Research Article

The Effect of Teaching Lexical Cohesion on Improving IELTS Academic Writing Task 2

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Abstract
Inspired by Halliday and Hasan's (1976) framework, this study delved into the impact of lexical cohesion training on the writing prowess of English language learners. Drawing upon an experimental design, this study investigated the effect of lexical cohesion instruction on IELTS Academic Writing Task 2 performance. Over an eight-week course, a total of 60 IELTS candidates were screened based on their performance in the Quick Oxford Placement Test and these individuals were assigned to either the experimental or control group. Each participant was required to complete two writing assignments during the study. A sequence of six writing tasks was developed and put into practice. The participants' compositions were evaluated on two instances: pre-test and post-test. A meticulous analysis of independent-samples t-tests was done to unveil the distinctions in performance between the cohorts. A quantitative evaluation of the learners' written work demonstrated that instruction in lexical cohesion had a statistically significant effect on their writing scores. Possible explanations for this exceptional performance are explored, and recommendations are offered for second language (L2) writing instructors and researchers.
Keywords: academic writing task 2, IELTS, teaching lexical cohesion

Introduction

To attain full mastery of a language, individuals should aim to foster both receptive capacities (listening and reading) and productive abilities (speaking and writing), receiving proper instruction and practice in each facet of language competence (Harmer, 2004). Comparatively to other language skills, writing, as a productive skill, places a greater emphasis on cognitive complexity, since it requires individuals to manipulate language and organize their thoughts in a cohesive and meaningful manner. Hardly can one face a piece of writing without a huge challenge, specifically for IELTS candidates. Meanwhile, it is a primary concern for most candidates whose potential problems are resulted from dealing with producing coherent and interrelated texts. Moreover, insufficient linguistic knowledge and lack of grammatical and lexical cohesion in writing account for their singularly unsuccessful in achieving a great score.

It is generally argued that fluent writing is characterized by appropriate and frequent use of specific features; conversely, the absence of such features may indicate candidates' inexperience in IELTS academic writing. Following this line of thought, Halliday and Hasan (1976) categorize these features into two main groups: grammatical cohesion and lexical cohesion. These two categories, which they term cohesive devices, are the means by which cohesion is achieved. To summarize, a text's seamlessness and flow are the product of a delicate blend of grammatical cohesive devices like reference, substitution, conjunction, and ellipsis, entwined with lexical cohesion comprising collocation and reiteration. There has been a vast array of studies into how grammatical cohesion can improve the writing level; however, there is lack of solid evidence that lexical cohesion could promote candidates' writing ability.

For Halliday and Hasan (1976), a text is considered cohesive when its elements are connected and have meaning for the reader. On this basis, the authors developed an approach to analyzing cohesive devices within the text by investigating grammatical and lexical cohesion. Researchers have extensively examined grammatical cohesion in writing, emphasizing the diverse grammatical devices employed in essays (Afrianto, 2017; Trisnaningrum, Alek, & Hidayat, 2019) or the common use of grammatical cohesive devices than lexical ones (Plakans, 2016). Grammatical studies have found evidence of peculiar features in references and conjunctions regarding providing more opportunities for the use of lexical devices (Bahaziq, 2016) and increasing the attention to the content and completion process in writing (Aziz, 2015).

The current research endeavored to explore the impact of teaching lexical cohesion on IELTS Academic Writing Task 2, simultaneously examining the concept of "reiteration" defined as "the study of the vocabulary pattern above the sentence level which occurs when two words are related in a text" (McCarthy, 1991, p. 66). Numerous studies have explored and analyzed the role of reiteration in L2 acquisition, highlighting its positive contributions to second language development (Halliday & Hassan, 1976; McCarthy, 1991; Paltridge, 2001). However, a debate regarding the role of grammatical cohesion in L2 writing was introduced by Hinkel in 2001. Research has shown that the development of text cohesion and the effects of the cohesion types (Crossley, Kyle, & McNamara, 2016) are among the factors determining the overall judgments of writing quality. A less explored and possible variance in writing is lexical cohesion. There has been limited exploration of how learners employ lexical cohesion is used in L2 writing, specifically, IELTS Academic Writing Task 2.

The importance of grammatical cohesion in L2 writing has been investigated by previous research (Bahaziq, 2016; Castro, 2004; Darweesh & Kadhim, 2016; Hinkel, 2001; Kwan & Yunus, 2014; Plakans, 2016). The main area of study in this field has primarily centered around the utilization and effectiveness of cohesive devices in students' writing. This has led to a vast collection of research, as evidence by studies conducted by McCutchen & Perfetti (1982) as well as Witte & Faigley (1981). Despite its importance, lexical cohesion in second language (L2) writing has not been investigated as extensively as grammatical cohesion (Johnson, 2017).

Investigating the application of lexical cohesion and synonymy, Danglli and Abazaj (2014) carried out a study centered on the connection between lexical cohesion and word choice in the writing process. Though the study followed an analysis of the role of lexical synonymy, the researchers revealed that the correct use of synonyms requires an understanding of the semantic aspects of the word, "using synonyms can add variety to the text and improve its accuracy" (Danglli and Abazaj, 2014, p. 632). Overall, the researchers reported that the writers need to be cautious about using appropriate words in the context; otherwise, they distort the meaning and the tone of writing.

Zhan (2012) studies Hoey's lexical repetition in analyzing news discourse. The researcher conducted corpus research on the computer to reveal the importance of repetitive links between sentences. The results showed that the bond between sentences is not developed through mechanical repetition of the same lexical item. Also, lexis teaching, as an essential text element, puts a premium on the words heightening the connections between sentences.

Based on a range of quantifiable principles pertaining to lexical cohesion and text organization, Hoey (1991) explored the varying types of repetition. The researcher's findings suggested that the strategic use of three distinct lexical repetition techniques-paraphrase, synonymy, and antonym pairs-could significantly improve the coherence of written texts. However, the study was criticized for its absence of qualitative evaluation. In the same line, Karoly (2002) revised Hoey's taxonomy and believed that the model consisted of some weaknesses including the theoretical problems, the method of analysis, and the research methodology. Motivated by this finding, Karoly (2002) introduced the term "lexical unit" to refer to words whose meaning transcends the sum of their constituent elements (p. 97). Her categories included lexical relations, which resemble Halliday and Hasan (1976), and text-bound relations. In 2002, Karoly undertook a research project that examined the structural organization of argumentative essays composed by English as Second Language (ESL) students, focusing on both highly rated and poorly rated pieces of writing. The data for the study were collected to identify good and bad structure essays. Additionally, Karoly collected and analyzed data on the position, length, and strength of bonds between sentences. The quantitative analysis revealed that high-rated essays had a higher number of reiterations.

In a recent research endeavor, Chanyoo (2018) examined the usage patterns and common cohesive devices employed by Thai undergraduate English majors as their writing skills develop. The research also investigated the relationship between the quantity and varieties of cohesive strategies and the writing quality assessed by writing experts. The results indicated that, with regard to cohesion, the majority of writings focused on cohesive devices, coordinators, discourse markers, and linking words – the terms commonly used by examiners, and only a few of them focused on assessing reference and substitution.

Using Halliday and Hasan's (1976) cohesion model as a foundation, Hogue and Oshima (2007) constructed a writing evaluation criterion to assess students' writing proficiency. They recognized four cohesive strategies often utilized by Thai undergraduate students: repetition, referencing, connecting words, and ellipsis. In the same line, Cotton and Wilson (2008) found some overlaps between the assessment for Task Response (TR) and Coherence and Cohesion (CC). This indicated that examiners faced challenges in distinguishing between how a position is presented and supported (TR descriptors) and the logical organization of the message (CC descriptors), as well as differentiating the development of main ideas (TR descriptors) from the logical progression of ideas (CC descriptors). Furthermore, examiners

were doubtful whether they had to mark "relevance" in TR or CC descriptors and whether using synonyms and repeating key nouns had to be marked under CC or Lexical Range (LR). This paper aims to explore the connection between teaching lexical cohesion and the IELTS test takers' scores for lexical resources in IELTS Academic Writing Task 2.

Despite these theoretical and practical suggestions, there is still an ongoing debate surrounding the effectiveness of teaching lexical cohesion in writing contexts, especially in IELTS Academic Writing Task 2, where obtaining and increasing the candidates' scores in lexical resource can ultimately improve their overall test score. Moreover, there is a scarcity of research that examines the relative efficacy of using reiteration as a cohesive device compared to other strategies. Additionally, the limitations of existing research designs have hindered the development of innovative approaches to academic writing. Consequently, the objective of this study is to examine how teaching lexical cohesion affects the performance of Iranian students in IELTS Academic Writing Task 2. Accordingly, the following question was posed:

Does teaching lexical cohesion improve IELTS candidates' Academic Writing Task 2?

Method

Participants

This research endeavor was conducted at an English Language Institute in Tehran, Iran, involving 60 EFL learners taking a course specifically tailored for IELTS Academic Writing Task 2. The main objective of the course was to guide the learners in developing the expertise to produce high-quality academic essays by employing a range of techniques for supporting their points and expanding their lexical repertoire. The researcher chose to gather the data from the writing Task 2 given that it was the first formal writing course the participants had enrolled in at the institute, thereby, reducing the chances of prior exposure to IELTS writing. Furthermore, conducting the study in the non-laboratory and classroom setting enabled the researcher to maintain the existing rapport between the learners, making it easier to gather feedback. The research utilized two existing classroom groups for the data collection. The participants, aged between 17 and 38, shared uniformity in their language proficiency which was assessed using the standardized Quick Oxford Placement Test (2001). Afterward, the participants were categorized into two distinct cohorts for subsequent assessment: an experimental group and a control group.

Instruments

In order to determine the learners' ability and understanding of lexical cohesion instruction before and after the treatment, two tests were used. To intensify the validity of the results, assessment and grading was performed based on the IELTS Writing Public Band Descriptors. A pre-test was given to the participants, which was a topic selected from Cambridge IELTS 11 Academic writing, and the learners were given 40 minutes to do the writing.

Writing Task 2

You should spend about 40 minutes on this task.

Some people say that the only reason for learning a foreign language is in order to travel to or work in a foreign country. Others say that these are not the only reasons why someone learn a foreign language.

Discuss both these views and give your opinion.

Write at least 250 words.

A post- evaluation was conducted with the students. The topic selected from Cambridge IELTS 11 Academic writing tasks, and the students were given 40 minutes to do the writing.

Writing Task 2

You should spend about 40 minutes on this task.

Topic: Many governments think that economic progress is their most important goal. Some people, however, think that other types of progress are equally important for a country.
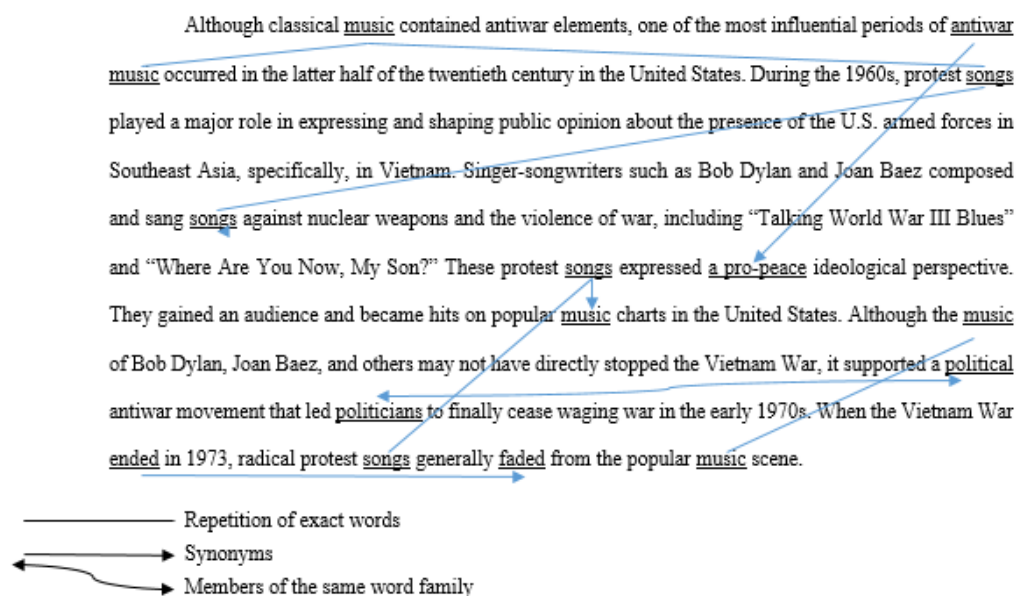
Discuss both these views and give your opinion.

Write at least 250 words.

Procedures

The participants took a proficiency test during the first week of the study, and they were then randomly grouped based on their test scores. Then, the students took the pre-test which was a topic and they were supposed to write an essay. On the second week of the study, the participants were introduced to the fundamental structure of essay writing, including introductions, body paragraphs, and conclusions. In the third week, a transformative reiteration session unfolded, immersing the participants in the intricacies of lexical cohesion, guided by Halliday and Hassan's (1976) taxonomy, as they explored the power of synonymy, antonym, superordinate, and general words. The teacher showed them a sample essay and analyzed the text to illustrate how ideas were developed in body paragraphs and how vocabulary was used to structure the ideas. In week 4, the teacher presented the students with a text with blank spaces and asked them to brainstorm a list of words. Then, they compared their answers with the teacher's ones and noticed the similarities and differences between their choices of words and there of teacher's in terms

of the extent of different uses of cohesive devices. The teacher also presented gap-filling tasks that required the students to produce accurate high-frequency word families. The tasks asked them to complete the sentences by changing the word's part of speech. The students were also asked to do scrambled activities in which they needed the sentences in order to form a paragraph with good cohesion. During weeks five to seven, the learners were provided with detailed instructions on essay writing techniques, including opinion, discussion, advantage and disadvantage, problem-solving, and two parts questions. Each student wrote five essays, one of each technique, throughout the semester. Every two weeks, the participants engaged in sessions that focused on reiteration, where they examined the organization of sample texts, identified cohesion techniques, and expanded their vocabulary. On the eighth week of the study, the participants' understanding of lexical cohesion was assessed by asking them to recognize various types of lexical cohesive devices within a text, solidifying the concepts introduced in the reiteration sessions. The post-evaluation was conducted with the students. The tasks were taken from Cambridge IELTS 11 Academic writing tasks, and the students were given 45 minutes to do the writing. A visual representation of asking students to recognize lexical cohesion is provided in the figure below.

Although classical music contained antiwar elements, one of the most influential periods of antiwar music occurred in the latter half of the twentieth century in the United States. During the 1960s, protest songs played a major role in expressing and shaping public opinion about the presence of the U.S. armed forces in Southeast Asia, specifically, in Vietnam. Singer-songwriters such as Bob Dylan and Joan Baez composed and sang songs against nuclear weapons and the violence of war, including "Talking World War III Blues" and "Where Are You Now, My Son?" These protest songs expressed a pro-peace ideological perspective. They gained an audience and became hits on popular music charts in the United States. Although the music of Bob Dylan, Joan Baez, and others may not have directly stopped the Vietnam War, it supported a political antiwar movement that led politicians to finally cease waging war in the early 1970s. When the Vietnam War ended in 1973, radical protest songs generally faded from the popular music scene.

———————— Repetition of exact words

→ Synonyms

→ Members of the same word family

A Design of the Lexical Cohesion Recognition (Adapted from Schmitt & Schmitt, 2011)

Results

The collected data were analyzed using quantitative techniques. However, the subjective nature of writing tests necessitated the use of subjective evaluation methods. To mitigate subjective interpretations and ensure fair evaluation, two proficient and well-versed IELTS writing raters were tasked with scoring the essays in accordance with the IELTS band descriptors. The assessments given by the raters for the pre-test and post-test lexical response were evaluated using SPSS version 23th. The descriptive outcomes can be reviewed in Table 1.

Table 1
Pre-Tests and Post-Tests Scores to Measure Lexical Cohesion

	Rater 1		Rater 2	
	M	SD	M	SD
Pre-test	5.79	.783	5.97	.733
Post-test	6.67	.801	6.82	.770

Table 1 unveils the remarkable convergence between the raters' average scores for lexical response in the pre-test, with rater 1 captivatingly earning M=5.79 and rater 2 delicately securing M=5.97. Remarkably, the consistency observed in the pre-test was maintained in the post-test results, with rater 1 averaging 6.67 and rater 2 averaging 6.82 for lexical response. The mean scores suggest a strong concordance between the raters' assessments. To unravel the intricate network of correlations between the evaluators' judgments of lexical cohesion in the pre-test and post-test, the Pearson product-moment correlation coefficient was meticulously devised and executed (Table 2). The data in this table paint a picture of an unwavering consensus among the raters, as all the correlation coefficients triumphantly cleared the prescribed benchmark (r = .50 to 1.0). This unwavering harmony in their judgments has yielded a remarkably high degree of inter-rater reliability.

Table 2
Person Coefficient Correlation of the Scores in Pre-test & Post-test for Lexical Cohesion

Pre-test Scores	Rater 1	Rater 2
Rater 1	1	.840[**]
Rater 2	.840[**]	1
Post-test Scores	Rater 1	Rater 2
Rater 1	1	.848[**]
Rater 2	.848[**]	1

**. Correlation is significant at the 0.01 level (2-tailed).

Enriched by the consistent inter-rater reliability, a unified score was meticulously crafted by homogenizing the mean scores of each set. Table 3 unveils the pooled scores and their dispersions, encompassing the collective outcomes of all individuals involved.

Table 3
Summary of Statistics for both the Control and Experimental Groups

	Control Group		Experimental Group	
	M	SD	M	SD
Pre-test	5.40	.121	6.01	.128
Post-test	6.33	.125	7.00	.142

According to Table 3, there was no notable distinction in lexical cohesion between the two groups based on the mean of the pre-test scores. This result implies that the participants were at a similar stage of vocabulary development prior to the intervention. Further supporting this finding, the independent-sample t-test (see Table 4) reveals a lack of statistically significant difference between the two groups, t (58) = -4.451 and p = .000.

Table 4
T-Test Results for the Control and Experimental Groups' Pre-Test Scores

Groups	df	T	Sig.
Control Group	58	-4.451	.000
Experimental Group			

Level of significance .05 (2-tailed).

In the immediate aftermath of the instruction, the post-test was administered. According to the findings compiled in Table 3, a remarkable discrepancy surfaced in the lexical cohesion ratings between the control group (M=6.33, SD=.125) and experimental group (M=7, SD=.142) following lexical training. To measure the extent of the improvement in the scores between the pre-test and post-test, an independent-samples t-test was carried out. The data presented in Table 5 paints a vivid picture of a dramatically low p-value (.00 < .05), decisively signifying a profound discrepancy in lexical cohesion utilization between the two groups post-intervention. Consequently, this evidence accentuates the outstanding achievement of the experimental group compared to the control group.

Table 5
T-Test Results for the Control and Experimental Groups' Post-Test Scores

Groups	df	T	Sig.
Control Group	58	-3.522	.001
Experimental Group			

Level of significance .05 (2-tailed).

Based on the observed outcomes (Table 5), there is a substantial difference between explicit instruction of lexical cohesion in the IELTS Academic Writing Task 2.

Discussion

The primary aim of this study was to ascertain the contrast in writing abilities between individuals who underwent lexical cohesion training and those who received traditional writing instruction. A statistically robust difference emerged between the two groups following a comprehensive analysis of the post-test data. The experimental group demonstrated a remarkable improvement in the post-test scores, offering convincing proof that lexical training can significantly improve their overall writing proficiency in writing task 2. This result aligns with the findings of Haris and Yunus (2014), who demonstrated that various forms of lexical cohesion enhance the coherence of students' written work. A possible explanation for this phenomenon is that certain lexical cohesion techniques aid in establishing coherence in student written work.

Reiteration, a technique employed in lexical cohesion, acts as a framework to facilitate the movement of information through a text, ultimately enhancing the text's coherence (Johnson, 2017). This arrangement offers students a "wide-ranging active vocabulary and insight into the typical organization of information in English writings" (Johnson, 2017, p. 5). The learners in the experimental group embarked on a literary adventure, dissecting the text like a diligent scholar, generating a symphony of vocabulary, and weaving their knowledge into a captivating narrative. This led to a notable contrast in the performance of the learners in the experimental group compared to those in the control group.

As previously discussed, learners need to analyze the text to grasp the flow of information (Johnson, 2017). Lexical items are necessary for conducting this analysis. Lexical items form fundamental elements within a language. The selection of words utilized by learners establishes connections within the text. In this context, Haris and Yunus (2014) suggest that learners can express concepts through the utilization of lexical cohesion. By increasing learners'

understanding of various repetition techniques, this approach to lexical cohesion fosters greater variety and precision in their sentences. According to Danglli and Abazaj (2014), synonyms can have a beneficial impact on the utilization of lexical items in writing as it primarily focuses on selecting words that suit the tone and intended audience. The statistical examination of the post-test outcomes validates this investigation's direction, suggesting that substituting a word with a synonym could prove advantageous in IELTS Academic Writing Task 2.

It is important to highlight those students in the experimental group managed to attain a considerable vocabulary. The improvement in writing can be attributed to the exposure to new vocabulary and the practice of analyzing and generating text. The current research corroborates the notion that when evaluating learners' vocabulary comprehension within text processing (Brooks, 2003), it leads to an increased vocabulary acquisition and improved information flow in the text. This discovery aligns with the conclusions drawn by Johnson (2017), Alqahtani, and Elumalai (2020), who reached comparable findings.

Similar trends were observed in the post-test. Despite the average scores being relatively similar following eight weeks, the experimental group participants exhibited marginally superior performance compared to those in the control group. The experimental group's proficient use of lexical items might have originated from their active participation in analyzing texts and generating word lists during brainstorming sessions. When attempting to contrast texts, identifying repeated words and paying attention to the selected vocabulary could impact their scores in IELTS Academic Writing Task 2.

In the grand finale, this study unveils the remarkable impact of lexical cohesion on the writing prowess of IELTS candidates tackling Academic Writing Task 2. Further investigation is needed to explore how variables such as gender and varying proficiency levels might affect the occurrence and selection of lexical cohesion techniques in their writing.

The results of the current study demonstrate that employing lexical cohesion methods, such as text analysis and vocabulary brainstorming within language learning contexts, can positively impact learners' performance in IELTS writing task 2. In other words, delivering lectures focused on repetition improved learners' lexical scores in post-essays and enhanced their ability to develop and connect sentences within the text. Additionally, by maintaining concentration on the main concept using diverse cohesive tools, learners can create coherence and clarity within their text. These findings hold educational significance for integrating lexical cohesion methods into writing courses, indicating that IELTS candidates can notably enhance their lexical resource scores while composing academic essays. This can assist IELTS educators in

teaching diverse formats of Academic Writing Task 2. Within these classes, employing lexical cohesion or repetition can serve as a valuable tool for learners to enhance their scores and for instructors to facilitate teaching.

Good writers, regardless of genre, are avid readers who critically examine paragraph connections and logical information relay. However, one of the biggest mistakes made by IELTS candidates is the incorrect used of cohesive devices. Using unknown cohesive devices is a common mistake made by IELTS candidates, thinking it impresses examiners. However, misusing these words can have negative consequences and lower score. Making proper and balanced use of cohesive devices is crucial. Therefore, the results of this study demonstrates that employing lexical cohesion methods, such as text analysis and vocabulary brainstorming within language learning contexts can positively impact learners' performance in IELTS writing task two. In other words, delivering lectures focused on repetition improved learners' lexical scores in post-essays and enhanced their ability to develop and connect sentences within the text. Additionally, by maintaining concentration on the main concept using diverse cohesive tools, learners can create coherence and clarity within their text. These findings hold educational significance for integrating lexical cohesion methods into writing courses, indicating that IELTS candidates can notably enhance their lexical resource scores while composing academic essays. This can assist IELTS educators in teaching diverse formats of Academic Writing Task Two. Within these classes, employing lexical cohesion or repetition can serve as a valuable tool for learners to enhance their scores and for instructors to facilitate teaching.

In this research, the chosen texts utilized to teach lexical cohesion were at or exceeded the learners' current proficiency level. Even in the face of the initial challenge, learners embraced the comparative task with unwavering determination, showcasing their ability to decipher the nuances of lexical selection by carefully examining the similarities and discrepancies between their choices and the teacher's recommendations. This discovery can be advantageous for teachers as it enables them to collaborate with learners in teaching by engaging in vocabulary brainstorming activities together. To cultivate a heightened proficiency in applying lexical items correctly, teachers can implement thought-provoking activities or review sessions to evaluate the learners' mastery and utilization of accurate vocabulary. All in all, it is hoped that the results of the study can be beneficial to all teachers, teacher educators, teaching systems, as well as the students. Undoubtedly, being aware of the theoretical and practical dimensions of reiteration, together with the aspects of instruction can help to attain success in any writing programs whose ultimate aims are facilitating and promoting learners' writing skills.

Declaration of interest: None

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Biodata

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