

Research Paper

# How to Enhance EFL Students' English and Persian Argumentative Performance: What Does Explicit Argumentative Teaching Tell Us?

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## Abstract

The studies on L2 argumentative writing have surveyed different dimensions of learners' argumentative behavior and performance. However, less attention has been given to the strategies and techniques enhancing students' argumentative repertoire. As such, the current study, which the design was repeated measures ANOVA, taking a pedagogy-based perspective, examined the argumentative writing behavior, introduced by Toulmin as Toulmin's model, of 30 Iranian IELTS candidates before, during and after the instruction in both English and Persian languages. The sample questions were of the previous IELTS Writing part 2 essays from a real test by Cambridge University Press, chosen by 3 IELTS instructors in the Institute to meet the research objectives. To this end, 180 IELTS Task 2 argumentative essays were written by 30 volunteers, each having to write 6 essays with at least 250 words (Persian and English). As for the students' English and Persian argumentative writing performance, the results indicated that there were significant differences between the EFL learners' overall means on argumentative tests in both languages. The results demonstrate that a sound pedagogy in argumentation can both influence the use of argumentation elements in both English and Persian written texts. The pedagogical implications for writing instruction and argumentative writing are discussed.

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## 1 Introduction

Argumentation has an extended history in the scientific fields (Aristotle, 1991; Toulmin, 1958; Wilder, 2005) and a shorter one can be found in cognitive psychology (Britt et al. 2007; Britt & Larson, 2003; Larson et al., 2009; Voss et al., 1993; Wiley & Voss, 1999). The term 'argument' is used in a number of ways in educational contexts, which flows in a continuum from the philosophical construct (Toulmin, 1958, 2003) to varied writing practices (Mitchell et al., 2008). For example, Toulmin's (1958) model of argumentation and its variations considered arguments as claims supported by data and they were connected by warrants, such as broad universal statements authorizing the link between claim and data.

As highlighted in the literature, producing sound argumentative writing is challenging and, at times, demanding. This is notable for EFL learners who might have numerous problems producing academic arguments in their required English essays. Such inadequacy in producing solid argument accounts might be attributable to various factors such as lack of preparation, explicit pedagogy, and L1-L2 interference (see Abdollahzadeh et al. 2017). Besides these challenges, some of the studies have addressed the nature of argumentative writing and its complicated nature. For example, students may then confirm that in producing claims, they basically need to summarize their claims to achieve the objective of convincing audiences without providing supporting evidence or changing their own or others' standpoints on an issue. To view it in another perspective, the ability to identify the underlying argument, and its claims, warrants, and evidence in writing, is a critical skill for academic success

(Abdollahzadeh, et al. 2017; Graff, 2008; Hillocks, 2011; Kuhn, 2008). Additionally, Wiley and Voss (1999) proposed that producing written arguments helps individuals combine and deepen the comprehension of texts. One of the key and complicated elements of argumentative writing is the ability of the students and learners to produce counterarguments to know the opposing view point of the writer and how they can develop such cases and support them. Counterarguments are significant for two reasons: First, according to O'Keefe's (1999) meta-analysis results, texts considered and rebutted counterarguments were more persuasive than texts that did not. Second, many models of good thinking involve the ability to reflect and evaluate alternative perspectives (Baron, 2000; Scriven, 1976). However, the related studies highlighted students' inability to produce counterarguments and rebuttals in their argumentative tasks (Abdollahzadeh et al., 2017). On the other hand, there are some empirical studies proving that the key element for this lack of preparation and inadequacy is the different rhetorical systems between students' first language and the second or foreign language and the negative transfer they can result (Connor, 1987; Edelsky, 1982; Kaplan, 1966).

Nevertheless, research has revealed that, with ongoing academic instruction, EFL students are able to solve many of the above-mentioned issues (Connor, 2001; Grabe & Kaplan, 1989, 1996; Kaplan, 1987, 2001; Wang & Wen, 2002). Providing remedies for this issue is mostly related to the contributory role of writing instructors who are in quest for suitable teaching methodologies to spread appropriate materials and appropriate required course books to develop the EFL

students' writing techniques and their argumentative performance. Although teachers may emphasize the importance of argumentative writing, a key element to obtaining academic knowledge, they are often cautious of introducing what may evolve into conflict and combative debate (Johnson & Johnson, 2009). Hasani (2016) stated that there are some students who are required to be instructed explicitly and to move towards contextual instruction. "...we need to construct and improve upon teaching strategies which takes care of student with difficulties, especially students who have low critical thinking ability" (p. 5).

By the expansion of international relations of Iran in all domains of life, which determined the social order for the training of a new type of specialist communication, an active role must take place in various forms of written communication affairs. The new formation, which is an active mediator of intercultural communication, should be able to make public speech and writing effectively. Consequently, with the significant role of dialogue systems of international communication, the mediator should possess the presentation skills of public argumentative speech in circumstances of intercultural professional interaction. In the scientific field, the notion of "presentation competence" was revealed, which is reflected as a fundamental factor of intercultural communicative competence. The efficiency of public speech, employed on the basis of presentation competence, is principally determined by the ability to argue one's speech (Nurhayati, 2018). This is also generalizable to producing sound written argumentation to make communication as effective as possible. Though, there are

still very few studies in this field that are in the quest of the impact of teachers' professional development focusing on argumentation, especially in the area of pre-service and in-service teacher training programs. Likewise, the effect of teaching argumentative writing on students' performance in L1 is scarce given the nature of language transfer and its related issues in L2 writing, notably in argumentative writing courses (see Abdollahzadeh et al. 2017).

In this study, we initially describe whether argumentation instruction has any effects on boosting students' performance from pre-test to post-test. In the IELTS course books, the notion of argumentation has been implicitly taught whereas the aim of the researchers is to change this implicit instruction to explicit. In search of investigating the most appropriate instruction, Yeh (1998) disputed the usefulness of explicit over implicit teaching methods and found that the former gave better results in terms of student writing development than the latter. A study organized by Horowitz (1986) specified expressly better performance by a group that was given reading and writing instruction with text-structure patterns than a group that received only reading instruction. Leitão's (2003) study on how children aged 8-12 and college students in their first year were taught to write arguments through an argumentative sequence of introduction, viewpoint, supporting element, counterargument and reply (I,V,S,C,R) further showed how the students through explicit instruction could detect and integrate counterarguments and found difficult and undervalued elements into their texts. Although these studies have highlighted the centrality of L2 argumentative writing,

they did not provide the effect of teaching explicit argumentative writing under the banner of the modified Toulmin model developed and practiced by Qin and Karabacak (2010) on students' English and Persian argumentative performance.

## 2 Literature Review

Second and foreign language writing have advanced increasingly in the recent years, and it is the strategies used by writers which have been one of the most influential factors in the process and product of writing. One of the pioneers who worked on ESL writing strategies was Arndt (1987), who proposed eight categories of “*planning, global planning, rehearsing, repeating, rereading, questioning, revising, and editing*” and coded the strategies that the students applied in their writing (as cited in Mu, 2005, p. 6). In many cases, critical thinking and argumentation are often interchangeably used in educational research settings, which the former is regarded as a dispassionate analysis of arguments, including some general skills such as questioning, empathy, and critical detachment, that have straightforwardly been developed by engaging in argumentative discourse (Walton, 1989). Likewise, argumentative writing becomes more “critical” when the following reasoning skills are apparent: the construction of valid arguments, counter-arguments, and the relevant use of evidence. In the research done on Japanese ESL students' writing strategies, Sasaki (2000) introduced eight major categories of “*planning, retrieving, generating ideas, verbalizing, translating, rereading, evaluating, and others.*” Cognitive strategies contribute to the employment of metacognitive strategies,

which help learners in adapting to their suitable learning process. Metacognitive strategies comprise planning, evaluation, and monitoring, and cognitive strategies comprise clarification, retrieval, resourcing, deferral, avoidance, and verification (Rashtchi et al., 2019).

To look at it from a cognitive development point of view, argumentative skills are normally available from a very young age, but are only being mastered after being explicitly and consciously practiced mostly in educational settings (Kuhn & Udell, 2003). Felton (2004) categorized a human argumentative life-cycle to: three-year-old children who understand and generate the most important components of an argument; the early school years when children are also able to produce counterarguments or even more complex justifications; finally, adolescents can impulsively implement oral argumentative strategies of persuading purposes. He concluded, research has proven that it is merely through engagement with argumentative practice that argument skills get manifested during adolescence, either in oral or written discourse.

Regrettably, most educational programs globally do not provide lively courses in argumentation, as in some cases it may not seem necessary to teach this skill individually (Zohar, 2007). To put it in a nutshell, argumentation skills among grown-ups are often described as weak and the most effective stage to learn is during school period (Goldstein et al., 2009). Moving on to the university level, there are not many studies being worked on this issue, and even less interferences have been focusing on the promotion of argumentation skills in higher education. Argumentation skills at undergraduate and post-graduate levels are usually limited to

critical thinking courses in namely extracurricular programs and not as main courses to be taught (Rowe et al., 2006).

Graff et al. (2014) explained that, “academic writing is a means for entering a conversation” (p. xiii) and, consequently, its goal is to “make sophisticated rhetorical moves” (p.3). Which means that when we write an academic paper, we intend to write for “others”, and within a community of “others” (Hoey & Winter, 1983); which means that academic writing must be persuasive, not only for a professor or a supervisor, but also for other scholars reading the work. Such books focus on the mechanisms of linguistic dimension in writing for academic addressees, to be more specific on how to use academic language and conventions in a more accurate manner.

The use of argumentative approach in academic writing has to be linked to argumentative reasoning, and the notion has to be applied in a more practical way. Toulmin proposed a tool for an argumentative structure (1958) and it was named as Toulmin’s Argument Pattern (TAP), which he mentioned an argument could be represented as pattern of: a Claim, Data, a Warrant connecting claim and data, and Backings substantiating the warrants. Govier (2013) defined an argument as “a set of claims in which one or more of them –the premises – are put forward so as to offer reasons for another claim, the conclusion” (p. 1). According to TAP, those premises include data (facts on which a conclusion is based), and warrants, (rules of inference linking the data to the claim). In deductive logic, which is the validity of an argument judged from the validity of the premises used to lead to the conclusion: if the data and warrants are true, then the conclusion is true too. Nonetheless, this is not true for

the great majority of arguments used in everyday and academic sets. Another type of logic, which is known as defeasible logic, appeals for a more complex criteria of validity, and also draws importance on the additional evidence used to support the premises of the argument (backing).

To talk about the L2 academic settings, quite a few studies have shown that Toulmin’s model can be used as an empirical tool to teach argumentative writing in both L1 and L2 settings. Yeh (1998) examined the effect of two types of instruction on the argumentative writing abilities of 116 American students who were in the 7<sup>th</sup> grade. The two types of instruction were first, explicit instruction in Toulmin’s model combined with concept-mapping activities and second, concept-mapping activities only. The above-mentioned research showed better effectiveness for the former type of instruction in grasping argument knowledge and strategies. Varghese and Abraham (1998) studied a group of undergraduate students in a university in Singapore provided students with explicit instruction in the Toulmin model; therefore, students produced more explicit claims and were aware of views from both sides as well. The researches were arranged in L1 and L2, often focused on L2 writing only (Plakans & Gebril, 2013; Weigle & Parker, 2012), or compared a group of L1 writers to a group of L2 writers (Keck, 2006, 2014; Shi, 2004), usually with single tasks. To verify whether argumentation behavior is learner-specific, and thus transferrable between languages, a within-writer comparison of L1 and L2 writing across multiple tasks is required. Yang and Wang (2017) ascribed the TP patterns deviance to conceptual transfer and tried to explain the deviation from the different ways of thinking and

drew a distinction between the Chinese and English languages. They anticipated that this deviation as the transfer of spatiality of the Chinese language had an impact onto the temporality in the English language. Nevertheless, this study contained no statistical analysis or empirical data in support of their claims. Bi (2023) in his study, explored the L1 transfer of TP patterns in Chinese EFL learners' argumentative writing and reached to three points. First, the tests of two potential effects of L1 transfer delivered substantial indication to pinpoint the transfer of the first language in Chinese EFL learners' use of TP patterns in their English writing. Second, the results of comparative statistical analysis displayed that the overuse of constant progression patterns is an influence of L1 transfer on Chinese EFL learner's English writing which makes their writing second-rate in quality of American native speakers. To consider it linguistically, EFL learners regard L1 transfer as a means to express their meaning in their target language. She concluded that "the overuse of constant progression patterns demonstrates the transfer of discrete and chunky characteristics from the Chinese language onto the English language due to the different preferences for spatiality and temporality held by Chinese and English people in their ways of thinking" (p. 368).

Baker (2009) pointed out four types of argumentative situations in classes, but they depended on first, having one or more subjects to discuss; second, having one or more distinct points of view. To highlight the point that teachers need to develop their knowledge related to argumentation to create argumentative situations in their classroom, some researchers have introduced explicit teaching of argumentation in pre-service

and in-service science teacher training programs (McNeill & Knight, 2013; Simon et al., 2006; Zembal-Saul, 2009). This is because, from this point of view, the features of argumentation are emphasized by the teacher educator, the pre-service teachers are clarified to be aware of this notion, which can at times boost awareness about using argumentation in the context of teaching.

More precisely, the following questions were probed:

1. Is there any significant improvement in students' performance on English argumentative performance before and after instruction?
2. Is there any significant improvement in students' performance on Persian argumentative performance before and after instruction?

### 3 Method

The current study employed a descriptive quantitative design to be able to explain the effect of explicit argumentative teaching on students' English and Persian Argumentative performance. According to Cresswell (2014), this work is considered quantitative while the following processes like the data collection, analysis, and interpretation of data as well as its written results are included. Similarly, Johnson (2001) indicated that a study can be mentioned as descriptive when its core aim is to give a description to a particular event or phenomenon. This research as well applied an experimental design, as it was explained by Cresswell (2014) that when the target of the author is to investigate in the result section, whether there is an effect that befalls in the

intervention applied in the given samples in this case, it is considered as experimental design. Therefore, the researchers in this type of design were able to apply intact sampling which is exploited in a true experiment study.

### 3.1 Participants

30 male and female Iranian graduate and undergraduate learners of EFL (English as a Foreign Language) participated in the study. All of them were English language students in an English Institute (Melal Language Institute) in Alborz province, Iran. The candidates were being prepared for IELTS examination, which is an International English Language Testing System. The volunteers had different language backgrounds, from B1 to C1 (based on CEFR). They all were required to be at least in the B1 level to participate in the IELTS course. IELTS is designed in a four-semester course when students pass their English Diploma, which is a 12-semester course and students are granted a certificate by the institute, and Writing is one of their main skills being focused in order for the candidate to get an acceptable Band Score. One of the issues in such courses is that argumentation is not explicitly taught as a main point for the second writing section. Most of the volunteers were candidates less than 20 as they were all seeking to achieve at least 6.5 in order to continue their education in a foreign country. The participation policy in this study was voluntary, and they were notified about the purpose of the study, and that they could withdraw from the study anytime they wished. Consequently, the final participants were 40 as some of them did not complete the writing task as requested and some withdrew from the study; therefore, the final number was 30,

10 males and 20 females. Due to the Covid-19 pandemic, there were severe limitations to face to face classes and the sessions were arranged via Skype.

### 3.2 Materials and Instruments

The participants were asked to write three IELTS Task 2 essays based on argumentation in English and Persian. To select the appropriate topics, we referred to the online database for IELTS Task 2 Sample questions ([www.ielts-practice.org](http://www.ielts-practice.org)) and selected 10 topics to suit the related research's aim. At the end, the researchers chose 3 topics for the volunteers to write both in English and Persian. It was also assumed that the participants had adequate background knowledge on the issue and were given enough exposure of what writing argumentation is and the general knowledge they were supposed to know related to IELTS. The writing task had simple and clear instructions on how to do the task along with the stages the students had to respond to. The learners were required to develop well-organized arguments explaining and supporting their views, and making their position clear on the given topics. Because the whole course was online and the researchers were not able to see the volunteers, the prompt questions were given to them online and the sample IELTS answer sheet for Writing Task 2 was sent to all students. Some wrote their answers on the actual answer sheet and the rest typed them via Word doc.

### 3.3 Procedures

A consent letter was prepared and given to the students prior to data collection in the study. All the students were briefed

individually on the purposes of the study and the data collection procedures. A session was set and the students were reassured that all the data would be kept confidential and used for research purposes only, and it was guaranteed that they could withdraw from the study if they wanted to. All the respondents were given all the materials online due to the pandemic and if they needed assistance, they could come to the institute for better clarification, according to the protocols of that time. Students had to write 3 sets of IELTS writing questions from pre to while and post stage to measure the effect in each process. The students had to write the Persian version of each writing after two weeks in order not to fully remember what they had written on the English version. Students had to write a pre-stage writing without any instructions. After a week, they had their first instruction session that included an overview of IELTS writing Task 2 and the feedbacks for the first writings. The content of the second session was a discussion on what argumentation is and specifically in IELTS writing Task 2. The first two components of argumentative writing, claim and data, were explained in detail along with examples to clarify the use in IELTS. While they were instructed, they had to write their second essay based on what they were taught about argumentative writing. During the third session, counterargument claim, counterargument data, rebuttal claim and rebuttal data were explained and examples of these 4 elements were given to the class to know how to apply them. After the three-session instruction was over, two weeks passed and the students all wrote their third topic. The number of words had to be a minimum of 250 words in maximum 40 minutes. The collected papers were rated by two experienced IELTS writing

instructors and raters both holistically and analytically according to the argumentation scale, the interrater reliability was estimated too. One of the raters was an IELTS mock test examiner at one of the well-known IELTS centers in Tehran and the other rater scored the papers according to the argumentative writing scales. First, the selected scripts (n = 180) were corrected based on the Band descriptors of IELTS, Task Response (TR), Coherence and Cohesion (CC), Lexical Resource (LR) and Grammatical Range and Accuracy (GRA). The Band Scores are from 0 to 9, all the elements were scored and then the mean was given to each writing. The first argumentative writing profile, both English and Persian (cluster 1) showed an increase in score from Pre to Post-test, as the researcher reviewed all the IELTS writing tips once again, only the English version was scored. The second writing profile was corrected based on the argumentation elements. The candidates tended to support their claim(s) and counter-argument claims with either data, dismissing rebuttals and maintaining their position after being instructed. The first writing they wrote was about all they knew related to their previous knowledge they had. In this stage, the number of times each argumentative element was applied had to be analyzed and counted to see whether the instruction had any effect on the argumentative use in both languages.

## 4 Data Analysis

### 4.1 Overview

The present study was undertaken in order to compare the EFL learners' performance on writing IELTS test, and 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  $\pm 1.96$  (Raykov and Marcoulides, 2008; Coaley, 2014; Field, 2018; and Abu-Bader, 2021). The normality was checked and 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.							

## 4.2 Exploring First Research Question

Is there any significant improvement in students' performance on English argumentative performance before and after instruction?

Repeated Measures ANOVA was run to compare the EFL learners' means on 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

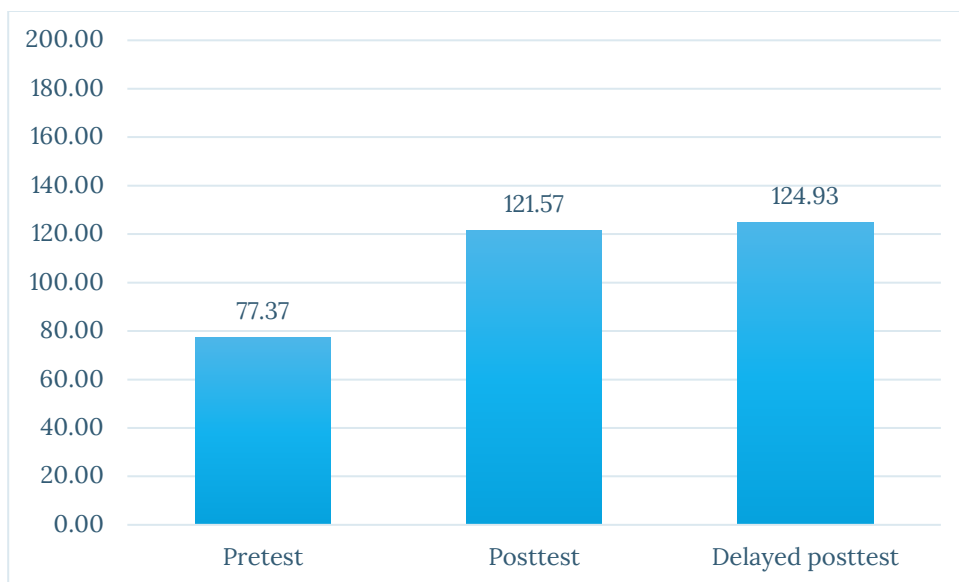


Figure 1 Means on Total English Argumentative Tests

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

The inferential results ( $F(2, 28) = 503.39, p < .05, \eta^2 = .973$  representing a large effect size<sup>1</sup>) indicated that there were significant differences between the EFL learners' overall means on English argumentative tests. Therefore, the null hypothesis is rejected.

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 ( $M = 77.36$ ) ( $MD = 44.20, p < .05$ ).

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

<sup>1</sup> 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).

<sup>2</sup> MD stands for mean difference.

**Table 5 Pairwise Comparisons Total English 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	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.

### 4.3 Exploring Second Research Question

Is there any significant improvement in students' performance on Persian argumentative performance before and after instruction?

Repeated Measures ANOVA was run to compare the EFL learners' means on

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 Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Total Persian	.892	3.188	2	.203	.903	.959	.500

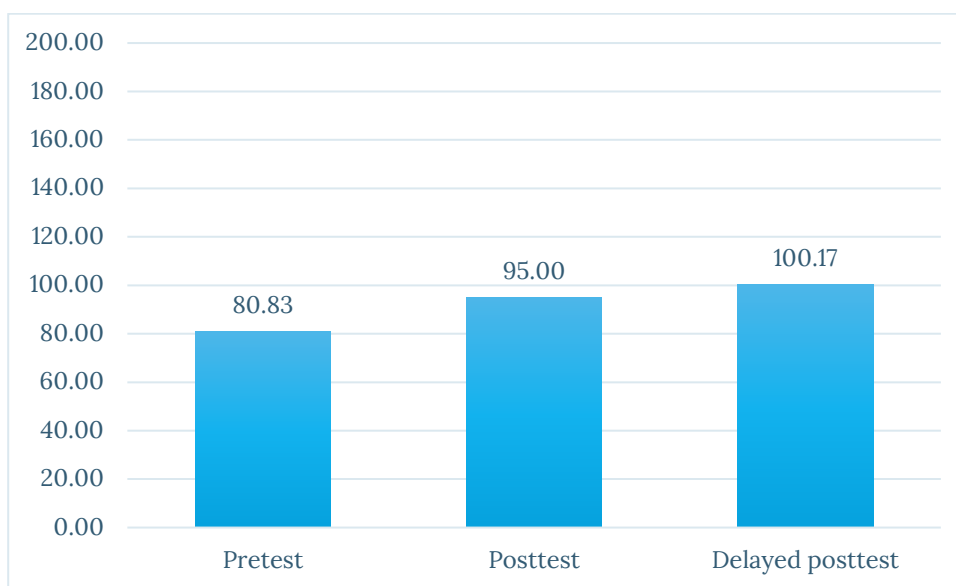
Table 7 shows the descriptive statistics for the EFL learners on total Persian argumentative tests. The results indicated that the EFL learners had the highest mean

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**



**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

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

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 ( $M = 80.83$ ) ( $MD = 5.16, p < .05$ ).

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

**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.

## 5 Discussion

The instructor organized the sessions talking about argumentation in an explicit fashion. From pre-test to post-test, we could see a significant rise in the mean of argumentation use, both in Persian and English. Their formal training sessions during a 2-month period showed candidates' directedness towards using argumentation in their essays. To consider a similar aim of improving EFL students' academic arguments, Yeh (1998) carried out a study on 116 non-native middle school students in the US, indicating that a combination of explicit instruction with a 'bridge' and a 'pyramid' heuristic (guide) gave noteworthy improvements in the experimental students' writing and their knowledge transferability to different topics over the control group. Yeh (1998) believed that students stand a cost if they are not guided correctly in writing argumentative essays. Even though the study was carried out on pre-university students, it reveals that explicit instruction in textbooks is lacking for the foreign learner, as we see that argumentation in IELTS courses are not taught explicitly.

The candidates used all the elements of written argumentation being taught in the instruction sessions; however, the extent of applying the components, increased from the pre to post stages. The majority of the essays being scored included merely the basic elements, the writer's opinion

(claim) and supporting evidence (data). These elements are the most preferred ones for learners to write as they are the fundamental elements to argumentation (Abdollahzadeh et al., 2017; Lunsford, 2002; Qin and Karabacak, 2010; Varghese and Abraham, 1998). The use of the argumentation elements were quite the same both in Persian and English for each individual topic. Less than half of the argumentative essays applied some form of rebuttals and counterarguments. A plausible explanation might be the implicit explanation of argumentation in IELTS course books and some teachers' lack of experience and awareness of the application of these elements. Counterarguments and rebuttals have a significant role in argumentation structure (Toulmin 2003). The majority of the candidates failed to signify a reflective side related to the topic which could have a better result in the quality of their arguments in their task 2 writing.

The research was based on an integrated assessment framework, both according to substance and structure (Stapleton and Wu, 2015). After the complete analysis, various argumentative behaviors were detected in both the English and Persian version. Obviously, as the instruction sessions took place, the written arguments become more complex and sophisticated. Although the students produced more complex and sophisticated arguments compared to those in the first

writing, the students were not able to apply rebuttals with the counterarguments and consequently failed to refute them. With all the instruction sessions taking place and one to one classes for those who needed more instruction, the candidates failed to use the complex nature of the argument-counterargument structure in L2 (Qin and Karabacak, 2010) as well as “risk avoidance, lack of confidence, and reformulation difficulties in producing argument-counter-argument claims and supported data” (Kobayashi and Rinnert, 2008, p. 35). There was an interesting fact that in most of the writings, the number of argumentation elements were quite the same in the L1 and L2. Additional research can help us notice the extent to which transfer of argumentation strategies occurs in L2 argumentative production. The impression of L1 educational and writing culture could be another factor for L1-L2 variations in argumentative development. Most of the students wrote a well-structured essay but this did not guarantee a sound use of argumentative components. Awareness raising can be crucial for both instructors and candidates to make the most in the essays. (Sadler, 2004).

## 6 Conclusion

The findings of this research reveal the effect of argumentation instruction on the L1 and L2 writings. The use of arguments reasoning of the candidates was generally weak in the first set of writings, but as we moved on towards the post-test, the numbers had a significant rise. Applying argumentative skills is a striving educational objective which needs time and practice to master (Means & Voss, 1996); intensive writing programs have to

be organized to create abundant opportunities for learners to take part in argumentative practices so that they can justify their claims, and the use of counterarguments and rebuttals (Sampson & Clark, 2008; Braund et al., 2013). This argumentative mediation can develop EFL learners’ critical thinking skills as people seem to have a better learning when they argue (Kuhn, 2008), “and thus help them understand the epistemic nature of knowledge and participate more effectively in their respective scientific discourse” (Abdolahzadeh et al., 2017, p. 18). As argumentation has not been taught explicitly in IELTS courses, adding this topic can increase the band score of the students. IELTS instructors can benefit from argumentative writing and teach the topic thoroughly in class as critical thinking should be part of the pedagogy. It is highly recommended for instructors to add this topic to their syllabus and use Toulmin’s model in the discursive section.

We chiefly explored the discursive essays of IELTS learners of an English Institute. The volunteers’ topical and background knowledge were not investigated in this study. Students can use Toulmin’s model in developing their Task 2 writings in IELTS as part of their intensive course. Admittedly, there exist several drawbacks in the study. The number of students was limited and the study took place only in one EFL institute, due to the pandemic, and consequently future studies with more participants and different educational settings are recommended. Additionally, students were only asked to write three topics in two languages, and the number could increase. Future studies could investigate the explicit instruction of Toulmin’s argumentation in IELTS course books.

Examining these matters was outside the scope of the present study.

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