

Improving Medical Students' Essay Writing through Direct Focused Corrective Feedback, Revising Errors, and Group Discussions

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Abstract

Background: Writing in English has always been emphasized in educational programs.

Objectives: This study aimed at investigating the effects of direct focused written feedback followed by amendments and group discussions on improving students' English writing in different fields of medical sciences.

Methods: The present research employed a quasi-experimental design. The participants were 168 Iranian undergraduate students from seven entire classes (taught by the main researcher), studying at Ahvaz Jundishapur University of medical sciences in 2019-2020. The writing tasks were the topics suggested at the end of each unit of the Inside Reading ("Intro" and "One") series. The length required for each topic was a paragraph with a hundred words at most. After writing each essay, the researcher spotted grammatical errors, recorded their types and frequencies, and gave direct feedback. The students received the corrected essays, and through group discussions and based on extra explanations provided by the researcher, the students became totally informed of their errors and were asked to apply this knowledge on their succeeding works.

Results: Wrong tenses (30.47%), incorrect articles (23.48%), word order (17.48%), singular/plural nouns (11.59%), prepositions (10.90%), and subject-verb agreement (6.08%) were found to be the most common errors, respectively.

Conclusion: Comparing the number of errors in the first essay with the errors spotted in the second and third essays showed that the corrective feedback was effective in improving the medical students' essay writing.

Keywords: Writing, Feedback, Medical Education

Background

Writing in English has always been emphasized in educational programs; however, it has not been given due attention by educational planners in medical education. That is why medical students always make similar errors and refer to English teachers to translate their written reports or ask their instructors to correct their reports, which is a tedious and time-consuming job. In the educational contexts of some countries such as Thailand, the writing skill is regarded as a compulsory course to make students prepared for writing their assignments and passing their exams (1). Beside writing proficiency, students will learn how to write argumentative and persuasive essays, in both of which, students struggle to write grammatically accurate sentences in order to deliver clear messages. It is evident that a poorly written piece of report or research lacks communicative value. To deal with this problem, identifying common errors

and giving corrective feedback and practicing them in an organized manner can help students avoid the recurrence of such errors.

During any communicational interaction, either oral or written, students need feedback from the reader or listener. In written forms, students mostly receive feedback on their production errors or communicative gaps from their teachers. The major purpose of giving feedback is to provide a positive atmosphere for writing development and a chance for teachers to help students find their writing problems. Through the process of interactional feedback, students will learn how to compose linguistically correct and communicatively effective pieces of writing (2).

Corrective feedback is delivered into the two oral and written modes. In the oral mode, students receive direct or indirect feedback through explicit corrections, metalinguistic clues, recasting, and repetition (3). In fact, they are provided

with a typology for different forms of corrections applicable over different contexts. The typology includes explicit corrections, recasting, elicitation, metalinguistic clues, clarification requests, and repetition. These different types of feedback have been practiced in English classes, resulting in different findings. For instance, a study (4) reported that learners understood better when they received direct corrective feedback from their teachers. Similarly, it was noted that students favor explicit corrective feedback rather than implicit ones (5). In another research, (6), it was found that students preferred to receive objective comments and guidelines through which they could realize their incorrect uses of language and correct themselves. In one study (7) on timing, it was reported that immediate and delayed feedback are helpful in constructing explicit knowledge in adults.

Along with advancements in different areas of science, it is supposed that students should be equipped with English linguistic knowledge in order to facilitate their international relations. However, in general, medical science students in Iran do not adequately study and use English language, especially for speaking and writing, in their classes at least compared to the students studying medical fields in international universities. As a consequence, most Iranian students are not able to write in English or confident in communicating in English. Actually, in Iran, as any other English as a Foreign Language (EFL) country, academic communications are in mother language while academic sources are in English. Moreover, publishing a paper in an international journal is an academic requirement for students, especially for attaining postgraduate degrees. This contradiction in academic tradition in Iran is challenged by university students and instructors. Students pass different courses and attend different classes without sufficient knowledge to communicate their ideas with the international community. Though university organizers believe that students and teachers should equip themselves with the required knowledge in English in order to be involved in international discussions, the problem of academic communications has yet remained unresolved. In fact, there is a gap between academic expectations and the real level of education in Iran's universities. In such a situation, EFL teachers in medical universities need to make some revolutionary changes in their teaching methods and focus comprehensively on the academic writing skill. Also, curriculum developers need to sweep the writing skill into the medical educational system and provide equipment for training students.

Significance of Writing in English in Medical Education

According to university syllabuses in Iran, medical science students are required to enroll in educational courses for pre-university English, general English, and English for specific purposes (ESP), each of them focusing on different issues. During the pre-university English class, students are required to review high-school materials with a little attention given to other related skills. During general English courses, students are required to work on their reading skills and learn some new academic vocabularies. Finally, the ESP course, as the final part of this syllabus, varies based

on different fields of study. However, the course mostly focuses on specific content aiming at boosting students' comprehension and translation abilities. Although these English courses aim at improving students' performance in different skills, the byproduct of the syllabus indicates that students are not satisfied with the courses and do not attain systematic and high-level knowledge in English.

Based on the given explanations on the importance of paying attention to English writing, especially essay writing, in medical science education, this study intended to use written direct corrective feedback to improve medical students' essay writing skills. Among different techniques used for giving feedback, direct and indirect feedback is the most well-known strategy. Generally, direct feedback refers to the designation and provision of correct linguistic forms while indirect feedback only focuses on identifying errors, but students themselves have to look for correct forms (8). In addition to the direct and indirect forms of corrective feedback, focused and unfocused modes are also discussed in the literature. Unfocused feedback deals with all kinds of errors in a text while the focused approach involves designating specific kinds of errors in advance while ignoring other types of errors (9).

Objectives

Essay writing is an important part of every medical schedule as medical students need to strengthen their critical judgments and present their ideas and information. Therefore, this study aimed at investigating the effects of direct focused written feedback followed by amendments and group discussions on improving students' English writing in different fields of medical sciences.

Methods

The present research employed a quasi-experimental design. The participants of this study were 168 Iranian EFL undergraduate students from seven entire classes, studying at Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran, in 2019-2020. The students of these seven classes were selected because the main researcher (a faculty member who holds Ph.D. in Teaching English) taught them both the pre-university English and general English courses. The students themselves also showed keen interest in improving their writing skills and grammar accuracy. All the students participating in the study had already studied English for six years (three years in junior and three years in senior high school). They were first-year undergraduates and were expected to be familiar with the grammatical points presented to them in the high school curriculum. Although the students participating in language teaching institutes were supposed to show a higher accuracy in writing; none of them had advanced writing skills to be excluded from the study. All the students were informed about research aims. The researcher himself taught all these classes and provided feedback to the students on their essays. Also, an experienced colleague was requested to randomly rate the essays, and in case of any discrepancy, a group discussion was held to reach a consistent decision.

Table 1. Time Schedule for Writing Tasks and Returning Corrected Drafts

Time	Writing Task	Suggested Topics
Month 1 st	Writing Task 1	Topic 1: Functional magnetic resonance imaging (fMRI). Topic 2: Describe ideas for new studies on the human brain. What would you like scientists to study? Topic 3: What are some other simple tools or complex equipment that doctors use to learn more about what is inside a human body?
	Corrected draft 1	
	Treatment 1	
Month 2 nd	Writing Task 2	Topic 1: Imagine that you are a teacher. Children in your classroom often come to school with colds. What might you tell them about staying healthy? Topic 2: Today we have many effective ways to prevent illnesses. Yet, in our modern world, illnesses can spread worldwide in a short time. Why do illnesses spread so easily in our modern world? Topic 3: Describe a time when you were ill. How did you feel? What did you do to feel better?
	Corrected draft 2	
	Treatment 2	
Month 3 rd	Writing Task 3	Topic 1: The reading you have studied described the life cycle of malaria: from mosquito to entering a person's body and returning back to the mosquito status. Describe another cycle of malaria: How malaria identifies poverty, and how poverty intensifies malaria? Topic 2: What are some things that people can do to keep themselves healthy? What are some things that people can do to feel better if they get sick?
	Corrected draft 3	
	Treatment 3	

The effectiveness of written corrective feedback inboosting grammatical accuracy in medical students' English essays was evaluated. Nine topics from the Inside Reading (Intro and One) series were given to the students, and they were required to select three topics and write an essay for each. The process of receiving the essays and returning their corrected drafts took five months to be completed. During this period, the researcher identified the students' grammatical errors, corrected them, and informed the students through written corrective feedback. The students were required to compare the original and the corrected drafts and work on their errors. After reviewing the essays, the researcher held two sessions to answer possible questions regarding the errors and clarify grammatical rules. In every remedial session, all errors were classified, and along with their corrected forms, extra explanations were illustrated to the students. In this way, all the students became aware of the rules, and it was possible for them to use correct forms in their future essays. This process continued till the end of the educational midterm.

The study was conducted to assess the effectiveness of error correction, corrective feedback, boosting students' basic knowledge, written corrective feedback, and using a combination of educational method in improving English writing grammatical accuracy of Iranian EFL medical students and helping them extend their knowledge, better comprehend grammatical rules, and reach higher levels of writing proficiency.

This research was conducted during a six-month period (from September 2019 to February 2020, over the first and second educational semesters), including Iranian undergraduate students studying in different medical sciences' subfields. The students worked on

the topics specified at the end of each unit of the Inside Reading (Intro and One) series and submitted their essays via email. After the submission of the essays, the teacher read them meticulously and identified their grammatical errors. Then detailed feedback comments were given to each essay. The students were required to carefully study the given comments and apply them in their upcoming essays. The writing tasks that the students were required to write about were the topics suggested at the end of each unit of the Inside Reading Intro series. The required length for each topic was a paragraph of a hundred words at most. [Table 1](#) shows the time scheduled for the writing tasks and returning corrected drafts.

The students were free to select one topic from the three suggested ones; two sessions after the ending of each unit were given to the students to write and submit their essays. The students were free to use any reference in their essays. Primary audiences were university students, and the teacher was the expert to check the essays. To avoid attention deviance, the teacher did not reveal assessment and scoring strategies in advance to tackle the students' attempts for matching themselves with the teacher's expectations and employing avoidance strategies. Consequently, the students felt free and flexible in their writings. There were no pre-test and post-test procedures in this study. In fact, the study was conducted in a longitudinal process where the writing products were compared over time to mark the differences and possible improvements. Also, it is worth noting that indirect feedback was not used.

To analyze the data, IBM SPSS Statistics 21 software was used. The statistical techniques used to present and analyze the data were descriptive statistics (frequency

Table 2. Demographic Characteristics of the Students

Student demographics	Faculties			Total N (%)
	Health N (%)	Rehabilitation N (%)	Paramedical Sciences N (%)	
<i>Gender</i>				
Male	12 (12.24)	30 (55.55)	4 (25.0)	46 (27.38)
Female	86 (87.76)	24 (44.45)	12 (75.0)	123 (72.62)
Age rang (year)	18-20	18-22	18-21	
<i>Course and level</i>				
Pre-university English/1 st semester	98 (58.34)	54 (32.14)	16 (9.52)	168 (100)

and percentage) and the Chi-square test (to determine the statistical significance or insignificance of frequency differences).

This research was approved by the Institutional Research Ethics Committee [IR.AJUMS.REC.1399.333] of Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

Results

The participants of this study were 168 Iranian EFL undergraduate students from seven entire classes, studying in Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. The students of these seven classes were selected because the main researcher (a faculty member who holds Ph.D. in Teaching English)

taught them both the pre-university English and general English courses. The students themselves also showed keen interest in improving their writing skills and grammar accuracy. All the students participating in the study had already studied English for six years (three years in junior and three years in senior high school).

The participants were 168 first-year undergraduates with the age range of 18 to 22 years (Table 2).

According to Table 3, wrong tenses [n=802, 30.47%] were the most frequent errors in the written essays. Incorrect articles [n=618, 23.48%], wrong word order [n=460, 17.48%], wrong use of singular/plural nouns [n=305, 11.59%], inappropriate prepositions [n=287, 10.90%], and subject-verb disagreement [n=160, 6.08%] were found to be the most commonly spotted errors,

Table 3. Frequency and Type of English Language Errors in Students' Essays

Error Types	Essays			Total N (%)
	Essay 1 N (%)	Essay 2 N (%)	Essay 3 N (%)	
Wrong tenses	472 (29.35)	234 (33.52)	96 (29.45)	802 (30.47)
Incorrect articles	384 (23.88)	146 (20.91)	88 (26.99)	618 (23.48)
Word order problem	280 (17.41)	111 (15.90)	69 (21.16)	460 (17.48)
Incorrect singular/plural nouns	188 (11.69)	84 (12.03)	33 (10.12)	305 (11.59)
Inappropriate prepositions	188 (11.69)	76 (10.89)	23 (7.05)	287 (10.90)
Subject-verb disagreement	96 (5.97)	47 (6.73)	17 (5.21)	160 (6.08)
Total	1608 (100)	698 (100)	326 (100)	2632 (100)

respectively.

As shown in Table 3, the number of errors reduced drastically from the first to the third essay. For instance, errors of tenses occurred a total of 472 times in the first essay which reduced to 96 in the third essay.

This reduction could be related to direct focused corrective feedback, follow-up amendments by the teacher, student-teacher group discussions, and students' engagement in discussions.

The Chi-square test was used to assess the effects of the focused directive corrective feedback provided and the teacher's follow-ups on the immediate and distant retention of grammatical rules and to compare

the frequency of errors between topics (Table 4). It should be noted that the main focus of the study was the students' errors rather than their scores. Therefore, the data was presented as the cumulative frequency of total errors. The findings indicated that corrective feedback was effective in improving both the immediate and distant retention and practice of grammatical accuracy, indicating that the actual acts of corrective feedback and follow-up, but not the assigned time, were the major factors contributing to the improvement of the students' writing skills.

Table 4. Chi-Square Test Results for the Significance of Error Differences

Error Types	Essays					
	Essay 1- Essay 2		Essay 1- Essay 3		Essay 2 - Essay 3	
	X ²	P	X ²	P	X ²	P
Wrong tenses	80.23	<0.001	248.90	<0.001	57.70	<0.001
Incorrect articles	106.87	<0.001	185.62	<0.001	14.37	<0.001
Word order problem	73.04	<0.001	127.56	<0.001	9.80	<0.001
Incorrect singular/plural nouns	39.76	<0.001	108.71	<0.001	22.23	<0.001
Inappropriate prepositions	47.51	<0.001	129.02	<0.001	28.37	<0.001
Subject-verb disagreement	16.79	<0.001	55.23	<0.001	14.06	<0.001
Total	359.10	<0.001	849.80	<0.001	135.14	<0.001

Discussion

As our results showed, writing is an important but difficult skill for EFL students to master (10). Though educational curricula emphasize on learning four languages, especially English, the time devoted to English courses is not enough. Some researchers (11, 12) have suggested that preparation sessions for essay writing should range from 1 to 30 hours regardless of the major courses during the semester, which was shown to significantly improve students' essay writing capabilities. According to our findings as well, it is advisable to reform the curricula of Iran's universities, devoting more time to English courses and incorporating essay writing as the major part of language learning.

Essay writing is a process in which the primary purpose is to focus on an idea and develop it in an organized way. When the essay is ready to be presented, teachers assess the product from different perspectives based on either mechanical, functional, or instrumental criteria. Since the Iranian EFL students enrolled in this study participated in university classes without any preparation sessions, the focus of this study was on the mechanical aspect and to determine if the teacher's feedback could help the students improve their writing skills.

In addition to the mechanical and grammatical aspects of essay writing, students are required to be aware of the discipline-specific conventions of academic discourse. Our findings in this study suggest English teachers of medical universities to inform their students of these conventions.

One of the important issues revealed in this study was that medical education in Iran needed to change the curriculum regarding English language courses and adapt itself to students' actual requirements. Curriculum change is one of the essential elements of contemporary medical education and is undertaken by many universities throughout the world. These changes should be in line with new developments in different areas of language learning and research and consider all academic, social, economic, and even historical contexts of Iranian students. University students also need to pass preparation courses in essay writing before entering postgraduate periods. The review of academic requirements shows that postgraduate students need to write their own papers, reports, and reflections in English. So, the lack of writing preparation courses can cause many problems for students, leading them to plagiarize, copy their works in templates,

paraphrase previously submitted works, and ask others to translate their written works. To solve such problems, a curriculum reform is essential to incorporate writing courses into medical syllabuses.

In countries with EFL contexts, like Iran, wherein English language is taught formally in state and private schools, medical university students, as the findings of this study showed, still commit various grammatical errors that make their writings incomprehensible. The first step in dealing with this problem is to consider compulsory writing courses in medical education. During these courses, students can learn most of the issues related to writing. Of course, some departments offer scientific paper writing as a complementary course during special English language courses. However, the major problem is the students' lack of structural knowledge. When students are knowledgeable enough about English language rules, then universities can think of further advanced writing courses. Reinforcing students' writing skills can also help achieve reflective writing expectations.

University educators frequently ask their students to think critically and write reflective pieces of writing. Without language knowledge; however, these expectations will never be fulfilled. Therefore, the first step to help medical students attain mastery over essay writing is to boost their writing knowledge by holding appropriate preparation courses.

According to a study (13), educational goals and expectations should be explicitly declared to all students. This clarity helps students acknowledge the final destination and plan to reach it by setting reasonable goals (14). In fact, writing is a central skill for medical educators (13); however, little attention is paid to writing skills in medical education, and students are not usually instructed on how to write precisely and clearly. Moreover, medical students come from different linguistic backgrounds and express variable levels of preliminary education; therefore, educators should be informed about the ways to instruct and guide them in accordance with the defined curriculum.

Medical community, as a globalized community, expects medical undergraduates to write critical and evidence-based letters, papers, and essays (15). This expectation cannot be satisfied without acquiring appropriate writing skills. Therefore, before adding evidence-based writing to the medical curriculum, students should take writing classes and work on their writing proficiency. The findings

of this study indicated that the lack of writing knowledge, at least in the grammar section, crippled EFL medical students in Iran, highlighting the need for providing them with grammatical and mechanical instructions before holding any other related course. This is in accordance with a previous report (16) suggesting that such teaching courses can improve critical appraisal and writing skills of medical undergraduates.

Conclusion

This study revealed beneficial findings used for medical writing instruction and the application of corrective feedback principles in the Iranian medical university contexts. Frequent use of group discussions, a session after writing and receiving feedback, could help students raise their awareness and improve their accuracy in using tenses, articles, word order, nouns, prepositions, and subject-verb agreement.

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References

1. Tan KN, Manochphinyo A. Improving grammatical accuracy in Thai learners' writing: comparing direct and indirect written corrective feedback. *The Journal of Asia TEFL*. 2017; 14(3): 430-42. doi:10.18823/asiatefl.2017.14.3.4.430.
2. Ellis R. *The Study of Second Language Acquisition*. New York: Oxford University Press; 2008.
3. Lyster R, Ranta L. Corrective feedback and learner uptake: negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*. 1997; 19(1): 37-66. doi.org/10.1017/S0272263197001034.
4. Gass SM, Lewis K. Perceptions of interactional feedback: Differences between heritage language learners and non-heritage language learners. In: Mackey ed. *Conversational interaction in second language acquisition: A series of empirical studies*. Oxford: Oxford University Press; 2007: 79-99.
5. Ellis R. The differential effects of corrective feedback on two grammatical structures. In: Mackey A, ed. *Conversational interaction in second language acquisition: A collection of empirical studies*. Oxford: Oxford University Press; 2007: 339-60.
6. Oladejo J. Error correction in ESL: Learners' preferences. *TESL Canada Journal*. 1993; 10(1): 71-89. doi:10.18806/tesl.v10i2.619.
7. Ahmadpour L, Asadollahfam H, Ahmadpour S. The Timing of Feedback and Learners' Age on Implicit and Explicit Grammar Learning. *Research in English Language Pedagogy*. 2019; 7(1): 167-86.
8. Ferris DR. Second language writing research and written corrective feedback in SLA: Intersections and practical applications. *Studies in Second Language Acquisition*. 2010; 32(2): 181-201. doi:10.1017/S0272263109990490.
9. La Russa F. Treating Errors in Learners' Writing: Techniques and Processing of Corrective Feedback. In: Piechurska-Kuciel E, Szymańska-Czaplak E, Szyszka M. eds. *At the Crossroads: Challenges of Foreign Language Learning*. Berlin, Germany: Springer; 2017: 3-17. doi:10.1007/978-3-319-55155-5_1.
10. Rezaie A, Izadpanah S, Shahnava A. The effects of corrective feedback on Iranian EFL learners' writing. *International Journal of English Language & Translation Studies*. 2017; 5(4): 107-17.
11. Norton LS. Essay-writing: what really counts? *High Educ*. 1990; 20(4): 411-42. doi:10.1007/BF00136221.
12. Hounsell, D. Essay planning and essay writing. *High Educ Res Dev*. 1984; 3(1): 13-31. doi:10.1080/0729436840030102.
13. Chur-Hansen A. Medical students' essay-writing skills: criteria-based self- and tutor-evaluation and the rule of language background. *Med Educ*. 2000 Mar;34(3):194-8. doi: 10.1046/j.1365-2923.2000.00457.x. [PMID: 10733705].
14. Reynolds JF, Mair DC, Fischer PC. *Writing and Reading Mental Health Records. Issues and Analysis*. California: Sage; 1992.
15. Hayatbakhsh-Abbasi M, Sepehri G, Ahmadipour H, Bakhshaei S. Evaluation of the Prescription Writing Pattern of Interns for Common Diseases in Kerman University of Medical Sciences Iran in 2013. *Strides Dev Med Educ*. 2016; 13(1): 34-40. [In Persian]
16. Edwards R, White M, Jackie G, Fischbacher C. Use of journal club and letter-writing exercise to teach critical appraisal to medical undergraduates. *Med Educ*. 2001 Jul;35(7):691-4. doi: 10.1046/j.1365-2923.2001.00972.x. [PMID: 11437973].