJUDICES

Sinem ÇAPAR İLERİ[1]

Klaus Schwab, in his influential book *Shaping the Future of the Fourth Industrial Revolution* (2018), states that the first industrial revolution was pointed by the mechanization of the British textile industry, and the second one was generally noted with the developments about electricity, the automobile, and the telephone. Moreover, the third one was attributed to the transformations in digital computing, especially in the mid-1950s. Lastly, the fourth developmental stage is marked by a range of diverse new technologies that include such things as artificial intelligence (AI), augmented reality, virtual realities, and distributed ledgers (blockchain). Klaus Schwab's prediction highlights that growth in these technologies will lead to swift transformations, and even automation in different fields may precipitate job losses soon. (Schwab & Davis, 2018, pp. 1-9)

On the other hand, Andrew McAfee and Erik Brynjolfsson, in their work *The Second Machine Age: Work, Progress and Prosperity in a Time of Brilliant Technologies* (2014), coined the term "second machine age." It is asserted that the first machine age began with the industrial revolution. Moreover, the second machine age can be said to have begun in the mid-1990s with the commencement of digitalisation processes, characterized by machines not merely following specific rules, but actively solving some problems on their own. That is the reason; it can be derived that machines now begin to perform cognitive assignments formerly done solely by humans, which can lead to a fear that humans may possibly be replaced by machines in the near future (McAfee & Brynjolfsson, 2014, pp. 1-39).

Furthermore, in order to exemplify the relation between the human and the machine, Joseph Weizenbaum's chatbot ELIZA can be given as an example. In

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the article "The Eliza Effect and Its Dangers: From Demystification to Gender Critique" by Sarah Dillon, ELIZA's name was referred to George Bernard Shaw's influential play *Pygmalion*'s (Shaw, 2006) character, Eliza Doolittle. ELIZA was a machine that had a language processing computer programme in it. Moreover, ELIZA had surprising outcomes in that some of the users perceived ELIZA's responses as human-like, which created the "ELIZA effect," which can be described as how humans perceive more intelligence in a machine-like ELIZA even when they acquire an emotional level on the machine's responses (Dillon, 2020, pp. 1-15). For instance, Sarah Dillon observes that "when a human being is conversing with a VPA, the brain is processing that conversation as it would a conversation with another human being. The Eliza (sic) effect is here embedded in the neural response to the voice'" (Dillon, 2020, pp.11). Considering this quotation, it can be derived that humans generally treat machine-generated voices in a way they regard human voices. Similarly, in 2022, when *ChatGPT* finally become a mainstream AI chatbot throughout the world, generally people reacted to *ChatGPT*'s answers like a human-like responses. Thus, this situation leads them to experience some kind of astonishment (Hatzius et al., 2023). All in all, it can be added that the dystopian idea that machines could take over humanity also encounters the utopian idea that a machine can be helpful for achieving a new kind of relation between humanity and machines.

Thus, for utopian approaches to humanity vs. machines, it can be added that humans can collaborate with machines so that new job opportunities can emerge, and existing jobs can be improved via technology (Hatzius et al., 2023). Moreover, utopian approaches are associated with the notion of augmentation that machines and humanity augment each other and their skills. It can be added that augmentation similarly symbolizes the utopian idea that humans can collaborate with machines or outperform them while doing other activities (Raisch and Krakowski, 2021, pp. 192-210).

On the other hand, in the Introduction of the significant book *Patterns of Inclusion How Gender Matters for Automation, Artificial Intelligence and the Future of Work* by Elisabeth Kelan exemplifies the effects of digitalisation and the future of jobs within the aspects of machines:

> As digitalisation changes the skills required for jobs, such arguments suggest that certain skills will no longer be required and will be lost because people do not invest time in honing them. This means that while some jobs will be automated and might disappear over time, digitalisation will also change the skills required to do existing jobs. (Kelan, 2024, p. 5)

In the same book, Elisabeth Kelan also defines "digitalisation is thus a term that describes how processes themselves change due to the application of a digital technology. Digitalisation is also often referred to as digital transformation" (Kelan, 2024, p. 9). In this kind of digital transformation, it once again linked to automation: "One way in which processes change through digitalisation is automation. Automation means that a process that was previously done by a human is done by a machine …" (Kelan, 2024, p. 9). Moreover, it can be said that one of the technologies in digitalisation is AI. AI can be defined as "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems are designed to operate with varying levels of autonomy" according to the OECD in the *Recommendation of the Council on Artificial Intelligence* on the website (OECD, 2019). Also, in the book entitled *Artificial Intelligence: A Modern Approach*, AI is defined as "intelligent agents" that perceive their environment and perform actions that a machine appears to display human-like intelligence (Russell &Norvig, 2021, pp. 1071-1073). Thus, in general, artificial intelligence can also be technically mentioned as "machine learning," which means "a computer observes some data, builds a model based on the data, and uses the model as both a hypothesis about the world and a piece of software that can solve problems" (Russell & Norvig, 2021, p. 669). As an example of diverse applications of machine learning that it was mentioned before, generative AI that includes *ChatGPT* is said to be different "in that it is built on general databases such as those sourced from the internet to build large language models that facilitate the use of more advanced natural language processing" (Hatzius et al., 2023).

Gender and AI

Thus, in today's world of the rise of the usage of artificial intelligence, understanding the relation between gender and AI is important, and as this article argues about how to dismantle the possibility of gender bias in AI, first, for the purpose of doing this, it is my intention to briefly analyze the history and connection between gender and artificial intelligence. In order to do this, it is also significant to ask about how the societal dynamics of traditional gender norms and roles still affect machine learning.

Initially, in order to understand how gender and technology are related to each other, it is important to put emphasis on the Turing Test. It was developed by Alan Turing, who was a mathematician and computer scientist. Turing suggested a thought experiment in 1950 that an intelligent machine has to perform an imitation

game and the machine's answers reflect the reality that whether one is a human or a machine (Sutko, 2020, pp. 567-592). Furthermore, as this article aims to analyse gender bias in AI, initially it is important to ask a basic question about whether the Turing Test understands gender differences. In the Introduction of Elisabeth Kelan's influential book *Patterns of Inclusion How Gender Matters for Automation, Artificial Intelligence and the Future of Work,* the details about the Turing Test are narrated:

> In order to understand how the Turing Test might relate to gender, it is necessary to explain the imitation game in more detail. The imitation game has three players: a man (A), a woman (B) and an interrogator of either sex (C) … The aim of the game is for the interrogator (C) to determine who is a woman by asking questions such as about hair length. Both A and B must convince C that they are indeed a woman. The interrogator (C) cannot see either players A and B. The players should not use their voice to communicate because this might give away gender. Instead, they communicate via notes that should ideally be typed up via a teleprinter … to not allow conclusion about gender from handwriting. (Kelan, 2024, p. 17)

Thus, according to this example, the most common interpretation is that the interrogator (C) needs to know who the human is: A or B. Also, in other interpretations of the game, A or B can be a human woman, whereas A can be a machine, not a man, but these are just possible interpretations for the Turing test (Saygin et al., 2000, pp. 463–518). Also, the Turing test can be defined as a thought experiment that if it appears to be a machine passing as a woman and a man, then that is where the Turing test can be seen as having a possible connection to gender theories in which gender is mainly seen as something performative. (West and Zimmerman, 1987, pp. 125-151; Butler, 1990, p. 33). That is one of the reasons, as Elizabeth Kelan puts it in her book, "for the time being, it suffices to say that reading the Turing Test from a gender and technology perspective opens up novel research questions to investigate in the future (Kelan, 2024, p. 18).

The Gender Bias in AI

As another point of view, in "AI and Gender: Four Proposals for Future Research" by Clementine Collett and Sarah Dillon, the connection and relation between gender and AI is analysed. In order to start analysing the gender bias in AI, it is significant to define what gender is and what AI entails. Thus, gender can be defined as "gender refers to the historically inherited, socially constructed, and normalised behaviours, characteristics and appearances which operate to define

people as female or male, or which act as a framework to be resisted" (Collett & Dillon, 2019, p. 7). On the other hand, artificial intelligence (AI) refers to a "heterogeneous network of technologies-including machine learning, natural language processing, expert systems, deep learning, computer vision, robotics – which share in common the automation of functions of the human brain" (7). Furthermore, for analysing the relation between the gender and AI, Judith Halberstam's influential article entitled "Postmodern Feminism in the Age of the Intelligent Machine" can be beneficial:

> Gender, we might argue, like computer intelligence, is a learned, imitative behavior that can be processed so well that it comes to look natural. Indeed, the work of culture in the former and of science in the latter is perhaps to transform the artificial into a function so smooth that it seems organic. In other words, gender, like intelligence, has a technology. (Halberstam, 1991, p. 443)

As Judith Halberstam asserts, gender is like computer intelligence, which is learned and imitative. In fact, it has technology that somehow a mutual shaping of technology and gender can be possible. In her article, Halberstam similarly emphasizes Alan Turing's the Turing Test and asserts that "Turing does not stress the obvious connection between gender and computer intelligence: both are in fact imitative systems, and the boundaries between female and male, I argue, are as unclear and as unstable as the boundary between human and machine intelligence" (Halberstam, 1991, p. 443).

On the other hand, as it is mentioned in Collett & Dillon's "AI and Gender: Four Proposals for Future Research", Lauren Wilcox's significant article is added as asserting a significant point in the relationship between gender and technology:

> Lauren Wilcox has recently expanded on the relationship between gender and technology further, providing a more intersectional approach. Wilcox recognises that AI, the gender binary and colonialism all aim to essentialise, control, fix and create a hierarchy of identity. Wilcox articulates that gender itself is part of the production of racial distinctions; it is a "racializing apparatus". Both gender and race fixate on socio-political relations in order to reproduce power structures and seek to control bodies … also see Wilcox, 2017) (Collett & Dillon, 2019, 8)

In today's world of the rise of the usage of artificial intelligence, gender bias still occurs as an error in AI's knowledge. Since machine learning is developed and led by humans, without the adequacy of women's contributions to AI's

knowledge, there cannot be adequate and convenient information about gender equality in machine learning. As an example of this mindset, this article argues about how to dismantle the possibility of gender bias in AI. As an example of showing how AI and gender affect each other, quotation from "AI and Gender: Four Proposals for Future Research" can be beneficial:

> Whether AI is thought to depend upon and epitomize a masculinist epistemology, or whether AI promises to give a feminine epistemology the advantageous position in the job market, AI is perpetuating and reinforcing binary, gendered stereotypes of epistemology. (Collett & Dillon, 2019, p.10)

That is the reason, in order to exceed the limitations in AI's possible dependence on a masculinist epistemology, a feminist artificial intelligence needs to be established, or at least, AI's knowledge needs to be gender-neutral. For the purpose of doing this, initially it is important to define what gender bias is. According to the European Institute for Gender Equality (2023), it is defined as "prejudiced actions or thoughts based on the gender-based perception that women are not equal to men in rights and dignity" (*Gender Bias*, 2024). Thus, in order to define gender bias in AI, the article entitled "Gender Bias Perpetuation and Mitigation in AI Technologies: Challenges and Opportunities" by Sinead O'Connor & Helen Liu, 2024, pp. 2045-2057 can be significant.

It is declared in this article that "while AI itself might be seen as a neutral objective technology, it is imbued with new meanings and implications through its use in specific contexts by humans" (O'Connor and Liu, 2024, p.2046), it is still a fact that "as gender biases are implicit in our society and culture, they become part of the 'contextual factors' which influence the use of and understanding of AI technologies, which in turn become themselves embedded with the same biases"(O'Connor & Liu, 2024, p. 2046). That is the reason, as gender biases are still implicit in contemporary societal dynamics, similarly AI technologies embedded with the same biases. Similarly, in this article, it is once again mentioned that "studies on the use of AI have discovered gender bias in the outcomes of algorithm application, from natural language processing techniques that perpetuate gender stereotypes... to facial recognition software which is much more accurate on male faces than female ones..." (O'Connor & Liu, 2024, p. 2048) and even in significant research conducted by the Federal University of Rio Grande do Sul in Brazil in 2018, the existence of gender bias in AI tried to be evaluated. Researchers in automated translation, ran the sentence constructions like "He/She is a [job position]". For instance, he or she is a doctor etc. These sentences are translated into twelve languages (Estonian, Finnish, Malay,

Hungarian, Bengali, Turkish, Armenian, Yoruba, Basque, Chinese, Japanese and Swahili) from English. As an example, in English, the female pronoun 'she' and male pronoun 'he' are separate words but in Hungarian, 'ő' refers to both 'she' and 'he'. In this research, the researchers also selected different job positions from a list of the U.S. Bureau of Labour Statistics (BLS) that gave them the percentage of women's participation in different kinds of job professions. This research found out that this sentence, 'He/She is a [job position]' that was translated via Google Translate, inevitably showed some gender bias in job professions. Such as, in English to Hungarian, "she is a nurse" but "he is a scientist" or "he is an engineer" (Prates et al., 2020, pp. 6363-6381).

Lastly, some other questions need to be asked as such: "Can feminist artificial intelligence be possible?" and "Is it possible that artificial intelligence will advance gender equality? Initially, a feminist artificial intelligence that advances gender equality can be possible. As it is asserted in the article entitled "Shaping Feminist Artificial Intelligence" by Sophie Toupin, "FAI represents a tactical intervention and can be considered as a form of resistance to large-scale hegemonic and discriminatory AI" (Toupin, 2023, p. 592). Toupin exemplifies FAI "as a placeholder or signifier to describe critical work that addresses the relationship between gender and technology, and at times, at the intersection of race and class" (589). She also refers some other significant contemporary critics that investigate the possibility of a feminist AI: Alison Adam's book *Artificial Knowing*: *Gender and the Thinking Machine* (1998), Safiya Umoja Noble's *Algorithms of Oppression* (2018), and Ruha Benjamin's Race *after Technology* (2019, p. 589). These books all exemplify "FAI as discourse signals to the reader that feminist, queer, and critical race theories are being used to examine and critique AI systems" (p.589).

Similarly, in Sophie Toupin's article, it is also stated that a feminist artificial intelligence covers a multiplicity of different meanings, like the contemporary feminist categories of intersectional feminism that include all kinds of feminists: black feminists, liberal feminists, queer feminists, etc. But on the other hand, the term AI mainly does not contain intersectional ideological elements like FAI, and AI can be understood "as a generic, all-encompassing signifier that describes the growing computer network and infrastructure that rely on big data and algorithms for predictions" (Toupin 2023, p. 581). Dated back to the article "Artificial Intelligence and Women's Knowledge: What Can Feminist Epistemologies Tell Us?" by Alison Adam (1995), it becomes a founding article that defines FAI as a possible alternative to traditional AI. As Adam refers, feminism must be included in AI, and gender bias in machines needs to be eradicated step by step. But this

issue is not an easy task to achieve. That is the reason even in the contemporary twenty-first century, we are still dealing with both gender biases in societal norms and so is AI, which can be said to be inevitably influenced by these normativities. As an example of these influences by social normativities, Alison Adam refers to AI's knowledge as basically considering "male as a norm." In parallel with this idea, Alison Adam refers in her article entitled "Artificial Intelligence and Women's Knowledge: What Can Feminist Epistemologies Tell Us?" (1995) that hierarchical social normativities are still inherent and relevant even in contemporary society:

> The crux of both the feminist and sociological arguments is that knowledge is a social, cultural product and epistemologies which rest on an invisible yet universal subject, and by extension AI systems based on these epistemologies, deny such a cultural plurality and set up a hierarchy of knowers where women as knowers are near the bottom. (Adam, 1995, p. 412)

That is why it will be FAI's purpose to eradicate this dominant paradigm in AI and exceed the limitations of gender-biased norms. As the stereotypical gender hierarchy and denial of cultural plurality are still ongoing and debatable issues, Alison Adam's proposal of including feminism in artificial intelligence is significant. Adam initially proposes that feminist projects can construct different kinds of systems that a traditional AI begins to be accepted as a system rather than a decision-maker but only a counsellor. Moreover, this situation results in the fact that AI's knowledge becomes limited as a knowing subject. As an example of this kind of feminist project, Adam gave an example from Chloe Furnival's project in 1993 that she built an expert system that generally gives advice to women to have a case under the law, UK Sex Discrimination and Equal Opportunity (Adam, 1995, p. 414). In Adam's own words, she declares that "a system like this could not... give a client a definite decision on their case. What it did do was to offer many alternative matches to past cases in its knowledge base, opening up possibilities that both client and legal expert may not have thought of and offering its advice in a demystifying way" (414). That is the reason Chloe Furnival's project, in purpose, reflected the multiple identities of various women's experiences without proposing everything that was decided about the case. Secondly, in Adam's article, she asserts that feminism as a project can be involved in recent understandings of AI. Thus, Adam mentions, "The new field of embedded robotics has taken to heart the question of the role of the body in the production of knowledge and the question of growing up in a culture from baby to adult" (414). Lastly, Alison Adam finishes her article speculatively that "The

Cog (Evolutionary Cog, rebel with a cause, a woman's work 1994) project at MIT exemplifies such an approach. Feminists could have a lot of advice to offer on bringing up babies, even when they are baby robots" (414).

To sum up, it is this article's main aim to show the basic history of how gender and artificial intelligence related to each other. While doing this, it is also significant to show that a feminist artificial intelligence can be possible for eradicating gender-biased norms. All in all, it can be deduced that this task is not an easy one, and we as a society still have so much to do to eradicate both gender biases in our communities and so as in AI.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics.

WAITING FOR UNAPPEARING HEROES: *GODOT* AND *LEFTY*

Tahir YAŞAR[1]

Samuel Beckett and Clifford Odets are two important playwrights of the 20th Century. Beckett is famous for his classic absurd theatre works, novels, and short stories. He is the pioneer of absurd theatre. He became very famous after his masterpiece *Waiting for Godot*, which is accepted as one of the best absurd plays by critics. On the other hand, Clifford Odets is one of the most famous authors of social criticism in the USA. He is a contemporary of Beckett. Odets wrote many plays like *Waiting for Left*y, *Till the Day I Die*, *Awake and Sing*, and *Paradise Lost* act. Odets is the pioneer of Agitprop Theatre. He became famous after writing his masterwork *Waiting for Lefty*, one of the best samples for Agitprop Theatre in the US. In this study, the works of two famous contemporary authors of English literature will be examined.

As two contemporary playwrights, Beckett and Odets can be shown under the label of the avant-garde experiment of the 1920s and 1930s because both writers were against conventional modern theatre. In their masterpieces, *Waiting for Godot* and *Waiting For Left*y, there are some similarities and differences between the main characters, Godot and Lefty. Both of them are leading social groups; many people are waiting for their arrival, but they never appear and never come. *Waiting For Godot* has a boring time pace while *Waiting for Lefty* is full of action. In this study, the actions and similarities of the characters, absurd theatre, and agitprop theatre will be discussed, and the works of two famous contemporary authors of English literature will be examined as well.

The 20th century was full of anxiety, sorrow, and suffering in Europe and the world. The world's circumstances were reflected in literature, especially in theatre. The First World War, especially, created a pessimistic society. It also

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influenced many authors of the era. Religious discipline was broken, and society was hopeless. Many authors wanted changes to get rid of that pessimism and anxiety. So, those writers evaluated the circumstances in their works. Some criticized the era's development absurdly, while others wrote important social criticism works. In this study, two great theatre authors who tried to handle era's problems will be acquainted.

Before acquainting the two writers of the age, it would be better to mention the causes of anxiety and pessimism. It was the period of the First World War. Erwin Piscator states the causes of this anxiety as follows.

> The calendar begins on August 4, 1914. From that day, the barometer began to rise rapidly. Thirteen million dead, 11 million disabled, 50 million soldiers on the front, 6 billion rifles, 50 billion m3 of toxic gas. What does personal development mean in this case? No one can feel personal in such circumstances. (Piscator, 1978, p.19)

The era's circumstances created a very pessimistic atmosphere and confusion for the writers of the period. Most of the writers wanted to do something to recreate an optimistic but, at the same time, realistic milium. They believed that people should be aware of those conditions in order to create such a medium. Many writers handled the problems of the period realistically. They believed that people should be active in overcoming the governmental issues of the capitalist system. Most of the writers, such as Beckett, Clifford Odets, Arthur Miller and Tennessee Williams dealt with the significant problems of the new age. New literary movements, including Social Criticism Theatre and Absurd Theatre, appeared during that period. The Absurd Theatre was coined by Martin Esslin who was born in Hungary.

> The first and more prominent role of absurd plays is satirical when these plays criticize a petty and dishonest society. The theatre of the absurd presents anxiety, despair, and a sense of loss at the disappearance of solutions, illusions, and purposelessness. Other features include that life is essentially meaningless and miserable; there is no hope because of the inevitable futility of man's efforts; reality is unbearable unless relieved by dreams and illusions. (Dickson, 2021, p. 2)

The thought of the absurd goes back to French writer Albert Camus. He composed an essay on the myth of Sisyphus in his article, based on a Greek fable of a man condemned to roll a rock. In that fable, a man was condemned to roll up a mountain only to have it back down under its own weight, a quandary repeated for eternity. Camus makes an argument and mentions that "the condition of

society after the war resembles that of a man rolling a stone to the top of a mountain'' (Camus, 2000). Just like the man in the Sisyphus myth, the society man no longer makes sense of events. Camus states, we should reconcile ourselves to this elusive feeling of absurdity (Dickson, 2021, p.2).

Beckett is one of the playwrights who suffers from the unfavourable social conditions of European society. In his masterpiece, *Waiting For Godot*, he tried to mention the anxiety and hopelessness of society absurdly. The stage, the behaviour of the characters, and their unexpected reactions were not related to the conventional theatre form. From this form of theatre, it was clear that they wanted to change the conventional theatre because it was not satisfying the audience and was far away from putting forward the society's fundamental problems anymore. As a representative of the innovative trend called absurd theatre, Beckett tried to change the form of conventional theatre. The stage and characters' behaviours were quite different than the former trend. Many authors of the era lost their faith because of the dehumanized medium created as a result of war. And they wanted to change the conventional theatre. They tried to change the society as well. They believed that the problems should be discussed and solved.

With the use of the atomic bomb on the Japanese cities of Hiroshima and Nagasaki in 1945, The horrendous realities of Nazi death camps became widely known. This truth created a feeling of anxiousness and uncertainty in society. The reality of nuclear annihilation seemed possible, so it caused the destruction of optimistic feelings in European societies. Many writers like Albert Camus, Eugene Ionesco, and Samuel Becket conveyed this pessimism and uncertainty in their works of theatre works.

Samuel Beckett, Eugene Ionesco, and Harold Pinter shared Esslin's views about the post-war period. In their works, they viewed that the man of post-war was inhabiting a meaningless universe. He believed that his existence in this world was without purpose. He was bewildered, and the worst, he was obscurely threatened. In his article, Karmakar states:

> As they wait, they play repetitive games, ask unanswered questions, speak much but seldom answer. In fact, Vladimir and Estragon's situation is our own. Through the characters' repeating actions and words, Beckett has shown us the absurd existence of our lives. (Karmakar, 2014, 11934)

Related to this context, Beckett presented the problem through the characters and the stage he created. He "presents a pessimistic vision of a man struggling to find a purpose and to control his fate" (Adade-Yebooah, 2013, p.33). The characters in *Waiting for Godot* are confused. They are engaged in nothingness. There is no

action, and it seems that the characters adore nothing. There is a wretched tree beside a road, and they are waiting for somebody called Godot. Unfortunately, he never comes, but the tramp's men still wait for his coming. The men seem bewildered as they wait; there is an inconsistency in their behaviours, decision-making, and their way of thinking. The best thing they can do is wait. When the boy delivers a message from Godot that he will not come, they cannot decide what to do. After getting the message that Godot will not come, they intend to leave, but they go on waiting. Their confusion is seen when they talk. They exactly do not know what to do, they are not certain about their actions, and this is one of the futures of absurd theatre.

> Vladimir: (without anger). It's not certain.
>
> Estragon: No, nothing is certain.
>
> Vladimir: We can still part ways if you think it would be better.
>
> Estragon: It's not worthwhile now.
>
> Vladimir: No, it's not.
>
> Estragon: Well, shall we go?
>
> Vladimir: Yes, let's go. (They do not move)

The characters in *Waiting for Godot* are all from different social groups. They all want to meet Godot, who has never appeared or ever come. He is a mysterious character. Many people are waiting to meet him; he is an important man. The audience does not know him well; he may be a critical religious man, a saint, or a social group leader. The only well-known thing is that he is an essential man for whom we are waiting. Jim Wang states that "[f]rom the description of appearance, Godot has similarity with God. The boy is a messenger, in the play is from Godot' place, and he is the only one who has seen Godot" (Beckett, 1965, p.197). The other characters represent the different groups of society; for instance, Vladimir and Estragon are ordinary characters, while Pozzo is an ignorant, wealthy boss. Lucky is Pozzo's servant, but he is cleverer than his boss. He acts as a teacher who teaches Pozzo higher values of life, such as beauty, grace, and truth." These pairs of characters represent the relationship between body and mind, the material and the spiritual sides of man" (Yeboah & Awuso, 2013, p.35). Like all individuals in society, these pairs need each other. But sometimes they don't obey and listen to each other.

> Estragon: I had a dream.
>
> Vladimir: Don't tell me. (Beckett, 1965, p. 16-17)

Even though they don't always obey each other, the characters have a great sense of companionship. Pozzo, Lucky, Vladimir, and Estragon need each other and sometimes help each other. Vladimir helps Estragon when he seems weak, and Vladimir helps his friend get his boots on. Vladimir tries to feed Estragon When he feels hungry.

>Estragon. I am hungry

>Vladimir: Do you want a carrot? (Beckett, 1965, p.20)

Another desire for companionship is as follows:

>Vladimir: Come to my arm

>Estragon: Your arms?

>Vladimir: My breast! (Beckett, 1965, p.76)

Similar relations can be seen between Pozzo and Luck. Pozzo and Lucky are always together. Lucky is enslaved because there is a rope in his neck, and he regards all the orders to him. In act one, Pozzo takes Him to the market to sell him. In the second act, they are seen together. Lucky is kind, helpful, and entertaining. So even though sometimes he is unbearable, Pozzo needs him. All the characters wait in the same place. The man they are waiting for never appears on a road near a tree. Only there is a messenger, a boy, who tells them each time that Godot will definitely come, but he never does. At the beginning of the play, when Vladimir says, "[n]othing to be done" (Beckett, 1965 p.73). He expresses the hopelessness of the characters. Here, Beckett criticizes the hopelessness of the society living in that era. Maybe today, we can have the same psychology when encountering the same problems as the writer states. "The world is a place where things happen randomly [...] the play is about waiting for the responsibility to perform, about waiting for a better future that we are not fully convinced whether it will arrive or not" (Karmakar, 2014, 11934).

So, there are rich people like Pozzo and enslaved people (Lucky), ordinary people such as Estragon and Vladimir, and the messenger boy. No one knows what will happen tomorrow. They are not sure about their futures. They do not care about anything, and they are hopeless, like the members of the anxiety era of the twentieth century. This is an excellent criticism of the period of wartime. Silently, Beckett protests all the circumstances of the day. It is a silent cry. As a leading author of the Absurd theatre, Beckett shows that he is against conventional theatre.

Jing Wang, in his article: The Religious Meaning in *Waiting for Godot* expresses the religious motives of the play. He states, "[t]he play seems absurd but with a deep religious meaning… it is filled with a religious feeling of the writer" (Wang. 2011, p.197). Wang expresses that Godot means God. Godot bears a particular

symbolic significance. Wang mentions the boy as a messenger between the society and God. He tries to explore Godot as the God of Christianity. Vladimir asks the boy about Godot's physical appearance. The answer: "[h]e has a long Whitebeard" (Beckett,1965 p.372). So according to Wang, this description of appearance makes Godot similar to God. The interpretation of Wang (2011) of *Waiting for Godot* is simple and quite clear: Human beings lose the protection of God and become spiritually homeless. They talk nonsense, do funny movements, but in the bottom of their hearts, they are longing for salvation from God.

Caixia Sun (2005) says that *Waiting for Godot* "expresses the living conditions of Western people who have been out of contact with God and shows their effort to get rid of the situation. It is an anticipation to rebuild the meaningful system of the universe" (p.200). To sum up, it is a reality that all the writers of the period are trying to show the suffering conditions of society through social criticism.

The new theatre created by Beckett is different from the traditional theatre characters. They represent ordinary man in society. They are not only noble characters or rich people. So, as it is seen, they are not princes, kings, or rich nobles. They struggle to find a purpose to control their lives even though they seem like tramps. They are good representatives of the new sample character of the latest stage of the 20th century. They are the tragic characters of the modern tragedy. That is why many critics have debated whether the ordinary man can be the hero of tragedy or not.

Social Criticism and Clifford Odets

Social criticism is another literary movement that overlaps with the Absurd theatre and is contemporaneous with it. Like the founders of the Absurd movement, the authors of social criticism tried to create a new type of stage and characters. They selected their characters from ordinary individuals in society. After the Socialist Revolution of Russia, this movement became very popular in Europe and the United States. Many authors dealt with the social problems of their societies directly. They handled issues like starvation, cruelty, and migration. The authors of social criticism wanted to mention the capitalist system as the most crucial cause of injustice in their countries. They believed that the system should be changed and replaced by socialism. Only in that way can the problems be solved.

In the US, social criticism theatre gave birth to -AgitProp- Agitation and propaganda theatre. It was called the National Workers Theatre as well. Weales (1991) states that "[t]he agitprop was the accepted dramatic weapon, ... a new, chanted type of play" (p.147). The goal of this theatre was to manipulate the audience and provide a particular response for the audience so that when they got

off the stage, they could act side by side with workers. The Agitprop theatre extended under the influence of leftist writers such as Clifford Odets. So, the authors of the social criticism accepted the art of theatre as a weapon to change the capitalist system of the US. As a writer of the era, Clifford Odets was against traditional theatre. He, too, believed that conventional theatre did not reflect society's fundamental problems. In his works *Waiting for Lefty*, *Till the Day I Die*, *Paradise Lost*, and *Rocket to The Moon*, he actively criticized the worst condition of American society, influenced by the results of the Great Depression in the 1930s.

Odets, in his work *Till the Day I Die*, handled the horrendous realities of Nazis in Germany, and the struggle of a group of youths against Nazi Officers Odets, in his masterwork Awake and Sing express the circumstances of an American family in the hazardous days of the great economic depression in the 1930s. The family members try to survey and live in better conditions. In another famous play written in the same decade, Paradise Lost, Odets deals with the housing problem. The Gordon family lost their house as a result of the economic depression. The family members were longing for a happy life, but after losing their houses, they had to leave their homes and were thrown to the street. They evaluate their life in their own houses as paradise, but later, they are in hell. So, it is evident that many works of Clifford Odets are about the social problems of different groups of American society. He criticizes the harsh and dark side of the capitalist system. Odets puts forward the problems, but at the same time, he offers the solution. He believes that the only solution is to change the capitalist system, which causes cruelty, starvation, injustice, and economic crash. In contrast, criticizing Odets is not hopeless. He believes that every individual living in society should be aware of the problems. And they should take active roles during their struggle against the capitalist system. He uses slogans like Awake and Sing, Strike, and The Storms Birds as propaganda to achieve a victory against capitalism and change the system. That is why none of his characters are passive and pessimistic. The fight is for a new and correct system where the individuals are happy and sure of their future. This is the main difference between the characters of *Waiting for Lefty* and *Waiting for Godot*.

In his work *Waiting for Lefty*, he dealt with the problems of taxi drivers trying to protest bosses. They were in danger of losing their job and could not support their families anymore. In this play, the leading character is Lefty. Like Godot, Lefty is never seen on the stage. His friends were gathered to start a meeting and were waiting for him to come when his friend heard that he was killed outside of the meeting region. Then, a great strike started.

In Odets's work, the characters are very active, expressing their unhappiness and discussing their problems. They want solutions for their problems, they want to change the system, and they are aware of the injustice of the capitalist system. As for the characters created by Beckett, they are hopeless, aimless, and tramps. The hero of *Waiting for Left*y is the leader of a drivers' union, and his identity is evident. He was out to meet some friends to talk about the union's strike. He never appears on the stage, but his friends are sure of his leadership. He is well known by society. Unfortunately, while the members of the union were waiting for his coming, they got the sorrowful news that he was killed. So, his friends and the audience start the strike for his revenge. The audience and the players all together call for a Strike. They call themselves "Stormbirds of the working class" (Odets, 1970, p.30). In Odet's work, all of the characters are active and directly interested in the problems of their environment, families, and friends. They never hesitated to express their circumstances. In the act of The Young Hack and His Girl, a young couple who are in love and want to marry mention their suffering of being very poor and not being able to get married. They state their hopelessness as follows:

> SID: But that sort of life ain't for the dogs, which is us. Christ, Baby! […] If we went off together, I could maybe look the world straight in the face, spit in its eye like a man should do
>
> FLOR: But something wants us to be lonely like that- Crawling alone in the dark. Or they want us trapped.
>
> SID: Sure, the big-shot moneymen want us like that.
>
> FLOR: Highly insulting us. (Odets, 1970, p.20)

In *Waiting for Godot*, the hero is an important man, but his identity is unknown. So, the audience does not know who he is. For the audience, that is an absurd situation. The other characters are tramps and aimless. Their mere goal is to wait and see Godot. They do not have any actual knowledge about the time they wait. They do not care about social activities. They do not have a purpose for the future. They forget every activity they have done before.

In both plays, the stage has the property of modern theatre. They do not have detailed decoration because both authors are against traditional stages. In *Waiting for Godot*, there is a deserted road, and the characters wait near a wretched tree. In *Waiting for Lefty*, a group of drivers discusses and decides to arrange a strike. They are active, resolute, and confident about their behaviours. They directly express their views about the capitalist system. They protest the injustice of bosses. They try to fight for their rights and establish a better future for the next generations. Unlike the characters of Waiting for Godot, the characters of *Waiting*

for Lefty are very active, and they mention their intentions very clearly and directly, as stated in Edna's speech:

> Edna: I don't say one man! I say a hundred, a thousand, a whole million, I say. But start in your own union. Get those hack boys together! Sweep out those racketeers like a pile of dirt! Stand up like men and fight for the crying kids and wives. Goddamnit! I am tired of slavery and sleepless nights.

In *Waiting for Lefty*, as mentioned at the beginning of the play: "As the curtain goes up, we see a bare stage. On it are sitting six or seven men in a semi-circle." (Odets, 1970, act 1 p.5) Odets also uses lightning to decorate the stage, as in Joe and Edna's episode: "The lights fade out, and a white spot picks out the playing space within the space of seated men" (Odets, 1970, act 2 p.7).

In both plays, the alienation factor is used. Alienation is a new trend that aims to make the audience aware of the causes of events and see the dark side of reality. Thus, to provide such awareness, the audience should not watch the play sitting on a comfortable seat. With the help of strong lightning, the audience should always stay awake. The audience should look at what is behind the fact.

Conclusion

In conclusion, both writers oppose conventional theatre and want to change its roles. They criticize problems, anxiety, and the chaotic age in different styles. They search for human rights and discuss injustices. They try to create a new style of stage that is less comfortable and less strongly decorated. Absurdity and social criticism are modern currents of theatre. Both of them oppose traditional theatre. They want change. Change is good but not easy.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

ENHANCING SPOKEN ENGLISH PROFICIENCY THROUGH A CUSTOM GPT

Yusuf Emre YEŞİLYURT[1]

AI is transforming language education by introducing conversational AI models that create adaptive and interactive learning environments. Models like *Generative Pre-trained Transformers* (*GPT*) simulate realistic conversational scenarios, which helps learners practice spoken language in engaging, responsive, and non-judgmental ways. These tools address core challenges in traditional language instruction, such as limited opportunities for personalized speaking practice and the difficulties posed by large class sizes that can limit individual engagement. Research highlights how conversational AI enables students to practice speaking in a low-stress environment by offering exposure to realistic dialogues and valuable feedback that fosters fluency, pronunciation, and vocabulary (Mai & Carson-Berndsen, 2023; Qiao & Zhao, 2023; Songsiengchai et al., 2023).

The rise of AI-driven tools provides new solutions for personalized language feedback, which is often challenging to achieve in conventional classrooms. Studies indicate that AI models can deliver immediate and tailored feedback on essential language areas, such as grammar accuracy, pronunciation, vocabulary, and fluency (Dandu & Gomatam, 2023). This is crucial for students requiring regular, focused practice to gain proficiency and confidence. Additionally, AI tools help alleviate language anxiety—a common barrier in speaking practice—by creating a private space for learners to make mistakes and learn without the social pressures of peer or teacher observation (El Shazly, 2021). Consequently, AI integration can significantly support students by combining practical skill-building with psychological comfort.

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This study aims to evaluate a custom *GPT* model's effectiveness in enhancing spoken English skills among university students by focusing on improvements in listening comprehension, meaning and fluency, pronunciation, and vocabulary. Tailored features like real-time feedback, conversation simulations, and structured language activities are believed to be essential for successful AI integration in language education (Amin, 2023). The study will assess which aspects of the *GPT* tool are most beneficial in improving these spoken language areas.

Beyond evaluating educational benefits, this study seeks to gather insights into students' perceptions of AI-based language learning tools. It explores student satisfaction, usability, and any challenges encountered to provide a well-rounded assessment of the tool's potential in language education. By focusing on user feedback, the research highlights a user-centred approach to refining educational technology by ensuring that tools effectively meet learners' needs and enhance their language learning experiences (Shishido, 2021).

Literature Review

The integration of AI in language learning has increasingly attracted academic interest, particularly for its potential to improve spoken language skills through conversational models like *GPT*s. AI-driven tools can simulate realistic conversational experiences, offering personalized feedback on pronunciation, fluency, vocabulary, and grammar—skills crucial for language acquisition (Amin, 2023; Mai & Carson-Berndsen, 2023). Traditional language classrooms often struggle with limitations such as large class sizes and restricted opportunities for individualized practice. AI models, by contrast, can provide tailored, continuous feedback that allows students to develop their language skills in a focused, interactive environment (Songsiengchai et al., 2023).

AI in Language Education

Recent studies underscore the effectiveness of AI-based tools in facilitating language learning, particularly in speaking skills. For instance, AI applications have shown a capacity to reduce language anxiety, creating a safer, non-judgmental space for students to practice speaking without the fear of making mistakes (Belda-Medina & Calvo-Ferrer, 2022). This is especially important as language anxiety has been linked to poor language acquisition outcomes. By offering students immediate feedback and enabling them to practice freely, AI models contribute positively to learner confidence and motivation (Chagas, 2023).

Benefits of Conversational AI for Speaking Skills

Conversational AI, such as *GPT*-based tools, offers unique advantages by providing real-time responses that mimic natural conversations, which allows students to practice language in ways that resemble real-world interactions. These AI models can assist learners in refining their pronunciation, improving fluency, and expanding vocabulary in a targeted and supportive manner (Peng et al., 2023). Additionally, research has demonstrated that AI can adjust feedback based on each student's proficiency level by providing a personalized approach that meets individual learning needs and facilitates incremental skill development (Songsiengchai et al., 2023).

The Role of Real-time Feedback in Language Learning

Real-time feedback is a critical factor in the effectiveness of AI in language education. Studies have shown that when learners receive immediate responses, they can promptly correct mistakes, which accelerates learning (Foosherian et al., 2023). Moreover, interactive feedback allows students to engage in prolonged conversational practice, which is essential for achieving fluency and confidence in spoken language. Research highlights that students who engage with real-time feedback tools show faster improvements in both fluency and comprehension than those using traditional language learning methods (Mohamed, 2021).

Challenges in Implementing AI for Language Learning

Despite the benefits, implementing AI in language learning comes with challenges. Issues such as speech recognition accuracy and limited customization for individual learning preferences can hinder the user experience (Li & Mohamad, 2023). Technical barriers, such as connectivity issues and the need for advanced infrastructure, can also impact the effectiveness of AI-based tools in educational settings. Furthermore, ethical considerations around privacy and data security are essential factors that institutions must address when integrating AI tools into their curriculum (Perera & Lankathilaka, 2023).

In summary, the relevant literature suggests that AI, especially conversational models like *GPT*, holds significant promise for enhancing language learning by providing personalized and interactive practice environments. However, addressing technical and ethical challenges is critical to ensuring the effective and sustainable use of these tools in educational contexts.

Method

This study employs a qualitative research model, specifically designed to explore the potential of a custom *GPT* model to improve spoken English skills among university students. Qualitative research models are often preferred in educational studies aimed at understanding learners' perceptions and experiences, as they provide in-depth insights into user interactions and responses (Creswell & Poth, 2018). The research model is structured around semi-structured interviews and observations, which allows for the collection of rich, descriptive data on student experiences with the AI tool. This approach is particularly suitable for exploratory studies, as it enables the identification of both the perceived benefits and challenges associated with the use of AI in language learning (Dörnyei, 2007).

Participants

Nine undergraduate students from the Foreign Languages Education Department of a state university were selected as participants for this study. All participants were between 19 and 22 years old and had intermediate to advanced English proficiency, determined by their coursework and language assessment scores. The participants were chosen based on their expressed need to improve spoken English skills, which aligns with the objectives of the study. Additionally, they had limited prior experience with AI-powered tools, which makes them suitable candidates for assessing the effectiveness of the custom *GPT* model in a language learning context (Maxwell, 2013).

Building on the foundations of epistemological developments and the interplay between epistemological beliefs and argumentative skills, this study explored whether the epistemological beliefs of 18 EFL students in a school of foreign languages served as predictors of their argumentation skills. Kuhn's framework of epistemological understanding (Kuhn et al., 2000) was employed to analyse epistemological beliefs, aiming to determine whether students with specific epistemological dispositions differ in how they construct arguments and exhibit overall argumentation skills. For the organizational framework to evaluate argumentation skills of the students, Argument Schema Theory (AST) was adopted. As outlined by AST, students develop a transferable "argument schema" through active participation in dialogic peer discussions, which serve as platforms for practicing argumentative strategies such as taking positions, providing justifications, presenting rebuttals, and counterarguments (Reznitskaya et al., 2009). As these experiences are internalized, students acquire a structured knowledge system encompassing essential components of Toulmin's (1958) argumentation model, including claims, reasons, grounds, warrants, and rebuttals

(Reznitskaya & Anderson, 2002). AST posits that individuals with a well-developed argument schema possess both declarative knowledge of these elements and procedural expertise on effectively employing them in argumentation (Reznitskaya et al., 2009, p. 32).

Procedure

The custom *GPT* model was integrated into participants' daily routines over a 10-day period. Each participant used the tool for at least 1 hour per day, engaging in a series of structured activities designed to improve different aspects of spoken English skills. These activities included:

- ***Listening and Understanding Tasks:*** Focused on enhancing comprehension through role-playing scenarios and listening exercises.
- ***Meaning and Fluency Practices:*** Encouraged participants to engage in conversational dialogues, aiming to improve fluency and confidence in expressing ideas.
- ***Pronunciation Drills:*** Included minimal pairs and phonetic exercises to refine pronunciation accuracy.
- ***Vocabulary Expansion Activities:*** Focused on learning and applying new words in contextualized conversations.

Participants were encouraged to interact with the tool in diverse contexts, such as simulated daily conversations, professional scenarios (e.g., job interviews), and academic discussions. This comprehensive approach ensured the exploration of multiple facets of spoken English development. The structured schedule and consistent practice over the study period allowed for reliable insights into the tool's effectiveness.

Data Collection Tools

Data for this study were collected using two qualitative tools; semi-structured interviews and detailed feedback questionnaires.

Semi-Structured Interviews

Semi-structured interviews were conducted to gain an in-depth understanding of the participants' perceptions, satisfaction, and experiences with the custom *GPT* model. This type of interview allows for flexibility by enabling the researcher to probe for additional insights and adapt questions based on the participants' responses (Kallio et al., 2016).

Feedback Questionnaires

Participants also completed feedback questionnaires designed to capture their views on the ease of use, perceived effectiveness, and technical aspects of the tool. The questionnaires included open-ended questions to encourage students to share detailed thoughts on the tool's functionalities and potential areas for improvement (Cohen et al., 2018).

Data Analysis

Thematic analysis was utilized to analyse the qualitative data collected from the responses to the interviews and questionnaires. This method allows for identifying, analysing, and reporting patterns within data by providing a detailed and nuanced understanding of the participants' experiences (Braun & Clarke, 2006). The analysis began with familiarization of the data through repeated reading and initial coding, followed by the identification of recurring themes related to satisfaction, usability, effectiveness, and suggested improvements. Each theme was reviewed in relation to the research objectives, ensuring a coherent and meaningful interpretation of the findings (Nowell et al., 2017).

Results

The results of this study, collected through a combination of semi-structured interviews, participant observations, and feedback questionnaires, demonstrate the potential of a custom *GPT* model to improve various aspects of spoken English skills. Participants' experiences with the tool provided insights into the tool's effectiveness across key language domains, which highlights both its strengths and areas for further development. These strengths and limitations are summarized in Figure 1, which provides a comparative view of the pros and cons associated with the Custom *GPT* model for spoken English.

Figure 1

Pros and Cons of the Custom GPT Model for Enhancing Spoken English Skills

Custom GPT Model for Spoken English

Pros   VS   Cons

Pros:
- Improved listening
- Enhanced fluency
- Targeted pronunciation
- Contextual vocabulary
- Supportive environment

Cons:
- Speech recognition issues
- Limited corrective feedback
- Vocabulary range limitations
- Technical disruptions
- Navigation difficulties
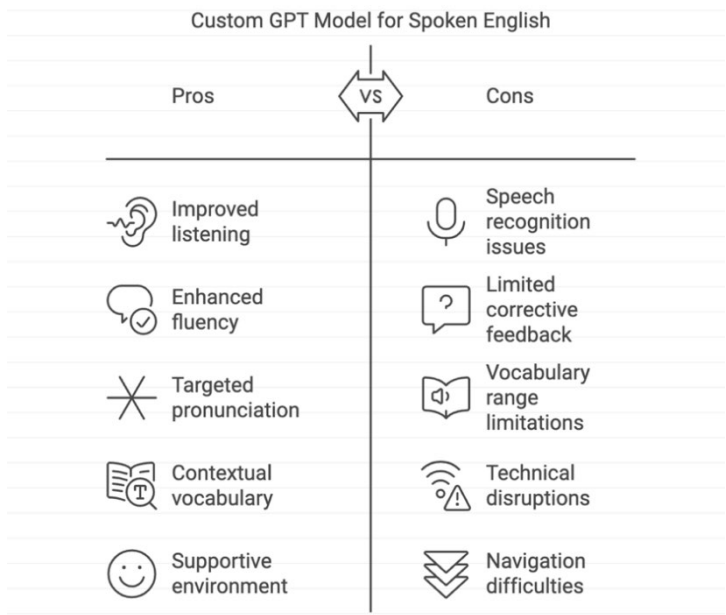
Listening and Understanding

Participants reported marked improvements in their listening comprehension by noting that the custom *GPT* model offered effective practice across a range of listening scenarios. These scenarios enabled students to engage with different accents, speeds, and levels of complexity in spoken English, which provided the opportunity to enhance their ability to comprehend spoken language in diverse contexts. This improvement aligns with the findings in language education research which suggest that varied listening exercises improve comprehension skills by exposing learners to naturalistic speech patterns (Kavaliauskienė, 2008). Some technical challenges, however, were observed, particularly in the speech recognition component, where inaccuracies occasionally led to misunderstandings. This limitation indicates the need for advancements in speech recognition capabilities to further enhance the tool's functionality.

Meaning and Fluency

Increased confidence in conversational English was another key outcome of this study. Participants expressed that the custom *GPT* model created a supportive and non-judgmental environment, which significantly reduce language anxiety and

allows them to practice more freely. The tool's real-time -and generally positive-feedback encouraged students to speak more fluidly, which led to noticeable improvements in their fluency. By interacting with the AI in simulated conversations, students could sustain longer dialogues; thereby they could strengthen their verbal agility and response timing. This aligns with existing research, which emphasizes that reducing performance anxiety in language learners can lead to enhanced fluency (Tran & Tran, 2023).

Pronunciation

The custom *GPT* model provided targeted pronunciation exercises that included minimal pair drills and other phonetic activities. Participants noted that these activities helped them refine their pronunciation, particularly in differentiating commonly confused sounds. Although most participants reported improvement, some limitations were observed in the tool's capacity to provide detailed corrective feedback on pronunciation errors. Several students expressed a desire for more specific feedback mechanisms that could offer nuanced guidance on how to improve their articulation further. This feedback suggests that while the *GPT* model is beneficial for basic pronunciation practice, more advanced capabilities are needed to address complex pronunciation challenges, consistent with studies that emphasize the importance of detailed, phonetic feedback in pronunciation training.

Vocabulary Development

Participants appreciated the model's ability to introduce new vocabulary in context during conversations. They reported that the *GPT* model presented vocabulary in practical scenarios, which helped them understand and apply new words more effectively. This contextual approach aligns with current language acquisition theories that emphasize contextual learning as a way to deepen vocabulary retention. However, some advanced learners felt that the vocabulary range could be expanded to present more challenging terms and idiomatic expressions. This feedback indicates a need for enhanced adaptability in vocabulary levels, which may allow the tool to meet the diverse learning needs of students at different proficiency stages.

Challenges and Limitations of the *GPT*

The study also identified several challenges and limitations that impacted the user experience. Technical issues, such as inconsistent internet connectivity,

occasionally disrupted the flow of interaction, which affected participants' immersion in practice sessions. Speech recognition inconsistencies across different accents and speech patterns were another significant technical hurdle that affected user satisfaction. Participants highlighted difficulties in navigating the tool's interface, particularly when seeking specific features, which suggests a need for improved user interface design. Additionally, the study's limited duration and small sample size may restrict the generalizability of these findings, a limitation commonly acknowledged in exploratory educational studies. Finally, the feedback indicated that the model would benefit from greater customization options by enabling users to tailor the learning experience according to their personal language goals and preferences.

Implications and Recommendations

The study's findings suggest a promising role for custom *GPT* models in supporting personalized language learning, particularly in the development of speaking skills. As a supplementary tool to traditional language instruction, custom *GPT* models can provide individualized feedback and practice opportunities that are difficult to achieve in conventional classrooms. Language educators are encouraged to consider the integration of AI-powered tools as part of self-paced language learning programs, particularly for developing speaking skills and confidence.

To enhance the tool's effectiveness, future developments should prioritize advanced feedback mechanisms for pronunciation by expanding vocabulary options to accommodate a range of proficiency levels and by improving the tool's technical reliability, including connectivity and speech recognition accuracy. Furthermore, offering additional customization options will allow students to align the tool with their specific learning objectives, which then may create a more user-centred and adaptable language learning experience.

Discussion & Conclusion

Discussion

The findings from this study indicate that custom *GPT* models hold substantial potential for supporting spoken language development in higher education settings, with specific gains in listening comprehension, fluency, pronunciation, and vocabulary. These results align with existing literature suggesting that AI-based language learning tools are effective for enhancing language proficiency by

providing consistent, personalized feedback and reducing language anxiety (Proctor et al., 2005). The discussion below explores the implications of these findings within each domain of language learning assessed in this study.

Participants reported improved listening comprehension as the *GPT* model exposed them to diverse linguistic inputs and varying accents by supporting their ability to understand spoken English in real-world contexts. This aligns with findings by Proctor et al. (2005), who emphasize the role of authentic listening practice in AI-powered language learning environments. However, the occasional inaccuracies in speech recognition identified in this study point to a limitation commonly found in AI applications, where speech recognition errors can disrupt the learning experience. Addressing these technical issues could further enhance the model's capacity to provide seamless listening practice (Hicke et al., 2023).

As for fluency, the non-judgmental environment created by the *GPT* model was noted to reduce participants' language anxiety and increase their willingness to engage in prolonged conversation. Research suggests that reducing performance pressure is essential for language learners to build confidence and fluency in spoken language. The immediate and positive feedback provided by the model appeared to further reinforce this, which encouraged participants to continue speaking without the fear of making errors (Binz & Schulz, 2022). These findings support previous conclusions, which indicate that AI-driven language learning tools can foster learner confidence by offering supportive, private practice environments.

Pronunciation practice facilitated by the model's targeted exercises also contributed to measurable improvements, particularly for students working with commonly mispronounced sounds. However, participants expressed a desire for more granular feedback, a need echoed in the literature (Chao et al., 2022), which highlights the importance of detailed phonetic guidance for effective pronunciation improvement. Enhanced pronunciation feedback mechanisms could therefore represent a valuable direction for future development. This enabled students to receive corrective cues at a more nuanced level.

Vocabulary development was another key area of growth reported by participants, with contextual vocabulary integration aiding in retention and practical application. Studies by Elleman et al. (2009) support these findings, noting that AI-based tools, by embedding new vocabulary in realistic dialogues, help learners understand nuanced word usage and build their lexical resource. However, the limited vocabulary range observed in this study suggests that future enhancements should focus on expanding vocabulary diversity to challenge more advanced learners. Providing options for varied language levels could further increase the

model's adaptability, which caters to a broader range of learner needs and skill levels (Chang & Bergen, 2021).

Limitations

This study's findings are not without limitations. First, the small sample size and limited study duration restrict the generalizability of the results, a common limitation in exploratory studies focused on educational technology. The variability in participants' experiences due to inconsistent speech recognition accuracy and connectivity issues also highlights technical challenges that need to be addressed before broader adoption (Šavelka et al., 2023). Additionally, the lack of advanced customization options limited participants' ability to tailor the learning experience to their specific needs, a feature identified in the literature as beneficial for maximizing AI's effectiveness in language learning.

Conclusion

In conclusion, this study contributes to the growing body of research on AI in education by demonstrating the efficacy of a custom *GPT* model in enhancing spoken language skills among university students. The model provided notable improvements in listening comprehension, fluency, pronunciation, and vocabulary, as well as fostering learner confidence through a supportive, non-judgmental environment. These results underscore the potential of AI-powered tools to supplement traditional language instruction, particularly in providing personalized speaking practice that is often challenging to deliver in classroom settings.

While the findings affirm the model's value, they also suggest avenues for future development, including improving speech recognition accuracy, expanding the vocabulary range, and providing more detailed pronunciation feedback. Addressing these areas would likely enhance the model's utility and user satisfaction, which can make it an even more effective tool for language educators. By providing both practical insights for language practitioners and concrete recommendations for developers, this research highlights the importance of user-centred design in the development of educational technologies. Custom *GPT* models, with ongoing refinements, could play a transformative role in language education by offering accessible, adaptive, and efficient solutions for spoken language practice.

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Ethical Declaration and Committee Approval

The principles of scientific research and publication ethics were followed meticulously in the research process. Participation in the study was entirely voluntary, and all participants provided informed consent before engaging in the research activities. Confidentiality and anonymity of the participants were maintained throughout the study, and personal data were protected in accordance with ethical guidelines. The research was conducted in compliance with institutional and national ethical standards, which ensures that all procedures adhered to the requirements for ethical conduct in research involving human participants.

Author's Note

In preparing this manuscript, AI-assisted tools were employed for language polishing to enhance clarity and readability. All content remains the author's original work and reflects independent insights.

THE IMPACT OF AI-BLENDED LEARNING ON EFL STUDENTS' ENGLISH LANGUAGE PROFICIENCY, ATTITUDES, AND MOTIVATION[1]

Zehra KAYAALP[2]

Teaching a foreign language can be a rewarding experience. However, it can also be challenging, especially when students have limited opportunities to practice the language outside of the classroom (Kachru, 1985), where English is taught as a lingua franca, learning English is considered an arduous task that demands conscious effort from language learners. This is because it is taught as a foreign language, and learners have limited opportunities to practice outside the classroom. In nations where English is taught as a lingua franca (ELF), like Turkey, students need more opportunities to hone their English skills beyond the classroom in conventional environments. Acquiring proficiency in English is deemed a demanding undertaking that necessitates deliberate exertion from language learners. Due to the limited number of native English teachers, students face challenges in learning the language as they have limited opportunities to practice outside the classroom or school. Poor English proficiency skills can lead to negative attitudes towards the language and a lack of motivation to learn it. With the help of technology, learning English beyond the confines of traditional classrooms is possible. Technological advancements have allowed language learners to acquire language skills without necessarily having a native language teacher.

In the era of digital technology, the widespread adoption of technological equipment such as ICTs, mobile phones, and various web tools has transformed conventional language teaching methods into a web-enhanced blended learning

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experience, which combines traditional face-to-face teaching with synchronous and asynchronous technologies (Osguthorpe & Graham, 2003). The use of AI-powered technologies in language learning has become increasingly popular due to their ability to assist in bridging the gap between non-native and native speakers. AI-powered blended learning can efficiently and effectively help EFL learners improve their English language skills through personalized guidance, support, real-time feedback, and interactive learning materials. By leveraging the power of various applications and platforms, blended classrooms can inspire learners to communicate in the target language with tremendous enthusiasm and motivation (Kannan & Munday, 2018). Furthermore, it is significant to discover the effect of AI on students' motivation and attitudes towards learning English. Therefore, the objective of the present study is to gain deep insights into the perceptions of high school EFL students on the efficacy of the AI integrated blended learning. In line with the aim of this quasi-experimental study, the answers to the following research questions were investigated:

1. What are the effects of AI-powered technologies on students' English language proficiency?

2. Is there a significant difference in English proficiency development between the experimental group and the control group?

3. How does the use of AI-powered technologies affect students' English learning motivation?

4. What are the participants' experiences related to using AI-powered technologies integrated with Blended learning to learn English?

Literature Review

Recent research has shown a growing interest in using AI technology in education (Chen et al., 2020), also known as AIEd. The field of AI in education, harnesses an array of cutting-edge AI technologies to enrich and bolster the learning experience. These technologies include intelligent tutoring systems, chatbots, robots, learning analytics dashboards, adaptive learning systems, and automated assessments (Chen et al., 2020). The adaptability and interactive nature of Blended Learning, when combined with the capabilities of AI, can offer students personalized and adaptable learning experiences (Alsaleem & Alghalith, 2019). AI can grant students' access to diverse digital resources, including interactive language exercises, online language learning platforms, and virtual reality simulations that immerse them in real-life language contexts (Hou, 2021). Moreover, integrating AI with BL in language education can assist educators by

providing valuable data and insights into students' progress, strengths, and areas for improvement (Alshahrani, 2023).

The literature also demonstrated the benefits of AI-integrated blended learning in foreign language education. For instance, in a study by Chong (2021), a 19-week teaching experiment was carried out with university English majors using an AI-powered blended education technique for English writing. The study's findings demonstrate the rapid improvement in students' English writing proficiency through a combined teaching approach based on AI. This approach helped students enhance their English writing abilities and sparked their interest in the subject. In another study by Zhang (2023), an experimental study explored using mobile technology with an AI platform to create a mixed teaching model. The aim was to evaluate its effectiveness in improving the quality of English teaching among third-year undergraduate students. The experiment results provide compelling evidence of the effectiveness of the English blended teaching approach used in the experimental class. It significantly improved students' performance in various aspects of English language proficiency, such as listening and speaking skills, vocabulary use, confidence in English, interest in learning, learning atmosphere, and learning initiative. Besides, the study conducted by Obari (2020) sought to assess the efficacy of integrating AI speakers, such as Google Home Mini and Amazon Alexa, within a BL environment to enhance the English language proficiency of two groups of native Japanese undergraduate students. The research encompassed 47 third-year business majors at a prestigious private university in Tokyo. The findings revealed that incorporating AI smart speakers into the BL curriculum significantly improved the students' overall language skills. Furthermore, a post-course survey indicated that both groups were content with the online course materials and exhibited enthusiasm for the AI-enhanced BL framework. Another study by Suratno and Nugroho in 2021 evaluated the efficacy of an augmented reality (AR)-based game as a supplementary tool within a BL model to enhance English reading proficiency in secondary schools. The results revealed notable disparities between pre-test and post-test scores, indicating a discernible improvement in learning outcomes attributable to the AR-based game. Consequently, the experiment substantiated the suitability and effectiveness of the AR-based game as an integral component of BL within the domain of English education. Furthermore, Shin's (2018) research developed an AI-powered English class model for blended classes with Flipped Learning. The study revealed a positive impact on students' self-efficacy. Additionally, based on teaching methods, there were statistically significant

differences between the experimental and control groups in speaking ability and academic achievement, particularly in listening and speaking.

Despite all its educational benefits, AI language learning tools may also have a range of challenges and limitations. Vall and Araya (2023) have posited that AI language learning tools have the absence of human interaction, the intricate task of accurately replicating cultural and contextual language nuances, reliance on extensive data for training, limited capacity to generate creative or original language, and difficulty in error recognition. Khanzode and Sarode (2020) emphasize the primary limitation of AI language learning tools as the absence of human interaction. Similarly, Chang et al. (2010) observe that prevailing classroom technologies present noteworthy challenges, including customization complexities and the inability to engage with learners. Moreover, Alhalangy and Abdalgane (2023) suggest that AI technology may challenge instructors and learners, necessitating technological proficiency, fast internet connectivity, and financial resources. Additional limitations of AI-powered tools encompass potential biases related to gender, race, or culture, dependence on human input, technical issues such as software compatibility, sluggish response times, and limited customization options.

Method

Research Model

The explanatory sequential mixed-methods research design (Creswell & Plano Clark, 2011) employed in this study involves gathering and analysing quantitative data first, followed by qualitative data (Henderson & Green, 2014).

Study Group

The participants were 58 (23 females and 35 males) 10th -grade EFL students who were studying at a science high school in Batman, Türkiye in the 2022-2023 academic year. The participants were selected through a convenience sampling method because the participants were selected from the researcher's own school. Convenience sampling is preferred when a group of individuals are easy to access (Fraenkel et al., 1993).

Data Collection Tools

Achievement Scores of Participants

Participants achievement scores were used to determine students' academic level in English, with group selection based on the closest grades. The scores were calculated from students' grades in quizzes, homework, class participation, and mid-term and end-of-term exams from the previous year in 9th grade.

Proficiency Test

Pre- and post- proficiency tests were conducted using study materials provided by the General Directorate of Secondary Education (OGM Material) and the Ministry of National Education (MoNE) publications. The tests were created based on the objectives of the 10th-grade English curriculum, which consisted of ten units.

Questionnaires

Attitude and Motivation Test Battery (AMTB) developed by Gardner (1985). The questionnaire uses a five-point Likert scale with five options.

Semi-Structured Interviews

A semi-structured interview was used as a data collection tool to gain insight into the participants' opinions about AI-integrated blended learning.

Data Analysis

The quantitative data was derived from questionnaires and proficiency tests, which were analysed using the widely used Statistical Package for the Social Sciences (SPSS) 25.0 software (Landau & Everitt, 2004). Qualitative data, on the other hand, were analysed through thematic analysis. This approach helped interpret the qualitative information by identifying and analysing recurring themes or patterns present in the data, as Braun and Clarke (2006) outlined. This study followed the six-step framework proposed by Creswell (2012, p. 236), which outlines a structured process for analysing and interpreting qualitative data.

Results

In Table 1, the t-test of the difference between pre- and post-achievement test results are presented. The results indicate a considerable difference in the mean scores of the experimental and control groups. The experimental group had a mean score of 10,2003, while the control group had a mean score of 3,8448. By

comparing the pre-and post-test scores, it was found that the participants' performance in the post-test varied depending on their group.

Table 1

T-Test of the Difference between Pre and Post-Test Results

Group	N	Mean	SD	Std. Error Mean	t	df	p
Control	29	3,8448	8,43223	1,56583	-2,734	56	,008
Experiment	29	10,2003	9,25039	1,71775	-2,734	55,527	,008

Table 2

T-Test of Pre-Test and Post-Test Results Comparison of Questionnaire

Dimensions	Group	N	Mean	SD	Std. Error Mean	t	df	p
Intensity of Motivation	Experiment	29	,1690	,74311	,13799	-,894	56	,375
	Control	29	,0241	,45721	,08490			
Desire to Learn English	Experiment	29	,2586	,77299	,14354	-2,417	56	,019
	Control	29	-,1379	,42796	,07947			
Attitude towards Learning English	Experiment	29	,1897	,71131	,13209	-1,806	56	,076
	Control	29	-,1215	,59590	,11066			
Instructional Orientation	Experiment	29	,2414	,89013	,16529	-1,806	56	,076
	Control	29	-,1983	,96219	,17867			
Total	Experiment	29	,2009	,65775	,12214	-2,144	56	,036
	Control	29	-,0923	,37926	,07043			

Table 2 shows motivation levels of the groups based on the t-test difference of the questionnaire. According to the results presented in Table 2, there appears to be no meaningful distinction in the average *Intensity of Motivation* scores between the experimental group (mean=,1690) and the control group (mean=,0241) (t=-0.894; p > 0.05). While the intensity of motivation mean score for the experimental group is slightly higher than that of the control group, this difference

is not statistically significant. These findings are supported by a t-value of -,894 and a p-value greater than 0.05. As a result, the experimental intervention did not significantly impact the intensity of motivation compared to the control group.

In terms of *Desire to Learn English* scores, there is a noteworthy variance between the experimental group (mean=,2586) and the control group (mean=-,1379) (t= -2.417; p < 0.05). Firstly, both groups' means of the *Desire to Learn English* dimension are distinct. The experimental group had a significantly higher mean of ,2586 than the control group's mean of -,1379. Secondly, the t-value of -2.417 and the associated p-value of ,019 indicate this dissimilarity in means is statistically significant.

After comparing the average scores of *Attitudes Towards Learning English* for both the experimental group (mean=,1897) and control group (mean= -,1215), a t-test was conducted. While the results (t= -1.806; p > 0.05) suggest a difference in the mean scores of attitudes towards learning English between the two groups, this difference is not statistically significant at the conventional alpha level of 0.05 (p=,076). The experimental group (mean=,1897) did show a slightly more positive attitude towards learning English than the control group (mean= -,1215), but the t-statistic of -1.806 indicates that this difference is relatively small. On average, the control group had a slightly lower attitude towards learning English than the experimental group, as evidenced by the negative sign.

While the mean scores of the *Instrumental Orientation* dimension appear to differ between the experimental and control groups, the statistical significance is unclear at the conventional level (t= -1,806; p > 0.05). The experimental group had a mean score of ,2414, while the control group had a mean score of -,1983. However, considering the sample sizes and variability of scores within each group, the t-value of -1.806 suggests that this difference may not be statistically significant.

Based on the data analysis, it is evident that in the overall evaluation of the questionnaire, the experimental group (mean= 2.099) outperformed the control group (mean= -0.923) in a statistically significant way (t= -2.144; p < 0.05). The control group's negative mean score implies that their scores were lower than those of the experimental group, on average.

The results of the semi-structured interview are presented under five main titles based on the research questions. The results are also provided in detail, along with relevant excerpts for each theme.

Perceptions of the Utility and Efficacy of AI-Powered Technologies in All Language Domains

Figure 1

Frequency of Coded Sections Regarding Development in All Language Domains

Learning Effectiveness of AI-Powered Technologies
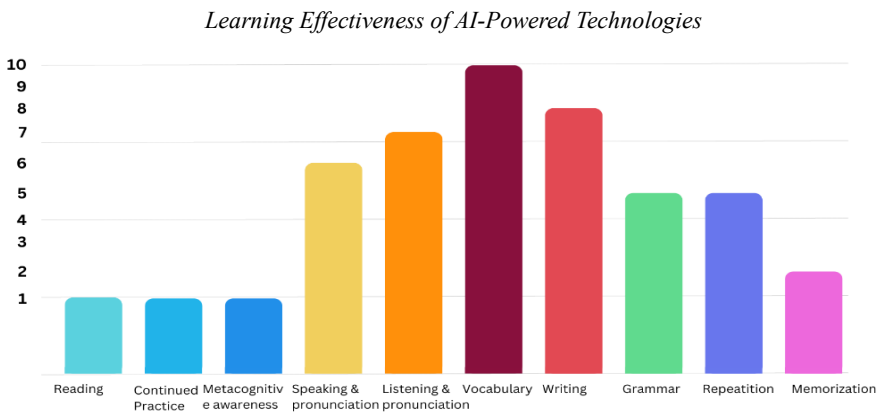
Figure 1 exemplifies that vocabulary (f=10) is the most emphasized skill which students thought having improved. The development of writing (f=8) takes the second place among the other skills. Listening and pronunciation skills (f=7) and speaking and pronunciation skills (f=6) were also among the most improved skills. Grammar (f=5) and repetition (f=5) were emphasized equally. Furthermore, reading skills (f=1), continued practice (f=1), and metacognitive awareness (f=1) were emphasized equally. Memorization (f=2) was among the lowest emphasized. The majority of students reported that AI-integrated blended activities enhanced their vocabulary and pronunciation skills the most. The following quotes explain the reasons clearly:

"I believe AI-powered technologies had an impact on my English. My ability to form sentences improved because, while talking with the robot, I had to construct sentences to be understood by artificial intelligence. In writing, for instance, I learned to use sentences correctly. For example, I learned where to place the predicate or how to separate elements of time." (P10)

"I think AI-powered technologies impacted my English, especially in terms of pronunciation. Additionally, sometimes people can't find a speaking partner in Turkey, especially in a city like Batman, to practice English with. Therefore, I believe that chatting with chatbots to review what we learned in school at home contributed to improve my English." (P9)

Enhanced Learning Experience through Student-AI Interaction

Figure 2

Frequency of Coded Sections Regarding Student-AI interaction

Student-AI interaction
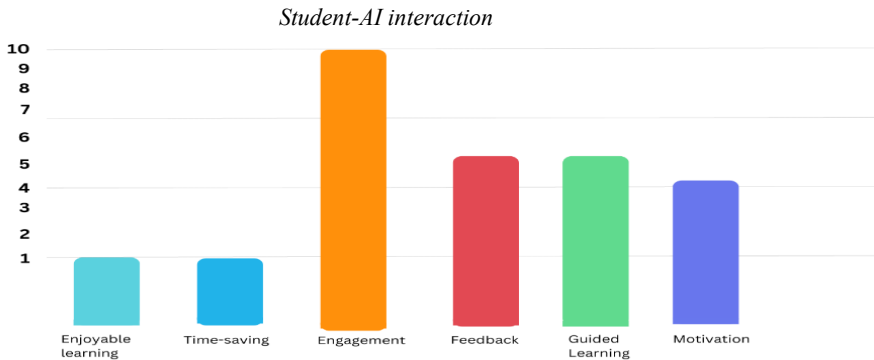
As shown in Figure 2, engagement (f=10) is the element that is the most frequently stated in responses to the question about participants' experiences related to using AI-powered technologies integrated with Blended learning to learn English. Figure 2 also exemplifies that students acknowledge that getting feedback from AI tools increases motivation (f=4). The "feedback" code (f=5) and the "guided learning" code (f=5) were among the most mentioned codes. Enjoyable learning (f=1) and timesaving (f=1) were emphasized equally. The participants' coded remarks on student and AI interaction are provided below:

"I felt like I was talking to a real person. It motivated me. I gained a bit of experience regarding English. Like, for example, how I would speak when I go to a foreign country." (P3)

"My pronunciation improved because there were sentences like, "It would be better if you did it like this," pointing out and helping me enhance my pronunciation." (P10)

Issues with Using AI-powered Technologies for Learning

Figure 3

Frequency of Coded Sections Regarding the Problems with AI-powered Technologies

Problems Regarding AI-Powered Technologies
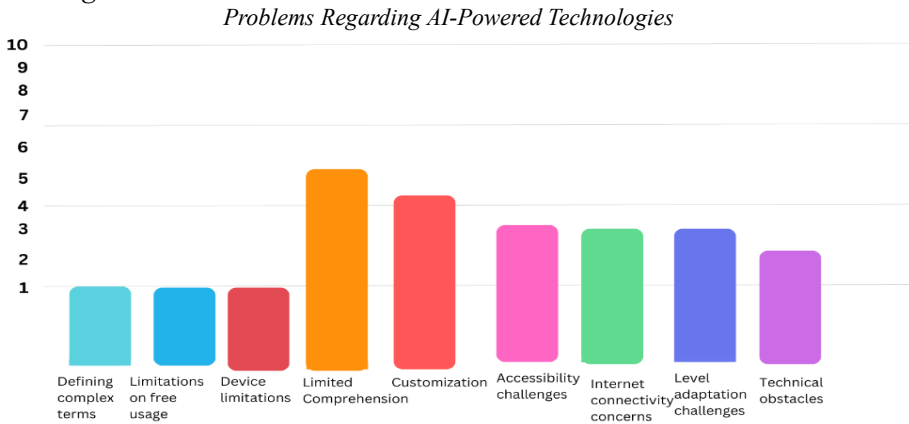
Figure 3 shows the codes regarding the issues with AI-integrated blended learning. According to the findings, the most stated codes are the Limited comprehension (f=5) and the Customization (f=4). Besides, the code Accessibility challenges (f=3), Internet connectivity concerns (f=3), Level adaptation challenges (f=3) were emphasized equally while Technical obstacles (f=2) were mentioned by only two students. On the other hand, the code in relation to the Defining complex terms (f=1), Limitations on free usage (f=1), Device limitations (f=1) has got the lowest number, which means it is the least mentioned disadvantage by students.

The students provided their views on the following basic drawbacks of AI-integrated blended learning:

"I faced some issues with applications due to the slow internet. Since AI applications require a fair amount of internet, it was a bit challenging." (P4)

"I wanted to have more casual conversations with the robot, but it couldn't do that. It would say things like "I don't have feelings," and "I'm not human." We couldn't talk freely about what I wanted." (P8)

Perspectives about the AI-Integrated Blended Environment

Figure 4

Perspectives about the AI-Integrated Blended Environment

Effectiveness of Blended Learning with AI
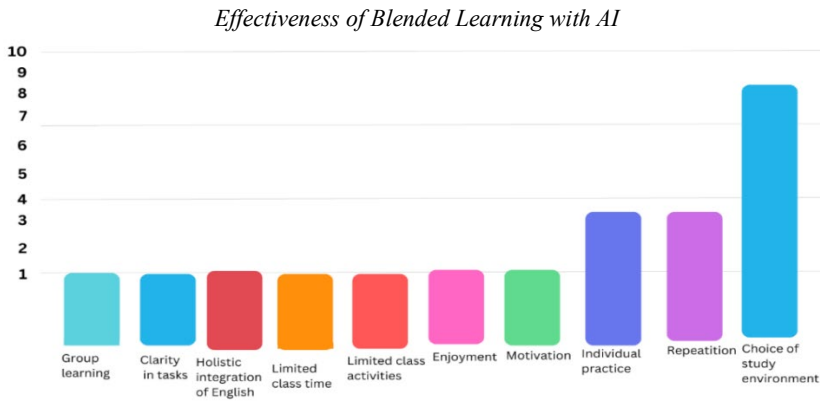
All participants contributed their views on the efficacy of learning within this blended learning environment integrated with artificial intelligence. As Figure 4 shows, students mainly showed positive reactions with very little negativity. Eight students (f=8) expressed their preference for an AI-Integrated blended study environment. In addition, the next emphasized codes were repetition and individual practice (f=3). Students expressed satisfaction with the flexibility of repeating learning materials. They appreciated being able to access the materials at any time and location without any constraints.

Group learning**,** clarity in tasks**,** holistic integration of English, enjoyment**,** and motivation (f=1) were among the positive effectiveness of Blended learning with AI. Besides, students recognized that school-based language learning activities may fall short due to time constraints and limited options (f=1). The excerpts below highlight participants' reflections on effectiveness of Blended learning with AI.

"I think, activities we did at school could sometimes be a bit lacking. We don't have a lot of time. It was better to practice outside of school, in my opinion. It's better for me. It increased my motivation, my speaking skills, and my ability to construct sentences more confidently." (P5)

"Sometimes there was a lot of noise in school, and it was not completely understandable, or there were disruptions during an activity. However, I think it was more effective when I studied individually at home." (P10)

Future Outlook on AI-powered Technologies in English Learning

Figure 5

Perspectives about the AI-Integrated Blended Environment

The Future Role of AI in English
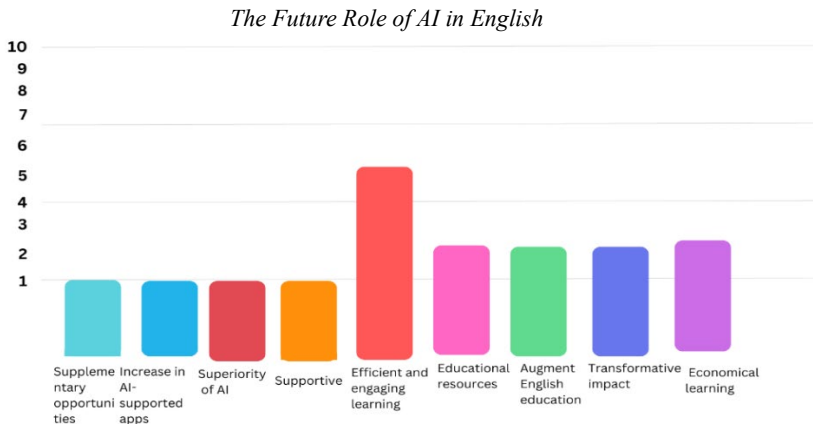
As shown in Figure 5, nine different codes related to the advantages theme emerged. These codes include efficient and engaging learning (f=5), educational resources, augment English education, economical learning and transformative impact (f=2), and supplementary opportunities, increase in AI-supported apps, the superiority of AI, and supportive (f=1). According to this data, the code "efficient and engaging learning" (f=5) has the highest number. The students express their ideas on how AI-integrated blended learning will provide efficient and engaging learning as follows:

"I think learning English with these technologies will significantly influence future educational trends. I believe these will be very beneficial because you can learn English faster and more efficiently. AI applications can make this more practical." (P3)

Students expressed confidence in AI's potential to benefit the learning process in terms of educational resources, augment English education, economical learning, and transformative impact (f=2). The students shared their views as follows:

"In my opinion, artificial intelligence can provide better education than many primary and middle school English teachers. Because the education I received in the past was insufficient." (P5)

"Instead of attending courses, we can opt for online courses. By using AI applications at home rather than spending money on courses, we will learn and improve English more economically." (P10)

Moreover, insights from students regarding supplementary opportunities, an increase in AI-supported apps, the superiority of AI, and supportive (f=1) codes were emphasized as well. Participant 2 and Participant 3 noted the increasing role of AI-integrated blended learning in supporting and supplementing learning English.

"In my opinion, it could make learning English even easier, because sometimes there were fun activities, and this made learning English enjoyable. We don't speak a lot of English at school; we only speak in class, and besides that, we don't have the opportunity to hear English constantly outside of films. In this terms this is also beneficial." (P2)

"I think learning English with these technologies will significantly influence future educational trends. Because it really strengthened my level. It will make learning English much easier in the future. I believe these will be very beneficial because you can learn English faster and more efficiently. Learning English is crucial in today's conditions, and it needs to be faster and more practical. AI applications can make this more practical." (P3)

Discussion & Conclusion

The study investigated the impact of AI-powered technologies on students' English language proficiency, focusing on both micro (grammar, vocabulary, pronunciation) and macro (reading, listening, writing, speaking) skills. AI tools like *ChatGPT*, *Lingostar*, *Elsa Speak*, *Peaksay*, and *English Central* were integrated into a blended learning environment. Tasks aligned with the curriculum were used to assess their effectiveness. The results suggest that AI-powered technologies substantially enhanced the experimental group's English proficiency, aligning with Shin's (2018) findings on AI-enhanced learning models.

As for the first research question, the findings indicate that direct interaction with AI tools led to substantial gains in language skills. Findings align with previous research by Fei and Petrina (2013) and Obari (2020), confirming that AI enhances EFL learners' proficiency across various domains. Additionally, students reported higher motivation and engagement when learning with AI, leading to a more enjoyable experience compared to traditional methods. AI-powered tools also

promoted meaningful interactions, collaborative dialogues, and real-life language practice, particularly in speaking and listening.

Regarding the second research question, the study confirmed that AI tools significantly improved students' speaking skills, particularly pronunciation. The experimental group showed notable gains, supported by qualitative data indicating enhanced conversational skills through AI chatbots, echoing findings by Dizon (2020) and Shah et al. (2016). AI tools improved vocabulary acquisition and grammar, with students finding vocabulary learning more engaging compared to traditional methods. While both groups showed improvements, qualitative data indicated a preference for traditional grammar learning. These results align with the findings by Kim and Jeongjo (2018), which demonstrate AI's effectiveness in vocabulary retention. AI tools positively impacted writing skills, with students improving significantly after using AI for drafting and feedback. This aligns with Chong's (2021) research, which showed rapid improvement in writing through AI-powered blended learning. Reading skills improved to a lesser extent compared to other language domains. Although post-test scores were higher for the experimental group, qualitative data suggested that reading was less emphasized. The experimental group showed improved listening skills, despite mixed results in the literature. AI tools provided additional listening practice opportunities, enhancing proficiency, particularly through chatbot interactions.

The third research question explored how AI-powered technologies affect students' motivation to learn English, focusing on aspects like the intensity of motivation, desire to learn, attitudes towards English, and instrumental orientation. Initially, both groups had similar motivation levels (experimental: 3.6004; control: 3.4828), ensuring a fair comparison. After the intervention, the experimental group showed a significant increase in motivation (mean change = 2.099) compared to the control group, which experienced a decline (mean change = -0.923). This suggests that using AI tools in a blended learning environment positively impacted motivation. The results align with previous studies (e.g. Alemi et al., 2015; Dörnyei, 2005), confirming that motivated learners achieve better outcomes. While some research argues that motivation does not directly correlate with academic success Lim (2012), this study found that the experimental group's enhanced motivation led to improved English proficiency. AI technologies increased students' desire to learn English, with the experimental group displaying a significantly higher interest than the control group. The adaptive and engaging nature of AI tools likely contributed to this heightened motivation, especially among tech-savvy learners. Although attitudes towards learning English improved slightly in the experimental group, the difference was

not statistically significant. A longer intervention period or larger sample size might reveal more substantial changes in attitudes.

The study found that AI-powered technologies positively impacted students' motivation and attitudes toward learning English. The experimental group showed a slight but positive increase in attitude compared to the control group, suggesting that AI tools can enhance motivation by making learning more engaging. This aligns with previous research indicating that a positive attitude boosts motivation, which in turn supports language learning (Masgoret & Gardner, 2003; Ushioda, 2003). The control group's lower motivation and negative attitude scores highlight how traditional exam-oriented approaches may reduce enthusiasm for English learning. Meanwhile, AI tools, by providing personalized feedback and interactive features, helped the experimental group maintain a higher motivation level, focusing on practical benefits like career advancement, aligning with Gardner and Lambert's (1972) concept of instrumental motivation. Qualitative interviews reinforced these findings, revealing that students enjoyed AI-based activities, such as games, chatbots, and interactive videos, which increased their engagement and motivation. This supports studies by Chen et al. (2022) and Hsieh et al. (2020), which found that AI can boost language learning motivation through interactive, student-centred approaches. Despite some challenges with AI responsiveness, the overall positive feedback suggests that integrating AI in blended learning environments can enhance student motivation and foster a more positive attitude toward English learning. The findings indicate that AI tools not only support academic performance but also improve learners' motivation and attitudes, especially in EFL contexts where opportunities for practice are limited.

As for the fourth research question, thematic analysis of semi-structured interviews identified five key themes reflecting positive student attitudes. According to the results, students appreciated the flexibility of accessing materials anytime and anywhere, enhancing their engagement and motivation. This aligns with findings by Alshahrani (2023) and Kistow (2011), who highlighted the benefits of flexible learning environments. The AI tools allowed students to practice independently and at their own pace, which improved confidence, especially in sentence construction. While students enjoyed independent study, they also valued group interactions, recognizing the benefits of social engagement in language learning. However, they noted that AI could not fully replace the social aspects of traditional classroom learning, aligning with Heinze and Procter's (2004) observations.

Students reported that AI tools provided clear objectives, personalized feedback, and engaging tasks, which increased their interest and motivation, consistent with

Zhang's (2023) research. They also appreciated how AI could help practice English in real-life contexts, particularly for travel. Despite recognizing the advantages of AI-integrated learning, some students preferred traditional methods for grammar learning and face-to-face social interactions. They also faced challenges balancing AI practice with demanding academic schedules, especially in science-focused schools. The study found that AI tools were particularly effective in enhancing vocabulary, writing, pronunciation, and speaking skills. However, the benefits of reading and grammar were less pronounced. These insights align with research by Hsu et al. (2023) and Edmett et al. (2023).

Qualitative data confirmed Zhang's (2023) findings on AI's impact on listening and speaking skills, vocabulary collocation, and student confidence. Additionally, students preferred AI-integrated learning for its serene environment, which helped them focus and improve their English skills. The study also supported previous research (Alsaleem & Alghalith, 2019) on AI's role in personalized learning. AI tools increased engagement and motivation, promoting active participation in tasks such as writing, games, and reading, leading to better language retention. Despite the benefits, students faced issues with AI tools, including a lack of emotional understanding, technical difficulties, and limited customization for different proficiency levels. While some students found repetition helpful, others viewed it as tedious. The tools also lacked adaptability for higher proficiency learners, such as those using Elsa Speak, who found tasks too simple for their level.

Overall, AI-powered tools showed promise in enhancing English learning, but they are best used as supplements to human interaction, not substitutes. The students acknowledged that AI could complement teaching by offering personalized, efficient learning experiences and flexibility. However, AI's limitations, such as the inability to replicate human nuances, suggest it should be integrated alongside traditional methods to provide the best language learning outcomes.

Based on the findings and the related discussion, this study offers several implications. Firstly, AI tools can significantly improve EFL learners' proficiency, motivation, and attitudes, especially when integrated into blended learning environments. Secondly, AI should complement, not replace, human instruction, ensuring a balanced approach for optimal learning outcomes. Thirdly, the study highlights AI's effectiveness in developing speaking, vocabulary, writing, and listening skills, and encourages educators to incorporate AI tools into curricula for personalized, interactive learning. Additionally, educators need training to integrate these technologies, and administrators should invest in AI

infrastructure while ensuring ethical considerations, such as data privacy, are addressed. Last but not least, further research comparing AI-integrated and traditional methods will deepen our understanding of AI's impact on language education.

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Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics. Ethical approval for this research was obtained from the Ethics Committee of Hakkari University, with approval number BS43F6L9H3.

FROM STRUGGLE TO STRUCTURE: SCAFFOLDING ESSAY WRITING SKILLS OF EFL LEARNERS AT TERTIARY LEVEL

Zekeriya DURMAZ[1]

Compared to reading, listening, and speaking skills in language, writing appears to be more difficult to undertake because learners are expected to focus on both the content and the mechanics of writing (Annisa, 2016). Namely, good essay writing requires attention to the development of the content, a well-structured organization, a sophisticated range of vocabulary, effective complex constructions of language use, and mechanics such as spelling, punctuation, and capitalization. Considering that this is the case even for native speakers, developing writing skills requires more commitment from first-and-second language learners. As language learners are required to have developed micro-skills (Ningrum, 2012) for writing, like critical thinking and writing skills, the complicated nature of writing turns into a demanding task. As stated by Zheng (1999), most English as a foreign language teachers claim that it tends to be more difficult for a person to learn written skills than the other three language learning skills. Also, Leki (1991) advocates that English texts often differ in rhetorical conventions from those in other languages because they require a great deal of effort to identify differences. A well-organized writing could be more difficult for some specific language learners (Taysi, 2018), such as Arabic or Chinese learners who are not in the same language family as English. This becomes more challenging when learners try to manage the differences and produce the language simultaneously. Typically, Arab students, for instance, translate stylistic elements from Arabic, their native language, into English, and write as they speak without paying attention to punctuation rules (Rass, 2015). They frequently write lengthy sentences with coordinating conjunctions (Al-Khatib, 2001). This situation can be accepted as a

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constraint in terms of the alphabet used, syntax, and style, even in terms of mechanics such as capitalization and punctuation rules. Research claims that Arabic writers are known to face problems while writing essays in English at their university (Bacha, 2002). When it comes to essay writing, the rate of challenge increases as it requires more commitment.

Literature Review

Keeping a writing portfolio is used as a formative and summative assessment tool. Summative assessment (Black & Wiliam, 2009), also known as assessment of learning, takes place at the end of a period of learning: at the end of a topic, unit, term, or year, so the portfolio is assessed at the end of each term and it has 10 % effect within a total passing grade. Also, keeping a writing portfolio is used as a formative assessment tool. According to (Black & Wiliam, 2009) formative assessment, also known as assessment for learning, takes place during lessons and throughout the course. It is ongoing and teachers get immediate feedback on how learners are progressing. Teachers also give feedback to learners. Formative assessment is considered central to classroom practice because it involves ongoing dialogue between teacher and learners.

Experts and educators alike agree that formative assessment, particularly when utilized to help students with their writing, can raise student progress (Black & Wiliam, 1998). In formative assessment, feedback is essential in helping learners to progress (Lee, 2011). Rather than giving a grade or a comment such as "try harder" or "rewrite it", we should give specific and detailed feedback. Learners benefit from seeing how they can make their own improvements towards achieving learning outcomes. Teachers should, therefore, take time to talk to learners and help them to be reflective about their work. Feedback is effective when it is given regularly, orally; if it is motivating learners to improve the quality of their work, helping them to think of alternative solutions and focusing on learners' strengths first, then on what needs improving since evaluating learners only by their deficits may not help to improve their skills (Er & Küçükali, 2024). The iterative cyclical research approach was adopted for this study to investigate the aforementioned constraints of essay writing in an EFL classroom. As proposed by Lewin (1946), this approach adopts planning, taking action, and finding the facts related to the puzzle under investigation. This idea of research has established the foundation stones of the modern action research (AR). As similarly stated by Burns (2010), action research is an attractive way of studying puzzling classroom issues in greater detail. Contemporary researchers (Burns, 2010; Coghlan, 2019; Dikilitaş & Wyatt, 2017; Er & Farhady, 2023; Eraldemir Tuyan,

2016) have emphasized the benefits, and positive outcomes in terms of teacher and the learners, its contribution to the collective learning, and fostering the creation of a community of practice. Also, some prolific researchers like Mertler (2009) established the frameworks of structured action research, which makes it more comprehensible for experienced and novice teacher researchers. Doing action research in the institution serves as a bridge between theory and practice (Coghlan, 2019).

Figure 1

Bachman's Action Research Spiral (Mertler, 2009)
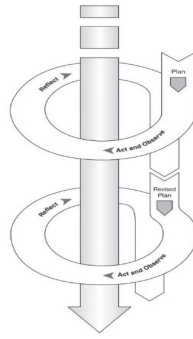
1. What are the constraints and affordances of essay writing instruction as perceived by the foreign students in an EFL classroom at a Turkish university?

2. How can the course instructor make use of the foreign students' insights to improve the students' writing skills and the course content?

In line with this, this exploratory action research aims to explore why Syrian second language learners experience difficulty in the essay writing process in an EFL classroom and how teachers' guidance helps through conducting different approaches and teaching aids. This study intends to provide answers to the following questions.

Method

To improve a group of Arabic-origin students' writing skills, the researcher employed this Exploratory Action Research (EAR) as a practitioner following the cycle of planning, acting, observing, and reflecting (see Figure 1). This EAR was conducted at a university in the Southeast of Türkiye, at the School of Foreign Languages (SoFL), in which students are provided with intensive English language teaching in a class of Upper-Intermediate level according to the

Common European Framework of Reference for Languages (CEFR). The data was collected in multiple steps of the research. The first step constituted defining students' present situations and their needs through their self-reports, and the analysis of their three in-class essay works, which is followed by written and verbal constructive feedback. Secondly, to reinforce L2 input exposure for the sake of developing writing skills, they were each provided with a graded reader (level 5,6). In the third and final step, they were provided with a brainstorming chart (see Figure 4) and some sentence starters to scaffold their writing skills in the process of essay writing.

Participants

Four adult EFL learners (4 Syrian students, one female, three males) who had been living in Türkiye and studying English at the tertiary level of the School of Foreign Languages (SoFL) for three months were selected for the research. The students participated in the study on a voluntary basis by signing a consent form before the data collection process. When these four students enrolled in the SoFL program, they were placed in an Intermediate level classroom according to their results of placement and proficiency exams, which are prepared, organized and conducted by the Testing Office of the SoFL.

Table 1

Demographic Information of the Participants

Students	Age	Gender	Department	Level (CEFR)
P1	20	Female	International Trade & Logistics	
				Upper-Intermediate
P2	19	Male	Civil Engineering	
P3	21	Male	Civil Engineering	
P4	20	Male	Computer Engineering	

As seen in Table 1, the participants were the ones who were required to complete the Upper-Intermediate Level (aligned with CEFR; Elementary, Pre-Intermediate, Intermediate, Upper-Intermediate) to be able to continue their education in their departments of engineering. The study was conducted when they had just started the upper-intermediate level after completing eight weeks of intermediate-level education successfully. After evaluating the Arabic and Iraqi students' writing works in the previous term, I selected the participants. As a result of my observations as their writing class teacher, I realized that their skill in writing

production was relatively worse, especially in terms of mechanics (spelling, punctuation, and capitalization) and sentence structure, although the participants seemed to be eager to speak, participate classroom discussion, have a better level of oral production compared to the other 16 Turkish students in the same classroom, They were found out to be writing as they pronounce and the capitalization and punctuation did not seem to them as meaningful because they do not have the mentioned rules in their mother tongue, Arabic, which makes it more challenging to write a well-organised essay for them.

To describe the writing classes at the upper-intermediate level, students at SoFL take seven teaching hours of writing courses per week throughout seven weeks of a term. Each week, students are required to write one essay as the first draft, and they are required to write the second draft in the classroom following the written feedback by the writing class teacher, which involves numerical marks, and oral feedback given by the teacher. Students take the responsibility of keeping their works in a neat file safe and secure to be submitted at the end of the term, and these works are evaluated and assessed by the instructor respecting the criteria of completion, commitment, progress, organization and correctness. Each week, students were provided with sample essays as a model.

After four hours of teaching and practicing, students are given 2 class hours to write an essay on a topic, which is studied and decided earlier by the school's writing committee members. In addition, to guiding students, a writing rubric is marked and by following a corrections symbols chart, more written and oral feedback is provided. The aim of this course in at the Upper-Intermediate level is to teach students how to write clear, detailed different types of essays. Since students' fields need different essay subjects, writing classes are conducted by synthesizing and evaluating information and arguments aligned with CEFR in an in-class, face-to-face mode of delivery.

At the end of the Upper-Intermediate level students are expected to be able to write essays in certain genres such as opinion essays, cause and effect essays, comparison and contrast essays (Point by Point and Block Method), and finally, problem-solution essays (Blanchart & Root, 2016).

Writing classes at SoFL are portfolio-based. Process and the products are both evaluated. Assessment is formative as each work is graded bi/weekly; summative as all portfolio is assessed, and it has a 10 or 15 % effect on total passing grade as an alternative assessment type at a school where English is used as a medium of instruction and students are required to write essays each term of 7 weeks.

Data Collection Tools

In this EAR, multiple data collection tools were used to provide valid information. Besides the written essays, first and second drafts, of the participants, the data were collected through questionnaires, which were made before, during, and after conducting the study (see Appendix 1), to understand the perception of the participants related to their awareness of the issue and their developmental process.

Each week, one open- ended questionnaire (see Figure 2,3,4) was applied to have an idea about their writing experience background, to make students reflect on their learning, and to take further steps that could help them eliminate the problems they have in the process of essay writing.

Data Analysis

A qualitative analysis was used for this study. The students were asked to answer eight open-ended questions in four sets during three weeks. The students' self-reflection answers were coded and analysed in categories. I was the course instructor and researcher of the study. I read the students' written works analytically, focusing on the content, organization, vocabulary, language use, and mechanics. As the course instructor, I provided students with written and oral feedback on their writing works (first and second drafts of essays), and as the researcher, I analysed the data and prepared for further. This analytic feedback helped me to define the points to be encouraged and require development.

Results

To gain a deeper understanding of the constraints and the proposed solutions, the students' self-reporting data and their three in-class essay works, which they were required to write one each week, were analysed. The results of the study highlight a number of important conclusions about the challenges Syrian EFL students at a language school experience in the process of essay writing. Limited vocabulary, poor grammatical skills, organizational problems, spelling and punctuation difficulties, and difficulty coming up with essay themes were the main difficulties noted. These results align with earlier research showing that learning English writing rules presents particular challenges for students from different language and cultural backgrounds (Bacha, 2002; Rass, 2015).

One noteworthy finding was that students who had little experience regarding reading and writing in English had a hard time creating coherent essays. Long, complicated phrases and a lack of adherence to English punctuation and

capitalization rules were frequently the results of their dependence on their native language syntactic and stylistic traditions. For instance, early works had grammatical and sentence construction mistakes, indicating a need for explicit instruction and targeted feedback.

The intervention used in the study, which involved giving graded readers and scaffolding materials like sentence starters and brainstorming charts, had a positive effect. The graded readings, according to the students, improved their comprehension of vocabulary, grammatical structures, and text organization. Furthermore, the scaffolding resources were seen as being crucial in assisting them in better structuring their essays and organizing their ideas.

These results imply that writing skills can be considerably improved by focused interventions designed to meet unique learner restrictions, especially for students who have had little experience with academic writing in English.

Research Question #1

What are the constraints of writing essay instruction for foreign students in an EFL classroom at a Turkish university?

When the general answers of the participants are analysed, it can be argued that there was a lack of reading experience in English as one of the main reasons for the difficulties (i.e., limited vocabulary, lack of grammar, organizational problems, hard-to-think writing topics, spelling and punctuation resulting from using a different alphabet) of the students writing a well-organized essay. It looks like the more they are exposed to English input through reading material, the less problems they have in developing essay writing skills. Consequently, it was observed that L2 input exposure is beneficial for writing development (Byrne, 1996).

Three out of four students' answers to the first set of questionnaires (see Appendix 1) showed that they had not been provided with the chance to write in English at all before their tertiary education at university. The most difficult thing for this group of students appeared to be spelling, lack of grammar knowledge, punctuation, and organizational problems.

Research Question #2

How has defining the students' self-reported essay writing problems helped the instructor take some steps?

In light of the students' answers to the first question, I realized that those students are mostly aware of their skills that need to be developed. Even the first and second weeks' in-class writing products supported this. So, they were asked the second set of questions, as a pre-writing questionnaire, to see how much they read

in English. The answers showed that they have almost no practice in reading in English. Also, they reported that they believe reading may help them write better. As a result, they were provided with graded readers (levels 5,6) individually, and they were assigned to read each reader in a week until the next weekly in-class portfolio writing.

Figure 2

Open-Ended Questionnaire 1

Week 2 | Pre-writing/Before the readers are given to read

1. Do you read in English?

Yes, but a little bit maybe in my life I read just one English book

2. What kind of sources do you read from?

Book and internet

The following week, three of them completely read the readers, and one of them read half of it. Subsequently, I assigned the third week's topic to write a new essay in the classroom, and I provided them with written and oral feedback. After the written session was done and they got the feedback, I asked students to answer the second part of questionnaire 2 (see Figure 3) as a post-writing one. The majority of them reported positively, stating that reading helped them in terms of spelling, punctuation, and sentence form, and the corrective feedback by the instructor was reported as sufficient and helpful.

Figure 3

Open-Ended Questionnaire 2

6. Do you think that you have received sufficient and helpful feedback from your teacher about your 1st draft?

Yes, I just get 20/25 I like it and I feel good for this

7. How much do you think this feedback helped you to write a well-organised essa

Yes it helped me

In the final stage, right before the week 3 writing session, they were provided with a brainstorming chart (see Figure 4) and some sentence starters to scaffold. They

all reported the scaffolding material was really useful to organize their essay and make up their mind. In addition, they shared enthusiasm and were eager to improve their writing skill more.

Figure 4

Open-Ended Questionnaire 3

Week 3 | A brainstorming chart and some sentence starters are provided to scaffold.

8. Do you think brainstorming and sentence starters helped you write a well-organised essay? If yes, how did it help?

...Yes...it helped me to organised my essay... ...and it let me remember what should I... ...Write...
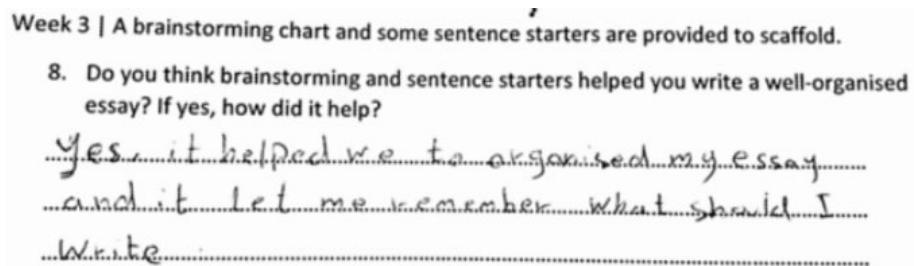
Figure 5

Graphic Organiser for Brainstorming
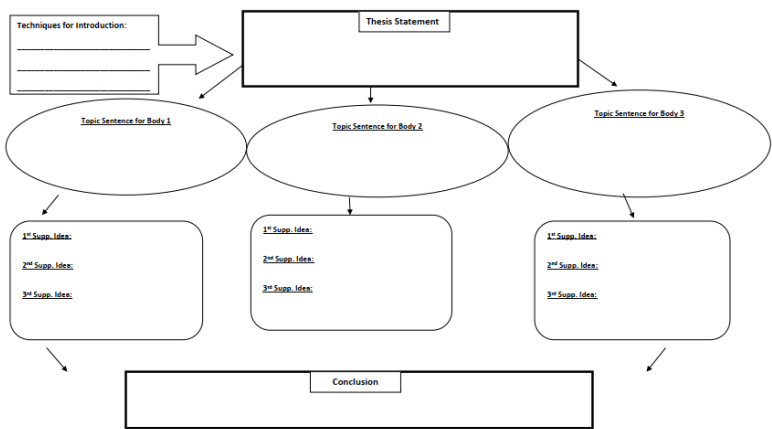
Discussion and Conclusion

The results of this exploratory action research shed light on how pedagogical, cultural, and linguistic elements interact to influence the writing skills of EFL students at tertiary level. The limitations that have been discovered, like a restricted vocabulary and difficulties with grammar, are consistent with research that emphasizes the significance of linguistic transfer and how it affects writing in a second language (Al-Khatib, 2001; Leki, 1991). The influence of L1 on L2

writing practices is demonstrated, for example, by the Arabic-speaking participants' propensity to mimic stylistic patterns from their original tongue.

The benefits of graded readers underscore how crucial input-rich environments are for language learning. It has long been known that reading a lot helps students enhance their language skills by exposing them to a variety of vocabulary and grammatical structures and by giving them examples of well-structured texts (Byrne, 1996). Findings from formative assessment research were supported by this study's findings that participants who interacted with the graded readers more demonstrated noticeable gains in essay organization and linguistic accuracy (Black & Wiliam, 1998).

Additionally, the study's scaffolding tools were essential in addressing organizational issues. The brainstorming charts and sentence starters gave students a structure for more methodically expressing their thoughts. This result is in line with studies that support the use of scaffolding to help language learners with challenging tasks (Ningrum, 2012).

This study emphasizes the complex difficulties of writing essays in an EFL setting, especially for students who speak non-Latin alphabet using languages. The results show that students' writing practices are greatly influenced by language and cultural elements, which calls for specialized instructional approaches. Graded readers and scaffolding tools, the interventions used, were successful in reducing these difficulties, underscoring the significance of organized and input-rich learning settings.

In conclusion, by proving the effectiveness of focused, culturally aware teaching techniques, this study adds to the grooving body of research on EFL writing instruction. EFL teachers can better assist students in overcoming the challenges of academic writing by incorporating such strategies into their lesson plans.

Limitations and Recommendations for Further Research

As an insider and outsider of the research, I explored the challenges that require a commitment to be resolved. It was a real challenge for me to teach a non-Turkish group who has characteristic constraints related to essay writing. What made me happy was that I could help that group of students who were satisfied with their writing ability at the beginning although it required much more effort from the teacher than a regular class. Throughout this process, I sustained this research individually. However, as advocated by Burns (2015), collaborative action research with the partner teachers could have contributed to both collaborating teachers and the participating students more. Another limitation of this study is

the number of students selected for this action plan. With more students from different backgrounds, the results could be enriched.

Also, the need for EFL teachers to implement culturally sensitive teaching methods is a significant conclusion of these findings. Instructors can establish more inclusive and productive learning environments by recognizing and resolving the unique difficulties encountered by students from a variety of linguistic backgrounds. Additionally, the study emphasizes how important formative feedback is for helping students navigate the iterative process of writing development (Lee, 2011). Future studies should examine if these interventions can be scaled to broader and more varied student populations. Multi-instructor collaborative action research could improve our knowledge of successful essay writing instruction methods in multicultural EFL contexts. Furthermore, a long-term study would shed light on how these treatments continue to affect students' writing skills.

Therefore, conducting action research can trigger the teacher to solve the puzzle in the classroom and enlighten the teaching way through the cycle of planning, acting, observing, and reflecting. As a result, the teacher may feel more confident about the possible and similar challenges with different solutions to different puzzles. Considering all these endeavours, English language teachers teaching in a multicultural context need to be more aware of the difficulties caused by cultural and academic differences. In this case, EFL teachers should develop the writing skills of the learners in English by considering their different academic backgrounds so that learners do not feel confused in the use of vocabulary, and they can decide and use the correct grammatical forms, pay attention to spelling and punctuation by considering the writing rules of the target language. All the stakeholders should feel responsible for providing English language teachers with the necessary professional development initiatives during pre-service and/or in-service education.

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Appendix 1

Questionnaire #1

Week 1 | After writing 1st essay/ students' self-reported essay writing problems

1. Have you had chance to practice writing essays in English before?

2. What kind of texts have you written in English so far?

3. What is most difficult in the process of writing for you: limited vocabulary, lack of grammar, organizational problems, writing topics, spelling, punctuation?

Questionnaire #2

Week 2 | Pre-writing/Before the readers are given to read

4. Do you read in English?

5. What kind of sources do you read from?

6. How much do you read?

7. Do you think reading can help you write a well-organised essay?

Post-writing

8. Do you think reading helped you write a well-organised essay?

9. Do you think that you have received sufficient and helpful feedback from your teacher about your 1st draft?

10. How much do you think this feedback helped you to write a well-organised essay?

Questionnaire #3

Week 3 | A brainstorming chart and some sentence starters are provided to scaffold.

11. Do you think brainstorming and sentence starters helped you write a well-organised essay? If yes, how did it help?

Ethical Declaration and Committee Approval

This study was conducted in accordance with the principles of scientific research and publication ethics.

EXPLORING THE RELATIONSHIP BETWEEN DEMOGRAPHIC AND EDUCATIONAL FACTORS AND ENGLISH-SPEAKING ANXIETY

Zeynep Büşra VARIŞLI[1]   **Tuğba SÖNMEZ AKALIN**[2]

Language is a system of regular symbols and rules that people use to express their thoughts, feelings, and desires and to communicate with others. Language holds a significant place in cognitive sciences, and Noam Chomsky's (2002) theories suggest that language is an innate ability. In contrast, Vygotsky and Cole, 1978 argue that language is learned through social interactions. Language also plays a critical role in transmitting cultural values and norms; the works of Sapir and Whorf (1956) emphasize the impact of language on thought and perception.

Neurolinguistic research explores the brain's underlying mechanisms for language, whereas studies on language acquisition and learning suggest that language learning is an innate process. Effective language acquisition, according to Krashen (1981), relies on ample language exposure and a low-stress environment.

A foreign language is defined as any language learned other than one's native tongue. Acquiring a foreign language enables individuals to communicate effectively and incorporate benefits from various domains into their personal lives. Foreign language education is crucial for enhancing a person's academic, professional, and social growth, helping them progress beyond their current level (Richards, 2001). Additionally, since language learning is a cognitive activity, it can improve learners' thinking abilities. Language serves as a key tool for communication and self-expression; however, while individuals may communicate easily in their native language, they often face anxiety when trying

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to express their ideas in a foreign language. Horwitz and Young (1991) suggested that foreign language speaking anxiety can impede the learning process and may stem from the unique difficulties involved in acquiring a new language.

Research about foreign language speaking anxiety has been conducted for more than fifty years. In studies abroad, it is (Cheng, 2004) reported that one-fifth of students experience foreign language speaking anxiety. Hinch (2024) highlighted that students might not feel comfortable speaking a language they do not feel proficient in. According to Liu and Zhang (2013), test anxiety has a detrimental effect on academic performance. Chen (2022) found that reducing students' speaking anxiety can lead to better performance in language tests. Pei (2021) and Zhao (2009) emphasized that teachers and students must make joint efforts to better manage classroom anxiety and that instructors should support students' concerns about foreign language learning to facilitate effective learning. Apple (2011) identified a link between personality traits, a supportive classroom environment, and increased confidence in speaking a foreign language. Stalnaker (2023) emphasized that students' anxiety during foreign language speaking is influenced by socio-cultural, contextual, and individual factors. Barber (2023) found in his research that higher anxiety levels are often associated with a fixed mindset, whereas lower anxiety tends to correspond with a growth-oriented mindset.

In studies conducted in Türkiye, Zambak and Çetinkaya (2023) noted that foreign language speaking anxiety stems from individual reasons. Demir (2022) found that oral exam anxiety increases cognitive load, while Kasap (2021) emphasized that a stress-free environment decreases anxiety in foreign languages. In a similar vein, Balemir (2009) pointed out that the primary factors contributing to increased foreign language speaking anxiety include teaching and assessment methods, personal issues, and fear of negative evaluation. Another study discovered that students who exhibit strong motivation for learning a foreign language also demonstrate higher cognitive flexibility, which correlates with lower levels of foreign language anxiety (Çetin & Bölükbasi Macit, 2022). Furthermore, Gürman-Kahraman (2013) emphasized that incorporating socio-affective strategy training alongside emotional intelligence can greatly reduce anxiety levels in university students taking English-speaking courses as a foreign language.

Although the number of studies on foreign language speaking anxiety in the literature is quite a lot, the research conducted in Turkey has been more focused on gender and class-based examinations of foreign language anxiety (Aydin et al., 2017; Mestan, 2017; Tercan & Dikilitaş, 2015). This study will explore the relationship between students' speaking anxiety and factors such as age, gender,

the type of high school they graduated from, the year they started learning English, whether teachers other than English teachers taught their classes before university, the number of weekly class hours in high school, the number of hours they have taken speaking lessons, how long they have been learning English, how many hours they dedicate to English each day, whether they use free programs for speaking, the impact of grammar-based English lessons on speaking, whether they attended English courses before university education, whether they take online speaking lessons, and whether there is anyone in their family who speaks English. Based on these variables, the following research questions have been identified:

1. To what extent do students have English-speaking anxiety?
2. Does students' English-speaking anxiety vary according to factors such as:
   a. Gender
   b. Age
   c. The category of high school from which they graduated
   d. Previous English experience
   e. General English practice
   f. Family?

Method

Research Design

This study utilized a quantitative cross-sectional survey design to assess the levels of English-speaking anxiety among students of English language and literature, who learn English as a foreign language at a public university, and to examine the factors affecting these levels. Descriptive research was used by examining the relationship between students' English-speaking anxiety and other factors they reported through accompanying demographic information. Field (2016) defines this type of study, where many variables are measured simultaneously, as a type of research that observes naturally occurring events without the need for direct intervention. Additionally, obtaining results based on numerical data allows researchers to robustly support their scientific findings and base their conclusions with confidence (Guetterman et al., 2015).

Participants

The research was conducted at Karamanoğlu Mehmetbey University during the spring semester of the 2023-2024 academic year. The sample of this study consists of students from the Department of English Language and Literature. All students

studying English Language and Literature in Karaman were settled as the participants of the research. Initially, the target number of participants was 237 students from the preparatory, first, second, third, and fourth-year students in the department; however, considering voluntary participation, the total number of participants from all classes is 161 students.

Data Collection Tools and Processes

The data for this study were collected using the "English Speaking Anxiety Scale" developed by (Orakcı, 2018) to determine students' levels of anxiety regarding English speaking skills. The scale consists of 16 items, and these items measure anxiety levels based on the participants' ratings. After obtaining the necessary approval from the Scientific Research and Publication Ethics Committee of Karamanoğlu Mehmetbey University, the survey was distributed to participants, who were asked to fill in demographic information and complete the English-Speaking Anxiety Scale. Since the survey was in Turkish, the items were better understood, and reliable responses were ensured. The overall Cronbach's alpha value for the 16 items was calculated as .867, indicating that the scale has high internal consistency.

Data Analysis

Descriptive statistics were utilized to determine the frequencies of the data. Cronbach's alpha value was calculated for the items to assess the internal reliability of the scale. The scores for participants' responses to the positive items, such as items 1, 3, and 9, were reversed when transferred to *SPSS*. The responses to the items were scored between 1 and 5, with 1 representing low anxiety and 5 representing high anxiety. In the reversed items, this scoring system was applied in the opposite manner. Each participant received an average score between 1 and 5 at the end of the survey. The total score was evaluated as a minimum of 16 and a maximum of 80. The average score is 48, with scores close to this indicating a normal level of anxiety, while scores below 48 suggest low anxiety and scores above it indicate high anxiety. The survey's mean score was calculated using *SPSS* 27.

SPSS 27 was employed for the analysis of demographic data. The connection between students' English-speaking anxiety and various factors or variables such as gender, whether other teachers taught their English lessons, whether they spoke English before university, whether there were other English speakers in their families, whether they practiced speaking using free apps, the impact of grammar-based lessons on speaking, whether they attended private English courses before

university, and whether they participated in online speaking courses before university was analysed using the T-Test. Factors such as students' age, the category of high school from which they graduated, the age they started learning English, the number of weekly class hours in high school, the number of speaking lesson hours in high school, the duration of their English learning experience, the average number of hours they spend on English daily, and their parents' education levels were analysed using *ANOVA* statistics.

Findings

Students' English-Speaking Anxiety Levels

Table 1

Average Scores of Students' Speaking Anxiety

	N	Minimum	Maximum	Mean	Std. Deviation
Total	161	16.00	76.00	46.81	14.72
Valid N (listwise)	161				

Table 1 was created using the *SPSS* program to answer the first research question, which aimed to reveal the level of students' English-speaking anxiety. The descriptive statistics of the English-Speaking Anxiety Scale, based on the replies of 161 participants, calculated the arithmetic mean of the data as 46.8137. These results, which are quite close to the average score of 48 on the English-Speaking Anxiety Scale, indicate that the students experience a moderate level of English-speaking anxiety.

Figure 1

Students' Speaking Anxiety Score Chart
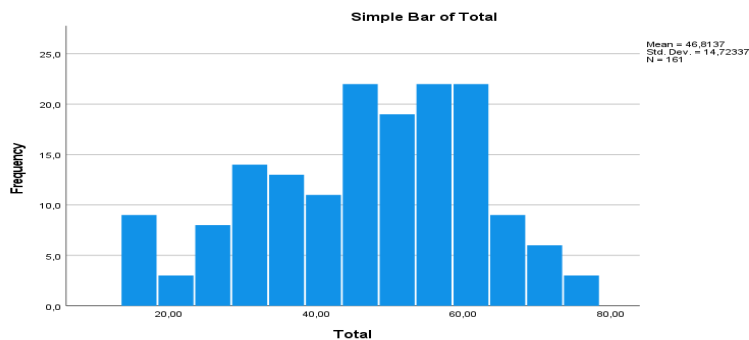
Figure 1 demonstrates that the mean score on the scale is 46.8137, indicating that participants generally have a moderate level of anxiety. The fact that the scores range from 16 to 76 suggests that while some participants experience very low anxiety, others experience very high anxiety. The standard deviation of 14.72337 shows that anxiety levels vary significantly among participants. These findings reveal that English-speaking anxiety differs greatly between individuals and, on average, is at a moderate level.

Gender Factor in English-Speaking Anxiety

Table 2

Gender Factor in English-Speaking Anxiety

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total	Female	120	50.71	12.88	1.18
	Male	41	35.41	13.96	2.18

Table 2 presents group statistics evaluating the gender effect on English-speaking anxiety. The number of female participants is 120, with an average score of 50.7083, a standard deviation of 12.88175, and a standard error of 1.17594. The number of male participants is 41, with an average score of 35.4146, a standard deviation of 13.95524, and a standard error of 2.17944. These statistics suggest that, on average, women were determined to have higher levels of English-speaking anxiety compared to men.

Table 3

Variation in English Speaking Anxiety by Gender

Total		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.143	
	Sig.	.706	
t- *test* for Equality of Means	t	6.424	6.176
	df	159	64.833
	Sig. (2-tailed)	<.001	<.001

		15.29	15.29
Mean Difference		15.29	15.29
Std. Error Difference		2.38	2.48
95% Confidence Interval of the Difference	Lower	10.59	10.35
	Upper	20.00	20.24

Based on these data, the average anxiety levels of the female sample are higher than the male sample. Considering the data, the p-value is less than 0.001, demonstrating that the difference between the groups is statistically significant. As a result, female students' English-speaking anxiety levels are statistically significantly higher than those of male students. The 95% confidence interval for this difference is between 10.59201 and 19.99539, assuming equal variances, and between 10.34765 and 20.23975 when equal variances are not assumed. Both Levene's test and the *t-test* results support this finding.

Age Factor in English-Speaking Anxiety

Table 4

Age Factor in English-Speaking Anxiety

		Subset for alpha = 0.05
Age	N	1
28.00	3	35.333
26.00	4	36.500
22.00	21	40.762
20.00	41	46.659
21.00	25	46.880
19.00	26	47.077
18.00	10	49.900
23.00	24	51.625
24.00	7	54.571
Sig.		.128

The findings indicate that English speaking anxiety changes with age, with anxiety levels increasing particularly in the early 20s. However, there is also evidence suggesting that the differences in anxiety levels between age groups are not statistically significant ($p = 0.128$). This suggests that age does not have a clear impact on English-speaking anxiety. The results imply that individual differences and other factors may have a stronger influence on anxiety levels than age alone.

High School Factor in English Speaking Anxiety

Table 5

High School Factor in English Speaking Anxiety

(I) High School	(J) High School	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Anatolian High School	Imam Hatip High School	6.718	4.84	.636	-6.636	20.073
	General High School	13.997	7.1	.289	-5.680	33.672
	Vocational High School	19.871*	5.11	.001	5.757	33.986
	Open High School	-.647	5.45	1.000	-15.682	14.390
Imam Hatip High School	Anatolian High School	-6.718	4.84	.636	-20.073	6.636
	General High School	7.278	8.44	.910	-16.022	30.578
	Vocational High School	13.153	6.83	.308	-5.687	31.993
	Open High School	-7.365	7.08	.836	-26.905	12.175
General High School	Anatolian High School	-13.996	7.13	.289	-33.672	5.680
	Imam Hatip High School	-7.278	8.44	.910	-30.578	16.022

	Vocational High School	5.875	8.60	.960	-17.869	29.619
	Open High School	-14.643	8.81	.460	-38.945	9.660
Vocational High School	Anatolian High School	-19.871*	5.11	.001	-33.986	-5.757
	Imam Hatip High School	-13.153	6.82	.308	-31.993	5.688
	General High School	-5.875	8.60	.960	-29.618	17.869
	Open High School	-20.518*	7.27	.042	-40.585	-.451
Open High School	Anatolian High School	.647	5.44	1.000	-14.389	15.682
	Imam Hatip High School	7.365	7.08	.836	-12.174	26.905
	General High School	14.643	8.81	.460	-9.660	38.945
	Vocational High School	20.518*	7.27	.042	.451	40.585

According to the results of the Tukey HSD analysis, the English-speaking anxiety levels of Anatolian High School students are significantly lower compared to those of Vocational High School students. However, no significant difference was found between Anatolian High School students and those from Imam Hatip High School (p=0.636), General High School (p=0.289), and Open High School (p=1000). Furthermore, the anxiety levels of Open High School students were also significantly lower compared to Vocational High School students. Among the other high school types (Anatolian High School, Imam Hatip High School, General High School), there were no significant differences in anxiety levels. In conclusion, it may be inferred that Vocational High School students have higher English-speaking anxiety compared to students from other high school types.

English Speaking Anxiety and the Factor of English Experience

To examine the factors related to students' past English experiences in relation to their English speaking anxiety, the following aspects were explored: the departments they studied in high school, the age they started learning English, whether teachers other than English teachers taught their English lessons in high

school, the number of weekly English class hours in high school, the number of weekly speaking-focused English lessons in high school, the duration of their English learning experience, whether they had any English speaking lessons or practice before university education, whether grammar-focused English lessons before university had a positive or negative impact on their speaking skills, whether they attended English courses or private lessons before university, and whether they participated in online speaking activities before university. Subsequently, the following analysis tables were created and interpreted.

Table 6

Department Factor in English Speaking Anxiety

(I) Department	(J) Department	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Language	Equal weight	4.935	3.46	.329	-3.245	13.115
	Science	3.427	5.07	.778	-8.565	15.418
Equal Weight	Language	-4.935	3.46	.329	-13.114	3.245
	Science	-1.508	5.86	.964	-15.372	12.357
Science	Language	-3.427	5.07	.778	-15.418	8.565
	Equal Weight	1.508	5.86	.964	-12.356	15.372

According to the Tukey HSD analysis, no statistically significant difference in the English-speaking anxiety levels among students in the Language Department, Equally Weighted Department, and Science Department was found. No significant differences in anxiety levels were observed between the Language Department and the Equally Weighted Department (p=0.329) or the Science Department (p=0.778). Similarly, no significant difference was found between the Equally Weighted Department and the Science Department in terms of anxiety levels (p=0.964). The findings showed that there is no substantial difference in English-speaking anxiety based on students' high school departments.

Table 7

Relationship Between English Speaking Anxiety and High School Department

Starting Age	N	Subset for alpha = 0.05	
		1	2
4.00	3	16.00	
17.00	2	33.50	33.50
2.00	3	35.00	35.00
14.00	4	37.25	37.25
6.00	4	38.75	38.75
15.00	5	41.80	41.80
8.00	7	42.57	42.58
12.00	16	46.50	46.50
10.00	73	46.75	46.75
9.00	7	47.29	47.29
13.00	2		51.00
7.00	11		53.64
11.00	17		53.82
5.00	2		58.00
16.00	5		59.00
Sig.		.081	.331

The Tukey HSD analysis shows that there are significant differences in anxiety levels among individuals who started learning English at different ages. The students who started learning English at the age of 4 have significantly lower anxiety levels than all other groups, with an average score of 16.0000. The groups that started learning at ages 17, 2, 14, and 6 show similar anxiety levels, ranging from 33.5000 to 38.7500. Individuals who began learning English at ages 15, 8, 12, 10, and 9 display moderate anxiety levels, with scores between 41.8000 and 47.2857. The highest anxiety levels are found among those who started learning at ages 13, 7, 11, 5, and 16, with scores ranging from 51.0000 to 59.0000. These results suggest that individuals who start learning English at an earlier age experience significantly lower anxiety levels compared to those who start learning later.

Table 8

Relationship Between English Speaking Anxiety and Teachers Who Were Not Specialized in English Teaching in Previous English Lessons

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total	Equal variances assumed	.211	.646	-.095	158	.924	-.23	2.41	-4.99	4.53
	Equal variances not assumed			-.096	130.75	.924	-.23	2.39	-4.96	4.50

According to the test results, the impact of teachers who were not specialized in English was examined. In the analysis assuming equal variances (F = 0.211, p = 0.646), no substantial difference was found (t(158) = -0.095, p = 0.924). The mean difference was -0.22934, with a confidence interval spanning from -4.99060 to 4.53191. Similarly, the analysis under the assumption of unequal variances showed comparable results (t(130.757) = -0.096, p = 0.924), with a mean difference of -0.22934 and a confidence interval ranging from -4.95660 to 4.49791. These findings indicate that teachers who were not specialized in English had no significant effect on students' English-speaking anxiety.

Table 9

Relationship Between English Speaking Anxiety and Weekly English Lesson Hours in High School

(I) Weekly Hours	(J) Weekly Hours	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
0-4 hours	5-8 hours	-3.952	3.375	.472	-11.94	4.03
	More than 9 hours	-2.559	2.787	.630	-9.15	4.03

5-8 hours	0-4 hours	3.952	3.375	.472	-4.03	11.94
	More than 9 hours	1.393	2.966	.886	-5.63	8.41
More than 9 hours	0-4 hours	2.560	2.787	.630	-4.03	9.15
	5-8 hours	-1.393	2.967	.886	-8.41	5.63

According to the results of the Tukey HSD test, no statistically significant differences were found in the total scores of English-speaking anxiety among different groups of weekly study hours in high school. Comparisons between the three groups (0-4 hours, 5-8 hours, and more than 9 hours) revealed non-significant mean differences. The p-values ranged from 0.472 to 0.886. The mean difference between the 0-4 hours group and the 5-8 hours group was -3.95238 (p = 0.472), between the 0-4 hours group and the group with more than 9 hours was -2.55952 (p = 0.630), and between the 5-8 hours group and the group with more than 9 hours was 1.39286 (p = 0.886). Confidence intervals for all comparisons included zero, further reinforcing that there were no significant differences. Therefore, it was concluded that weekly study hours in high school do not have a significant impact on total anxiety scores.

Table 10

Relationship Between English Speaking Anxiety and Weekly English Lesson Hours in High School

(I) Weekly Hours	(J) Weekly Hours	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
0-4 hours	5-8 hours	-3.952	3.375	0.472	-11.938	4.033
	More than 9 hours	-2.560	2.787	0.630	-9.154	4.035
5-8 hours	0-4 hours	3.952	3.375	0.472	-4.033	11.938
	More than 9 hours	1.393	2.967	0.886	-5.627	8.413
More than 9 hours	0-4 hours	2.560	2.787	0.630	-4.035	9.154
	5-8 hours	-1.393	2.967	0.886	-8.413	5.627

The Tukey HSD analysis examined the relationship between the number of hours dedicated to speaking-focused English lessons in high school and English-speaking anxiety. The results showed no statistically substantial differences in anxiety levels among the groups with different weekly speaking lesson hours (0, 1, 2, and 4 hours). There was no significant difference in anxiety levels between participants who did not take any speaking lessons and those who took 1, 2, or 4 hours of speaking lessons. Similarly, no significant differences were observed among students who took 1, 2, and 4 hours of speaking lessons. Therefore, it can be concluded that the number of weekly speaking-focused English lessons does not significantly influence students' English-speaking anxiety.

Table 11

Relationship Between English Speaking Anxiety and Years of Learning English

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total	Equal variances assumed	3,044	0,083	0,999	159	0,319	3,375	3,378	-3,297	10,047
	Equal variances not assumed			1,163	32,056	0,253	3,375	2,901	-2,533	9,283

The results of the independent sample *t-test* reveal no significant difference in English-speaking anxiety levels between participants with 0-5 years and 6-10 years of English experience. Levene's Test confirmed that the equity of variances was met. Under the equal variance assumption, the *t-test* results (t(159) = 0.999, p = 0.319) showed no significant difference in anxiety levels between the two groups. Similarly, under the assumption of unequal variances, the analysis (t (32.056) = 1.163, p = 0.253) also revealed no significant difference. These results suggest that the duration of English learning experience does not significantly impact English-speaking anxiety.

Table 12

Relationship Between English Speaking Anxiety and Pre-University Speaking Practice

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total	Equal variances assumed	1,834	0,178	-3,571	159	0,000	-8,13	2,28	-12,63	-3,63
	Equal variances not assumed			-3,502	129,966	0,001	-8,13	2,32	-12,73	-3,54

Table 12 shows that practicing speaking English before university has a negative impact on foreign language speaking anxiety. The results of Levene's Test for Equality of Variances (F = 1.834, p = 0.178) allow us to understand that the variances between the groups are equal. The results of the *t-test* conducted under the assumption of equal variances (t = -3.571, df = 159, p < 0.001) indicate that those who practiced English before university had significantly lower scores in speaking anxiety. The mean difference is -8.13222, and the confidence interval (-12.62960, -3.63484) does not include zero, confirming that the difference is statistically significant. Similar results were obtained when the assumption of equal variances was not made (t = -3.502, df = 129.966, p = 0.001), and the confidence interval (-12.72613, -3.53830) also does not include zero. Based on these findings, it can be inferred that practicing English before university significantly reduces anxiety about foreign language speaking, meaning it has a negative effect.

Table 13

The Relationship between Foreign Language Speaking Anxiety and the Grammar-Based Approach in English Lessons before University

Total		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.038	
	Sig.	.846	
t- test for Equality of Means	t	.956	.970
	df	158	63.257
	Sig. (2-tailed)	.340	.336
	Mean Difference	-2.622	-2.622
	Std. Error Difference	2.742	2.703
95% Confidence Interval of the Difference	Lower	-8.04	-8.02
	Upper	2.79	2.78

Table 13 examined the difference in English-speaking anxiety levels between students who had grammar-based English lessons before university and those who did not. The findings of Levene's Test for Equality of Variances ($F = 0.038$, $p = 0.846$) show that the variances are equal. The *t-test* results conducted under the assumption of equal variances ($t(158) = -0.956$, $p = 0.340$) indicate that there is no significant difference in anxiety levels between the two groups. The mean difference is -2.62209, with a 95% confidence interval ranging from -8.03759 to 2.79341. Similar results were found in the analysis assuming unequal variances ($t(63.257) = -0.970$, $p = 0.336$). In conclusion, it can be said that having grammar-based English lessons before university does not have a significant effect on students' English-speaking anxiety.

Table 14

The Relationship between English Speaking Anxiety and Private Courses and Lessons Taken before University

Total		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	6.387	
	Sig.	.012	

		Equal variances assumed	Equal variances not assumed
t- test for Equality of Means	t	1.644	1.628
	df	159	145.035
	Sig. (2-tailed)	.102	.106
	Mean Difference	3.780	3.780
	Std. Error Difference	2.310	2.333
95% Confidence Interval of the Difference	Lower	-.76	-.81
	Upper	8.36	8.41

According to Table 14, the effect of private courses and lessons taken before university on English-speaking anxiety was examined. Levene's Test for Equality of Variances (F = 6.387, p = 0.012) indicates that the assumption of equal variances is violated. Nevertheless, both the *t-test* assuming equal variances (t(159) = 1.644, p = 0.102) and the *t-test* assuming unequal variances (t(145.035) = 1.628, p = 0.106) demonstrate that private courses and lessons taken prior to university do not have a statistically significant impact on students' English-speaking anxiety.

Table 15

The Relationship between English Speaking Anxiety and Online Speaking Courses Taken before University

Total		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.000	
	Sig.	.998	
t- test for Equality of Means	t	-1.948	-2.004
	df	159	40.368
	Sig. (2-tailed)	.053	.052
	Mean Difference	-5.914	-5.914
	Std. Error Difference	3.035	2.951
95% Confidence Interval of the Difference	Lower	-11.91	-11.88
	Upper	0.08	0.05

According to the independent samples *t-test* results, the effect of online speaking courses taken before university on English speaking anxiety was examined. The variances were found to be equal. The *t-test* results under the assumption of equal variances (t (159) = -1.948, p = 0.053) indicate that there is no statistically significant difference in anxiety levels between the two groups. The mean difference is -5.91353, with a 95% confidence interval ranging from -11.90756 to 0.08050. Similar results were found in the analysis assuming unequal variances (t(40.368) = -2.004, p = 0.052). These analyses suggest that while online speaking courses do not have a significant impact on English-speaking anxiety, they are close to the threshold of significance. This indicates that online courses might have a potential effect in reducing anxiety.

General English Practice Factor in English Speaking Anxiety

In this section, factors related to general English practice that affect students' English-speaking anxiety are examined, including how much time students spend on English daily and whether they practice speaking using free applications.

Table 16

English Speaking Anxiety and the Average Time Spent on English Daily

(I) Daily Average	(J) Daily Average	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
0-15 mins	15-30 mins	-9.326	6.357	.309	-24.37	5.71
	More than 30 mins	-5.602	6.150	.634	-20.15	8.95
15-30 mins	0-15 mins	9.326	6.357	.309	-5.71	24.37
	More than 30 mins	3.724	2.562	.316	-2.34	9.79
More than 30 mins	0-15 mins	5.601	6.150	.634	-8.95	20.15
	15-30 mins	-3.724	2.562	.316	-9.79	2.34

According to the analysis in Table 16, the relationship between students' English-speaking anxiety and the average time spent in English daily was examined. The findings indicate that there is no statistically significant difference in anxiety

levels among the groups that spend 0-15 minutes, 15-30 minutes, and more than 30 minutes on English daily. No notable difference was identified in anxiety levels between students who spend 0-15 minutes and those who spend 15-30 minutes or more than 30 minutes. Similarly, no significant difference in anxiety levels between students who spend 15-30 minutes and those who spend more than 30 minutes on English daily was found. The findings indicate that the average time spent in English daily does not have a noticeable effect on students' English-speaking anxiety.

Table 17

The Factor of Practicing Speaking via Free Applications in English Speaking Anxiety

Total		Equal variances assumed	Equal variances not assumed
F		.628	
Sig.		.429	
t		-2.154	-2.154
df		159	158.742
Sig. (2-tailed)		.033	.033
Mean Difference		-4.942	-4.942
Std. Error Difference		2.295	2.294
95% Confidence Interval of the Difference	Lower	-9.47	-9.47
	Upper	-.41	-.41

Table 17 examined the effect of practicing speaking through free applications on English speaking anxiety. The results of the *t-test* under the assumption of equal variances (t (159)=-2.154, p=0.033) indicate a significant disparity in anxiety levels between those who practice speaking through free applications and those who do not. The mean difference is -4.94198, with a 95% confidence interval ranging from -9.47426 to -0.40969. A similar result was found in the analysis assuming unequal variances (t (158.742)=-2.154, p=0.033), with a mean difference of -4.94198 and a 95% confidence interval ranging from -9.47282 to -0.41113. According to the results, practicing speaking through free applications has a significant effect on reducing students' English-speaking anxiety.

Family Factor in English Speaking Anxiety

As part of the family factor in English speaking anxiety, this study asked whether there are individuals in the family who know English. Additionally, the education level of the students' parents was explored.

Table 18

English Speaking Anxiety and the Factor of Having English-Speaking Family Member(s)

Total		Equal variances assumed	Equal variances not assumed
F		.009	
Sig.		.926	
t		-2.817	-2.830
df		159	104.682
Sig. (2-tailed)		.005	.006
Mean Difference		-6.810	-6.810
Std. Error Difference		2.417	2.406
95% Confidence Interval of the Difference	Lower	-11.58	-11.58
	Upper	-2.04	-2.04

Table 18 evaluates the relationship between having English-speaking individuals in the family and English-speaking anxiety. According to the results of Levene's Test (F = 0.009, p = 0.926), it can be assumed that the variances are equal. The *t-test* results, based on the assumption of equal variances (t=-2.817, df=159, p=0.005), show that speaking with English-speaking family members reveals a significant effect on reducing speaking anxiety. The mean difference is -6.81027, and the confidence interval (-11.58470, -2.03585) does not include zero, confirming that the difference is statistically significant. Similar results were obtained when the assumption of equal variances was relaxed (t=-2.830, df=104.682, p=0.006), with the confidence interval (-11.58216, -2.03838) also not including zero. In both cases, the p-values are below 0.05, indicating that speaking with English-speaking family members significantly reduces English-speaking anxiety. In conclusion, it is evident that speaking with English-speaking family members significantly reduces English speaking anxiety.

Table 19

English Speaking Anxiety and Mother's Graduation Status

(I) Education Mother	(J) Education Mother	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Primary	Secondary	4.912	3.096	.389	-3.13	12.95
	High School	5.492	3.096	.290	-2.55	13.53
	University	5.957	3.657	.365	-3.54	15.45
Secondary	Primary	-4.912	3.096	.389	-12.95	3.13
	High School	0.581	3.710	.999	-9.05	10.22
	University	1.045	4.190	.995	-9.83	11.92
High School	Primary	-5.492	3.096	.290	-13.53	2.55
	Secondary	-0.581	3.710	.999	-10.22	9.05
	University	0.465	4.190	1.000	-10.42	11.34
University	Primary	-5.957	3.657	.365	-15.45	3.54
	Secondary	-1.045	4.190	.995	-11.92	9.83
	High School	-0.465	4.190	1.000	-11.34	10.42

The table presents the results of the Tukey HSD (Honestly Significant Difference) test, which was conducted to evaluate the effect of the mother's education level on English-speaking anxiety. The education levels are classified as Primary School, Middle School, High School and University. The analysis includes the mean differences between these education levels, standard errors, significance values (Sig.), and 95% confidence intervals. For all comparisons, the p-values (Sig.) are above 0.05, indicating no significant difference. For example, the mean difference between mothers with primary school education and those with middle school education is 4.91180, with a p-value of 0.389. The 95% confidence interval for this comparison (-3.1277, 12.9513) includes zero, showing that there is no significant difference. Similarly, all other comparisons are statistically insignificant. In conclusion, the mother's education level does not have an important effect on English-speaking anxiety. No meaningful difference was

found in English-speaking anxiety between the children of mothers with different education levels.

Table 20

English Speaking Anxiety and Father's Graduation Status

					95% Confidence Interval	
(I) Education Mother	(J) Education Mother	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Primary	Secondary	.705	3.124	.996	-7.41	8.82
	High School	-1.432	3.461	.976	-10.42	7.56
	University	1.510	3.124	.963	-6.60	9.62
Secondary	Primary	-.705	3.124	.996	-8.82	7.41
	High School	-2.137	3.598	.934	-11.48	7.21
	University	.805	3.275	.995	-7.70	9.31
High School	Primary	1.432	3.461	.976	-7.56	10.42
	Secondary	2.137	3.598	.934	-7.21	11.48
	University	2.942	3.598	.846	-6.40	12.29
University	Primary	-1.510	3.124	.963	-9.62	6.60
	Secondary	-.805	3.275	.995	-9.31	7.70
	High School	-2.942	3.598	.846	-12.29	6.40

The analysis in Table 20 includes the mean differences between education levels, standard errors, significance values (Sig.), and 95% confidence intervals. For all comparisons, the p-values (Sig.) are above 0.05, indicating a lack of statistically significant difference. For example, the mean difference between fathers with primary school education and those with middle school education is 0.70537, showing no significant difference. Similarly, none of the other comparisons are statistically significant. In conclusion, the father's education level does not have a significant effect on English-speaking anxiety.

Discussion

As the first research result, the average score on the English-speaking anxiety scale is 46.8137, indicating that participants generally have a moderate level of anxiety. Although Öztürk and Gürbüz (2014) reported that their students experienced low levels of speaking anxiety, similar results have been supported in the literature by studies like Çağatay (2015) and Heng et al. (2012). The fact that students reported moderate anxiety suggests that they are not completely at ease, but they are also not overly challenged.

In the study, the average anxiety levels of the female sample were higher than those of the male sample. While Aksu's (2018) thesis in the relevant literature shows that participants experienced moderate levels of anxiety and that this anxiety did not vary depending on grade level or gender, Amiri and Ghonsooly (2015) discovered that female university students experienced higher levels of speaking anxiety in comparison to their male peers. In this research, the age factor was found to have no significant effect on English-speaking anxiety. However, some studies have identified that younger students tend to be more anxious (Aydin, 2013; Chan & Wu, 2004).

Regarding the correlation between English-speaking anxiety and the type of high school students graduated from, the results indicate that vocational high school students experience higher English-speaking anxiety compared to other types of high schools. According to the Ministry of Education's secondary education regulations, the number of English classes in vocational high schools is lower than that in Anatolian high schools. Especially when compared to students from Anatolian high schools and open high schools, vocational high school students exhibited significantly higher anxiety levels. As suggested in Luo's (2014) study, exposure to a foreign language may help reduce speaking anxiety among language learners.

Conclusion

Various analyses have thoroughly evaluated the factors affecting students' English-speaking anxiety. This study found that individuals who started learning English at an early age have lower anxiety levels, with those starting at the age of four showing the lowest anxiety levels. Those who started at later ages, particularly at 13 and 16, displayed the highest levels of anxiety. These findings suggest that early language learning is a significant factor in reducing speaking anxiety. No significant differences were found in anxiety levels among groups with varying amounts of English practice. Similarly, the independent samples *t-test* results revealed no significant effect of private courses or online speaking

courses taken before university on anxiety levels. However, it was found that practicing speaking via free applications had a significant effect in reducing students' anxiety levels. If increased practice is expected to improve success, Balemir's (2009) study revealed that students' language proficiency levels are not a significant factor in their foreign language speaking anxiety. Horwitz et al. (1986) found a negative relationship between foreign language anxiety and success. Although the literature indicates that students in language-intensive classes experience less anxiety than those in other classes (Korkmaz, 2019), no notable variation in anxiety levels was observed among students from language, equal-weight, and science sections. These findings suggest that the factors influencing English-speaking anxiety are limited, but practicing speaking via free applications can be effective in reducing anxiety.

The research also found that the mother's education level does not have a notable influence on English-speaking anxiety, with no noteworthy difference between the children of mothers with different education levels. Similarly, the father's education level also does not significantly affect English-speaking anxiety, as no meaningful difference was identified between the children of fathers with different education levels. However, it was found that having English-speaking individuals in the family significantly reduces English-speaking anxiety. Suleimenova (2013) also found in her study that the family factor may be associated with lower levels of anxiety.

When evaluating English-speaking anxiety in relation to general English practice, it was determined that the average time spent on daily English practice does not have a significant effect on students' English-speaking anxiety. However, practicing speaking through free applications has been found to significantly reduce students' anxiety levels. These findings suggest that free applications can be an effective tool for speaking practice. The literature also indicates that students who practice and are exposed to a foreign language tend to feel less anxious (Gürsoy & Korkmaz, 2018; Liu & Jackson, 2008).

These findings suggest that educational strategies and support mechanisms should focus on high schools with fewer weekly English lessons. A stress-free classroom environment positively affects the heavy foreign language anxiety that is often experienced (Korkmaz, 2019). Future research should validate these findings by using larger and more diverse sample groups. Longitudinal studies should also be conducted to examine how anxiety levels change over time, and the effects of other factors such as learning experience, exposure duration, and motivation should be explored. Intervention studies and cross-cultural comparisons can also contribute to developing effective strategies to reduce anxiety.

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Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

Proportion of Authors' Contribution

Author 1: Conceptualization, Literature review, Methodology, Data Collection, Data Analysis, Development of Data Collection Tool, Discussion, Results.

Author 2: Conceptualization, Literature review, Methodology, Data Collection, Development of Data Collection Tool, Data Analysis, Visualization.

The rapid transformation in education, particularly within the realms of English Language Teaching (ELT), English Literature, and Applied Linguistics, is being shaped by technological advancements and evolving pedagogical practices. In the book *English Studies: A Multifaceted Lens,* a collection of studies is presented that delves into various dimensions of English education, literature, and linguistics, and the impact of emerging technologies on language learning, teaching, and literary analysis. Each chapter offers unique insights into how educators, learners, and educational systems adapt to these changes, reflecting on challenges, opportunities, and future directions. Through the integration of technology, innovative teaching practices, and interdisciplinary approaches, this book showcases the dynamic nature of English studies today, covering not only language education but also the cultural, literary, and theoretical frameworks that shape our understanding of the English language.