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Convenience Editing in Medical Sciences: Professional Expertise vis-à-vis Linguistic Virtuosity

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Abstract

This study strived to specify and particularize Iranian medical field specialists and EFL teachers' predominant and overriding textual interventions, which fall within the ambit of convenience editing. To this end, we required 20 field specialists and 20 EFL instructors to edit the unedited versions of 80 published medical research articles in a way that rendered them apt for publication in quality medical journals. We categorized the obtained data of the edited articles using an editing strategy framework that distinguished four editing micro-strategies and five macro-strategies. The findings revealed that medical specialists and EFL teachers' micro-editing strategies outnumbered their macro-editing ones. Furthermore, there were significant differences between the editing micro-strategy uses of the above-mentioned groups of the participants. The results highlighted the need for a synergic collaboration between the medical field specialists and the EFL teachers to ameliorate medical articles' formal, stylistic, and genre-related features and to expedite their publication process.

***Keywords*:** convenience editing, EFL teachers, medical field specialists, medical research articles, medical sciences

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1. Introduction

The rigorous perusal of the pertinent literature demonstrates that scholastic editing deems to be a requisite for literary and scientific publication since the 1910s (Matarese, 2016). Nonetheless, it assumed new prominence in the 1970s due largely to the research into medical editing practices (e.g., Applewhite, 1973; Cox, 1974). The researchers (e.g., Morgan, 1984; Tacker, 1980) employed the appellation *author's editor* to designate the intellectuals responsible for emending their colleagues' manuscripts. This designation has been substituted with *authors' editor,* which characterizes the multi-author trend of recent research articles.

Burrough-Boenisch and Matarese (2013) averred that author editing constitutes the text amending assistance provided to authors to render their articles apt for their overriding intents. In other words, it encompasses the measures adopted to create intelligible, precise, and efficacious documents that come up to the expectations of the pertinent scholastic audience (Burrough-Boenisch, 2013). To be more specific, *authors' editors* are the academics who collaborate with authors and revise their articles before their submission or after the peer review process. This issue draws a fundamental distinction between these language professionals and the *manuscript editors* (i.e., copy editors) who are recruited by prestigious journals to rectify the erroneous sections of the accepted manuscripts. Furthermore, authors' editors are distinguished from *developmental editors* and *translators* who assume responsibility for writing or translating the manuscripts, respectively (Burrough-Boenisch, 2008).

The foregoing characterization of authors' editor embraces both the *professional editors* who charge the authors a fee commensurate with their editing service and the local *convenience editors* who constitute a convenient source of information on writing literacy, emend their colleagues' manuscripts as a scholastic courtesy, and expedite their process of publication. Notwithstanding, there exists a fundamental disparity between the aforementioned editing agents due mainly to their educational and vocational qualifications. More specifically, convenience editors neither hold degrees nor gain financial benefit from their assistance in contradistinction to professional editors (Willey & Tanimoto, 2012).

In foreign language contexts, encompassing the Iranian English as a Foreign Language (EFL) context, EFL teachers and field specialists with consummate writing skill act as convenience editors and purvey editing assistance to their peers. Notwithstanding, the preponderance of pertinent studies has scrutinized either the

utility of EFL teachers' convenience editing and field specialists' propitious shaping of the research paper texts (e.g., Luo & Hyland, 2016; Willey & Tanimoto, 2013, 2015; Zeinolabedini & Gholami, 2018) or their attitudes towards the convoluted and labyrinthine process of text emendation (e.g., Gholami & Zeinolabedini, 2015, 2017; Zeinolabedini & Gholami, 2016). There exists only a very few exceptions (e.g., Willey & Tanimoto, 2012), which have made an endeavor to juxtapose the editing endeavors of the aforementioned parties in a very narrow scope comprising research paper abstracts. This issue accentuates the privation of exhaustive cognizance and apprehension of the conceivable propinquity effect of field specialists' expertise or EFL teachers' linguistic virtuosity on the end product of convenience editing on a wider purview, such as complete research articles. The present study endeavored to tackle this issue in the Iranian EFL context. To this end, it adopted the methodology of Zeinolabedini and Gholami's (2016) study and strained to extend its scope to both field specialists as virtuoso author-editors and EFL teachers as pivotal editing agents. More specifically, it strived to answer the following questions:

1. What are Iranian medical field experts and EFL teachers' most prevalent convenience editing strategies?

2. Are there any significant differences between Iranian medical field experts and EFL teachers' convenience editing strategies?

2. Literature Review

2.1. Convenience Editing

Given the augmentation of pioneering research (e.g., Daly, 2016; Flowerdew & Wang, 2016; Gholmai & Zeinolabedini, 2015, 2017; Nurmukhamedov & Kim, 2010; Shirazizadeh & Amirfazlian, 2019; Tahririan, & Sadri, 2013; Willey & Tanimoto, 2012, 2013, 2015; Zeinolabedini & Gholami, 2016, 2018; Zhu et al., 2023), *convenience editing* (C.E.) (Willey & Tanimoto, 2012) is gaining prominence as a prerequisite for befitting academic performance. Researchers have utilized diverse appellations to designate the convenience editors comprising *text shapers* that characterize the author-editors who overhaul, remold, and emend texts for variegated intents (Burrough-Boenisch, 2003) and *literacy brokers* which delineates the editing pundits who specialize in diverse academic fields and amend their colleagues' documents (Lillis & Curry, 2006). Notwithstanding, the close scrutiny of these

designations accentuates their affinity. It evinces that C.E. encompasses the transfiguration of the formal and structural attributes of a text to overhaul it in terms of target language vocabulary, grammar, and spelling along with academic writing genre idiosyncrasies, style, and mechanics (Bisaillon, 2007). The recent upsurge of studies into C.E. emanates from the stipulation that field specialists are obliged to publish articles in international journals to make headway toward academic success (Mur-Duenas, 2012). It is also informed by the exacting and stringent criteria which are applied by the quality journals over the course of publication.

The foregoing issues predominantly permeate the revision of English research papers. English has established itself as the ubiquitous and pervading means of academic interaction and has become the sine qua non of scientific publication (Tardy, 2004). Using English might expedite and precipitate the dissemination and proliferation of bone-fide propositions and may grant a wider scholarly audience. Nonetheless, mastery of English writing idiosyncrasies has become a convoluted, vexatious, and irksome task for non-native field specialists (Burrough-Boenisch, 2003). This thorny issue is exacerbated by the laborious, arduous, and grueling process of publication which proceeds from immutable standards and draconian measures adopted by high-ranking journals (Li & Flowerdew, 2007). The formidable and strenuous task of writing has prompted non-native professionals to solicit aid from native-speaker editors. Nevertheless, a preponderance of the specialists mentioned above cannot avail themselves of this scholastic boon due primarily to restricted access to native speakers (Shashok & Handjani, 2010).

Consequently, the importunate demand for non-native convenience editors has escalated recently (Luo & Hyland, 2016). The perusal of pertinent body of research (e.g., Gholami & Zeinolabedini, 2015; Willey & Tanimoto, 2012, 2015) signifies that the field of medicine has received considerable attention in C.E. studies. This issue might be ascribed to English's indispensable and consequential function in the propagation and promulgation of medical research findings (Duszak & Lewkowicz, 2008). To be more specific, it may ensue from the postulation which avers that the lucidity of written English sways the perspectives of the medical scholastic community and intensifies their perspicacity and discernment of the overriding suppositions in the results of empirical studies (Taavitsainen & Pahta, 2003).

3. Methodology

In light of the aforementioned intents, we appraised the utilized convenience editing strategies in medical articles which Iranian medical specialists authored. More specifically, we appealed to Iranian medical field experts and EFL instructors to edit the author-crafted first drafts of the manuscripts of published articles in order to ascertain their prevalent and pervasive emending strategies across diverse sections of the articles and to discern the conceivable disparities between their employed strategies.

3.1. Corpus

We delimited the study to medical research articles based on the Introduction-Method-Results-Discussion organizational structure (Gholami & Ilghami, 2016) to ensure that the corpus of the study was analogous to Zeinolabedini and Gholami's (2016) corpus. In this study, the corpus comprised the original manuscripts authored by Iranian field specialists and published in journals whose Impact Factor (IF) was less than six. To be more specific, first, we singled out the same 17 journals which were utilized in Zeinolabedini and Gholami's (2016) study. Springer and Elsevier published these journals, and their IFs ranged from 0.822 to 5.119. Second, we detected 134 articles in these journals which Iranian researchers authored. The preponderance of the identified articles was multi-authored and was chiefly published between 2015 and 2017. Third, we contacted the corresponding authors of the pertinent articles, obtained their consent to participate in the study, ensuring that the published articles were authored by the Iranian specialist(s) themselves, and asked them to provide us with the unedited and non-reviewed manuscripts of their published articles. Fifty-four of the articles mentioned above were excluded from the corpus mainly due to two major reasons: the existence of non-Iranian co-authors and the lack of their author(s)' cooperation. Consequently, we utilized the remaining 80 articles for data collection.

3.2. Participants

We utilized convenience sampling to handpick the intended participants. To this end, we contacted the specialists in medical sciences who were faculty members at diverse universities in Iran and the EFL teachers who taught general English courses at

Iranian universities and language institutes. We obtained 20 field specialists and 20 EFL instructors' consents to participate in the study.

The appointed field experts and EFL teachers had a minimum of six years and four years of teaching experience, respectively. All of the specialists had a PhD degree in their respective medical fields. Six of the EFL instructors had a PhD in Applied Linguistics, and four were Applied Linguistics PhD candidates. Seven of the remaining EFL teachers had an M.A. in Applied Linguistics, and three had an M.A. in English Language and Literature. The PhD holders and candidates worked as adjunct lecturers, and the M.A. holders taught courses at private language institutes and tutored EFL learners in general English courses.

Having appointed the participants, we provided each field specialist and EFL teacher with four randomly chosen articles. We asked them to edit their formal, stylistic, and genre-related features and to return them via email within two months. The processes of sampling and data collection lasted approximately three months.

3.3. Data Categorization

We employed Zeinolabedini and Gholami's (2016) editing strategy framework (i.e., a modified version of the framework developed by Willey and Tanimoto, 2012) owing to the affinity between their intents and our objectives. This framework encompasses four major micro-strategy categories including *addition*, *deletion*, *substitution*, and *mechanical*, which characterize word-level modifications, and five major macro-strategy categories comprising: *rewriting*, *recombining*, *reordering*, *condensing*, and *topicalization* delineating sentence-level and paragraph-level text emendations. Furthermore, it distinguishes *single* and *extended* micro-strategy subcategories (excluding mechanical strategy) based on the language level at which they are implemented (i.e., word, sentence, & paragraph). Finally, it differentiates among five subcategories of the mechanical micro-strategy entailing: *hyphenating*, *spacing by comma*, *case lettering*, *spacing*, and *spelling*. Table 1 and Table 2 encapsulate the foregoing strategies as well as their definitions:

Table 1

Convenience Editing Micro-Strategies (Zeinolabedini & Gholami, 2016, p. 252)

Micro-strategies	Definition
1. Addition	Adding new words, phrases, or sentences
2. Deletion	Omission of words, phrases, or sentences
3. Substitution	Replacement of words, phrases, or sentences with new ones
4. Mechanical	Modifications on mechanics of writing, including hyphenating, spacing by comma, case lettering, spacing, and spelling

Table 2

Convenience Editing Macro-Strategies (Zeinolabedini & Gholami, 2016, p. 252)

Macro-strategies	Definition
5. Rewriting	Keeping the idea but reformulating it in new words (Bisaillon, 2007)
6. Recombining	Merging one or more sentences
7. Reordering	Moving words, phrases, or sentences to another place
8. Condensing	Without an obvious usage of any editing strategy, making the sentence or a paragraph shorter by reducing redundancy to create lexically or structurally dense and compact sentences (Halliday, 2004).
9.Topicalization	Replacing the positions of theme and rheme. It can be considered a subcategory of reordering, but the focus here is only on choosing more appropriate places for theme and rheme, that is, thematic progression.

3.4. Data Analysis

We coded the data using Zeinolabedini and Gholami's (2016) strategy taxonomy. To ascertain inter-rate reliability, we appealed to one of our colleagues (i.e., a professor who had a PhD in Applied Linguistics) to code the data of 20 randomly selected articles. A satisfactory Cohen's kappa inter-rater reliability index (k=0.81) attested to the consistency of data coding. In light of the aforementioned intents, we used descriptive statistics entailing frequencies and percentages to delineate the distribution of the participants' utilized micro-strategies and macro-strategies. Furthermore, we employed chi-square test to discern the significance of the differences between the two editing agents' used strategies owing to the categorical nature of data.

4. Results

The first research question scrutinized Iranian medical field specialists and EFL teachers' pervasive convenience editing strategies. Moreover, the second research

question endeavored to highlight the probable differences between the editing strategies of the aforementioned groups. In light of the objectives of these questions, first, we tabulated the overall frequencies of the medical field specialists and EFL teachers' editing strategies. We used the *chi-square test for independence* to determine the differences between their uses of the pertinent strategies. Second, we tabulated the frequencies of convenience editing strategies of these groups across different manuscript sections and examined the probable differences between them in each section. Table 3 displays the overall frequencies of the convenience editing micro-strategies of these groups:

Table 3

Overall Frequencies of Field Specialists and EFL Teachers' Convenience Editing Micro-Strategies

Micro-Strategies	Addition	Deletion	Substitution	Mechanical	Total
Field Specialists	252	270	456	373	1351
EFL Teachers	231	271	585	391	1478

As shown in Table 3, substitution was the most recurrent editing micro-strategy of both groups. To delve more deeply into the distribution of the field specialist and EFL teachers' *addition*, *deletion*, and *substitution* strategies, we distinguished the frequencies of their single and extended micro-strategy subcategories. Table 4 and Table 5 provide information on the overall frequencies of these subcategories:

Table 4

Overall Frequencies of Field Specialists' Convenience Editing Micro-Strategy Subcategories

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	190	198	326	714
Extended	62	72	130	264
Total	252	270	456	978

Table 5
Overall Frequencies of EFL Teachers' Convenience Editing Micro-Strategy Subcategories

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	162	179	409	750
Extended	69	92	176	337
Total	231	271	585	1087

The analysis using the chi-square test for independence revealed a significant difference between the field specialists and EFL teachers' uses of the addition, deletion, and substitution editing micro-strategies ($X^2 = 11.178$, *2df*, $p = .004$).

Furthermore, to provide more information on the field specialists and EFL teachers' uses of the mechanical micro-strategy, we tabulated the frequencies of the subcategories of this micro-strategy. Table shows these results:

Table 6
Overall Frequencies of Field Specialists and EFL Teachers' Convenience Editing Mechanical Strategy Subcategories

Subcategory	Hyphenating	Comma	Case Lettering	Spacing	Spelling	Total
Field Specialists	122	93	53	53	52	373
EFL Teachers	82	167	55	42	45	391

Based on the results of Chi-square analysis, field specialists' mechanical editing strategy uses were significantly different from EFL teachers' uses of this editing strategy ($X^2 = 30.313$, *4df*, $p = .000$).

In addition to the micro-strategies, we tabulated the frequencies of field specialists and EFL teachers' editing macro-strategies. Table 7 provides these results:

Table 7

Overall Frequencies of Field Specialists and EFL Teachers' Convenience Editing Macro-Strategies

Macro-Strategies	Reordering	Rewriting	Recombining	Condensing	Topicalization	Total
Field Specialists	84	111	106	113	46	460
EFL Teachers	74	127	76	91	48	416

The chi-square analysis underlined that there was not a significant difference between the different editing macro-strategies implemented by these groups (X^2 = 7.387, *df4*, *p* = .117). Figure 1 and Figure 2 display the overall distributions of field specialists and EFL teachers' convenience editing micro-strategies and macro-strategies:

Figure 1

Overall Distribution of Field Specialists' Micro and Macro Editing Strategies

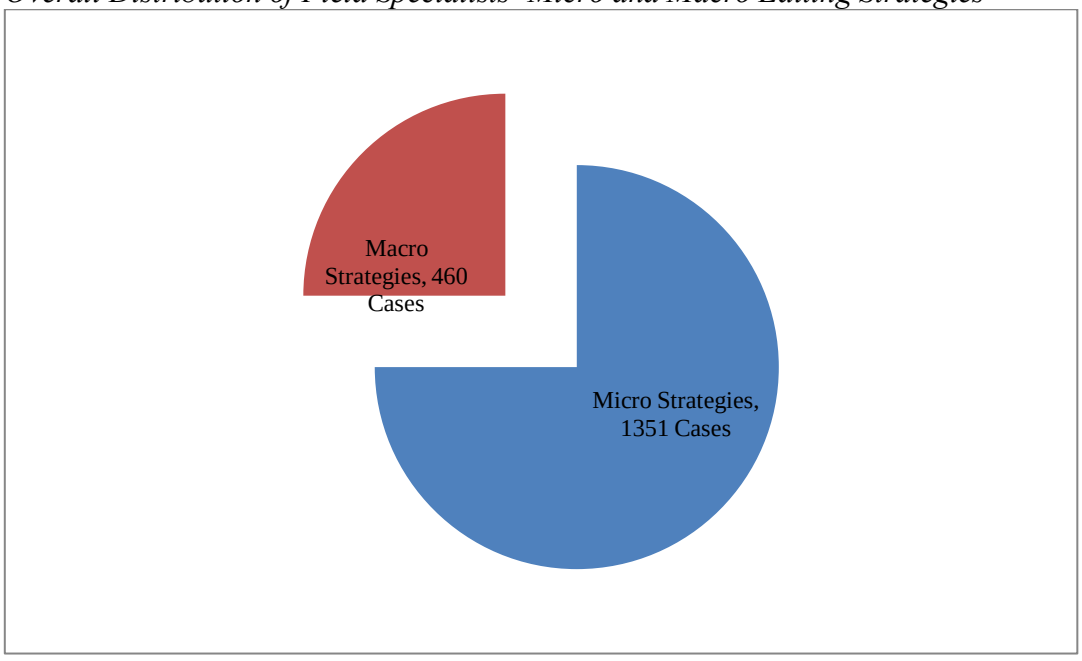
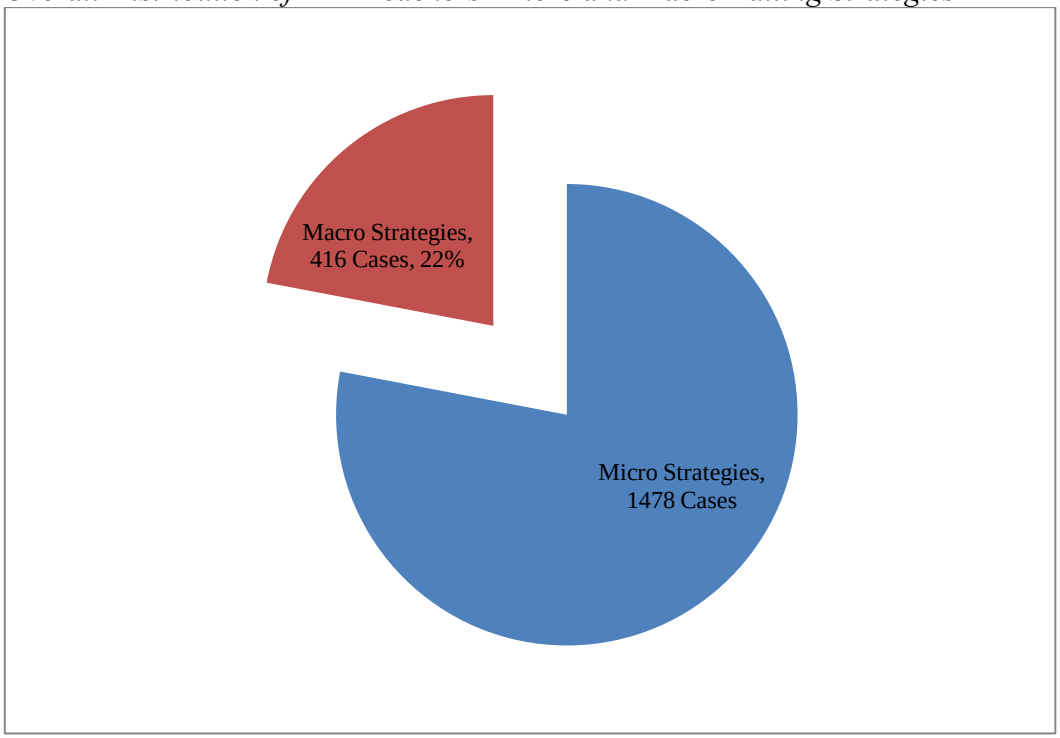


Figure 2

Overall Distribution of EFL Teachers' Micro and Macro Editing Strategies



Subsequent to the examination of the overall distributions of field specialists and EFL teachers' convenience editing strategies, we focused on their editing strategies in different manuscript sections and investigated the probable differences between their editing strategies. Table 8 provides information on the word counts of the manuscript sections:

Table 8

Total Word Counts of Different Manuscript Sections

Section	Abstract	Introduction	Method	Results	Discussion	Total
Word Count	23,512	33,910	72,018	45,702	74,880	250,022

Table 9 and Table 10 display the frequencies of the field specialists and EFL teachers' convenience editing micro-strategies and macro strategies in different sections of the pertinent manuscripts:

Table 9

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Micro-Strategies across Different Manuscript Sections

Sections	Abstract	Introduction	Method	Results	Discussion	Total
Field Specialists	510	325	172	141	203	1351
EFL Teachers	603	295	202	134	244	1478

Table 10

Frequencies of Field Specialists and EFL Teachers' Macro-Strategies across Different Manuscript Sections

Sections	Abstract	Introduction	Method	Results	Discussion	Total
Field Specialists	118	108	74	61	99	460
EFL Teachers	110	88	64	52	102	416

We distinguished the frequencies of the field specialists and EFL teachers' editing strategies in each manuscript section. Tables 11 to 14 display these frequencies in the *abstract* manuscript section:

Table 11

Frequencies of Field Specialists' Convenience Editing Micro-Strategy Subcategories in the Abstract Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	66	109	121	296
Extended	18	31	53	102
Total	84	140	174	398

Table 12

Frequencies of EFL Teachers' Convenience Editing Micro-Strategy Subcategories in the Abstract Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	56	98	194	348
Extended	16	44	71	131
Total	72	142	265	479

Table 13

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Mechanical Strategy Subcategories in the Abstract Manuscript Section

Subcategory	Hyphenating	Comma	Case Lettering	Spacing	Spelling	Total
Field Specialists	38	31	12	19	12	112
EFL Teachers	22	67	10	9	16	124

Table 14

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Macro-Strategies in the Abstract Manuscript Section

Macro-Strategies	Reordering	Rewriting	Recombining	Condensing	Topicalization	Total
Field Specialists	18	17	25	50	8	118
EFL Teachers	14	25	18	42	11	110

The results of the chi-square test showed that there were significant differences between field specialists and EFL teachers' convenience editing micro-strategy subcategories ($X^2 = 12.425$, $df2$, $p = .002$), and mechanical strategy subcategories ($X^2 = 21.261$, $df4$, $p = .000$) in the abstract section. Nonetheless, this section did not show a significant difference between their editing macro-strategies (X2 = 4.057, df4, p = .398). Tables 15 to 18 provide information on field specialists and EFL teachers' convenience editing strategies in the *introduction* manuscript section:

Table 15

Frequencies of Field Specialists' Convenience Editing Micro-Strategy Subcategories in the Introduction Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	66	25	81	175
Extended	15	12	22	46
Total	81	37	103	221

Table 16

Frequencies of EFL Teachers' Convenience Editing Micro-Strategy Subcategories in the Introduction Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	31	22	73	126
Extended	17	15	40	72
Total	48	37	113	198

Table 17

Field Specialists and EFL Teachers' Convenience Editing Mechanical Strategy Subcategories in the Introduction Manuscript Section

Subcategory	Hyphenating	Comma	Case Lettering	Spacing	Spelling	Total
Field Specialists	43	23	18	12	8	104
EFL Teachers	26	44	12	8	7	97

Table 18

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Macro-Strategies in the Introduction Manuscript Section

Macro-Strategies	Reordering	Rewriting	Recombining	Condensing	Topicalization	Total
Field Specialists	26	31	24	14	13	108
EFL Teachers	20	27	22	9	10	88

Based on the results of the chi-square analysis, there were significant differences

between field specialists and EFL teachers' uses of the convenience editing micro-strategy subcategories (X^2 = 7.665, *df*2, *p* = .022) and mechanical strategy subcategories (X^2 = 12.609, *df*4, *p* = .013) in the introduction section. Notwithstanding, the field specialists' convenience editing macro-strategy uses did not significantly differ from the EFL teachers' use of these strategies (X^2 = 0.589, *df*4, *p* = 0.964) in this section. Tables 19 to 22 furnish information on the field specialists' and EFL teachers' convenience editing strategies in the *method* section:

Table 19

Frequencies of Field Specialists' Convenience Editing Micro-Strategy Subcategories in the Method Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	13	28	42	83
Extended	4	12	20	36
Total	17	40	62	119

Table 20

Frequencies of EFL Teachers' Convenience Editing Micro-Strategy Subcategories in the Method Manuscript Section

Micro-strategies	Addition	Deletion	Substitution	Total
Single	32	13	41	86
Extended	12	5	21	38
Total	44	18	62	124

Table 21

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Mechanical Strategy Subcategories in the Method Manuscript Section

Subcategory	Hyphenating	Comma	Case Lettering	Spacing	Spelling	Total
Field Specialists	11	10	6	7	19	53
EFL Teachers	17	24	18	10	9	78

Table 22

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Macro-Strategies in the Method Manuscript Section

Macro-Strategies	Reordering	Rewriting	Recombining	Condensing	Topicalization	Total
Field Specialists	12	15	14	24	9	74
EFL Teachers	10	12	11	21	10	64

Based on the results of the chi-square test, there were significant differences between the field specialists and EFL teachers' uses of the editing micro-strategy subcategories (X^2 = 20.201, *df*2, *p* = .000) and mechanical strategy subcategories (X^2 = 12.848, *df*4, *p* =. 012) in the method section. Nonetheless, there was no significant difference between the field specialists' uses of the editing macro-strategies and EFL teachers' uses of the aforementioned strategies (X^2 = .405, *df*4, *p* = .982) in this section. Tables 23 to 26 provide information on the field specialists and EFL teachers' convenience editing strategies in the *results* manuscript section:

Table 23

Frequencies of Field Specialists' Convenience Editing Micro-Strategy Subcategories in the Results Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	14	21	37	72
Extended	8	10	16	34
Total	22	31	53	106

Table 24

Frequencies of EFL Teachers' Convenience Editing Micro-Strategy Subcategories in the Results Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	23	12	32	67
Extended	9	7	12	28
Total	32	19	44	95

Table 25

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Mechanical Strategy Subcategories in the Results Manuscript Section

Subcategory	Hyphenating	Comma	Case Lettering	Spacing	Spelling	Total
Field Specialists	9	7	6	7	6	35
EFL Teachers	7	12	7	6	7	39

Table 26

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Macro-Strategies in the Results Manuscript Section

Macro-Strategies	Reordering	Rewriting	Recombining	Condensing	Topicalization	Total
Field Specialists	12	10	24	8	7	61
EFL Teachers	8	21	10	7	6	52

Based on the chi-square test results, there were no significant differences between the field specialists and EFL teachers' uses of the convenience editing micro-strategy subcategories (X^2 = 4.980, *df*2, *p* = .083) and mechanical strategy subcategories (X^2=1.585, *df*4, *p*=.811) in the *results* section. Nonetheless, the field specialists' uses of the editing macro-strategies significantly differed from EFL teachers' uses of these strategies (X^2 = 9.958, *df*4, *p* = .041) in this section. Finally, Tables 27 to 30 furnish information on the field specialists and EFL teachers' convenience editing strategies in the discussion manuscript section.

Table 27

Frequencies of Field Specialists' Convenience Editing Micro-Strategy Subcategories in the Discussion Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	31	15	45	91
Extended	17	7	19	43
Total	48	22	64	134

Table 28

Frequencies of EFL Teachers' Convenience Editing Micro-Strategy Subcategories in the Discussion Manuscript Section

Micro-Strategies	Addition	Deletion	Substitution	Total
Single	20	34	69	123
Extended	15	21	32	68
Total	35	55	101	191

Table 29

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Mechanical Strategy Subcategories in the Discussion Manuscript Section

Subcategory	Hyphenating	Comma	Case Lettering	Spacing	Spelling	Total
Field Specialists	21	22	11	8	7	69
EFL Teachers	10	20	8	9	6	53

Table 30

Frequencies of Field Specialists and EFL Teachers' Convenience Editing Macro-Strategies in the Discussion Manuscript Section

Macro-Strategies	Reordering	Rewriting	Recombining	Condensing	Topicalization	Total
Field Specialists	16	38	19	17	9	99
EFL Teachers	22	42	15	12	11	102

The results of the chi-square analysis underlined that there was a significant difference between the field specialists and EFL teachers' uses of the convenience editing micro-strategies in the discussion section (X^2 = 14.939, *df*2, *p* = .001). Notwithstanding, there were no significant differences between the editing mechanical strategy subcategories (X^2 = 2.553, *df*4, *p* = .635) and editing macro-strategies (X^2 = 2.636, *df*4, *p* = .620) of these groups in this section.

5. Discussion

The first research question of the present study strived to determine Iranian medical field specialists and EFL teachers' most recurrent convenience editing strategies. First, the results accentuated that *substitution*, *mechanical alternation*, *deletion*, and *addition* constituted the most frequent editing strategies for both of the above-mentioned groups of editors in descending order of frequency. These results partially corroborate the studies by Willey and Tanimoto (2012) and Zeinolabedini and Gholami (2016). The high recurrence of the *substitution* strategy may emanate from its overarching nature (Zeinolabedini & Gholami, 2016). More specifically, *substitution* encompasses manifold editing interventions comprising sundry syntactic and lexical modifications which intend to ameliorate the lucidity and intelligibility of the text. Furthermore, it might be associated with the editors' proclivity towards the superfluous textual alternations. The editors might implement specific surplus and unwarranted editing intervention to overawe their peers or to tinge the texts with their own writing style (Zeinolabedini & Gholami, 2016).

Second, this study found that, while *hyphenating* was the field specialists' most frequent mechanical micro-strategy, *spacing by comma* constituted the EFL teachers' most recurrent mechanical editing strategy. This result is in line with Zeinolabedini and Gholami's (2016) results in regard to the medical field specialists. The difference between the mechanical editing strategy uses may be related to their contradictory perceptions of cohesive texts. While the field specialists used the word pairs/sets as linguistic tools for improving cohesion, the EFL teachers took advantage of the thought groups to ameliorate this aspect of the relevant texts.

Third, the study underlined that *condensing* and *rewriting* were the most recurring convenience editing macro-strategies in case of the field specialists and EFL teachers, respectively. Considering the field specialists, these results align with Zeinolabedini and Gholami's (2016) results. The disparity between the editing foci of the above-mentioned editing groups might be ascribed to their editing intents. More specifically, the field specialists had technical mastery over the texts of the articles. They implemented specific editing interventions to reduce their redundancy and streamline their communication of the messages. On the other hand, although the EFL teachers did not fully comprehend the technical terminology (Willey & Tanimoto, 2015), their linguistic mastery empowered them to boost the clarity of the texts by reformulating their diverse sections.

Fourth, based on the results, the editing micro-strategies vastly outnumbered the editing macro-strategies in the case of both medical field specialists and EFL teachers. These results underpin the results of the study by Zeinolabedini and Gholami (2016). These researchers attributed their results to medical field experts' educational background. They averred that their academic education familiarized them with the underlying genre-based and stylistic idiosyncrasies of the medical articles and enabled them to become attuned to the prerequisites of the medical writing style. That is, the medical articles did not require extensive macro-level editing. This contention might be substantiated considering the education which is provided to field experts in the context of Iran.

Nonetheless, it does not rule out the possibility that both of the editing groups could not implement the macro-strategies. More specifically, the EFL teachers' exiguous and meager knowledge of the genre-based peculiarities of the medical articles resulted in their hesitancy and obviated their optimum editing macro-strategy use. On the other hand, the field specialists were not linguistically adept in using the aforementioned strategies despite their awareness of their consequential role in ameliorating the intelligibility of the article texts. Consequently, the superficial similarity between the macro-strategy uses of these groups of editors might conceal the underlying disparities between the reasons behind their implementation of the pertinent strategies.

Fifth, the study showed that both the field specialists and EFL teachers used the preponderance of the convenience editing micro-strategies and macro-strategies in the *abstract* manuscript section. The results of the study by Zeinolabedini and Gholami (2016) corroborate this result. This issue is striking because the abstract section had the lowest word count compared with the other manuscript sections. These results might be ascribed to the field specialists and EFL teachers' research backgrounds in their fields of study. As mentioned previously, all of the participants had either a PhD or an M.A. degree in their field. Therefore, both of the editor groups had decent technical knowledge of the article structures and were cognizant of the consequential role of the *abstrac*t in the appraisal of the manuscripts (Salager-Meyer, 1990, 1992; Ulijin & Pugh, 1985). Considering this issue, both of these editing groups strived to use profuse editing strategies to render the *abstracts* apt for publication (Berkenkotter & Huckin, 1995).

Finally, according to the obtained results, while the *introduction* and *discussion* sections were the most heavily edited sections following the *abstract*, the *results*

section received the lowest number of editing interventions. These results reinforce Zeinolabedini and Gholami's (2016) results regarding the field specialists' strategy uses. This is a noteworthy issue given the lower word count of the *introduction* section compared to the *results* section. Nkemleke (2014) contended that scientific articles' introduction and discussion articulate the authors' overriding and preponderant intents. In the *introduction* and *discussion* sections, the authors strive to rationalize the need for their study and their obtained results, respectively. To this end, they avail themselves of multitudinous citations to highlight the extant gaps in the pertinent literature or to expound on the findings in light of the theoretical and empirical backgrounds. Notwithstanding, their citation attempts are regulated by anti-plagiarism measures of journals (Abbasi et al., 2020; Esfandiyari et al., 2020; Farrokhi, 2009; Gajarzadeh et al., 2012; Khalili et al., 2022; Khalili, Kashef, & Yaghoubi-Notash, 2022; Mansourzadeh et al., 2021; Sabbaghan, 2010; Zeinolabedini & Gholami, 2016). More specifically, the authors are impelled to rephrase and restructure the scientific language of their employed sources to enunciate their intended meanings in a language that is not their primary means of communication (Liao & Tseng, 2010). As a consequence, they commit umpteen grave linguistic errors. On the other hand, the *results* section of the manuscripts verbalizes the routinized scientific procedures which constitute the core of the preponderance of the pertinent studies (Hill et al., 1982). Consequently, the authors take advantage of their internalized knowledge of the medical genre to write the texts which are commensurate with the requisite stylistic expectations. This situation is akin to the international scientific conferences where academics use English effectively to confer with their colleagues about the convoluted issues of their fields despite the fact that they may not be able to converse with them concerning their personal daily life in their hotel lobby. These issues may partially elucidate the greater cases of editing interventions in the *introduction* and *discussion* sections juxtaposed with the *results* section of the medical manuscripts.

The second research question of the study endeavored to specify the differences between the field specialists and EFL teachers' convenience editing micro-strategies and macro-strategies. On the basis of the obtained results, there were significant differences between these editing groups' overall addition, deletion, substitution, and mechanical micro-strategies. Moreover, the aforementioned differences between these groups concerning these micro-strategies were observed across the different manuscript sections except the *results* section and the *discussion* section (in case of mechanical strategy subcategories). These results are antithetical to the results of the

study by Willey and Tanimoto (2012) in regard to the *abstract* section. These researchers contended that field specialists and EFL teachers' knowledge of the medical genre did not significantly impact their editing strategy uses. The disparity between Willey and Tanimoto's (2012) results and our results may emanate from the smaller scale of their study in terms of the examined manuscript sections (abstract vs. all of the manuscript sections) and the participants' mother tongue (native vs. non-native English speakers).

The observed dissimilarities between the field specialists and EFL teachers' uses of the micro-strategies might be ascribed to a number of *research-induced* and *technical-knowledge-based* issues. The scrutiny of the EFL teachers' editing micro-strategies evinces that their strategies (1478) outnumbered the field specialists' strategies (1351). This issue may signify a case of *Hawthorne effect* (Brown, 1954; Mayo, 1933). More specifically, it is possible that, the EFL teachers overused specific editing-micro strategies (e.g. *substitution*) due largely to the fact that they intended to impress us by highlighting their considerable virtuosity in editing the medical articles. This conjecture seems eminently sensible because in the preponderance of EFL contexts (e.g., Iran) the academics who teach English are deemed to be omniscient in English in all academic fields.

Furthermore, the careful perusal of these editing groups' micro-strategies accentuates the existence of a marked difference between their *addition* and *deletion* strategies across the manuscript sections except the *abstract*. This issue may be associated with the EFL teachers' meager knowledge of technical terms (Willey & Tanimoto, 2015), which obviated their optimal use of the *addition* strategy in certain sections (i.e., *introduction* & *discussion*) compared with the field specialists. Moreover, it might stem from the dissimilarities between the underlying characteristics of research on *language* as a branch of soft sciences and *medicine* as a branch of hard sciences (Hill et al., 1982), which resulted in EFL teachers' inadequate use of the *deletion* strategy in certain sections (i.e., *method* & *results*) and their overuse of this strategy in other parts of manuscripts (e.g., *discussion*) in comparison with the field specialists.

6. Conclusion

The present study examined Iranian medical field specialists and EFL teachers' convenience editing strategies in medical articles. The results revealed that both of

these editing groups had a proclivity to use a larger number of micro-strategies compared to macro-strategies. Furthermore, the field specialists' editing micro-strategy uses differed significantly from the EFL teachers' uses of these strategies. It appears that a number of provisional conclusions can be drawn considering the obtained results. First, there may be specific differences between the non-native medical field specialists and EFL teachers' approaches to editing medical articles (Benfield & Howard, 2000). Consequently, the synergic collaboration between these groups of editors might produce more positive results and ameliorate the article texts' formal, stylistic, and genre-related aspects. Second, the field specialists and EFL teachers' overuse of the editing micro-strategies may emanate from the fact that they lack technical or linguistic competence in macro-strategy use. The above-mentioned collaboration between these editing groups may empower them to establish and maintain equilibrium between their implementation of the editing micro-strategies and macro-strategies. Finally, considering the underlying dissimilarities between the characteristics of the articles which are authored in hard sciences and soft sciences, the EFL teachers are required to gain sufficient knowledge about the medical genre. Their mastery over this genre may preclude them from transferring the genre-based features of language articles to medical articles.

The obtained results of this study highlight certain lines of research for future studies. First, *substitution* was the most recurrent editing micro-strategy in the present study. Diverse miscellaneous textual interventions are lumped together in the *substitution* strategy category. This issue may conceal the differences between the medical field specialists and EFL teachers' editing strategies. Therefore, future studies need to distinguish the overarching categories of editing strategies within the substitution strategy category to better understand the strategy uses of the above-mentioned editing groups. Second, based on the results, both field specialists and EFL teachers were competent editing agents in this study. Nonetheless, the relevant studies have to determine which one of these editing groups can make the authors cognizant of their writing difficulties and empower them to communicate their intentions efficiently (Benfield & Howard, 2000). Third, considering the incongruity between the results of the present study and the results of the study by Willey and Tanimoto (2012), it can be contended that investigating the differences between native and non-native field specialists and native and non-native EFL teachers' convenience editing strategy uses warrants attention. Fourth, the pertinent studies have to examine the degree to which the medical field specialists and EFL teachers'

editing interventions fulfill the journal editors and reviewers' language-related expectations. A better understanding of the editors and reviewers' appraisal of the editing efficacy of each of these editing groups might assist the authors to avail themselves of more effective editing services. Lastly, the medical field specialists' academic education may exert certain effects on their ability to implement the convenience editing strategies. Therefore, the present study should be replicated on larger scales in diverse second and foreign language learning contexts to determine the role of education in the field specialists' capability to implement the convenience editing strategies.

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