Using Critical Discourse Analysis Based Instruction to Improve EFL Learners' Writing Complexity, Accuracy and Fluency

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Abstract

The literature of ELT is perhaps overwhelmed by attempts to enhance learners' writing through the application of different methodologies. One such methodology is critical discourse analysis which is founded upon stressing not only the decoding of the propositional meaning of a text but also its ideological assumptions. Accordingly, this study was an attempt to investigate the impact of critical discourse analysis-based (CDA) instruction on EFL learners' writing complexity, accuracy, and fluency (CAF). To fulfill the purpose of this study, 60 female intermediate EFL learners were selected from among a total number of 100 through their performance on a piloted sample PET. Based on the results, the students were randomly assigned to a control and an experimental group with 30 participants in each. Both groups underwent the same amount of teaching time during 17 sessions which included a treatment of CDA instruction for the experimental group. A writing posttest was administered at the end of the instruction to both groups and their mean scores on the test were compared through a MANOVA. The results led to the rejection of the three null hypotheses, thereby demonstrating that the learners in the experimental group benefited significantly more than those in the control group in terms of improving their writing CAF. To this end, it is recommended that CDA instruction be incorporated more frequently in writing classes following of course adequate syllabus design and materials development.

Keywords: critical discourse analysis, writing accuracy, writing complexity, writing fluency

Introduction

Ever since its emergence perhaps some eight millennia ago, writing has undergone many changes both in structure and application. From early Neolithic writings and cuneiforms, the need for which was probably generated by economic necessity and political expansion, to the modern-day amalgamation of digitalized alphabetic letters and emoticons, writing systems have consistently been exposed to transformations.

Certain foundational features of this visual form of human communication have, however, remained intact. One such feature, in the memorable words of H. G. Wells (1922), is perhaps the fact that writing makes "a continuous historical consciousness possible" (p. 41) since a piece of writing can outlive its writer. Hence, one can readily argue that it is this very sustainability of writing vis-à-vis the ephemerality of speaking which makes it a more dependable method of recording both transactions and interactions.

Accordingly, learning to write is an indispensable part of language learning; becoming more and more aware of this necessity, English language teaching circles have been paying further attention to writing (Seidlhofer & Widdowson, 1999). To this end, ELT experts and practitioners no longer view writing as merely a mechanical task of producing grammatically correct sentences but as "a process of generating a text as a communicative bridge between the reader and the writer. It is important to view writing not solely as the product of the individual, but as a cognitive, social, and cultural act" (Weigle, 2002, p. 146).

Writing is often perceived as the most difficult skill as it requires a higher level of productive language control compared to other skills (Celce-Murcia & Olshtain, 2000). It is no wonder then that there exists a plentitude of research in the literature on endeavoring to enhance EFL learners' writing performance through applying different methods and techniques (e.g., Atkinson, 2003; Beilder, 2010; Bohannon, 2005; Jalali & Zarei, 2016; Koll, 2012; Marashi & Jafari, 2012; Tavakoli & Rezazadeh, 2014). Among these different methods and techniques, one rather recent trend of pedagogy is founded upon critical discourse analysis (CDA). The fundamental point which makes CDA different from other approaches to text analysis is that it stresses not only the decoding of the propositional meaning of a text but also its ideological assumptions (Fairclough, 1992). CDA shows "how discourse is shaped by relations of power and ideologies, and the constructive effects discourse has upon social

identities, neither of which is normally apparent to discourse participants" (Fairclough, p. 12).

There have been many research studies on the impact of CDA-based instruction on the reading comprehension of EFL learners (e.g., Correia, 2006; Cots, 2006; Fredricks, 2007; Icmez, 2009; Janks, 2005; Koupaee Dar et al., 2010; Wallace, 1992; Wallace, 1999; Zhang, 2009; Zinkgraf, 2003); all these studies demonstrate the significant effectiveness of CDA-based instruction. An earlier study conducted in Iran (Marashi & Yavarzadeh, 2014) also demonstrated that CDA-based instruction impacts learners' descriptive and argumentative writing.

In line with what has been discussed so far, the researchers undertook this study to find out whether CDA-based instruction affects EFL learners' writing CAF.

There is a perhaps growing tendency in teaching writing to take into consideration the various comprising features of this skill such as complexity, accuracy, and fluency (CAF). Historically, it was first Brumfit (1984) who used the dichotomy of fluency and accuracy when he distinguished between fluency- and accuracy-oriented activities. Later on, in the 1990s, following Skehan's (1989) conceptualization, the third component – that is complexity – was also added.

At first glance, the three constructs seem readily definable: *complex* language is more advanced and complicated, *accurate* language is free from errors while *fluent* output comes at a normal pace. These three subsystems, nevertheless, are much more intricate and multidimensional than they appear and there is hardly any consensus among ELT researchers concerning the definition and operationalization of CAF (Housen & Kuiken, 2009).

Ellis and Barkhuizen (2005) describe complexity as elaborated language which is relative to proficiency through stating that complex language "is at the upper limit of the student's interlanguage system, which is not fully internalized or automatized by the learner" (p. 139). Skehan and Foster (1997, p. 191) connect complexity with "more challenging and difficult language or with a wider repertoire of structures which is related to restructuring of the learners' interlanguage". Language complexity is perhaps the most difficult to define since by describing complexity as more advanced, it seems as though

complexity is not a property of language production but just an indication of development or proficiency (Pallotti, 2009).

Fluency has a more narrow meaning as a component of oral language performance: "the delivery of speech" (Schmidt, 1992, p. 358) which can be measured through different elements such as speed of speech, number of pauses, etc. Other conceptualizations are also provided; Wolfe-Quintero, Inagaki, and Kim (1998) define fluency as "rapid production of language" (p. 117) which – in the context of writing – would be the number of words written within a specific period of time.

Among the CAF triad, accuracy is perhaps the most easily defined. Housen and Kuiken (2009) describe accuracy simply as error-free language production. To determine how error-free a text is, a mainly syntactic criterion called t-unit is most commonly used for both written and spoken data (Norris & Ortega, 2009). A t-unit was originally defined as one main clause with all the subordinate clauses attached to it (Hunt, 1965) and later revised by Hunt (1970) to one main clause plus any subordinate clause or non-clausal structure that is attached to or embedded in it. Naturally, the higher the number of the error-free t-units in a text is, the more accurate the text will be.

Alongside the theoretical debates on writing and its subcomponents, a major issue is the theorization and practice of teaching writing for more efficient results. This is perhaps especially true when one regards writing as being "essentially a reflective activity that requires enough time to think about the specific topic and to analyze and classify any background knowledge. Thenceforth, writers need suitable language to structure these ideas in the form of a coherent discourse" (Chakraverty & Gautum, 2008, p. 286). And in line with the above trend of thinking which focuses on encouraging learners to produce coherent discourses rather than merely grammatically correct texts, there is growing emphasis by a number of scholars on critical discourse analysis (e.g., Cots, 2006; Fairclough, 1989; Fairclough, 1995; Kamler, 2001; Pennycook, 2001).

As stated earlier, CDA is concerned with analyzing texts in order to unearth the discursive sources of power, hegemony, inequality, and bias which are underlying any given social, political, and historical context (van Dijk, 2006). To this end, a central assumption of CDA is that "writers make choices regarding vocabulary and grammar, and that these choices are consciously or

subconsciously principled and systematic" (Fowler, Hodge, Kress, & Trew, 1979, p. 188). Thus, these choices are ideologically based (Rogers, 2004) and manipulation and illegitimate mind control are significant issues of CDA since the latter is a method to elucidate such biases as well as power exercises (van Dijk, 2006).

Historically, the roots of CDA may be traced back to the 1970s which saw the emergence of a form of discourse and text analysis that recognized the role of language in structuring power relations in society but it was in the early 1990s when the label CDA was "emerging as a distinct theory of language, a radically different kind of linguistics" (Kress & van Leeuwen, 1990, p. 94).

CDA-oriented text interpretation includes a close analysis of context which is not represented only by "the immediate environment in which a text is produced and interpreted but also the larger societal context including its relevant cultural, political, social and other facets" (Huckin, 1997, p. 79) as "the notions of ideology, power, hierarchy, and gender together with sociological variables are all seen as relevant for an interpretation or explanation of text" (van Dijk, 1997, p. 2). Indeed, "Analysis of texts is an important aspect of ideological analysis and critique" (Fairclough, 2003, p. 218).

The practice of CDA in classrooms is an emerging trend; an increasing number of teachers are encouraging students to effect CDA in their learning tasks inside the classroom (Boston, 2002; Cots, 2006; Fairclough, 1995). The introduction of CDA in language classes, however, does not necessarily involve a radical change in teaching methods or techniques (Cots, 2006; Pennycook, 2001; van Dijk, 2001); rather, CDA could be incorporated within most – if not all – such methods or techniques.

The application of CDA in the ELT classroom perhaps started with the reading program; Wallace (1992) was the first to propose a comprehensive guide on using CDA in teaching reading in EFL classes. CDA instruction facilitates the process for learners to understand the underlying meaning of a text by engaging them in examining both the formal linguistic devices and the socio-cultural meaning of a text (Pennycook, 2001).

The introduction of CDA instruction in the classroom not only contributes to a rise of learners' critical language awareness but also promotes their language awareness (Fairclough, 1995). To this end, CDA is both a

pedagogical approach and an explicit knowledge about language or a conscious perception and sensitivity in language learning (Koupaee Dar, Rahimi, & Shams, 2010).

As stated earlier, most of the research dealing with CDA has been conducted on the reading skill. Since little has been done on the writing skill, the major significance of the present study is that it is a step – albeit modest – in addressing this research gap through endeavoring to provide some insights into how writing could be taught with possibly more effective outcomes.

The results may serve advantageous to the ELT practice through proposing useful guidelines to EFL teachers and educational institutions in order to improve students' writing skill in general and writing CAF in particular.

Accordingly, the following three research questions were raised:

1. Does CDA-based instruction have any significant effect on EFL learners' writing complexity?
2. Does CDA-based instruction have any significant effect on EFL learners' writing accuracy?
3. Does CDA-based instruction have any significant effect on EFL learners' writing fluency?

Method

Participants

For the purpose of this study, 60 female intermediate EFL learners who attended one of the language schools in Tehran were selected from among 100 participants based on their performance on a sample PET. The 60 homogenous students were those whose scores fell one standard deviation above and below the mean and were randomly assigned into one experimental and one control group of 30 in each.

The sample PET had been piloted among 30 students with almost the same English proficiency level of the main participants prior to the study. Moreover, both researchers rated the writing tests and their inter-rater reliability was calculated.

Instrumentation and Materials

Throughout the course of this study, two tests, three rubrics, and a course book were used which are described below.

Tests

   Preliminary English Test (PET). A sample PET was administered for selecting homogeneous participants as described above. The test covers all the four language skills of reading, writing, listening, and speaking. PET is part of a group of examinations developed by Cambridge ESOL called the Cambridge Main Suite. The test originally contained 75 items but eight items were discarded as a result of the item analysis following the piloting. The writing section of the PET was used as the pretest.

   Posttest. After the treatment process, a writing posttest was administered to both groups to determine the changes – if any – in their writing CAF. This was another version of the PET test writing paper part 2 already described above. The time allocated was 20 minutes.

Rubrics

   Rating Scale for Writing Complexity. To measure the learners' writing complexity, the researchers used the proportion of clauses to t-units. A t-unit is defined as "one main clause plus whatever subordinate clauses happen to be attached or embedded with it" (Hunt, 1966, p. 735). Foster and Skehan (1996) also conclude that this is a reliable measure correlating well with other measures of complexity. In this way, complexity can be one or higher than one with one meaning that every t-unit contains only one clause or an absolute lack of complexity in writing. The following is an example of how complexity was measured in this study with a sample of writing of one of the participants on the posttest:

   I think that it better staying in the countryside in Iran. Cities are too pollution and very heavy traffic and they have many noise. The countryside in the north is very beautiful where you go to seaside and swimming. There are beautiful mountains and forest also. The countryside has very delicious food which is very fresh. The weather was very clean in countryside but many smoke in city which is very bad and we get sick. Also people in the countryside are very kind and happy so countryside is much better.

   In the above text, the number of the clauses (correct and incorrect) is 15 while that of the t-units is 11; hence, the complexity measure of this text stands at 1.36.

Rating Scale for Writing Accuracy. To measure the learners' writing accuracy, the global units expressed in terms of the proportion of error-free t-units to all t-units (EFT/T) were calculated and presented as percentage. Going back to the above example, only three out of the 11 t-units are correct; therefore, the accuracy measure of the sample was 27%.

Rating Scale for Writing Fluency. The writing fluency rubric used in this study was the number of words written within a specific period of time. Again in the previous example, the previous text was written in 20 minutes and the total number of words was 90 meaning that the fluency measure was 4.5.

Course Book

The main material used during the treatment was *New Total English* (Hall & Foley, 2011) which consisted of writing sections, reading texts, dialogs, listening, structure, and glossary designed for intermediate language learners.

Procedure

As discussed earlier, following the piloting and the administration of the sample PET, a statistical test was run at the outset (detailed in the results section) to make sure that the learners bore no significant difference in terms of their performance on the three dependent variables of the study. The 60 learners were then assigned randomly to two experimental and control groups.

The participants in both groups attended 20 sessions of one hour and 30 minutes three times a week, two sessions of which were taken for the midterm and final tests of the language school. Furthermore, half of one session was also allocated to the posttest. Therefore, the actual class teaching time span for 17 sessions, out of which 45 minutes of every other session, was allocated to teaching writing in both groups.

The materials used in both classes were the same and the teacher of both classes was one of the researchers. The difference was that while in the experimental group, CDA-based instruction was used for teaching the writing sections, the general method of teaching writing as prescribed by the language school was used in the control group.

The Procedure of Instruction in the Control Group. The teacher-researcher began the writing instruction on the first session in the control group with a five-minute warm-up in which she wrote an example of a topic sentence on the board and asked the students to identify any feature that made the sentence a topic sentence. She linked this warm-up to the main activity where

she further explained the structure of a paragraph. Accordingly, she elaborated on the topic sentence through writing a sample paragraph on the board highlighting how the topic sentence was significant.

Furthermore, the students were given a text taken from another intermediate textbook to analyze and grasp how the topic sentence contributed to the general meaning. Accordingly, the students analyzed the text as a part of main activity while they were writing paragraphs.

The students were assigned to write an essay as their homework; they would hand in the homework the next session and the teacher took them home to provide corrective feedback on them. The next session, the teacher gave the learners back their writing and asked them to check and see whether they understood the feedback provided or not. Next, the teacher selected three students to read out their writings in class (naturally, she would do this with different students every session so that all students would get at least three chances of doing so throughout the course). The learners would listen to and be encouraged to take notes on the lexical and syntactic inaccuracies and discuss them.

The Procedure of Instruction in the Experimental Group. The teacher started the writing instruction on the second session of the course during which the new strategy of writing was introduced to the learners. She had brought a sample reading passage to the class and gave a copy to each of the learners.

The teacher used the board to present and write the main CDA-based questions in order to make the learners familiar with the techniques in analyzing the text critically. These basic questions were according to Massi's (2001) guidelines which are similar to those by Kress (1985) and Wallace (1992) recommended as a start in CDA-based writing classes:

1. Who writes/says x?   [AUTHOR'S ROLE]

2. Who does s/he write/say it to?   [AUDIENCE]

3. What does s/he say?   [TOPIC]

4. Why does s/he say it?   [PURPOSE]

5. How does s/he say it?   [LINGUISTIC CHOICE]

The teacher used these main questions at first and wrote them on the board and explained them thoroughly one by one in order to get the students involved. Then the teacher asked the learners to write and express their own opinions

about the reading passage using the questions on the board (the writing was done in class). The learners handed in their writings and the teacher took them home to provide corrective feedback on them.

The next session, the teacher gave the learners back their writing and asked them to check and see whether they understood the feedback provided or not. Next, the teacher selected three students to read out their writings in class (naturally, she do this with different students every session so that all students would get at least three chances of doing so throughout the course). The learners did this and were encouraged to take notes and thence express their thoughts and also point to the lexical and syntactic inaccuracies. For this stage, they were familiarized with Fairclough's (1992) proposed three levels of analysis: social practice, discursive practice, and textual practice.

A: SOCIAL PRACTICE

A.1 What social identities does the author represent?
A.2 What is the relationship between the social identities the author represents?
A.3 What is the social goal the author has with the text?
A.4   In what kind of social situation is the text produced? How conventional is it?
A.5 Does the author represent or appeal to particular belief?

B: DISCURSIVE PRACTICE

B.1 Does the text remind us of other texts we have encountered either in its form or in its content?
B.2 Does it require us to "read between the lines"?
B.3 Does it presuppose anything?
B.4 Who are the producers and intended receivers of the text?

C: TEXTUAL PRACTICE

C.1 If the text is co-operatively constructed (for example, a dialogue), is it obvious in any way that one of the participants is more in control of the construction than the others?

C.2 How are the ideas represented by utterances, sentences, or paragraphs connected in the text?

C.3 Does the author follow any rules of politeness?

C.4 How does syntactic structure as well as lexical choice affect the meaning?

C.5 Are there any relevant terms, expressions, or metaphors that contribute to characterizing the text?

Following these discussions in class, the teacher assigned the learners another topic which they were supposed to hand in the next session. The teacher would correct the papers and give them back to the learners with her corrective feedback and the above procedure would be conducted with the topic. As stated earlier, all the participants in both groups sat for the same posttest.

Results

For the purpose of testing the hypotheses, a comprehensive description of the findings are presented. A chronological order is applied in reporting the data analysis; thence, the participant selection process, the posttest, and the hypotheses testing are described in order.

Participant Selection

PET Piloting and Administration. Following the piloting of the PET, the researchers conducted descriptive statistics: the mean and standard deviation stood at 48.43 and 7.61, respectively. Furthermore, the reliability of the test scores gained by the participants on the pilot PET – using Chronbach Alpha – was 0.81. The researchers also calculated the inter-rater reliability of the two raters' scoring of the writing section. The results demonstrate that there was a significant correlation at the 0.05 level ($r = 0.823$, $p = 0.000 < 0.01$). In the

actual administration of the PET, the mean and standard deviation were 44.01 and 4.76, respectively with the reliability being 0.91.

Dividing the Participants into Two Groups. Out of the 100 participants sitting for the PET administration, 60 whose scores fell between one standard deviation above and below the mean were chosen. The next step was to randomly divide the 60 participants in two groups: the control group and the experimental group. To make further sure that the two groups bore no significant difference in terms of their writing CAF prior to the study, the mean scores of the two groups on the above constructs scored by the two raters on the PET writing section had to be compared statistically. Prior to this, the inter-rater reliability of the two raters on writing complexity and accuracy had to be checked. Two points have to be raised here: the writing fluency of the participants did not require such checking as it was calculated objectively, i.e., the number of the words divided by the time and, secondly, as only 30 scores are required for checking inter-rater consistency, the researchers ran the test on the two sets of scores of writing complexity given by the two raters to the control group and the two sets of scores of writing accuracy given by them to the experimental group to have a mix of both groups.

The results demonstrated that there was a significant correlation at the 0.05 level ($r = 0.995$, $p = 0.000 < 0.01$). Hence, the researcher and the other rater enjoyed inter-rater consistency when it came to scoring the learners' writing complexity. Furthermore, the two raters' consistency of scoring writing accuracy was very high too thus establishing a significant correlation ($r = 0.993$, $p = 0.000 < 0.01$).

The final step in the participant selection phase was running a MANOVA on the writing CAF scores of the participants in the two groups to make sure that there was no significant difference between them prior to the instruction. Table 1 displays the descriptive statistics of these scores.

Table 1

Descriptive Statistics of the Writing CAF of the 60 Participants at the Outset

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness Ratio
	Statistic	Statistic	Statistic	Statistic	Statistic	
Cont Pre Complexity	30	1.00	2.96	1.6237	.46604	1.51

Cont Pre Accuracy	30	.12	.74	.4943	.16336	-1.08
Cont Pre Fluency	30	3.00	5.50	4.2283	.62611	.001
Exp Pre Complexity	30	1.00	2.87	1.6180	.45513	1.42
Exp Pre Accuracy	30	.12	.80	.4943	.16919	-.67
Exp Pre Fluency	30	3.00	5.50	4.2200	.61890	.08
Valid N (listwise)	30					

As is clear from the Table 1, all sets of scores enjoyed normalcy of distribution; in other words, the first assumption for running the parametric MANOVA test was in place. The next assumption was checking the multivariate normality.

Table 2
Regression Output: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.49	1.51	1.50	.005	60
Std. Predicted Value	-2.489	1.720	.000	1.000	60
Standard Error of Predicted Value	.077	.211	.130	.032	60
Adjusted Predicted Value	1.40	1.59	1.50	.042	60
Residual	-.508	.512	.000	.504	60
Std. Residual	-.982	.989	.000	.974	60
Stud. Residual	-1.043	1.065	.000	1.009	60
Deleted Residual	-.588	.597	.000	.541	60
Stud. Deleted Residual	-1.044	1.066	.000	1.009	60
Mahalanobis Distance	.312	8.791	2.950	1.929	60
Cook's Distance	.005	.053	.019	.011	60
Centered Leverage Value	.005	.149	.050	.033	60

As indicated in Table 2, the Mahalanobis maximum distance is 8.79 which is less than the critical value of 13.82 (Pallant, 2007). This means that there are

no multivariate outliers in the data and thus the assumption of multivariate normality has not been violated.

The next assumption was linearity. As Figure 1 demonstrates, there was no obvious evidence of non-linearity and thus the assumption is satisfied.
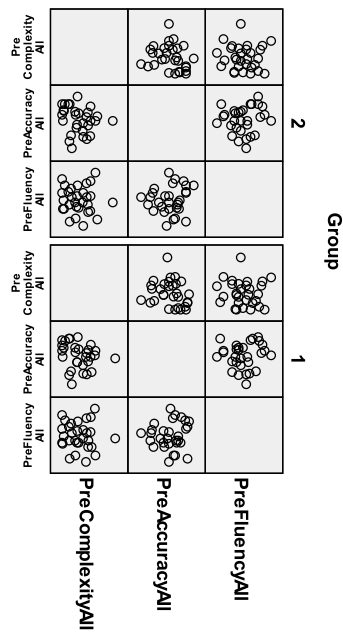

Figure 1. Scatterplot of the Writing CAF Scores Obtained by Both Groups at the Outset

The next assumption is equality of covariance matrices. According to Box's test, the significance value is 1.000 which is larger than 0.001 and thus the assumption is not violated. The final assumption is the Levene's test of equality of error variances. According to Table 3, neither significance value is smaller than 0.05 and thus the assumption is met.

Table 3
Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Pre Complexity All	.013	1	58	.909
Pre Accuracy All	.040	1	58	.841
Pre Fluency All	.004	1	58	.952

With the above assumptions in place, the MANOVA could be performed.

Table 4
Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.987	1386.660a	3.000	56.000	.000
	Wilks' Lambda	.013	1386.660a	3.000	56.000	.000
	Hotelling's Trace	74.285	1386.660a	3.000	56.000	.000
	Roy's Largest Root	74.285	1386.660a	3.000	56.000	.000
Group	Pillai's Trace	.000	.002a	3.000	56.000	1.000
	Wilks' Lambda	1.000	.002a	3.000	56.000	1.000
	Hotelling's Trace	.000	.002a	3.000	56.000	1.000
	Roy's Largest Root	.000	.002a	3.000	56.000	1.000

Table 4 demonstrates the Multivariate test: the result of the Pillai's Trace Test specified a significant p value, F = 0.002, $p = 1.000 > 0.05$. It could thus be concluded that there was no statistically significant difference between the two groups at the outset regarding writing CAF. Hence, any possible difference in the writing CAF of the two control and experimental groups at the posttest could be attributed to the treatment.

Posttest

As is shown in Table 5 below, the mean and standard deviation of the control group on writing CAF were 1.80 and 0.49, 0.53 and 0.14, and 4.30 and 0.57, respectively, while those of the experimental group were 1.93 and 0.51, 0.57 and 0.13, and 4.49 and 0.54, respectively.

Table 5
Descriptive Statistics of the Writing CAF of the 60 Participants on the Posttest

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness Ratio
	Statistic	Statistic	Statistic	Statistic	Statistic	
Cont Post Complexity	30	1.00	3.00	1.7997	.49059	.66
Cont Post Accuracy	30	.17	.74	.5273	.14140	-1.15

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness Ratio
	Statistic	Statistic	Statistic	Statistic	Statistic	
Cont Post Fluency	30	3.15	5.50	4.2950	.57331	-.05
Exp Post Complexity	30	1.00	3.00	1.9293	.50677	.61
Exp Post Accuracy	30	.27	.79	.5717	.13300	-.95
Exp Post Fluency	30	3.55	5.50	4.4850	.54078	.05
Valid N (listwise)	30					

Furthermore, all sets of scores enjoyed normalcy of distribution as is depicted in Table 5.

Addressing the Research Questions

Another MANOVA was run to test the three hypotheses in one statistical procedure. As stated earlier – in Table 5 – all sets of scores enjoyed normalcy of distribution. As shown in Table 6, the Mahalanobis maximum distance is 8.21 which is less than the critical value of 13.82 (Pallant, 2007). This means that there are no multivariate outliers in the data and thus the assumption of multivariate normality has not been violated.

Table 6
Regression Output: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.83	2.12	1.50	.292	60
Std. Predicted Value	-2.305	2.107	.000	1.000	60
Standard Error of Predicted Value	.055	.165	.089	.028	60
Adjusted Predicted Value	.80	2.13	1.50	.293	60
Residual	-.793	.570	.000	.411	60
Std. Residual	-1.898	1.364	.000	.983	60
Stud. Residual	-1.935	1.382	.000	1.001	60
Deleted Residual	-.825	.585	.000	.426	60
Stud. Deleted Residual	-1.984	1.393	-.002	1.008	60
Mahalanobis Distance	.023	8.212	1.967	1.926	60
Cook's Distance	.002	.050	.012	.012	60
Centered Leverage Value	.000	.139	.033	.033	60

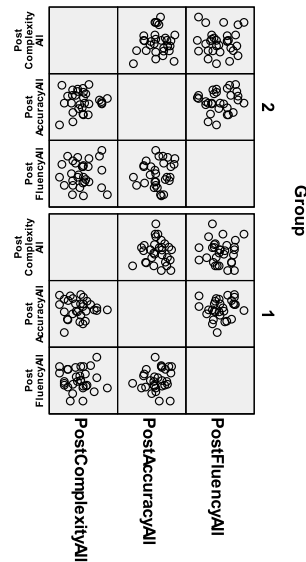Figure 2 also shows multivariate normality of the data.

Figure 2. Scatterplot of the Writing CAF Scores Obtained by Both Groups at the Posttest

As Figure 2 demonstrates, there is no obvious evidence of non-linearity and thus the assumption is satisfied. According to Box's test, the significance value is 0.999 which is larger than 0.001 and thus the assumption of covariance matrices is not violated. The final assumption is the Levene's test of equality of error variances. According to Table 7, neither significance value is smaller than 0.05 and thus the assumption is met.

Table 7
Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Post Complexity All	.002	1	58	.963
Post Accuracy All	.156	1	58	.694
Post Fluency All	.008	1	58	.929

With the above assumptions in place, the MANOVA could be performed. Table 8 below demonstrates the multivariate test: the result of the Pillai's Trace Test showed a significant p value, $F = 0.002$, $p = 0.001 < 0.05$. It could thus be

concluded that there was a statistically significant difference between the two groups at the posttest regarding writing CAF.

Table 8
Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.987	1386.660a	3.000	56.000	.000
	Wilks' Lambda	.013	1386.660a	3.000	56.000	.000
	Hotelling's Trace	74.285	1386.660a	3.000	56.000	.000
	Roy's Largest Root	74.285	1386.660a	3.000	56.000	.000
Group	Pillai's Trace	.000	.002a	3.000	56.000	.001
	Wilks' Lambda	1.000	.002a	3.000	56.000	.001
	Hotelling's Trace	.000	.002a	3.000	56.000	.001
	Roy's Largest Root	.000	.002a	3.000	56.000	.001

Table 9 below demonstrates the test of between-subjects effects as part of the MANOVA output. As illustrated in this table, the two groups turned out to have a statistically significant difference in the writing CAF posttest: $F(1,54) = 1.014$ and $p = 0.000 < 0.017$ (as there are three dependent variables in this case, it is safer to divide the significance level by three and thus $0.05 / 3 = 0.017$). In other words, the first null hypothesis was rejected meaning that CDA instruction did have a significantly better impact on EFL learners' writing complexity. The second null hypothesis was also rejected as $F(1,54) = 1.565$ and $p = 0.000 < 0.017$ meaning that CDA instruction did have a significantly better impact on EFL learners' writing accuracy. And finally, as $F(1,54) = 1.744$ and $p = 0.000 < 0.017$, the third null hypothesis was also rejected meaning that CDA instruction did have a significantly better impact on EFL learners' writing fluency.

Table 9
Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Post Complexity All	.252[a]	1	.252	1.014	.318	.017
	Post Accuracy All	.029[b]	1	.029	1.565	.216	.026
	Post Fluency All	.541[c]	1	.541	1.744	.192	.029
Intercept	Post Complexity All	208.582	1	208.582	838.532	.318	.935
	Post Accuracy All	18.117	1	18.117	961.552	.216	.943
	Post Fluency All	1156.326	1	1156.326	3723.354	.192	.985
Group	Post Complexity All	.252	1	.252	1.014	.000	.26
	Post Accuracy All	.029	1	.029	1.565	.000	.24
	Post Fluency All	.541	1	.541	1.744	.000	.24
Error	Post Complexity All	14.427		58.249			
	Post Accuracy All	1.093		58.019			
	Post Fluency All	18.013		58.311			
Total	Post Complexity All	223.261		60			
	Post Accuracy All	19.239		60			
	Post Fluency All	1174.880		60			
Corrected Total	Post Complexity All	14.679		59			
	Post Accuracy All	1.122		59			
	Post Fluency All	18.554		59			

Furthermore, the effect size using Eta squared was no less than 0.24 for each case indicating a large effect size (Pallant, 2007), which means that the instruction accounted for 24% of the overall variance.

Discussion

The results of this study demonstrated that CDA-based instruction bore a significantly positive impact on EFL learners' writing CAF. As stated earlier in this study, CDA-based instruction has proven to have positive effects in the ELT classroom especially in reading courses (e.g., Correia, 2006; Cots, 2006; Fredricks, 2007; Icmez, 2009; Janks, 2005; Koupaee Dar et al., 2010; Wallace, 1992, 1999; Zhang, 2009; Zinkgraf, 2003).

Perhaps one of the reasons underlying this trend is that CDA-based instruction encourages learners' active engagement in the completion of the task at stake. Accordingly, one of the main questions raised in every session of the treatment was "How does the writer say his/her purpose?" In other words, alongside drawing the attention of the learners towards what lies beneath the text conceptually and motivating them to decipher the writer's political agenda, CDA-based instruction also emphasizes an awareness of the linguistic apparatus – i.e., lexis and syntax – employed by the writer (Fairclough, 1995; Koupaee Dar et al., 2010) to either promulgate overtly or inculcate furtively his/her ideological stance. In this process, learners may become sensitive and conscious towards the elements that raise the degree of CAF in writing. All this is perhaps further consolidated when the learners are asked to listen to the texts written by their classmates and analyze them.

The emphasis on the linguistic structure of the text is perhaps augmented through both the discursive practice "Does the text remind us of other texts we have encountered either in its form or in its content?" and textual practice "How does syntactic structure as well as lexical choice affect the meaning?"

One may debate at this point over the role of CDA-based instruction if focus on form were the main factor contributing to the improvement of learners' writing CAF. The clear response to that is throughout the course of this study it was proven that an attention to linguistic form in the active context of CDA-driven teaching served beneficially in enhancing learners' writing CAF. And the evidence for this claim lies in the fact that the effect of teaching vocabulary and grammar – the procedure of the control group – failed to compete with that of CDA-based teaching in the experimental group. Hence, the finding of this study perhaps illustrates the effectiveness of the inseparable entwinement of the two, that is focus on form and an active context of CDA-driven teaching, in the ELT classroom.

Alongside the clear findings of the study which favored CDA-based instruction, the researchers felt overwhelmingly that using the CDA instruction in the process of teaching enhanced the learners' willingness to engage in the learning process. The procedure adopted in this study was to introduce the text with specific CDA-oriented questions to be discussed in class in the first phase

of each writing instruction session. Teachers may follow the aforesaid modality and also add cues, questions, and advance organizers pertinent to the text especially if the learners are at a lower language proficiency level or younger.

Regarding the main activity, teachers can utilize magazine articles, newspaper headlines, advertisements, classifieds, notable speeches of famous individuals, and even some fiction such as best-selling novels and short stories for the purpose of analysis. This helps students to investigate how writers' specific linguistic choices convey implied meanings.

One would need to go beyond individual teachers if the ultimate goal is incorporating CDA instruction within ELT writing programs; this requires institutional policy- and decision-making initiatives. To this end, teacher training centers and establishments would indispensably need to educate teachers with this technique. This training could be done both for teachers who are studying at the undergraduate level at teacher education universities or those already engaged in the practice of pedagogy in the form of in-service courses.

One of the advantages of CDA, in the words of Wallace (1992), is that it encourages students while reading to move away from merely focusing on form for its own sake and thus use language to explore and provide evidence of the text's ideological positioning. Syllabus designers and materials developers who can provide the content of teaching material with appropriate tasks and activities to acquaint learners with the CDA concept and its features and procedures of implementation are thus recommended to include CDA in the process of designing pre-writing, while writing, and post-writing tasks and activities.

This study was conducted with certain limitations that are discussed below together with certain suggestions for other studies. Firstly, this research was carried out among adults; the same experiment could be implemented among other age groups to see whether age is a factor in investigating the impact of CDA instruction on writing CAF. Secondly, only female students participated in this research; it would be interesting to see whether gender is also a factor. Finally, this study was conducted with no control over the learners' demographics. Such parameters and the learners' sociocultural background may be taken into consideration in future studies to find out whether they bear a significant role in the causal relationship elaborated in this study.

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