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The influence of peer reviewers as literacy brokers on the construction of texts for publication in ISI-indexed journals: A study of medical research articles

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ABSTRACT

This study focused on the "text histories," peer reviewers' comments, and authors' responses of 20 medical research articles published in ISI indexed journals. To identify the types of comments peer reviewers frequently make on submitted articles to shape suitable texts for publication in medical ISI indexed journals, 368 comments are categorized into four groups. The results revealed that peer reviewers' comments can be categorized into four different classes: Comments made with regard to scientific issues, language issues, discourse and text organization, and journal format. The comments mainly focused on scientific and language use problems. In detail, classification of comments can help novice and periphery researchers successfully uncover the reviewers' comments, publish their articles in reputable journals, and disseminate their knowledge among others.

Keywords: Discourse, ISI indexed journals, medical research articles, peer reviewers, text histories

INTRODUCTION

In the scientific world where English is the lingua franca, reviewers of reputable journals have the ability to influence scholars' career by accepting or rejecting their manuscripts. Scholars are under great pressure to publish the results of their studies in English-medium refereed journals to be considered as a legitimate socialized member of the target community,[1] achieve incentives and higher payments,[2] academic advancement,[3] worldwide academic recognition,[4] and to contribute to knowledge production in their field.

The situation is harder in non-Anglophone countries where English is spoken as a foreign language (EFL). Consequently, both discursive and nondiscursive[1] difficulties hinder nonnative writers from passing the gatekeepers of high-impact journals. Some studies that focused on article publication and its processes can reflect the discursive problems of the authors.[3,4] For example, Li elaborated on the writing-for-publication experience of a nonnative speakers of English (NNSE) and highlighted his various discursive problems such as inappropriate text organization and the poor language of the manuscripts.[5] Besides, in other studies (among others),[6,7] inadequate proficiency in English was referred to as a discursive problem which according to Conium was not a criterion for rejection of the manuscripts.[8]

To overcome these barriers, Misak *et al.*,[9] as editors of a small medical journal, took manuscript editing as a way of teaching academic writing and suggested some guidelines for periphery scholars to ease their difficulties. Moreover, to enhance the researchers' chance of publication in high prestige medical journals, Guyatt and Brian Haynes[10] advised the researchers to follow their guidelines. They believed that the content and format of the manuscript should tailor that of the target journals. The language should be edited, passive words should not be used,

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paragraphs should be kept short, and responses to the reviewers should be carefully structured.

Another strategy to enhance the chance of publication is the authors' participation in academic research networks. Some researchers roughly discussed the scholars' networking;[2,3,11] however, Lillis and Curry[12] introduced "literacy brokers" and "network brokers"[12] as two groups of people forming a research network. Literacy brokers who were also referred to as "academic mentors"[3] and "shapers" of research articles[14] are categorized by Lillis and Curry[12] as academic professionals, language professionals, and nonprofessionals who can "mediate text production in a number of ways" (p. 4). Network brokers[13] are "network members who play a pivotal role in bringing others into the network" and in contrast to literacy brokers they may not be directly involved in text production (p. 283). Therefore, peer reviewers and editors of journals are literacy brokers since, as language and academic professionals, they can influence both the scientific content and language of a research article.

Different studies[15-17] have been conducted to find out peer reviewers' roles and peer review processes of articles which led to various positive and negative viewpoints on the peer reviews of articles. Among researchers who have positive ideas about peer reviewers, Weller[18] believed that peer reviewers were well educated and spent considerable time on reviewing each article. A study mentioned that peer reviewers had no bias toward any particular geographical area and commented based on the input material.[19]

In contrast, another researcher criticized the review process of articles and explained that peer reviewers decide about articles and this contradicts with the meaning of "peer review."[20] The lack of reliability of the reviewers was elaborated in another study by Peters and Ceci.[21] In this study, 12 published articles were resubmitted and 8 of them were rejected due to serious flaws.

In addition to studies that discussed positive and negative viewpoints toward peer review process of articles, some others[22-25] analyzed the peer reviewers' comments to provide a better understanding of these "occluded genres." According to Swales,[30] peer reviews of articles are examples of the genres which are typically 'out of sight or occluded from the public gaze by a veil of confidentiality' (p. 46); they are part of personal documents and only accessible to a small group of people. Therefore, it is difficult to access these texts and study the peer review processes of the manuscripts.

Mungra and Webber[26] in their study on the peer reviews of medical articles categorized peer reviewers' comments into two categories of content comments and language use comments. They also found that content comments were more common than language use comments. This study is very limited and does not provide a detailed classification of the comments to help other researchers understand reviewers' comments.

Peer reviewers are influential mediators of texts who influence different aspects of the manuscripts submitted to their journal. Although understanding peer reviews of articles can help novice researchers in EFL contexts enhance their chance of publication in reputable journals, to the best of our knowledge, no study has been conducted on the peer review reports of medical articles written by Iranian medical researchers published in ISI indexed journals.

Peer reviewers can affect manuscripts through their comments. Therefore, the aim of this research which is part of a thesis is to provide a detailed understanding of the types of peer reviewers' comments that influence the construction of Iranian medical ISI indexed articles. The content of the comments are analyzed to find out the types of comments they made.

To achieve this end, two research questions are posed to analyze the content of the comments:

- What types of comments are made by peer reviewers?
- Which type of comment is more frequent?

SAMPLING AND DATA COLLECTION PROCEDURES

To answer the above questions, "text histories"[12] of 20 Iranian medical articles published in ISI indexed journals were collected. All researchers were periphery and NNSE; however, we did not have special information about the reviewers. "Snowball sampling"[18] was used to collect data. In this process, we first started with several medical researchers known to us and then asked them to introduce us to their friends who can help us collect our data. We finally ended up our data collection procedure with 20 articles since with the use of 20 articles we reached "saturation."[27]

For this study, we deliberately chose articles published in ISI indexed journals after one or more round of reviews since published articles can better represent the influence of peer reviewers on the production of suitable manuscripts for publication in ISI indexed journals. Therefore, deliberate

selection of articles accepted for publication and not the rejected ones is what a researcher[28] referred to as "theoretical or purposive sampling." Theoretical sampling comes under "strategic sampling" and means:

Selecting groups or categories to study on the basis of their relevance to your research questions, your theoretical positioning and analytical framework, your analytical practice and more importantly the argument or explanation that you are developing. Theoretical sampling is concerned with constructing a sample which is meaningful theoretically and empirically because it builds in certain characteristics or criteria which help to develop and test your theory or argument (p. 124).

Therefore, medical articles published in ISI indexed journals directly address our research questions and help develop an understanding of the role of journal reviewers in shaping a text for publication. Table 1 describes the collected articles in detail. For instance, manuscript number seven is related to the field of cardiology and has been written by five authors and reviewed by two peer reviewers.

Table 2 describes the number of comments made on each manuscript and the number of sentences used in structuring each comment. Moreover, for the sake of this research, compound sentences have been divided into separate sentences.

METHODOLOGY

The comments were analyzed by both researchers separately to gain inter-rater reliability. Choosing researchers'[26] categorizations as the framework for classifications of the comments, upon several readings and analysis, we both found that there are some comments that could not be analyzed into two groups of content and language-use comments. Therefore, we decided to classify the comments into four groups to complete their classification and also to create in detail analysis for the better understanding of the issue. Upon that, we also changed the name of the groups of comments to make distinction.

The types of comments made on the manuscripts and their proportions can be found by categorizing the comments into several groups based on their content. In the case of divergent opinions between researchers, the points were resolved through negotiations of ideas and in the majority of cases through authors' responses to the comments and the changes made in their manuscripts, since authors' responses and consequently changes made in the manuscripts show the purpose of the comments and can help us classify the comments into appropriate groups. Besides, in some cases, two or more groups of comments could be merged; however, to provide a detailed understanding of the kind of comments through

Table 1: Detailed information about each manuscript

Manuscript	Number of reviewers	Number of authors	Field of study
1	2	4	Obstetrics and gynecology
2	1	5	Dermatology
3	2	8	Ear, nose, throat
4	3	6	Obstetrics and gynecology
5	2	8	General surgery
6	1	4	Rheumatology
7	2	5	Cardiology
8	1	5	Ophthalmology
9	3	5	Radiology
10	1	7	Pediatrics
11	2	4	Psychiatry
12	2	6	Anesthesiology
13	1	11	Anesthesiology
14	2	14	General surgery
15	1	6	Dermatology
16	2	9	Obstetrics and gynecology
17	1	3	Ophthalmology
18	2	4	Cardiology
19	2	6	Psychiatry
20	3	7	Rheumatology

Table 2: Number of comments and sentences of each manuscript

Manuscript	Number of comments	Number of sentences
1	14	30
2	8	12
3	23	47
4	27	38
5	19	24
6	15	20
7	29	49
8	9	17
9	17	41
10	8	14
11	38	65
12	17	39
13	8	18
14	17	31
15	7	18
16	19	25
17	26	37
18	22	30
19	15	28
20	30	52
Total	368	635

illustrative examples, we preferred to classify them into separate groups.

RESULTS

To answer the first research question, we adopted a whole comment as a unit of analysis to find out the types of comments made by peer reviewers. In this part, we referred to the meaning of the comments to find out the aspects of a research article which are referred to by reviewers.

A total of 368 comments and the authors' responses whenever needed were analyzed to understand the content of the comments or what reviewers have asked for. To answer this question, we focused on both the reviewers' comments and the authors' responses in order to understand the points better. However, categorization of comments was not an easy job. Some categories overlap and some comments could be categorized into two classes. In spite of all that, we did our best to categorize peer reviewers' comments into four categories. About 45.92% of the comments of peer reviewers in our corpus dealt with scientific issues. This category refers to the comments about the content and scientific aspects of the manuscript. The 2nd category which was about 41.3% of all comments focused on the linguistic aspects of the manuscripts. Comments with regard to the language issues refer to those comments in which the peer reviewers have asked for the improvement of English use for better comprehension.

The third class of comments is the category of comments made with regard to discourse and text organization. About 7.06% of the comments focused on the organization of the manuscript and how text is structured. The last category of comments refers to comments with regard to journal format. In about 5.7% of the comments, peer reviewers focused on the manuscript format so that it will match the journal guidelines.

Below we focus on each category of comments separately to better understand what they consists of. The 1st category which has the most proportion of the comments is the category of "comments made with regard to scientific issues." Table 3 illustrates the kinds of comments in this category and their proportions.

As shown in Table 3, 22 different categories of comments focus on the scientific issues. In this class of comments, the comments in which peer reviewers have asked the authors to clarify the methodological procedures used in the study have the most contribution. This category refers to comments in which peer reviewers asked for more detailed information about methodological procedures of the study, more information about the methodological tools, and clarification of methodological process by adding more information. The example below elucidates the point:

Table 3: Scientific comments and their frequencies

Comments made with regard to scientific issues	Frequencies	Proportions (%)
Clarity of the methodological procedures	33	8.96
Edit tables, figures, and images	17	4.61
Update references	16	4.34
Include more details of patients studied	12	3.26
Error in claim	12	3.26
Error in methodological procedures	10	2.71
Sampling error	9	2.44
Contrasts in the authors' claim	7	1.9
Error in the type of study	6	1.63
Include statistical analysis	5	1.35
Inaccurate interpretations of other studies	5	1.35
Improve discussion	5	1.35
Misleading caption of tables	4	1.08
Acknowledge the limitations of the study	4	1.08
Error of in-text citations	4	1.08
Clarity of technical details	4	1.08
Provide patients informed consent	3	0.81
Big claims for data	3	0.81
Add images of cases studied	2	0.54
Plagiarism	2	0.54
Edit keywords	2	0.54
Highlight the superiority of the study	1	0.27
Total	169	45.92

Example 1: I am not sure when the second measurement of hormones was done? On the first day of the second cycle, or on the first day of the third cycle? There is nothing in the text.

In this comment, the peer reviewer asked the authors to add more details about their methodological procedures to clarify the point better. It seems that the authors have not mentioned an exact and clear time for the second measurement of hormones in the methodology section of their manuscript.

The 2nd category refers to "edit tables, figures, and images." This category refers to comments in which reviewers asked authors to omit or edit the content of tables, merge two tables, and to upload an image of a better quality. Example 2 clarifies the point:

Example 2: You need to reduce the number of tables. Table 1 is unnecessary - this could be put in paragraph form in Methods. Tables 2 and 3 should be deleted. Simply state the means for age and gender in the results and the fact that there was no significant difference between the treatments. I bet Tables 4 and 5 could be reformatted so that data from both are in a single table.

The class of "update references" is an umbrella term for a group of comments in which the referees asked the researchers to discuss relevant papers and those which are recently published on the same topic in their manuscript instead of old sources. Besides, in some cases, they introduce some new articles. See example below:

Example 3: New papers have been published regarding […] and reproduction failure. The references must be updated.

The next category refers to "include more details of the patients studied." In this category of comments, peer reviewers asked for more and detailed information about the patients and cases authors studied and also more information about patients' background and history. Example 4 illustrates the point:

Example 4: It may be beneficial to add in the […] of the one patient with a fracture not detected clinically to illustrate the exception. Listing the individual broken bones would also help - was it […] or something more serious? This would be more illustrative than just saying "lateral injury."

Table 4: Language comments and their proportions

Comments with regard to language issues	Frequencies	Proportions (%)
Revise a phrase	70	19.02
Spelling and grammar	26	7.06
Typos	16	4.34
Delete a word	15	4.07
Edit manuscript by a native speaker of English	13	3.53
Inaccurate and odd words in English	12	3.26
Total	152	41.3

Table 5: Comments made with regard to discourse and text organization and their proportions

Comments made with regard to discourse and text organization	Frequencies	Proportions (%)
Rhetorical moves	15	4.07
Acronyms and abbreviations	5	1.35
Incoherent text	2	0.54
Sequence of information flow	2	0.54
Omit unnecessary information	2	0.54
Total	26	7.06

In the above comment, the reviewer asked the authors to add more details about a patient to illustrate an exception. He also asks for more and detailed information about cases the authors studied to clarify the point better.

"Error in claim" is a category of comments that refers to authors' inaccurate claims which are corrected by the reviewers. The next example elucidates this group of comments:

Example 5: Why is […] advantageous compared with […]? The authors claim it is less invasive. That is certainly not the case for relatively thin disposable instruments for office […]. […] is more expensive, more dangerous and more painful than […].

Authors' response: These explanations were corrected in the comment section of the manuscript.

This example shows that the authors have claimed something in the text which is apparently incorrect from the referee's point of view. The referee explains about the point in question and finally expects the authors to correct their claim.

The 6th category is "error in methodological procedures." The comments in this category are made on cases where the authors have used incorrect methodological procedures to conduct their studies. Moreover, in some cases, the peer reviewers have suggested a more appropriate method for the study. See example below:

Example 6: In my opinion, the most important issue for the authors to address is the clinical relevance of […] to recurrent pregnancy loss. […] is not generally accepted to play a meaningful role in recurrent pregnancy loss and supportive data are lacking. The authors need to build a better case for the clinical relevance of their diagnosis. Of course, the best way to do this would be through using a control group without recurrent pregnancy loss.

The next group of comments refers to "sampling error." In this category of comments, peer reviewers commented on errors in sampling procedures and the size of the sample and asked for more information to clarify the sample and calculations for the sample size. Example 7 clarifies the point:

Example 7: Odd and even number assignment by chart number is a hazardous method of randomization. What safeguards were in place to avoid allocation and ascertainment bias given the predictability?

In this comment, the reviewer expressed that the randomization method is not appropriate and it can affect the results.

Another group of comments come under the category of "contrasts in the authors' claim." This category consists of comments in which reviewers have found contrasts or lack of congruence between two claims made by the authors in the manuscript. See example below:

Example 8: Paragraph 2, line 9: "thyroid hormones are assessed regularly as indicated by […]." You have previously mentioned that thyroid tests were assessed every 2–4 weeks (Paragraph 2, line 4). Which one is true?

This comment reveals that the authors have mentioned two different times for thyroid assessment. The authors' two claims are in contrast with each other.

The next category of comments is comments made on "error in the type of study." In this category, the reviewers believed that the authors are wrong with regard to the type of the study they have conducted.

Example 9: You should reconsider whether this is a prospective cohort observational study. More properly, this is a pilot clinical trial of […] as a screening tool in […] women. It is a pilot trial because it is too small for definitive conclusions there is only one case of […] and 9 of atypical […].

Authors' response: With respect, this is not a clinical trial because it lacks intervention and randomizations as wells as other characteristics of trials. However, this is a cross-sectional observational study in which all the patients were evaluated by both […] and […] and endometrial sampling. We therefore changed the type of study to "cross-sectional observational study."

The above example illustrates that the reviewer has made an objection to the authors' idea about the type of study and tried to support it. However, the authors disagreed with the referee and tried to convince the reviewer that they have not made mistakes.

"Include statistical analysis" is a class of comments in which the reviewer asks the authors to include the statistical analysis of their study in the manuscript. Inclusion of statistical description, statistical comparison with other studies, and correlations comes under this category.

Example 10: Correlations between the above semen parameters and the outcomes of the respective […] methods should be examined and described.

The 11th category refers to the comments about "inaccurate interpretations of other studies." In these comments, the referees refer to inaccurate interpretation of the literature and authors' misunderstanding of other studies. Example 11 represents the point:

Example 11: Last page of discussion: References #20 and #21 are misquoted. In fact, the correct interpretation is the exact opposite of what the authors wrote. Study 20 does not support the value of […] with regard to predicting fertilization outcome. In contrast, an older paper cited as #21 promotes the purported predictive value of […]. Again, authors should consider that study #20 only used subjective light microscopic evaluation of […], while study #21 employed a much more accurate […] method.

In the above example, the reviewer reminds the authors that two references are misquoted. He also provides the authors with the correct interpretations of these two references and tries to highlight the differences between these two studies with regard to their methodological procedures.

"Improve discussion" is the next category for comments that asks the authors to improve the discussion section of their manuscript by adding more details. The example below illustrates a comment in which the reviewer asks for improvement of discussion so that the final message would become clearer:

Example 12: In the discussion: What exactly is the proposed mechanism of […] under the effect of this regimen? Still after all these mentioned studies and references the manuscript ended powdered up, we did not yet get the message. The authors do not propose a specific theory of action here.

In the above comment, the authors are asked to improve their discussion by adding more technical details (TD). The message needs to become clearer.

"Misleading captions of tables" refers to a group of comments in which peer reviewers asks authors to rename and revise the labels of the tables so that they can represent the content of the tables better. The example below represents a comment of this category in which the reviewer wants the authors to rename Table 3:

Example 13: The caption of Table 3 is misleading: "[…]" is not an "[…]" but a normal finding in […] women.

In another class of comment, the referee asks the authors to "acknowledge the limitations of the study." This group of comments wants the researchers to discuss the limitations of their research or acknowledge them in the manuscript. See the next example:

Example 14: Do you have a control group—i.e. a similar […] population which did not undergo a […]? If so, what was the incidence of […] or […] in this group? If you do not have these data, this should be listed as a limitation of the study. What has been your overall incidence of upper […] in patients with […] in your hospital series?

Authors' response: Unfortunately, we have not included a control group; thus, it has been mentioned as a limitation of the study in the discussion section.

"Error of in-text citations" is an umbrella term for a group of comments about authors' flaw of in-text citations. The example below elucidates the point better:

Example 15: In your manuscript, cite references in parentheses not brackets.

The comments in the category of "clarity of technical details" ask the authors to clarify some ambiguous parts of the text. This can refer to clarification of TD, objectives, results, and any part of the text which needs more explanation. See example below:

Example 16: P8L18: You need to clarify "type II error."

In this comment, the reviewer asks the author to explain an error which needs clarification.

The 17th category of scientific comments deals with ethical issues. In the field of medicine, the patients must provide their written informed consents to be included in a medical research. The category of "provide the patients" informed consent' refers to reviewers' demand for the patients' consent form in the manuscript. The example below illustrates the point:

Example 17: Human subjects' protocol and donor consent are missing.

The next category, "big claims for data," includes comments in which the reviewers highlight that the claims, interpretations, and results are not based on the data analyzed in the study. For instance, reviewers mentioned that the data are not enough to support a general claim, data do not lead to the claim, and the authors need to hedge or mitigate the force of their claim. The next example clarifies the point:

Example 18: There are comments made with regards to the role of […] - which is not the basis of this study - be careful of judgments.

In the above example, the reviewer asks the researchers to watch their judgments and interpretations.

"Add images of the cases studied" is a category of comments that refers to peer reviewers' demand of images from the cases researchers report in the manuscript. It seems that reviewers find images necessary for the clarification of the cases studied. See the example below:

Example 19: […] should show increased intensity with […]! Please review this with your radiologist to see if you can get useful images and then mark the features with arrows.

The next category of scientific comments refers to "plagiarism." Among the comments, in some cases, the reviewers warn the authors about plagiarism or use of other peoples' ideas as their own. The example below shows that the referee wants the authors to check their manuscript for any instances of plagiarism:

Example 20: Please check that there are no instances of plagiarism in your manuscript. If you have any queries about what constitutes plagiarism, please contact the Editorial Office.

Another group of comments come under the category of "Edit keywords." This category consists of comments that ask the authors to edit, revise, or omit some of the keywords. Example 21 illustrates the point better:

Example 21: Keywords: […] need not be a keyword for the article since it is a broad specialty. Or did the authors mean "[…]"?

In the above comment, the reviewer believed that a particular word cannot be a keyword for the article. He demands the authors to omit that or to replace it with another word he suggests.

The last group of comments in the category of scientific comments refers to reviewers' demand to "Highlight the

superiority of the study" over other studies. In this case, the referee believes that the study is better than other papers written on the same topic. See the example below:

Example 22: It is better to mention the superiority of this study over the other studies[16,18,22,25]

The next category of comments refers to "comments made with regard to language issues." Language comments focus on the reviewers' complaints about the inaccurate use of English, grammatical issues, and spelling. Table 4 represents the category of language comments as well as the proportions of different categories included in this class.

Comments with regard to language issues constituted 41.3% of the overall comments in our corpus. This category consists of six classes of comments, all of which deal with language issues. In what follows, we will explain each of these categories in detail with an example from our corpus of peer reviewers' comments.

The 1st category of language comments has the highest proportion compared to other groups of comments. "Revise a phrase" refers to a group of comments in which the reviewers ask the researchers to revise a phrase since it is not correct with regard to the rules of English use. The example below elucidates the point:

Example 23: Page 2; line 17 - change to "of the subclavian."

The 2nd category refers to "spelling and grammar." This group of comments consists of comments in which reviewers complain about inaccurate spelling and grammar. See the next example:

Example 24: Throughout the manuscript there are several spelling and grammatical issues that can be addressed during the editing process. I have listed items I detected below …

In the above comment, the referee asks for spelling and grammatical revisions of the manuscript and also detects and lists some parts of the manuscript to be edited.

In the next category of comments, the reviewers comment on "typos." Example 25 illustrates the point better:

Example 25: Page 6, discussion section, line 2. A typing error in the word "severe."

The 4th category of comments refers to reviewers command to "delete a word." See example below:

Example 26: Page 2; line 6 - delete "novel."

The next category refers to comments in which the reviewers ask the researchers to have a native speaker of English edit and revise their manuscripts. This can lead to the improvement of the language used in the manuscript to better manifest the content. The example below clarifies the point:

Example 27: Before resubmission, please ensure that your paper is reviewed/edited by someone whose first language is English. In addition, please supply their name and email address. It is very important for manuscripts to be clear and understandable so that the editor can make an accurate decision upon resubmission.

In the above comment, the editor wants the researchers to have their manuscripts edited by a native speaker of English before resubmission. It seems that intelligible language can influence the editor's decision about acceptance or rejection of a manuscript.

The last category of comments refers to the referees' comments on the use of "inaccurate and odd words in English." In this group of comments, there are comments made on the authors' use of nonexistent words in English. See the next example:

Example 28: There is again the problem of the poor English grammar and the odd incorrect word use (e.g. "stricken" which should probably be "struck" etc.).

The third group of comments in our corpus of peer reviewers' comments deals with discourse and organization of the text. This group of comments focus on what information should be and not be in the manuscript, the sequence of the presentation of the materials, and specifically where they should be presented in the manuscript. Table 5 clarifies the comments of this category and their proportion:

As the table reveals, the category of discourse and text organization comments consists of five different groups of comments. Below, we focus on each of these categories separately and provide examples from our corpus of comments to better illustrate the point.

The first group of comments that deals with discourse and text organization is "rhetorical moves." "Rhetorical

moves" that shape different sections of a manuscript (e.g., introduction, discussion, etc.) refer to comments that focus on appropriate structuring of various parts. Genre analysis in terms of rhetorical moves was developed to describe a part or section of research articles. The example below help elucidates the point:

Example 29: Conclusions: You should never include conclusions drawn from other studies as the authors referred to the studies number 20–22. Please focus on your own findings only.

As the above comment shows, the reviewer in this comment asks the researchers to focus on their own findings in the conclusion section. This comment refers to the rhetorical moves that explain what should be and what should not be included in each section of a research article.

The 2nd category of comments refers to "acronyms and abbreviations." This group of comments ask the researchers to spell out an acronym or abbreviation the first time used in the manuscript. In some cases, the reviewers want the authors to spell out abbreviations in the foot note. See example below:

Example 30: Page 2; line 8 - spell out "SFA" the first time it is used in the text.

The next category focuses on the comments about "incoherent texts." This category includes comments that ask the researchers to rewrite a section of the manuscript since it suffers from lack of coherence.

Example 31: I don't see any coherence in the studies mentioned above. The literature is very loosely connected to the current study. The authors should rewrite the literature in relation to their study rather than introduce them in isolation.

"Sequence of information flow" is an umbrella term for a group of comments that focus on how and in what order the materials should be presented in the manuscript. See the next example:

Example 32: During the analysis on age, occupation, gender, education, etc., the population base of motorcycle use should be firstly stated. E.g. if 95% of drivers are male, the statistical results of gender would be different.

The above example reveals that a piece of information should be presented first in the manuscript. This fact refers to the importance of the sequence of information in the manuscript.

The last category of comments in the group of discourse and text organization comments refers to "omit unnecessary information." In these kinds of comments, the referees mention that the authors have presented excessive information and have not focused on necessary one. The reviewers' comments in this category ask the authors to omit unnecessary information since it is not needed or does not add anything to the content of the manuscript. See example 33:

Example 33: Please omit the sentences commenting about insignificant differences between groups because only the significant differences are of value.

The above example clarifies the point that unnecessary information should be deleted from the manuscript and only important information should be revealed.

The last group of comments consists of comments made by peer reviewers with regard to journal format. In these comments, the peer reviewers ask the authors to modify their manuscripts so that they fit the journal format. Table 6 represents different groups of comments in this category and their proportions.

As Table 6 shows, the category of "comments with regard to journal format" contributes to 5.7% of the overall comments and consists of four groups of comments. In what follows, we focus on each of them separately and try to clarify the points by examples from our corpus of reviewers' comments.

The first group of comments refers to "reference format." In this category, there are comments by which the referees ask the authors to revise their references since they do not match the reference format of their journal. The next example explains the point better:

Table 6: Comments made with regard to journal format and their proportions

Comments made with regard to journal format	Frequencies	Proportions (%)
Reference format	7	1.9
Shorten the manuscript or part of it	6	1.6
Revise the title of the manuscript	6	1.6
Reduce references	2	0.54
Total	21	5.7

Example 34: The references still need to be revised to conform to the style for this Journal. Consult the Information for Authors to make the necessary revisions.

The 2nd category is "shorten the manuscript or part of it." This is an umbrella term for a group of comments in which reviewers want the researchers to shorten their manuscript according to the journal guidelines. See the next example. This is an editors' comment which asks the authors to shorten their manuscript.

Example 35: Please shorten your manuscript to no more than 2500 words.

The 3rd category focuses on the title of the manuscripts. "Revise the title of the manuscript" refers to a group of comments that asks the authors to revise, edit, or shorten the title of the research articles. See the example below:

Example 36: Running title: It is described in a title page (not exceeding 35 letters and spaces should be provided).

The last group of comments in the category of journal format comments is "reduce references." These comments focus on the number of references used in a manuscript and ask the authors to meet the journal limitations for the number of references. Example 37 elucidates the point:

Example 37: References: These do not adhere to the journal styling and are more than 25 references as is stated in the guide to authors section.

DISCUSSION

Reviewers as Literacy Brokers

A text is shaped by various people who influence it in different ways through different powers. The final literacy brokers are journal gatekeepers or editors and reviewers. They are both academic and language professionals who can influence both the scientific content of the manuscript, the English language used to write the article, organization of the text, and journal format issues.

Reviewers as literacy brokers influence a manuscript submitted to their journal for publication through comments. They comment and communicate their ideas about different sections of a manuscript and then the researchers respond to their comments. Through negotiations of ideas, a part of a text is finally changed or revised by the authors.

In only 1.63% of all comments in my corpus, the authors rejected the reviewers' ideas and comments about their manuscript and tried to support their own idea by adding more detail to the text and discussing the points with the reviewers to justify their position. The example below represents a comment rejected by the authors:

Example 4–52: Titles of the tables are not well labeled.

Authors' response: The authors didn't agree to change the label of tables.

However, in the majority of cases, authors accept reviewers' ideas. Reviewers' opinion about a study not conducted by themselves is respected and included in the manuscript. It is clear that peer reviewers can influence a text and fulfill their role as literacy brokers when authors accept their ideas and incorporate them in their manuscript. It seems that peer reviewers need to justify their points so that the authors accept their comments and revise their text. From another perspective, the reviewers only indirectly influence manuscripts submitted for publication and the authors are direct mediators who help reviewers to fulfill their role as literacy brokers by accepting their ideas and changing the manuscript.

Reviewers' Comments

Through the comments of reviewers, scholars' areas of difficulties are highlighted and acceptable ways of writing academic texts are taught them. As mentioned by Misak *et al.*,[9] peer reviews of manuscripts is a way of teaching academic writing to novice researchers, and an overview of these comments can be a guideline to help them overcome discursive obstacles which can be categorized into four classes of language, scientific, journal format and discourse, and text organization and write an appropriate text for publication in high reputable journals. However, nondiscursive problems of scholars cannot be commented on by the data of this research and needs further investigations and interviews.

Among the comments, referees ask authors to add the details of statistical analysis to their manuscripts, edit tables, and figures for better presentations of data and to explain abbreviations when first mentioned in the text. All these points were also mentioned as guidelines for researchers to improve their manuscripts and enhance their chance of publication.[9] Moreover, omission of unnecessary information to keep paragraphs short was also mentioned in another study.[10]

As the examples mentioned above show, in some cases, the researchers do not accept the referees' ideas and disagree with their comments. A researcher also in her study which described in detail the writing-for-publication experience of Chen illustrated Chen's rejection of a critical reviewer's opinion.[9] Challenging the authority of a gatekeeper needs knowledge of discourse and the field of study to support your position. This research does not focus on the authors' rejection of referees' comments; however, it is suggested that reviewers can fulfill their role of literacy brokering when researchers accept their ideas and change the article in relation to their comments and not when they disagree.

Since this study focuses on the referees' comments on the language problems of NNSE, it cannot comment on the role of this issue on the acceptance and rejection of the manuscript. As concluded by some studies,[2,5,6] English acts as a barrier for publication. Whether the language of the manuscript resulted in the rejection of the manuscript or acted as a barrier for publication cannot be concluded from the data used for this research since we have only analyzed the accepted papers and did not focus on the rejected ones to understand their reasons. However, it can be concluded that manuscripts with poor and nonstandard use of English are finally published after revisions by language professionals.

Among studies that have analyzed the content of peer reviewers' comments, Gosden[24] came up with some general and broad categories of TD, claims (C), discussion (D), references (R), and format (F) by analyzing both accepted and rejected papers. However, in this study, peer reviewers' comments are categorized into smaller groups to provide a better representation of this genre through analysis of comments on accepted papers for publication.

A closer look at the categories of comments can help us identify categories which correspond to Gosden's classification of comments.[24] The category of TD covers comments that focus on clarifying TD and methodological procedures, inclusion of more details of case studies, and correction of errors in the methodological procedures in this thesis.

Comments categorized under the subcategory of "errors in claim" and "big claims for data" roughly correspond to the category of C in the mentioned study.[24] "Improve discussion" corresponds to D, "update reference," "inaccurate interpretations of other studies," "reduce references" refers to the category of R, and "rhetorical moves" and incoherent text' correspond to the category of F in the above-mentioned research. Though these are only rough categorization of our classifications under Gosden's[24] groups, it can reveal that many issues which are referred to by referees' comments in our study are not suggested by Gosden's general categorization of reviewers' comments on both rejected and accepted manuscripts.

In another study, the researchers[26] analyzed peer reviewers' comments on medical articles and classified them into two categories of content comments and language-use comments. Content comments constituted over one-half of all comments, and language-use comments which constituted to 44% of the comments are divided into two subcategories of lexis and syntax comments, and discourse and rhetorical comments. However, we have classified peer reviewers' comments into four groups of scientific, language, discourse, and text organization, and journal format comments with different subcategories. Their[26] classification of comments did not include journal format comments and introduced discourse comments under language-use comments.

The class of comments made with regard to scientific issues has a higher proportion than language comments. In other words, the amount of language comments is less than the overall amount of comments on scientific, discourse, and text organization, and journal format issues. Therefore, it can be concluded that like Italian medical researchers in the aforementioned study,[26] who received fewer comments on their language-use, Iranian medical researchers in my sample received fewer language comments than other sorts of comments.

Almost all the categories of comments[26] occurred in our corpus of comments through different names and distributions. Also different types of commands as to linguistic structures - imperative, declarative and interrogative - were found to be used by the reviewers [Chart 1]. However, there are some groups of comments such as edit tables, figures and images, update references, including more details of the cases studied, contrast in authors' claims, error in the type of the study, misleading captions of tables, error of in-text citations, providing patients' informed consents, plagiarism, inaccurate and odd words in English, rhetorical moves, acronyms and abbreviations, reference format, revise the title of manuscript, and reduce references that did not occur in Mungra and Webber's[26] classification. This can be the result of analyzing a different corpus of peer reviews and using broad categorizations.

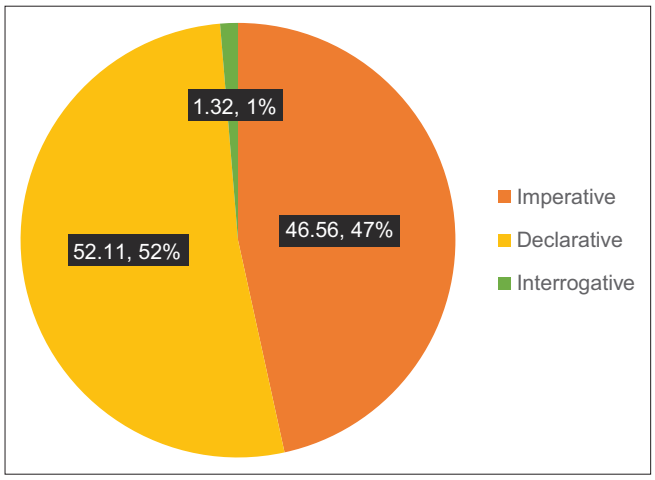

Chart 1: Distribution of the function of "command" among three linguistic structures

CONCLUSION AND IMPLICATIONS

Awareness of the features of any form of language is of great significance from the linguistic perspective. It can lead to "genre consciousness,"[29] add to the existing body of knowledge about a specific form of language use, and provide us with a lot of information about that genre. Analysis of peer reviews of articles as "occluded genres"[30,31] which is available only to a small group of people can provide a better understanding of this genre for all researchers in general and novice ones in particular. Besides, all researchers can benefit from the result of this study that contains general information about research which is useful for all researchers and some particular information related to a specific field of study, in this case medicine.

This study helps researchers understand the types of comments reviewers make on the manuscripts and acceptable ways of composing articles for publication in reputable journals. Consequently, the proper interpretation of reviewers' comments can help authors compose appropriate responses to the comments, construct proper manuscripts for publication, and accelerate the process of article revision since peer reviewers are literacy brokers and gatekeepers of journals, and authors should become familiar with the types of their comments and what they really mean and want to successfully publish their research articles.

Since article writing is considered as a socially constructed activity, acquaintance with review process of articles and expectations of reviewers can help periphery scholars to go through fewer revision processes. It can help novice researchers to understand what constitutes a proper manuscript for publication, to uncover comments, and to revise their texts independently.

Besides, the authors will become familiar with the role of peer reviewers as literacy brokers of articles and understand the role of authorities in the process of article revision. The results of this study can also help the authorities to form EAP classes for article composition useful for novice medical researchers seeking acceptance of their research in refereed journals. In these classes, novice researchers will become familiar with the process of article revisions and peer reviewers' comments and their expectations. They will also learn how to answer peer reviewers' comments and negotiate their ideas in case they disagree with a referee. Moreover, researchers will understand how to write properly through examining the features of suitable manuscripts for publication.

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