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Research Paper

## Enhancement of EFL Students' English and Persian Argumentative Performance: Gender, Topic, and Age in Focus

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### Abstract

Research on L2 argumentative writing has examined several aspects of learners' argumentative behavior and performance. However, there has been a lack of focus on the strategies and techniques that improve students' ability to make persuasive arguments. The present study, adopting a pedagogy-based approach, investigated the argumentative writing patterns of 30 Iranian IELTS candidates before and after receiving instruction in both English and Persian languages. The example questions consisted of past IELTS Writing part 2 essays taken from an authentic examination conducted by Cambridge University Press. These writings were specifically selected by three IELTS teachers at the Institute to fulfill the research objectives. In order to achieve this objective, a total of 180 IELTS Task 2 argumentative essays, written in both Persian and English, were examined by a group of 30 volunteers. Each volunteer assessed 6 essays, all of which were required to be at least 250 words in length. The results showed considerable disparities in the English argumentative writing performance of the EFL learners compared to their Persian argumentative writing performance. Moreover, the candidates primarily used the terms 'data' and 'claim' most frequently in both languages, whereas supplementary parts of argument (such as counterargument claim, counterargument data, rebuttal claim, and rebuttal data) were the least commonly used elements found in the essays. The findings indicate that a strong teaching method in argumentation can impact the utilization of argumentation components in both English and Persian written texts. This text explores the educational consequences of teaching writing and the specific focus on argumentative writing.

**Keywords:** Age Differences, Argumentative writing, IELTS Writing Argumentative Instruction, Gender Differences, Modified Toulmin Model

ارتقای عملکرد استدلالی انگلیسی و فارسی دانشجویان زبان : جنسیت، موضوع و سن در کانون توجه  
تحقیق در مورد نوشتن استدلالی L2 چندین جنبه از رفتار و عملکرد استدلالی فراگیران را بررسی کرده است. با این حال، عدم تمرکز بر راهبردها و تکنیک هایی که توانایی دانش آموزان را برای ارائه استدلال های متقاعد کننده بهبود می بخشد، وجود دارد. پژوهش حاضر با اتخاذ رویکردی مبتنی بر آموزش، به بررسی الگوهای نوشتاری استدلالی 30 داوطلب ایرانی آیلتس قبل و بعد از دریافت آموزش به دو زبان انگلیسی و فارسی پرداخت. نمونه سوالات شامل مقاله های قسمت 2 رایتینگ گذشته آیلتس بود که از یک امتحان معتبر که توسط انتشارات دانشگاه کمبریج انجام شده بود. این نوشته ها به طور خاص توسط سه معلم آیلتس در مؤسسه برای تحقق اهداف تحقیق انتخاب شدند. برای دستیابی به این هدف، در مجموع 180 مقاله استدلالی تسک 2 آیلتس که به دو زبان فارسی و انگلیسی نوشته شده بود، توسط یک گروه 30 نفره از داوطلبان مورد بررسی قرار گرفت. هر داوطلب 6 مقاله را ارزیابی کرد که همه آنها باید حداقل 250 کلمه باشند. نتایج نشان داد که تفاوت قابل توجهی در عملکرد نوشتاری استدلالی انگلیسی زبان آموزان انگلیسی در مقایسه با عملکرد نوشتاری استدلالی فارسی آنها وجود دارد. علاوه بر این، کاندیدها عمدتاً از اصطلاحات «داده» و «ادعا» بیشتر در هر دو زبان استفاده می کردند، در حالی که بخش های تکمیلی استدلال (مانند ادعای استدلال متقابل، داده های استدلال متقابل، ادعای رد و داده های رد) کمترین استفاده را داشتند. مقالات یافته ها نشان می دهد که یک روش آموزشی قوی در استدلال می تواند بر استفاده از مؤلفه های استدلال در متون نوشتاری انگلیسی و فارسی تأثیر بگذارد. این متن پیامدهای آموزشی تدریس نویسندگی و تمرکز خاص بر نوشتن استدلالی را بررسی می کند.

**کلمات کلیدی:** رایتینگ استدلالی، مدل اصلاح شده تولمین، آموزش استدلالی رایتینگ آیلتس، تفاوت های جنسیتی، تفاوت های سنی

## Introduction

The term "Argumentation" has a long history in scientific fields, with references dating back to Aristotle in 1991, Fahnestock and Secor in 1988, Toulmin in 1958, and Wilder in 2005. A shorter version of this term can also be found in the field of cognitive psychology, with references to Britt, Kurby, Dandotkar, and Wolfe in 2008, Britt and Larson in 2003, Larson, Britt, and Kurby in 2009, and Voss, Fincher-Kiefer, Wiley, and Silfes in 1993, as well as Wiley and Voss in 1999. The term 'argument' is employed in various manners within educational and scientific contexts, encompassing a spectrum that ranges from the philosophical framework proposed by Toulmin (1958, 2003) to diverse writing methodologies (Mitchell et al., 2008). Toulmin's (1958) argumentation model and its versions illustrate arguments as claims substantiated by data, which are linked by warrants, such as overarching universal statements that validate the connection between the claim and the facts.

The literature has highlighted that creating complete persuasive writing can be tough and occasionally demanding. It is important to note that EFL learners may encounter difficulties while constructing academic arguments in their English essays. To investigate the reasons for the insufficient production of argument accounts, we can consider several variables, including insufficient preparation, explicit teaching methods, and interference between the first and second language (Abdollahzadeh, Amini Farsani, Beikmohammadi, 2017). The instruction of writing to English as a foreign language (EFL) student has been influenced by the ideas and teaching methods established in English-dominant nations (You, 2004; Zhang, 2016). After implementing these novel methods in EFL settings, adjustments must be made to facilitate students in improving their writing skills and language proficiency. However, it is a difficult challenge to establish successful writing strategies that simultaneously enhance the language skills of EFL learners (writing-to-learn) and their capacity to write (learning-to-write), as these two approaches have different focuses (Manchón, 2011). The writing-to-learn strategy utilizes writing as a means to enhance both grammar and content acquisition. Conversely, the learning-to-write approach aims to cultivate learners' understanding of the writing process and different genres (Hyland, 2011). In addition to these problems, several studies have examined the characteristics of argumentative writing and its intricate structure. For example, students may acknowledge that when making assertions in their writing, they must effectively condense their arguments in order to persuade the readers without presenting corroborating evidence or altering their own or others' positions on a subject. Viewed from a different angle, the capacity to recognize the fundamental argument, along with its assertions, justifications, and supporting evidence, is a crucial aptitude for succeeding academically (Abdollahzadeh, et al. 2017; Graff, 2003; Hillocks, 2011; Kuhn, 2008). Moreover, according to Wiley and Voss (1999), the act of creating written arguments enables individuals to integrate and enhance their understanding of texts. An essential and intricate aspect of argumentative writing is the students' and learners' ability to generate counterarguments in order to comprehend the purpose of the writer's opposing viewpoint and how to construct and substantiate such arguments. Counterarguments are significant for two primary reasons. Firstly, based on O'Keefe's (1999) meta-analysis findings, writings that acknowledged and refuted counterarguments were more persuasive compared to texts that did not. Furthermore, numerous conceptual frameworks for effective cognition incorporate the capacity to contemplate and assess opposing viewpoints (Baron, 1988; Ennis, 1995; Scriven, 1976). The studies mentioned that students were unable to generate counterarguments and rebuttals in their argumentative assignments (Abdollahzadeh et al., 2017). From a different standpoint, empirical studies have demonstrated that the primary factor contributing to this lack of readiness and inadequacy is the contrasting rhetorical systems between students' native

language and the second or foreign language, and the detrimental impact of negative transfer (Connor, 1987; Connor & Kaplan, 1987; Edelsky, 1982; Kaplan, 1966).

However, studies have shown that EFL students may overcome many of the problems stated above with continuous academic education (Connor 2001; Grabe & Kaplan, 1989, 1996; Kaplan, 1987, 2001; Wang & Wen, 2002). The resolution of this problem primarily involves writing instructors who are actively seeking effective teaching methodologies to disseminate suitable materials and required course books that enhance the writing techniques and argumentative performance of EFL students. While teachers recognize the significance of argumentative writing in acquiring academic knowledge, they are often hesitant to introduce it due to the potential for conflict and confrontational dispute (Johnson & Johnson, 2009).

The language utilized by individuals is influenced by social categorization, including factors such as gender, social status, age, ethnicity, and education (Muto-Humphrey, 2005). Gender is one of the sociocultural elements that is influenced by learners during the language acquisition process, specifically in writing (Kamiar, Gorjian, & Pazhakh, 2012). The term "gender" explicitly denotes the societal and contextual norms and expectations imposed on individuals based on their assigned gender (male or female) within cultural and social contexts (Kamiar et al., 2012). Block (2002) also acknowledges gender as a social phenomenon. Therefore, there has been a transition in perspective from regarding gender as an individual notion to regarding it as a social construct (Aslan, 2009). The interaction between second language writing and identity building appears to be a significant aspect in the context of writing and gender.

In order to create a new generation of communication specialists, Iran must actively participate in all forms of intercultural communication affairs, as a result of its expanding international ties in many areas of life. The new formation, acting as a mediator in intercultural communication, must possess the skills to deliver compelling public speeches and write effectively. Additionally, the presenter should be capable of engaging with the audience, capturing their attention, and sustaining their interest throughout the speech. Therefore, due to the important function of dialogue systems in international communication, the mediator must have the ability to provide persuasive public speeches in intercultural professional interactions. Within the realm of science, the concept of "presentation competence" has been identified as a crucial component of intercultural communication competence. The effectiveness of public speaking, which is based on presentation skills, is mostly decided by one's ability to articulate their arguments (Nurhayati, 2018). This principle can also be applied to generating articulate written arguments in order to maximize the effectiveness of communication. However, there is a limited amount of research in this area that examines the effects of teachers' professional development on argumentation, particularly in pre-service and in-service teacher training programs. Similarly, there is limited research on the impact of teaching argumentative writing on students' performance in their first language (L1) due to the challenges posed by language transfer and related concerns in second language (L2) writing, particularly in argumentative writing courses (refer to Abdollahzadeh et al., 2017).

This study aims to investigate the impact of argumentation training on enhancing students' performance, specifically from pre-test to post-test. The IELTS course books have implicitly taught the concept of reasoning, but the researchers intend to shift this implicit instruction to explicit. Yeh (1998) examines the effectiveness of explicit and implicit teaching approaches in student writing development and concludes that explicit training yields superior outcomes compared to implicit instruction. Research conducted by Horowitz (1986) found that the group that got reading and writing training with text-structure patterns performed significantly better than the group that simply received reading instruction. Leitao's (2003) research examined how children between the ages of 8 and 12, as well as first-year college students, are taught to write arguments using a specific sequence of introduction, viewpoint, supporting element,

counterargument, and reply (I, V, S, C, R). The study also demonstrated that through explicit instruction, students were able to identify and incorporate counterarguments, which they previously struggled with and did not fully appreciate, into their written work.

While previous studies have emphasized the importance of L2 argumentative writing, they have not examined the impact of explicitly teaching argumentative writing using the modified Toulmin model developed by Qin and Karabacak (2010) on students' English and Persian argumentative skills. Specifically, the following questions were investigated:

*Is there a significant statistical difference in the argumentative writing performance of male and female L2 learners in both their L1 and L2?*

*Is there a statistically significant variation in the argumentative writing of learners with different age groups, specifically in their L1 and L2 proficiency?*

*What impact does topic familiarity have on the argumentative writing performance of L2 learners in both their first language (L1) and second language (L2)?*

### Review of Literature

In recent years, there has been significant progress in second and foreign language writing. One of the key variables that has had a major impact on the writing process and outcome is the tactics employed by authors. Arndt (1987) is a pioneer in the field of ESL writing strategies. He identified eight categories of strategies, which include planning, global planning, rehearsing, repeating, rereading, questioning, revising, and editing. Arndt also coded the strategies used by students in their writing (as cited in Mu, 2005, p. 6). In educational research settings, critical thinking and argumentation are frequently used interchangeably. Critical thinking is considered to be an objective analysis of arguments, involving skills such as questioning, empathy, and critical detachment. These skills are developed through engaging in argumentative discourse (Walton, 1989). Similarly, argumentative writing gains a higher level of "critical" quality when it demonstrates the ability to build sound arguments, counter-arguments, and effectively utilize relevant facts. Sasaki (2000) identified eight primary categories of writing strategies used by Japanese ESL students: planning, retrieving, generating ideas, verbalizing, translating, rereading, evaluating, and others. These cognitive strategies facilitate the use of metacognitive strategies, which assist learners in adapting to their individualized learning process. Metacognitive strategies consist of planning, appraisal, and monitoring, while cognitive strategies include of clarification, retrieval, resourcing, deferral, avoidance, and verification (Rashtchi et al., 2019).

From a cognitive development perspective, argumentation skills are typically present at a young age but are only fully developed by explicit and deliberate practice, often in school environments (Kuhn & Udell, 2003). Felton (2004) classifies the developmental stages of human argumentation as follows: at the age of three, children possess the ability to comprehend and create the fundamental elements of an argument; during the early school years, children become capable of presenting counterarguments and more intricate justifications; finally, adolescents can spontaneously employ oral persuasive strategies. Research has established that argumentative skills are only demonstrated during adolescence by active participation in argumentative practice, whether through oral or written communication.

Unfortunately, the majority of educational programs worldwide lack dynamic courses in argumentation, as there is sometimes a perception that teaching this ability individually is not essential (Zohar, 2008). In summary, the ability to argue effectively is typically considered lacking in adults, and the most opportune time to develop this talent is during one's school years (Goldstein, Crowell, & Kuhn, 2009). At the university level, there is a limited amount of research being conducted on this matter, and even fewer interventions are specifically targeting the enhancement of argumentation abilities in higher education. Typically, argumentation skills are

only taught in extracurricular programs as part of critical thinking courses, rather than being offered as main courses at the undergraduate and post-graduate levels (Rowe, Macagno, Reed, & Walton, 2006).

Graff and Birkenstein (2010) assert that academic writing serves as a vehicle for engaging in a discourse and, as a result, its objective is to execute refined rhetorical strategies. When writing an academic paper, the goal is to communicate with and persuade a certain audience, which consists of other members of the academic community. This audience includes not just professors and supervisors, but also other academics who will be reading the work. These publications specifically examine the ways in which language is used in academic writing, with a particular emphasis on how to use academic terminology and customs more accurately.

Argumentative reasoning must be closely connected to the employment of an argumentative approach in academic writing, and this concept should be implemented in a more pragmatic manner. Toulmin introduced Toulmin's Argument Pattern (TAP) in 1958 as a tool for structuring arguments. According to Toulmin, an argument can be represented by a pattern consisting of a Claim, Data, a Warrant that connects the claim and data, and Backings that support the warrants. According to Govier (2014), an argument is a collection of statements where one or more of them, known as premises, are presented to provide support for another statement, known as the conclusion (p. 1). TAP states that the premises consist of data, which are factual information used to support a conclusion, and warrants, which are principles of inference that connect the data to the claim. Deductive logic evaluates the validity of an argument based on the validity of the premises used to arrive at the conclusion. If the data and warrants are true, then the conclusion is also true. However, this statement does not hold true for the vast majority of arguments employed in both ordinary and academic contexts. Defeasible logic, a different form of reasoning, relies on a more intricate standard of validity and places significance on the supplementary evidence that supports the argument's premises (backing).

Several studies have demonstrated that Toulmin's model is an effective empirical instrument for teaching argumentative writing in both L1 and L2 academic settings. In a study conducted by Yeh (1998), the impact of two different forms of training on the argumentative writing skills of 116 American 7th grade students was investigated. There were two types of instruction: firstly, explicit instruction in Toulmin's model along with concept-mapping exercises, and secondly, concept-mapping activities alone. The aforementioned research demonstrated superior efficacy of the former instructional approach in acquiring argument information and strategies. In their study, Varghese and Abraham (1998) examined a cohort of undergraduate students at a university in Singapore. The researchers offered the students with clear and direct guidance on the Toulmin model. As a result, the students were able to generate more specific statements and demonstrate an understanding of perspectives from both sides. The studies conducted in L1 and L2 primarily concentrated on L2 writing exclusively (Plakans & Gebriel, 2013; Weigle & Parker, 2012), or made comparisons between a group of L1 writers and a group of L2 writers (Keck, 2006, 2014; Shi, 2004), typically using individual tasks. In order to determine if argumentation behavior is distinctive to individual learners and can be applied to different languages, it is necessary to conduct a comparative analysis of writing in the first language (L1) and second language (L2) across various tasks.

Extensive study in the field of second language writing has focused on the social aspects of writing, rather than its solitary or independent nature (Belcher & Hirvela, 2001). In other words, writing is a collaborative process where writers conform to established norms in order to convey their thoughts and ideas by adapting and building upon existing concepts and language (Prior, 2001). According to this perspective, writers' identities are formed by society and writers place themselves inside the social identities that are recognized by the discourse community (Clark & Ivanić, 1997; Ivanić, 1998). Examining the relationship between the development of second



language writing and gender identity might offer valuable insights in educational settings, as gender is a significant aspect of a writer's numerous identities (Kubota, 2003). It is important to highlight that recent review articles have addressed the topic of gender in the academic domains of second and foreign language education, second language acquisition, and language strategies and abilities. Sunderland (2000) provides a comprehensive review of studies in the field of second and foreign language education that focus on language and gender. The review encompasses a diverse range of topics, such as language learning ability, motivation/investment, teacher perceptions, learning styles and strategies, classroom interaction, teaching materials, testing, learner identities, masculinities, and pedagogies. An examination of the significance of gender in regard to writing reveals that second language writing research can investigate the variations in writing between men and women or boys and girls in L2, specifically in terms of the writing process and the final written work (Kubota, 2003).

Baker (2009) identifies four categories of argumentative scenarios in educational settings, contingent upon the presence of one or more topics for discussion and the existence of one or more diverse perspectives. In order to emphasize the importance of teachers enhancing their understanding of argumentation in order to create argumentative scenarios in their classrooms, certain scholars have incorporated the direct instruction of argumentation into both pre-service and in-service science teacher training programs (McNeill & Knight, 2013; Simon et al., 2006; Zembal-Saul, 2009). The teacher educator emphasizes the features of argumentation to make the pre-service teachers aware of this concept, which can enhance their understanding and utilization of argumentation in the teaching setting.

## Method

### Participants

This study included 30 Iranian graduate EFL learners, consisting of both male and female participants. All the students were enrolled as English language learners at Melal Language Institute, located in Alborz province, Iran. The participants in the group were being trained for the IELTS examination, which is an internationally recognized test for assessing English language proficiency. The volunteers possessed diverse linguistic proficiencies, ranging from B1 to C1 according to the Common European Framework of Reference (CEFR). All participants were mandated to have a minimum proficiency level of B1 in order to partake in the IELTS course. IELTS is a four-semester course that follows the completion of an English Diploma. The course places a strong emphasis on developing the candidate's writing skills, which is crucial for achieving a satisfactory Band score. A concern in these courses is the lack of specific instruction on argumentation as a primary focus in the second writing portion. The majority of the volunteers were individuals under the age of 20, as they were all striving to attain a minimum score of 6.5 in order to pursue further study in a foreign nation. The participation policy in this study was optional, and participants were informed of the study's objective and their right to withdraw at any time. As a result, the total number of participants decreased to 40 due to some individuals not completing the writing job as instructed and others choosing to withdraw from the study. Consequently, the final number of participants was 30, consisting of 10 males and 20 females. As a result of the Corona pandemic, there were significant restrictions on in-person classes, and instead, sessions were organized using Skype.

### Procedures

Prior to data collection in the study, a consent letter was prepared and distributed to the students. All of the students received personalized briefings on the objectives of the study and the methods used to collect data. An structured session was conducted to assure the students that their data

would be kept confidential and utilized solely for research purposes. Furthermore, they were informed of their right to withdraw from the study if they desired. All participants were provided with online access to all necessary documents in response to the pandemic. If they required assistance, they were permitted to visit the institution for further clarification, adhering to the protocols in place at that time. The students were required to compose three sets of questions, covering the pre-stage, while-stage, and post-stage, in order to assess the impact of each step. After a few days, they were had to translate each piece of writing into Persian to prevent themselves from fully recalling what they had written in the English version. Additionally, they had to produce a preliminary piece of writing without any guidance or instructions. Following a brief period of time, they conducted their initial instructional session which encompassed an introduction to IELTS writing Task 2 and the initial segment of training on argumentation. As per their instructions, they were required to compose their second essay by drawing upon the knowledge they acquired regarding argumentative writing. Following the conclusion of the three-session teaching, a period of two weeks elapsed before the students completed their third topic. The word count had to be a minimum of 250 words under a maximum time limit of 40 minutes. The collected articles were evaluated by two proficient writing instructors, who assessed them both holistically and analytically using the argumentation scale.

The participants were instructed to compose three IELTS Task 2 essays utilizing argumentation in both English and Persian languages. In order to choose the suitable themes, we consulted the web database for IELTS Task 2 Sample questions ([www.ielts-practice.org](http://www.ielts-practice.org)) and choose 10 topics that align with the research's objective. Ultimately, the researchers selected three subjects for the participants to compose written pieces in both English and Persian. The participants were expected to possess sufficient prior knowledge on the matter and were provided with ample exposure to the concepts of argumentative writing and the necessary general knowledge required for the IELTS exam. The writing assignment included concise and explicit guidelines on how to complete the task, including the specific steps that the students were required to follow. The learners were mandated to construct coherent and structured arguments elucidating and endorsing their perspectives, while ensuring their stance is unambiguous about the assigned subjects. Due to the online nature of the course and the inability of researchers to physically observe the volunteers, the prompt questions were provided to them electronically. Additionally, all students were sent a sample IELTS response sheet for Writing Task 2. Some individuals recorded their responses directly on the physical answer sheet, whereas others entered their replies electronically using a Word document.

### Data Analysis

In this study, we employed the multivariate analysis of variance (MANOVA) to investigate gender differences, topic differences, and age difference when students produced argumentative writing in L1 and L2. Preliminary assumption testing was conducted to check for linearity, normality, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations reported.

**Table 1**

*MANOVA Results for the effect of age and gender on students' argumentative performance*

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Interc	Pillai's Trace	.937	610.699 <sup>b</sup>	2.000	82.000	.000	.937
ept	Wilks' Lambda	.063	610.699 <sup>b</sup>	2.000	82.000	.000	.937
	Hotelling's Trace	14.895	610.699 <sup>b</sup>	2.000	82.000	.000	.937

	Roy's Largest Root	14.895	610.699 <sup>b</sup>	2.000	82.000	.000	.937
gender	Pillai's Trace	.043	1.820 <sup>b</sup>	2.000	82.000	.168	.043
	Wilks' Lambda	.957	1.820 <sup>b</sup>	2.000	82.000	.168	.043
	Hotelling's Trace	.044	1.820 <sup>b</sup>	2.000	82.000	.168	.043
	Roy's Largest Root	.044	1.820 <sup>b</sup>	2.000	82.000	.168	.043
Age	Pillai's Trace	.012	.160	6.000	166.000	.987	.006
	Wilks' Lambda	.988	.159 <sup>b</sup>	6.000	164.000	.987	.006
	Hotelling's Trace	.012	.157	6.000	162.000	.987	.006
	Roy's Largest Root	.011	.294 <sup>c</sup>	3.000	83.000	.829	.011
gender *	Pillai's Trace	.041	.870	4.000	166.000	.483	.021
	Wilks' Lambda	.959	.863 <sup>b</sup>	4.000	164.000	.487	.021
Age	Hotelling's Trace	.042	.857	4.000	162.000	.492	.021
	Roy's Largest Root	.035	1.441 <sup>c</sup>	2.000	83.000	.242	.034

a. Design: Intercept + gender + Age + gender \* Age  
b. Exact statistic  
c. The statistic is an upper bound on F that yields a lower bound on the significance level.

As the Table presents, the Wilk's Lambda value for gender was 0.957 with a significant value of 0.168, revealing that gender did not have any statistically significance main effect of the participants L1 and L2 argumentative writing performance. Also, the Wilk's Lambda value for age groups was 0.159 with a significant value of 0.987 which is more than cut off point of 0.05, revealing that age didn't have statistically significant main effect on L2 learners' argumentative writing performance in L1 and L2. The results of MANOVA further showed no statistically significant differences between the interaction of gender and age of the participants, and their argumentative writing performance in L1 and L2.

We also examined the effect of topic on learners' argumentative writing performance in L1 and L2.

**Table 2**

*Tests of Between-Subjects Effects of Topic on L1 and L2 argumentative performance*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	EnglishArg	3767.133 <sup>a</sup>	17	221.596	.989	.480	.189
	PersianArg	6371.696 <sup>b</sup>	17	374.806	1.912	.030	.311
Intercept	EnglishArg	162286.616	1	162286.616	724.475	.000	.910
	PersianArg	155986.759	1	155986.759	795.934	.000	.917
Topic	EnglishArg	3767.133	17	221.596	.989	.480	.189
	PersianArg	6371.696	17	374.806	1.912	.030	.311
Error	EnglishArg	16128.423	72	224.006			
	PersianArg	14110.526	72	195.980			
Total	EnglishArg	335550.000	90				
	PersianArg	327900.000	90				
Corrected Total	EnglishArg	19895.556	89				
	PersianArg	20482.222	89				

a. R Squared = .189 (Adjusted R Squared = -.002)  
b. R Squared = .311 (Adjusted R Squared = .148)



Table 2 indicates that there was no statistically significant disparity in the influence of topic on English argumentation. However, there was a statistically significant disparity in the influence of topic on L1 argumentative writing. The aforementioned studies indicate that subject, age, and gender do not have a significant effect in L2 argumentative writing. Nevertheless, we discovered that the topic plays a significant effect in the performance of L1 argumentative writing.

The research revealed that the choice of topic significantly impacts the writing proficiency of second language learners in their first language argumentative writing. Through the utilization of multivariate analysis of variance (MANOVA), we conduct a more in-depth investigation of the impact of the topic on students' Persian argumentative writing, with a specific focus on the Toulmin elements, namely the claim, data, counter-argument claim, counter-argument data, rebuttal claim, and rebuttal data. Initial assumption testing was performed to assess the presence of linearity, normality, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity. No significant violations were found.

**Table 3**  
*Multivariate Tests<sup>a</sup>*

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.984	697.927 <sub>b</sub>	6.000	67.000	.000	.984
	Wilks' Lambda	.016	697.927 <sub>b</sub>	6.000	67.000	.000	.984
	Hotelling's Trace	62.501	697.927 <sub>b</sub>	6.000	67.000	.000	.984
	Roy's Largest Root	62.501	697.927 <sub>b</sub>	6.000	67.000	.000	.984
Topic	Pillai's Trace	1.423	1.317	102.000	432.000	.032	.237
	Wilks' Lambda	.159	1.450	102.000	388.968	.007	.264
	Hotelling's Trace	2.548	1.632	102.000	392.000	.001	.298
	Roy's Largest Root	1.544	6.539 <sup>c</sup>	17.000	72.000	.000	.607

a. Design: Intercept + Topic

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

The results, as presented in Table 3, revealed that the topic affects claim and counterargument claim. It has no effect on data and rebuttal claim.

**Table 4**  
*Tests of Between-Subjects Effects*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	claim	31.667 <sup>a</sup>	17	1.863	3.285	.000	.437
	Data	533.333 <sup>b</sup>	17	31.373	1.604	.086	.275

	CAclaim	125.833 <sup>c</sup>	17	7.402	2.079	.017	.329
	Cadata	544.008 <sup>d</sup>	17	32.000	1.680	.067	.284
	Reclaim	402.421 <sup>e</sup>	17	23.672	.947	.525	.183
	Redata	1098.363 <sup>f</sup>	17	64.610	1.178	.304	.218
Intercept	claim	1078.660	1	1078.660	1901.964	.000	.964
	Data	15526.060	1	15526.060	793.915	.000	.917
	CAclaim	4278.689	1	4278.689	1201.556	.000	.943
	Cadata	12510.924	1	12510.924	656.767	.000	.901
	Reclaim	632.057	1	632.057	25.281	.000	.260
	Redata	1302.316	1	1302.316	23.735	.000	.248
Topic	claim	31.667	17	1.863	3.285	.000	.437
	Data	533.333	17	31.373	1.604	.086	.275
	CAclaim	125.833	17	7.402	2.079	.017	.329
	Cadata	544.008	17	32.000	1.680	.067	.284
	Reclaim	402.421	17	23.672	.947	.525	.183
	Redata	1098.363	17	64.610	1.178	.304	.218
Error	claim	40.833	72	.567			
	Data	1408.056	72	19.556			
	CAclaim	256.389	72	3.561			
	Cadata	1371.548	72	19.049			
	Reclaim	1800.079	72	25.001			
	Redata	3950.526	72	54.868			
Total	claim	2175.000	90				
	Data	32375.000	90				
	CAclaim	8600.000	90				
	Cadata	27250.000	90				
	Reclaim	3525.000	90				
	Redata	7400.000	90				
Corrected	claim	72.500	89				
Total	Data	1941.389	89				
	CAclaim	382.222	89				
	Cadata	1915.556	89				
	Reclaim	2202.500	89				
	Redata	5048.889	89				
a. R Squared = .437 (Adjusted R Squared = .304)							
b. R Squared = .275 (Adjusted R Squared = .103)							
c. R Squared = .329 (Adjusted R Squared = .171)							
d. R Squared = .284 (Adjusted R Squared = .115)							
e. R Squared = .183 (Adjusted R Squared = -.010)							
f. R Squared = .218 (Adjusted R Squared = .033)							

### Discussion

The lecturer structured the sessions by discussing reasoning in a clear and direct manner. There was a notable increase in the average usage of reasoning, both in Persian and English, from the pre-test to the post-test. During a 2-month period, the applicants' formal training sessions demonstrated their inclination to utilize reasoning in their essays. In order to enhance the

academic arguments of EFL students, Yeh (1998) conducted a study involving 116 non-native middle school students in the US. The study revealed that providing explicit instruction along with a 'bridge' and a 'pyramid' heuristic (guide) resulted in significant improvements in the writing skills of the experimental group. Furthermore, these improvements were found to be transferable to different topics, as compared to the control group. According to Yeh (1998), students incur a disadvantage if they are not properly instructed in writing argumentative essays. Despite being conducted on pre-university students, the study demonstrates a deficiency in explicit education for foreign learners in textbooks. Specifically, it highlights the absence of explicit teaching of reasoning in IELTS courses.

The applicants effectively utilized all the parts of written argumentation that were presented in the instruction sessions. However, the degree to which they applied these components rose from the pre to post phases. Most of the essays that were evaluated contained only the fundamental components, namely the writer's viewpoint (claim) and the evidence provided to support it (data). The factors mentioned are highly favored by learners for writing, as they serve as the essential components for constructing arguments (Abdollahzadeh et al., 2017; Lunsford, 2002; Qin and Karabacak, 2010; Varghese and Abraham, 1998). The results indicate that Iranian EFL learners have a propensity to not use many counterarguments and rebuttals in their written arguments, even though strong arguments require counterarguments and rebuttals to improve the quality of writing (Braund et al. 2013; Nussbaum and Kardash 2005; Wolfe et al. 2009). The utilization of argumentation elements exhibited remarkable similarities in both Persian and English across various topics. Less than 50% of the argumentative essays incorporated any kind of rebuttals or counterarguments. One possible reason could be that IELTS course manuals implicitly explain reasoning, and some teachers may lack experience and understanding in applying these aspects. Counterarguments and rebuttals play a crucial role in the framework of reasoning, as stated by Toulmin in 2003. Most of the candidates lacked the ability to demonstrate a thoughtful perspective on the topic, which would have improved the quality of their arguments in their task 2 writing.

Recent studies have consistently shown that girls outperform males in academic achievement (Camarata & Woodcock, 2006; Gibb, Fergusson, & Horwood, 2008; Marks, 2008; Pajares & Valiante, 2001). Peterson (2000) conducted a study examining the views of fourth and eighth-grade teachers and students regarding the writing abilities of boys and girls. The findings revealed that girls exhibited superior writing skills compared to boys. Specifically, girls' writing was characterized by greater attention to detail, descriptive language, and adherence to writing conventions. Several research suggest that girls exhibit higher levels of confidence in writing compared to boys (Pajares & Valiante, 2001; Peterson, 2000). According to research conducted by Pajares et al. (1999) and Pajares & Valiante (1999), there is evidence to suggest that students' confidence in writing can be used to predict their writing skill.

Several extensive research have been carried out on the correlation between gender and language acquisition, specifically focusing on writing skills in Iran. In their study, Kamari et al. (2012) examined the skill in writing descriptive paragraphs and the opinions on paragraphs of 150 BA students at Islamic Azad University of Ahvaz who were majoring in Teaching English as a Foreign Language (TEFL). The study also compared the performance of both genders in these areas. The results demonstrated that male students exhibited a higher level of proficiency in writing opinion paragraph essays, whereas female students shown a higher level of proficiency in writing descriptive essays. According to the research conducted by Kamari et al. (2012), males demonstrate proficiency in writing on opinion-related topics due to their adeptness in articulating their viewpoints and thoughts.

The research utilized an integrated assessment methodology, encompassing both substance and structure, as described by Stapleton and Wu in 2015. Upon doing a thorough examination,

multiple instances of contentious behaviors were identified in both the English and Persian versions. Initially, the chosen scripts (n = 180) were revised according to the Band descriptors of IELTS, specifically focusing on Task Response (TR), Coherence and Cohesion (CC), Lexical Resource (LR), and Grammatical Range and Accuracy (GRA). The Band Scores range from 0 to 9. Each element was assessed and assigned a value, and then the average score was calculated for each paragraph. The initial argumentative writing profile, encompassing both English and Persian (cluster 1), shown a rise in score from the Pre to Post-test. The researcher reevaluated all the IELTS writing recommendations, focusing solely on the English version for scoring purposes.

The second writing profile was revised using the principles of argumentation. The candidates consistently substantiated their claim(s) and refuted counter-arguments by presenting data, disregarding rebuttals, and persisting in their stance even after receiving instructions. The initial composition they penned encompassed all the information they possessed based on their prior understanding. Undoubtedly, as the instructional sessions progressed, the written arguments grew increasingly intricate and refined. Despite the students' ability to generate more intricate and refined arguments in their writing, they were unable to effectively dispute opposing viewpoints and hence failed to disprove them. Despite the availability of instruction sessions and one-on-one classes for additional guidance, the candidates were unable to effectively utilize the complex argument-counterargument structure in L2 (Qin and Karabacak 2010). This failure can be attributed to factors such as risk avoidance, lack of confidence, and difficulties in formulating argument-counterargument claims and supporting data (Kobayashi and Rinnert 2008, p. 35). An intriguing observation is that the number of argumentation elements in both L1 and L2 writings was largely consistent. Further investigation can assist in observing the degree to which the transfer of argumentation methods takes place in second language (L2) argumentative writing. Another possible aspect contributing to variances in argumentation development between L1 and L2 is the influence of L1 educational and writing culture. The majority of the pupils produced a well-organized essay; however, this did not ensure a proficient use of arguing elements. Increasing awareness is essential for both instructors and applicants to maximize their performance in essays. (Sadler, 2004).

This study examined the influence of argumentation training on writing proficiency in both first language (L1) and second language (L2). The following are the main points to remember:

- Argumentation training enhances writing skills: The participants demonstrated a substantial improvement in incorporating logical reasoning and persuasive components in their writings following the training sessions. These findings indicate that providing direct instruction in argumentation can be advantageous for the improvement of writing abilities.

- Emphasis should be placed on counterarguments and rebuttals: Although students made progress in their overall argumentation, they demonstrated a decreased inclination to incorporate counterarguments and rebuttals. These findings suggest that there is a requirement for a more intense emphasis on these elements of reasoning throughout training.

- Cross-linguistic transferability: Enhancement in argumentation abilities was noted in essays written in both the native language (Persian) and the second language (English), indicating a certain degree of skill transfer across languages. Nevertheless, additional investigation is required to comprehend the full scope of this transfer.

- Students faced difficulties in employing intricate argument-counterargument frameworks in L2 writing, despite receiving training. Possible causes for this phenomenon may include risk aversion, low self-assurance, or challenges unique to second language writing.

- The study failed not establish a compelling correlation between gender and the development of reasoning skills. Prior studies on this subject demonstrate inconclusive findings.



-The study emphasizes the significance of regular and rigorous practice, as well as intense writing programs, in order to cultivate robust argumentation skills.

-Engaging in argumentation offers benefits that extend beyond writing. It can improve critical thinking skills and strengthen the ability to actively participate in arguments, both of which are valuable abilities outside the scope of writing.

### Conclusion

This research uncovers the impact of argumentation training on writing in both the first language (L1) and second language (L2), taking into account gender, topic, and age variations. The applicants' use of argumentative reasoning was consistently weak in the initial batch of essays. However, as we progressed towards the post-test, there was a significant increase in the quality of their arguments. Developing argumentative skills is a challenging educational goal that requires time and practice to become proficient (Means and Voss 1996). To achieve this, it is necessary to implement intensive writing programs that provide ample opportunities for learners to engage in argumentative practices. This will enable them to effectively support their claims and effectively use counterarguments and rebuttals (Sampson and Clark 2008; Braund et al. 2013). Engaging in argumentative mediation can enhance the critical thinking abilities of English as a Foreign Language (EFL) learners. Research suggests that individuals tend to learn more effectively when they engage in argumentation (Kuhn, 2008). Additionally, this practice can help learners grasp the epistemic nature of knowledge and actively participate in scientific discussions (Abdollahzadeh et al., 2017).

We conducted an analysis of the discursive essays written by IELTS trainees at an English Institute. This study did not examine the subjects' proficiency in their first language (L1) and second language (L2). Students can employ Toulmin's technique to enhance their Task 2 compositions in the International English Language Testing System (IELTS) as a component of their rigorous course. Undeniably, there are some disadvantages in the study. Due to the pandemic, the study was conducted in only one EFL institute with a limited number of students. Therefore, it is recommended to conduct future studies with a larger number of participants and in other educational contexts. Furthermore, students were specifically instructed to compose three subjects in two different languages, with the possibility of the quantity being augmented. Subsequent research could explore the direct teaching of Toulmin's argumentation in IELTS course materials. Investigating these issues was beyond the purview of the current research.

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