International Journal of Foreign Language Teaching and Research
ISSN: 2322-3898-http://jfl.iaun.ac.ir/journal/about

Please cite this paper as follows:
Faghihi, G., Ghaem, F., & Amini Farsani, M. (2025). How Explicit Argumentative Training Improves EFL Students' Argumentative Performance in English and Persian: Insights from Iranian IELTS Candidates. *International Journal of Foreign Language Teaching and Research, 13* (52), 107-122. https://doi.org/10.71962/jfl.2024.1189491

Research Paper

How Explicit Argumentative Training Improves EFL Students' Argumentative Performance in English and Persian: Insights from Iranian IELTS Candidates

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Received: September 17, 2024 **Accepted: October 28, 2024**

Abstract
The study on second language (L2) argumentative writing has explored various surfaces and dimensions of learner behavior and presentation, although fewer studies have studied effective pedagogical strategies to boost students' argumentative skills. The current study mentions the gap by exploring the effect of explicit argumentative instruction on the writing abilities of 30 Iranian IELTS candidates, according to CEFR ranging from B1 to B2, in an English Language Institute in Karaj - Iran in both Persian and English, the former their native language and the latter their foreign language. As a set of authentic IELTS Task 2 prompts were used and taken from the language learners, the study analyzed 180 argumentative essays, both in English and Persian, written by the participants prior, while and after instruction. The outcomes had shown noteworthy enhancement in the students' English argumentative performance, with the recurrent use of argumentation key elements such as 'claim,' 'data,' and the 'counterarguments.' Though, less emphasis was put on advanced argumentative structures such as 'counterclaims' and 'rebuttals. The results suggest that structured pedagogy in teaching argumentation can positively influence learners' proficiency in both first language (L1) and second language (L2) writing. The insinuations for teaching argumentative writing in multilingual contexts will be further discussed.
Keywords: Argumentative writing; The Modified Toulmin model; IELTS Writing Pedagogy; Writing Performance

مطالعه بر روی نوشتار استدلالی زبان دوم (L2) سطوح و ابعاد مختلف رفتار و ارائه یادگیرنده را مورد بررسی قرار داده است، اگرچه مطالعات کمتری استراتژی‌های آموزشی مؤثر برای تقویت مهارت‌های استدلالی دانش‌آموزان را مورد مطالعه قرار داده‌اند. مطالعه حاضر با بررسی تأثیر آموزش استدلالی صریح بر توانایی‌های نوشتاری ۳۰ داوطلب ایرانی آیلتس، بر اساس CEFR از B1 تاB2 ، در یک مؤسسه زبان انگلیسی در کرج - ایران به دو زبان فارسی و انگلیسی، اولی زبان مادری و دومی زبان خارجی، شکاف را ذکر می‌کند. از آنجایی که مجموعه ای از دستورات آیلتس Task 2 معتبر مورد استفاده قرار گرفت و از زبان آموزان گرفته شد، این مطالعه ۱۸۰ مقاله استدلالی را به زبان انگلیسی و فارسی که توسط شرکت کنندگان قبل، در حین و بعد از آموزش نوشته شده بودند، تجزیه و تحلیل کرد. نتایج، با استفاده مکرر از عناصر کلیدی استدلالی مانند «ادعا»، «داده» و «ضداستدلال»، بهبود قابل توجهی در عملکرد استدلالی انگلیسی دانش‌آموزان نشان داده بود. اگرچه، تأکید کمتری بر ساختارهای استدلالی پیشرفته مانند «ادعاهای متقابل» و «ردیه‌ها» شد. نتایج نشان می‌دهد که آموزش ساخت‌یافته در آموزش استدلال می‌تواند به طور مثبت بر مهارت زبان‌آموزان در نوشتن زبان اول (L1) و زبان دوم (L2) تأثیر بگذارد. تلقینات آموزش نوشتن استدلالی در زمینه های چند زبانه بیشتر مورد بحث قرار خواهد گرفت.
کلمات کلیدی: استدلالی نویسی; مدل Toulmin اصلاح شده ;IELTS Writing Pedagogy ;عملکرد نوشتن

Introduction

The notion of argumentation has an entrenched history in scientific areas (Aristotle, 1991; Toulmin, 1958; Wilder, 2005) and a more recent appearance in cognitive psychology (Britt et al., 2008; Britt & Larson, 2003; Larson et al., 2009; Voss, Fincher-Kiefer, Wiley, & Silfes, 1993; Wiley & Voss, 1999). Working on educational contexts, the notion of 'argument' extents a wide range, from its philosophical perspectives (Toulmin, 1958, 2003) to its practical claims in academic writing (Mitchell, Prior, Bilbro, Peake, 2008). Toulmin's (1958) model of argumentation has been still significant in describing arguments as claims supported by data, with warrants working as general principles.

The enhancement of strong argumentative writing skills is a multifaceted process, chiefly for English as a Foreign Language (EFL) learners who often face inimitable challenges. To name some can be mastering rhetorical structures unaccustomed to their first language (L1) and learning how to present evidence rationally and influentially. According to Abdollahzadeh, Amini Farsani, and Beikmohammadi (2017), complications in producing comprehensive academic arguments in writing may be traced to inadequate pedagogical groundwork, limited explicit pedagogy in argumentative structures, and negative L1-L2 transfer influences. To be more specific, EFL learners may not be that familiar with the notions of argumentative writing, which in many cases necessitates more than summarizing claims, and it needs critical engagement with counterarguments and reasoning in a more well-supported fashion.

Argumentative writing is not just about bringing out a point of view but can also be about evaluating and interacting with contrasting viewpoints. This part of the matter is recurrently overlooked by learners who can, at times, find it difficult to use rebuttals in their work (Abdollahzadeh et al., 2017). Hitherto, counterarguments are there to strengthen persuasive writing. O'Keefe (1999) worked on meta-analysis and found out that texts that address and refute counterarguments are more persuasive than those that disregard them. Additionally, the combination of counterarguments is a key component of critical thinking frameworks (Baron, 1988; Ennis, 1995; Scriven, 1976), where the capability to reflect various perspectives is seen as essential for logical reasoning and intellectual development.

There are quite a few studies which emphasize the cognitive benefits of fabricating written arguments, including deepened comprehension and more effective amalgamation of information (Wiley & Voss, 1999). The key element of argumentative writing needs not only the articulation of claims but also the capacity to validate those claims through the use of evidence and warrants. Such a process of validation is often challenging for EFL learners, who must navigate unfamiliar rhetorical systems and cultural norms regarding argumentation (Connor, 1987; Kaplan, 1966). Rhetorical variances between L1 and L2 writing styles can result in negative transfer, where learners naively apply strategies from their native language that may not suit the settlements of English argumentative writing (Connor & Kaplan, 1987).

In spite of the challenges mentioned, research proves that EFL learners can recover their argumentative writing skills through instruction that is based on a special target or need. Researches reveal that while teaching writing by explicit instructional strategies, learners gain a stronger understanding of the structures and techniques needed for active arguments. As an example, Yeh (1998) showed that explicit instruction in argumentative writing profits better consequences than implicit methods, with students representing better ability to build their arguments and deliver supporting indication. Likewise, Horowitz (1986) highlighted the advantages of combining reading and writing instruction, particularly when focused on text structure patterns, for improving students' general writing performance. To consider one of the most multifaceted but vital aspects of argumentative writing is the design of counterarguments and rebuttals. Such skills do not only help strengthen the writer's position but also establish a deeper engagement with the topic. The presence of counterarguments forces writers to consider

substitute viewpoints, which contributes to the development of a more convincing argument (Leitao, 2003). Regrettably, many students do not consider this aspect of argumentation crucial, seeing it as less important or even needless (Abdollahzadeh et al., 2017). So far, the ability to engage with opposing views is critical to academic discourse, and explicit teaching in this area can aid students in integrating these elements more effectively into their writing.

The interaction between first language (L1) and second language (L2) writing is another expanse of uneasiness in argumentative writing. The area being worked into contrastive rhetoric has revealed that learners often struggle to transfer their argumentation skills across languages because of divergent rhetorical conventions (Kaplan, 1966). As an example, a student may outclass in constructing arguments in their native language but find it difficult to do so in English because of alterations in organizational patterns, argument constructions, or even cultural prospects regarding persuasion (Connor, 1996). This makes the explicit teaching of argumentative writing strategies in L2 environments vital, as it aids students to comprehend the unique demands of English argumentative writing while addressing the possibility for negative transfer. Moreover, the role of writing instructors is key in mitigating these challenges. Effective instruction goes beyond simply assigning argumentative essays, which includes training students with the tools to construct logical, well-supported arguments while considering opposing viewpoints. Trainers must direct the balance between encouraging critical debate and upholding a constructive learning environment (Johnson & Johnson, 2009). Given the globalized nature of communication today, especially in contexts like Iran where international relations are expanding, the ability to produce effective written arguments is more central than ever. Specialists in intercultural communication must possess strong argumentative skills, both in written and spoken forms, to ease effective discourse among cultural restrictions (Nurhayati, 2018).

This study aims to examine the effects of explicit argumentation instruction on students' performance in both English and Persian. Although IELTS coursebooks classically address argumentation implicitly, this study tries to explore the influence of making such pedagogy explicit. The studies worked in the past have established the efficiency of explicit instruction in improving students' argumentative skills (Yeh, 1998; Horowitz, 1986; Leitao, 2003), but little research has been done for the use of the modified Toulmin model (Qin & Karabacak, 2010) in boosting both English and Persian argumentative writing performance.

Therefore, this study aims to answer the following research questions:

1. Is there a significant improvement in students' English argumentative performance before and after instruction?

2. Is there a significant improvement in students' Persian argumentative performance before and after instruction?

Literature Review

The area of second and foreign language writing has been faced with high advancements in recent years, with specific attention to the strategies that writers apply. These strategies have arisen as critical factors operating both the writing process and the final outcome. One of the early pioneers, Arndt (1987), who researched on writing strategies for English as a Second Language (ESL) learners identified eight distinct strategies: planning, global planning, rehearsing, repeating, rereading, questioning, revising, and editing. All the categories were examined to comprehend how students integrated them into their writing process, placing a groundwork for further research on L2 writing strategies (as cited in Mu, 2005, p. 6). To write in a second language often includes higher cognitive efforts, and to make it more specific when constructing arguments. To name some researchers like Bereiter and Scardamalia (1987), they highlighted the role of "knowledge-telling" and "knowledge-transforming" models in the writing

process, where students simply report what they know or actively redesign their ideas while writing. Specifically, argumentative writing encourages the latter by forcing writers to create and defend a bearing on a given issue. Such an issue has been underlined by scholars such as Hyland (1990), who claimed that argumentative writing is considered as a powerful tool in L2 contexts for nurturing critical thinking skills and developing the learner's ability to engage with multiple perspectives.

As in educational research, critical thinking and argumentation are frequently discussed interchangeably, as they both involve analyzing and assessing claims. Walton (1989) clarified critical thinking as a rational and unflustered analysis of arguments, which includes questioning, empathy, and critical impartiality. Such skills are naturally advanced through engagement in argumentative discourse, where learners must construct valid arguments and refute opposing viewpoints (Van Eemeren, Grootendorst, & Henkemans, 1996). Argumentative writing becomes more "critical" when the following reasoning skills are obvious: the formulation of sound arguments, counter-arguments, and the proper usage of evidence to support these arguments (Hillocks, 2011).

Sasaki (2000) researched on Japanese ESL students' writing strategies and introduced eight major categories, including planning, retrieving, generating ideas, verbalizing, translating, rereading, and evaluating. These strategies donate to both cognitive and metacognitive processes, which are vital elements for effective argumentative writing. Cognitive strategies such as idea retrieval, clarification, and resourcing are the main components of constructing coherent arguments (Flower & Hayes, 1981). Metacognitive strategies, including planning, monitoring, and evaluating, permit writers to self-regulate their writing process, confirming that their arguments are logically sound and well-supported (Rashtchi et al. Saeed, 2019; Zamel, 1983).

More studies by Nussbaum and Kardash (2005) revealed that learners who learned argumentative structures explicitly, such as claim, evidence, and counterargument, confirmed better performance in writing persuasively. This was reverberated by Kuhn (2008), who emphasized that argumentative writing indorses deeper cognitive assignation by requiring students to present and evaluate multiple sides of a matter. Likewise, Yeh (1998) confirmed that providing students with explicit instruction in Toulmin's argument model improved their ability to generate stronger claims, warrants, and rebuttals, therefore resulted in improving their argumentative essays in both L1 and L2 contexts. To put it in a nutshell, research proposes that teaching argumentative writing strategies not only improves L2 students' writing proficiency but also boosts their critical thinking and analytical skills. Research has constantly shown that explicit teaching of argumentative structures, paired with the use of metacognitive strategies, results in stronger and more persuasive writing (De La Paz & Felton, 2010).

To consider it from a cognitive development perspective, argumentative skills are naturally present from an early age but are advanced through explicit and careful practice, chiefly in educational settings (Kuhn & Udell, 2003). Felton (2004) outlines the stages of a human argumentative life span: first, three-year-old children grasp fundamental components of arguments; during early schooling, they start to formulate counterarguments and more complex explanations; and as they reach to adolescence, they can successfully use oral argumentative strategies for persuasive purposes. Research indicates that engagement in argumentative practice is essential for adolescents to apply these skills in both oral and written forms (Goldstein et al., 2009).

Unfortunately, there are many educational programs around the globe that do not deliver comprehensive instruction in argumentation, often viewing it as needless to teach as a separate skill (Zohar, 2008). Therefore, adults often show underdeveloped argumentation skills, with the school years identified as the ideal period for learning these capabilities (Goldstein et al., 2009).

When reaching to the university level, there is partial research addressing this matter, and even fewer interferences focus on improving argumentation skills within higher education. Commonly speaking, the development of these skills in undergraduate and postgraduate studies is limited to critical thinking courses, which are naturally offered as extracurricular activities rather than as essential components of the lesson plan (Rowe et al., 2005). Graff and Birkenstein (2010) believe that "academic writing is a means for entering a conversation," focusing on the need to make "sophisticated rhetorical moves." This viewpoint proposes that when an academic paper is composed, the purpose is to engage with a scholarly community, thus making the writing not only convincing for professors or supervisors but also pertinent to peers and other scholars (Hoey, 1983). These texts focus on the linguistic aspects of writing, showing guidance on how to apply academic language and conventions efficiently to boost communication with an academic audience.

Amalgamating an argumentative approach into academic writing is basically linked to the principles of argumentative reasoning, which need practical application in writing tasks. Toulmin's Argument Pattern (TAP), being introduced in 1958, delivers a structural framework for understanding arguments, containing a claim, data, a warrant that connects the claim and data, and backing that supports the warrants. Govier (2014) explains an argument as "a set of claims in which one or more of them – the premises – are put forward to offer reasons for another claim, the conclusion" (p. 1). In TAP, grounds include data (facts that reinforce the conclusion) and warrants (rules of inference that connect data to the claims). Considering deductive logic, the argument's validity depends on the truth of its grounds; if the data and warrants are exact, the conclusion must be valid too. However, such a deductive framework frequently fails to account for most of the arguments that are faced in everyday academic discourse. There are substitute approaches, such as defeasible logic, which brings a slightly different understanding of validity that emphasizes the requirement of supplementary evidence to substantiate the premises of an argument (Walton, 2005).

To clarify it more, several studies prove the efficiency of Toulmin's model as an empirical tool for teaching argumentative writing in both L1 and L2 contexts. Yeh (1998) examined the impression of two instructional methods on the argumentative writing skills of 116 American seventh graders: first, relating explicit instruction in Toulmin's model joint with concept-mapping activities, and second concentrating merely on concept-mapping. The outcomes exposed that explicit instruction meaningfully improved students' understanding of argument knowledge and strategies. Varghese and Abraham (1998) worked on similar results among undergraduate students in Singapore, where explicit instruction in the Toulmin model led to clearer claims and a heightened awareness of multiple perspectives. Existing research often emphasizes L2 writing (Plakans & Gebril, 2013; Weigle & Parker, 2012) or contrasts L1 and L2 writers within single-task contexts (Keck, 2006, 2014; Shi, 2004). Nevertheless, a more complete examination that comprises within-writer comparisons of L1 and L2 writing across various tasks is necessary to control whether argumentation behaviors are learner-specific and transportable across languages (Cumming, 2001; Manchón, 2011).

Method

Participants

The current study contained 30 Iranian graduate learners of English as a Foreign Language (EFL), including both male and female participants. All candidates were enrolled at the Melal Language Institute in Alborz province, Iran, where they were being prepared for the International English Language Testing System (IELTS) examination. The participants' language proficiency levels ranged from B1 to C1 according to the Common European Framework of Reference (CEFR), with a minimum requirement of B1 to join the IELTS course at the center.

The IELTS program in the institute is structured as a four-semester course that follows the completion of an English diploma, with a robust emphasis on writing skills to aid candidates to achieve a satisfactory band score. A noteworthy apprehension within these courses is the lack of explicit instruction in argumentation, chiefly for the second writing section. Most participants were under 20 years old and aimed to reach at least a score of 6.5 to continue their education abroad.

Participants could voluntarily join the program and were informed about the study's main objectives and their right to withdraw at any time. Firstly, 40 participants were enlisted; though, due to incomplete writing tasks and withdrawals, the final sample consisted of 30 participants—10 males and 20 females. The COVID-19 pandemic forced severe restrictions on face-to-face classes, which forced the researchers to conduct the sessions via Skype.

Materials and Instruments

Participants were given three IELTS Task 2 essays based on argumentative topics, both in English and Persian. To select the most appropriate topics, the researchers consulted the online database of IELTS Task 2 sample questions (www.ielts-practice.org) and identified ten topics relevant to the study's objectives. Eventually, three topics were chosen for participants to write in both languages.

The researchers supposed that participants had adequate background knowledge on argumentative writing and relevant content for the IELTS exam. Clear and forthright instructions were given for the writing tasks, describing the stages participants needed to follow. Students needed to construct well-organized arguments that clearly articulated their positions on the selected topics. Assumed that the course was conducted online and the researchers could not observe the participants directly, prompt questions were delivered online, along with a sample IELTS answer sheet for Writing Task 2. Participants had the choice to write their responses on the provided answer sheet or to type them in a Word document.

Procedures

Before the data collection procedure, a consent letter outlining the study's purpose and procedures was provided to all partakers. Each student was individually briefed about the study and assured that all data would remain confidential and utilized solely for research purposes. They were also informed of their right to withdraw from the study at any time. Due to pandemic restrictions, all materials were distributed online. Students could pursue additional clarification at the institute if needed, following to the safety protocols in place at that time. They were required to complete three sets of writing tasks, moving through pre-, during-, and post-instruction stages to assess the effects of instruction on their writing.

Primarily, students wrote a pre-instruction essay without guidance. A few days later, they attended their first instructional session, which covered an overview of IELTS Writing Task 2 and initial concepts of argumentation. Next, participants wrote their second essay based on the instruction received. After completing three instructional sessions, there was a two-week interval before participants wrote their third essay. Each essay was obligatory to have a minimum of 250 words and to be completed within 40 minutes. The collected essays were evaluated holistically and analytically by two experienced writing instructors using an argumentation scale.

Data Analysis

Overview

The present study was undertaken in order to compare the EFL learners' performance in writing the IELTS test and the components of argumentative writing. The statistical technique of Repeated Measures ANOVA was run to investigate the data collected through this study. Table 1 shows the skewness and kurtosis indices and their ratios over the standard errors. Since the computed ratios were within the ranges of ±1.96 (Raykov and Marcoulides 2008; Coaley 2010, Field 2018, and Abu-Bader 2021), it was concluded that the assumption of normality was retained.

Table 1

Skewness and Kurtosis Indices of Normality

	N	Skewness			Kurtosis		
	Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
IELTS1	30	.282	.427	0.66	.177	.833	0.21
IELTS2	30	-.032	.427	-0.07	-.165	.833	-0.20
IELTS3	30	.397	.427	0.93	-.442	.833	-0.53
PreEngClaim	30	.134	.427	0.31	-.408	.833	-0.49
PostEngClaim	30	-.314	.427	-0.74	-.816	.833	-0.98
DelayedEngClaim	30	-.739	.427	-1.73	.333	.833	0.40
PrePerClaim	30	.069	.427	0.16	-1.182	.833	-1.42
PostPerClaim	30	-.498	.427	-1.17	.990	.833	1.19
DelayedPerClaim	30	-.347	.427	-0.81	-.374	.833	-0.45
PreEngData	30	.050	.427	0.12	-.350	.833	-0.42
PostEngData	30	-.128	.427	-0.30	-1.331	.833	-1.60
DelayedEngData	30	-.364	.427	-0.85	-1.089	.833	-1.31
PrePerData	30	.266	.427	0.62	-.469	.833	-0.56
PostPerData	30	-.689	.427	-1.61	-.241	.833	-0.29
DelayedPerData	30	-.657	.427	-1.54	.011	.833	0.01
PreEngCounterClaim	30	.133	.427	0.31	-.967	.833	-1.16
PostEngCounterClaim	30	-.355	.427	-0.83	1.518	.833	1.82
DelayedEngCounterClaim	30	-.477	.427	-1.12	-.318	.833	-0.38
PrePerCounterClaim	30	-.052	.427	-0.12	-.953	.833	-1.14
PostPerCounterClaim	30	-.947	.427	-2.22	1.903	.833	2.28
DelayedPerCounterClaim	30	-.337	.427	-0.79	-.267	.833	-0.32
PreEngCounterData	30	-.411	.427	-0.96	.525	.833	0.63
PostEngCounterData	30	-.200	.427	-0.47	-1.600	.833	-1.92
DelayedEngCounterData	30	-.311	.427	-0.73	-1.362	.833	-1.64
PrePerCounterData	30	.026	.427	0.06	-.170	.833	-0.20
PostPerCounterData	30	-.261	.427	-0.61	-.374	.833	-0.45
DelayedPerCounterData	30	-.408	.427	-0.96	-.743	.833	-0.89
PreEngRebuttalClaim	30	-.076	.427	-0.18	-.653	.833	-0.78
PostEngRebuttalClaim	30	-.822	.427	-1.93	-.267	.833	-0.32
DelayedEngRebuttalClaim	30	-.480	.427	-1.12	-1.328	.833	-1.59
PrePerRebuttalClaim	30	.138	.427	0.32	-.317	.833	-0.38
PostPerRebuttalClaim	30	-.611	.427	-1.43	-.510	.833	-0.61
DelayedPerRebuttalClaim	30	-.591	.427	-1.38	-.936	.833	-1.12
PreEngRebuttalData	30	-.201	.427	-0.47	1.450	.833	1.74
PostEngRebuttalData	30	-.686	.427	-1.61	-.470	.833	-0.56
DelayedEngRebuttalData	30	-.796	.427	-1.86	-.327	.833	-0.39
PrePerRebuttalData	30	.281	.427	0.66	1.083	.833	1.30

PostPerRebuttalData	30	-.601	.427	-1.41	-.312	.833	-0.37
DelayedPerRebuttalData	30	-.275	.427	-0.64	-.948	.833	-1.14

Pre = Pretest, Post = Posttest, Eng = English, and Per = Persian.

Exploring First Research Question

1. Is there a significant improvement in students' English argumentative performance before and after instruction?

Repeated Measures ANOVA was run to compare the EFL learners' means on the pretest, posttest, and delayed posttest in order to probe the first research question. Table 2 shows the results of the Mauchly's test of sphericity. Repeated Measures ANOVA assumes that the differences between any two means enjoy roughly equal variances. The non-significant results of the sphericity test (W = .978, p > .05) indicated that the assumption was retained.

Table 2

Mauchly's Test of Sphericity Total English Tests

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse -Geisser	Huynh-Feldt	Lower-bound
Total English	.978	.611	2	.737	.979	1.000	.500

Table 3 shows the descriptive statistics for the EFL learners on total English argumentative tests. The results indicated that the EFL learners had the highest mean on delayed posttest (M = 124.93, SE = 2.37). This was followed by posttest (M = 121.56, SE = 2.55), and pretest (M = 77.36, SE = 1.78).

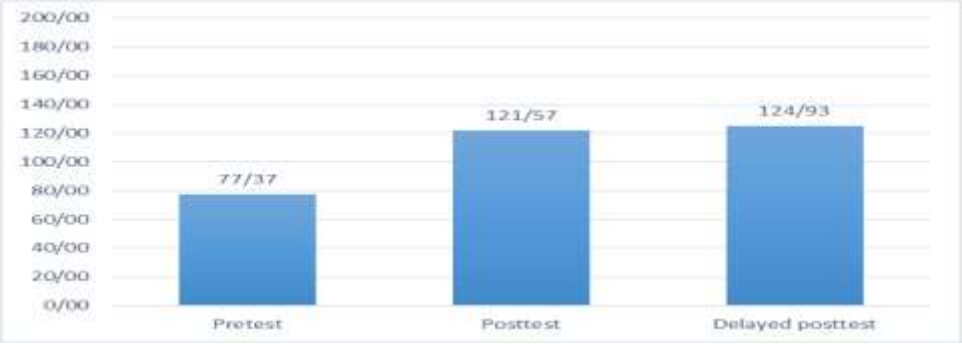
Table 3

Descriptive Statistics Total English Argumentative Tests

Emotions	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Pretest	77.367	1.783	73.719	81.014
Posttest	121.567	2.553	116.346	126.788
Delayed posttest	124.933	2.372	120.083	129.784

Figure 1

Means on Total English Argumentative Tests



The inferential results (F (2, 28) = 503.39, p < .05, pη^2 = .973 representing a large effect size[1]) indicated that there were significant differences between the EFL learners' overall means on English argumentative tests.

Table 4

Multivariate Tests Total English Argumentative Tests

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	.973	503.391	2	28	.000	.973
Wilks' Lambda	.027	503.391	2	28	.000	.973
Hotelling's Trace	35.956	503.391	2	28	.000	.973
Roy's Largest Root	35.956	503.391	2	28	.000	.973

Table 5 shows the results of the post-hoc comparison tests. Based on these results, and the descriptive statistics shown in Table 3, it can be claimed that;

A: The EFL learners had a significantly higher mean on delayed posttest (M = 124.93) than pretest (M = 77.36) (MD[2] = 47.56, p < .05).

B: The EFL learners had a significantly higher mean on posttest (M = 121.56) than pretest (M = 77.36) (MD = 44.20, p < .05).

Table 5

Pairwise Comparisons Total English Argumentative Tests

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
(I) Test	(J) Test				Lower Bound	Upper Bound
Delayed Posttest	Pretest	47.567*	1.673	.000	44.145	50.989
	Posttest	3.367	1.895	.086	-.510	7.243
Posttest	Pretest	44.200*	1.755	.000	40.610	47.790

*. The mean difference is significant at the .05 level.

C: There was not any significant difference between the EFL learners' mean on delayed posttest (M = 124.93) than posttest (M = 121.56) (MD = 3.36, p > .05).

Exploring Second Research Question

2. Is there a significant improvement in students' Persian argumentative performance before and after instruction?

Repeated Measures ANOVA was run to compare the EFL learners' means on the pretest, posttest, and delayed posttest in order to probe the second research question. Before discussing the results, the assumption of sphericity should be reported. Table 6 shows the results of the Mauchly's test of sphericity. The non-significant results of the sphericity test (W = .892, p > .05) indicated that the assumption was retained.

Table 6

Mauchly's Test of Sphericity Total Persian Tests

Within Subjects	Mauchly's	Approx.	df	Sig.	Epsilon

[1] Partial Eta Squared should be interpreted using the following criteria; .01 = Weak, .06 = Moderate, and .14 = Large (Gray and Kinnear 2012, p 323; and Pallant 2016, p 285).

[2] MD stands for mean difference.

Effect	W	Chi-Square			Greenhouse -Geisser	Huynh-Feldt	Lower-bound
Total Persian	.892	3.188	2	.203	.903	.959	.500

Table 7 shows the descriptive statistics for the EFL learners on total Persian argumentative tests. The results indicated that the EFL learners had the highest mean on delayed posttest (M = 100.16, SE = 2.94). This was followed by posttest (M = 95.00, SE = 3.01), and pretest (M = 80.83, SE = 2.83).

Table 7

Descriptive Statistics Total Persian Argumentative Tests

Emotions	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Pretest	80.833	2.386	75.954	85.713
Posttest	95.000	3.011	88.842	101.158
Delayed posttest	100.167	2.940	94.153	106.181

Figure 2

Means on Total Persian Argumentative Tests

The results (F (2, 28) = 67.85, p < .05, $p\eta^2$ = .829 representing a large effect size) indicated that there were significant differences between the EFL learners' overall means on Persian argumentative tests.

Table 8

Multivariate Tests Total Persian Argumentative Tests

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	.829	67.852	2	28	.000	.829
Wilks' Lambda	.171	67.852	2	28	.000	.829
Hotelling's Trace	4.847	67.852	2	28	.000	.829
Roy's Largest Root	4.847	67.852	2	28	.000	.829

Table 9 shows the results of the post-hoc comparison tests. Based on these results, and the descriptive statistics shown in Table 7, it can be claimed that;

A: The EFL learners had a significantly higher mean on delayed posttest (M = 100.16) than pretest (M = 80.83) (MD = 19.33, $p < .05$).

B: The EFL learners had a significantly higher mean on posttest (M = 95.00) than pretest (M = 80.83) (MD = 5.16, $p < .05$).

Table 9

Pairwise Comparisons Total Persian Argumentative Tests

(I) Test	(J) Test	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Delayed Posttest	Pretest	19.333*	1.635	.000	15.989	22.678
	Posttest	5.167*	1.486	.002	2.128	8.205
Posttest	Pretest	14.167*	1.951	.000	10.176	18.157

*. The mean difference is significant at the .05 level.

C: The EFL learners had a significantly higher mean on delayed posttest (M = 100.16) than posttest (M = 95.00) (MD = 14.16, $p < .05$).

Discussion

The findings of this study deliver visions into the impact of argumentative training on EFL learners' performance in both their first language (L1) and second language (L2) argumentative writing. The consequences prove a noteworthy improvement in learners' performance from pretest to posttest, representing that targeted instruction effectively improves their argumentative skills. This aligns with the literature suggesting that argumentation instruction fosters critical thinking and writing proficiency (Sampson & Clark, 2008; Means & Voss, 1996).

Remarkably, while the number of argumentative elements was similar in both L1 and L2 writings, the complexity and depth of these arguments varied. Many learners struggled with mixing counterarguments and rebuttals, reflecting the outcomes from preceding studies (Qin & Karabacak, 2010; Kobayashi & Rinnert, 2008). Proposing that as learners may possess an introductory understanding of argumentative structures, they frequently lack the slight difference skills necessary to utilize them effectively in L2. The observed "risk avoidance" and "lack of confidence" in producing sophisticated argument-counterargument structures additionally highlights the need for more rigorous instruction in such areas.

Furthermore, the role of L1 educational background and writing culture arose as a critical factor in L1–L2 disparities. Students who are adapted to a more standard approach to writing may find it challenging to adapt themselves to the demands of critical argumentative writing in L2. This highlights the necessity of contextualizing argumentation instruction within learners' cultural and educational experiences. Future research could discover the impact of cultural factors on argumentative strategies to better understand the complexities of L1–L2 transfer.

While improvements are being observed in the delayed posttest scores, it is recommended that the benefits of argumentation instruction are not only immediate but also continued over time. This finding underlines the necessity of providing EFL learners with plenty of opportunities to be involved in argumentative practices, strengthening their skills through recurrent contacts and exercises. It may be highly beneficial to implement a structured curriculum, including Toulmin's model of argumentation, to provide learners with a strong framework for constructing and deconstructing arguments.

Conclusion

To conclude, the current study highpoints the noteworthy effect of argumentation instruction on the development of EFL learners' writing skills in both L1 and L2 contexts. The data indicate a noticeable development in students' aptitude to construct clear arguments, chiefly in the delayed posttest, reinforcing the idea that such instruction has lasting effects. Though, the challenges faced by the students in engaging complex argumentative structures propose that additional pedagogical involvements have to be considered. To enhance the effectiveness of argumentation instruction, educators should focus on upgrading students' confidence and competence in applying counterarguments and rebuttals. Moreover, raising awareness of the changes in argumentative practices across languages can prepare learners with the necessary tools to navigate the intricacies of L2 writing.

Future research should develop on these findings by researching more on the insinuations of cultural and educational backgrounds on argumentative writing. Additionally, longitudinal studies including larger participant groups and diverse educational settings could deliver deeper insights into the effectiveness of argumentation instruction across varying contexts. By addressing these considerations, we can improve EFL learners' argumentative writing skills, eventually boosting their critical thinking capabilities and preparing them for success in academic and real-world discourse.

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