Optimizing the output of a freelance editing model: Value added by an in-house reviewing team

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ABSTRACT

Background: In recent years, many journal editorial departments have begun to employ freelance editors rather than an exclusively in-house team. Although a freelance editing model offers greater editor availability and subject-area expertise, it necessitates better quality control. We hypothesize that while a freelance model is best equipped to offer subject-area expertise, a uniformly trained, centralized team of reviewers can help standardize the editing quality and ensure consistency in style. To test this hypothesis, we assessed the value an in-house reviewing team can add to a freelance editing model.

Methods: The quality of 50 academic research papers in medicine and life sciences was assessed by a panel of external editors in a blinded manner. Each paper had been edited by a freelancer and subsequently reviewed by an in-house editor. All in-house editors were uniformly trained in the mechanics of copyediting. The edited and reviewed versions of each paper were independently rated on clarity, language, and presentation, using a 4-point scale (poor = 1, excellent = 4). The results were compared using the Mann-Whitney U test (significance at $P < 0.05$).

Results: The mean [SD] quality score of the reviewed versions was significantly higher than that of the edited versions ($P < 0.01$). The improvement in score was most significant with regard to presentation ($P < 0.01$), followed by language ($P = 0.01$). In terms of clarity, although the reviewed versions scored higher than the edited versions, this difference was not significant ($P = 0.06$).

Conclusions: These results support our hypothesis that a freelance model can reliably offer subject-area expertise while a well-trained in-house reviewing workforce can help implement control over language quality and presentation-related aspects of academic copyediting. Future studies could explore technology or training-based methods to further enhance the output of this freelancer–reviewer model.

Keywords: editing model, editing quality, reviewing, outsourcing, in-house team

BACKGROUND

In recent years, the research output from non-English-speaking geographies like China, Brazil, and the Middle East has been rapidly increasing[1]. China's contribution to the world's aggregate scientific output, in terms of publications, more than doubled between 2002 and 2008 and continues to grow[2]. However, researchers from these countries may have difficulty writing papers in high-quality English that meets international publishing standards. Tied in with this is the fact that despite increasing research initiatives in non-English-speaking countries, the rate of publication of these papers in international journals remains low, possibly because the language quality does not meet the expected standards[3].

To address the issue of poor language quality in some of the submissions coming from non-English-speaking countries, journal editors and publishers are increasingly recommending the use of professional editing services to authors who are not native speakers of English. Concurrently, researchers and scientists worldwide are increasingly availing of manuscript-editing services, with a view to either polishing their papers before submission or resolving problems that may have emerged during peer review[4].

Given this backdrop, in the face of the global recession and the increasing volumes of research papers that require language editing, many journal editorial departments and publishing houses have begun to employ a freelance editing model as opposed to an exclusively in-house model[5,6]. Outsourcing editorial work is a time- and cost-effective strategy that offers greater subject-area expertise

across a wide range of disciplines and functionality across time zones. However, it necessitates better quality control to ensure consistency in the application of editorial styles[5]. Over 30 years ago, Boomhower[7] proposed that producing a high-quality manuscript requires the combined skills of a literary editor—who focuses on the mechanics of language and writing—and a technical editor—who looks into the manuscript content and ensures its suitability for the target reader. To the best of our knowledge, there has been no subsequent study exploring this theory further, in line with the changing landscape of the publication industry. In this study, we hypothesize that while a freelance model is best equipped to offer subject-area expertise, a uniformly trained, centralized in-house team of reviewers can help standardize the editing quality and ensure consistency in style. To test this hypothesis, we aimed to assess the value a trained in-house reviewer can offer when working in conjunction with a freelance editor.

METHODS

We retrospectively sampled 50 academic papers from the broad fields of medicine and life sciences. For inclusion, the manuscripts had to be research papers intended for journal publication, between 1000 and 4000 words in length, and written by Asian authors. These inclusion criteria were enforced to ensure that all samples had a similar writing style and were within the generally accepted size range for medical and life science research papers. All manuscripts had a uniformly poor quality of original writing, as assessed subjectively by the authors of this study. Further, all manuscripts had been edited by a freelance editor (hereafter, freelancer) and reviewed by an in-house editor (hereafter, in-house reviewer). Table 1 shows the characteristics of the freelancers and in-house reviewers.

Table 1. Characteristics of the freelancers and in-house reviewers

Freelancers	In-house reviewers
• Associated with Cactus Communications at the time of the study	• Employed by Cactus Communications at the time of the study
• Held an advanced degree and research experience in a specific area of medicine, life sciences, or related disciplines	• Held a basic degree in the broad domain of medicine or life sciences
• Had varying years of prior freelance editing experience but no uniform training	• Had no prior editing experience but were uniformly trained at Cactus Communications and thereafter acquired editing experience
• Were specifically assigned documents that most closely matched their area of expertise	• Were assigned any documents that fell within the broad domain of medicine or life sciences

The freelancers were associated with Cactus Communications—a company offering English-language editing services under the brand Editage®, based in Mumbai, India—at the time of the study. They were recruited as subject specialists who held advanced degrees and had research experience in specific areas of medicine, life sciences, or related disciplines. They had varying years of experience as freelance academic editors but were not uniformly trained. During allocation, each manuscript was screened for its technical content and assigned to an editor who was most familiar with the specialized topic of research. The in-house reviewers, employed by Cactus Communications at the time of this study, held a basic degree in the broad domain of medicine or life sciences. When recruited into Cactus Communications, they had no prior editing experience but had an aptitude for language editing, as assessed by screening tests. They were

uniformly trained at Cactus Communications as described previously [8]. The training involved a 1-month program wherein the in-house reviewers were taught all aspects of academic editing. They were oriented to common errors in grammar, punctuation, and sentence construction that authors who are not native English speakers tend to make, and also to subject area conventions and writing styles. The program adopted a holistic approach, with a combination of online modules, instructor-guided discussions, and editing assignments. On successful completion of the program, the trainees' work was reviewed by senior editors until they were deemed competent to edit independently and, subsequently, to review the work of other editors. By the time of this study, the in-house reviewers had thus acquired varying years of editing experience. In this study they were assigned any documents that fell within the broad domain of medicine or life sciences.

The quality of the pre-review (hereafter, edited) and post-review (reviewed) versions of the sampled manuscripts was assessed independently by an external panel. The assessing panel comprised freelance editors who were native speakers of English; held masters or PhD degrees in medicine, life sciences, communication, or related fields; had at least 3 years experience in academic editing for journal publications; and were published authors for SCI-indexed journals or had served as editors or peer reviewers with journals or other publications. The edited and reviewed versions of each manuscript were independently assessed on the parameters of clarity, language, and presentation. Clarity was defined in terms of how well the technical content was presented and how easily it would be understood by the target reader; language, in terms of grammatical accuracy and the quality of writing; and presentation, in terms of attention to detail and consistency in style (Table 2).

Table 2. Considerations for assessing each parameter

Parameter	Considerations
Clarity	- Did you feel the document was edited by a subject-area expert? - Did the meaning of sentences come across clearly on the first read?
Language	- Did all sentences read as though written by a native English speaker? - Was the document free of grammatical errors?
Presentation	- Was the format consistent throughout? - Was the document free of typographical errors?

Each version was rated on a qualitative four-point scale of poor, average, good, and excellent (Fig. 1).

A single assessor rated both versions of each manuscript, and the assessor was blinded to which version was being assessed. The ratings were translated into scores (poor = 1; excellent = 4) such that the maximum score for any given version was 12. The mean scores of the edited and reviewed versions were compared using a one-tailed Mann-Whitney U test, with SPSS version 16 for Windows (SPSS Inc., Chicago, IL).

Next, we assessed and compared the number of edited and reviewed versions that received a "poor" or an "excellent" rating. A poor rating for a given manuscript version was defined as a score of 1 for any of the three parameters (clarity, language, or presentation) or an overall score of ≤6, whereas an excellent rating was defined as a score of 4 for any parameter or ≥10 overall. Scores of 6 and 10 were considered as threshold values because an overall score of ≤6 would imply that individual parameters generally received a "poor" to "average" rating by the assessor; similarly, an overall score of ≥10 would imply that the given manuscript version was largely rated "excellent" or "good" on individual parameters.

FIGURE 1

Document rating sheet		
Version 1 code	A8_C	
Document Quality		
Category	**Rating**	**Comments**
Clarity	Average	Awkward constructions occasionally hamper comprehension
Language	Average	Most sentences read as though written by a native speaker. Article "the" often used improperly. Occasional grammar errors.
Presentation	Excellent	Few formatting or spacing errors

Excellent
Good
Average
Poor

Fig. 1. A sample grading sheet for one version of a paper
The figure shows a sample grading sheet for one version of a manuscript, filled out by an assessor. Alongside the rating for each parameter, the assessors filled in comments to support their ratings. However, the comments were not used in the analysis.

RESULTS

The mean [SD] quality score of the reviewed versions was significantly higher than that of the edited versions (P < 0.01), with the reviewed versions typically attaining scores within a higher range (Fig. 2-A). The improvement in score was most significant with regard to presentation (mean [SD] score of edited vs. reviewed versions, 2.42 [0.88] vs. 3.18 [0.72]; P < 0.01), followed by language (2.44 [0.81] vs. 2.92 [0.75]; P = 0.01). In terms of clarity, although the reviewed versions scored higher than the edited versions, this difference did not attain significance (2.90 [0.79] vs. 3.14 [0.83]; P = 0.06; Fig. 2-B). Consistent with this finding, only 2 of 50 (4%) edited versions received a poor rating (score = 1) for clarity. In addition, we found that for each parameter, the reviewed versions generally received poor ratings less frequently (Fig. 3-A) and excellent ratings more frequently (Fig. 3-B) when compared with the edited versions.

DISCUSSION

Increasing global expenditure toward research and development initiatives has resulted in a large corresponding surge in scientific output in terms of publications. In particular, China and other Asian countries are expected to continue to contribute significantly to the total global R&D expenditure[9]. Authors from these countries, prompted by the pressure to publish, are increasingly availing of language editing services to avoid the possibility of their papers being rejected on grounds of poor language quality4. This situation has spurred the development of many freelance editing companies and agencies and has prompted many journal editorial departments to shift from an in-house model to a freelance editing model, with a view to reducing costs and improving the efficiency of the editorial process[5,6,10].

Both models have some obvious advantages and disadvantages. The chief benefit of an in-house model is that the quality of editorial output can be monitored and standardized through intensive and uniform training. However, this model cannot be scaled up owing to the costs associated with managing an in-house team. A freelance model undoubtedly offers better cost effectiveness and flexibility[10]. In addition, it is supported by the availability of a large pool of subject-area experts across disciplines and time zones and can thus serve as an efficient system to cater to increasing volumes of papers that require editing. However, since editorial styles can vary widely, a freelance model requires stringent quality control—a fact that has been recognized by various established names in the field of scientific, technical, and medical communication[5]. In this study, as a means of extracting the benefits of both the above models to achieve an optimal balance of cost and quality, we adopted a combined freelancer–reviewer model involving a large pool of freelancers and a small team of in-house reviewers, and assessed the quality of editorial output thus achieved.

With our evaluation method, we aimed to simulate the blinded peer review process employed by journals. To this end, we chose to assess clarity, language, and presentation—copyediting-related aspects that peer reviewers would usually consider while evaluating a manuscript[11,12]. Our results showed that the reviewed versions had significantly better language quality than the edited versions. This finding indicates that a two-editor team reliably produces better quality editorial output than can a single editor, and is in line with Boomhower's long-standing hypothesis that technical editing requires a two-step process that should be performed either by two distinct individuals or by the same individual in multiple passes[7].
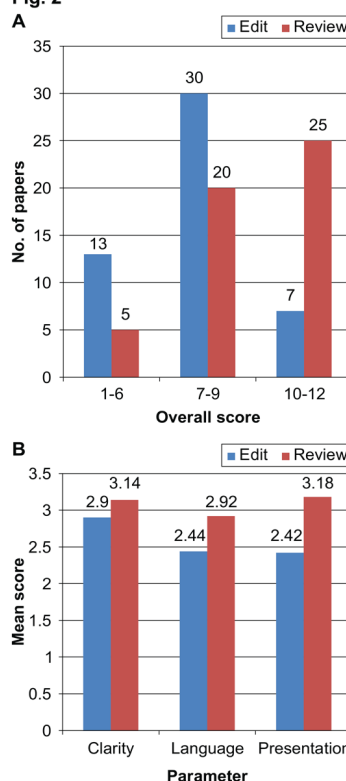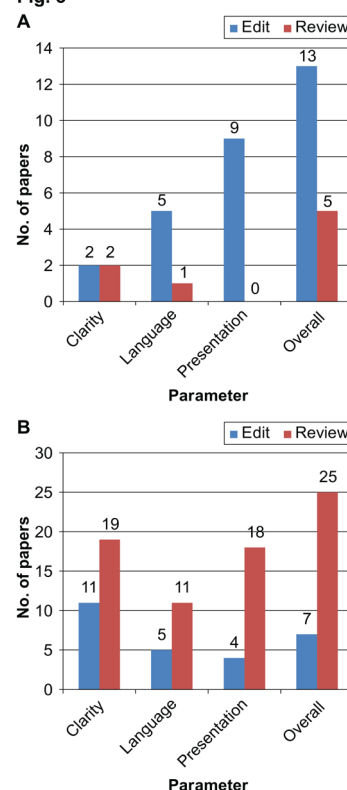

Fig. 2-A. Distribution of scores for the edited and reviewed versions
The graph shows the distribution range of overall scores for edited and reviewed versions of the manuscripts. Most of the edited versions received scores in the range of 7–9, which we considered average scores, whereas most of the reviewed versions were within the score range of 10–12, which we considered excellent scores.

2-B. Mean scores of the edited and reviewed versions on individual parameters
This graph shows the mean scores for each version on each parameter (clarity, language, and presentation). While the reviewed versions scored higher than the edited versions on all parameters, the difference was most prominent in terms of presentation.

Fig. 3-A. Number of edited and reviewed versions that received a poor rating
As shown in the graph, the edited versions received poor ratings more frequently than did the reviewed versions, except in terms of clarity where both manuscript versions received poor ratings with the same frequency. The difference in frequency of poor ratings was most prominent in terms of presentation.

3-B. Number of edited and reviewed versions that received an excellent rating
In general, the reviewed versions received excellent ratings more frequently than did the edited versions for all parameters considered, with this outcome being most apparent in terms of presentation.

In addition, we found that the reviewers' contribution to the manuscripts was most prominent with respect to presentation, followed by language, whereas their contribution toward clarity, although positive, was not significant. The ability to attain clarity through editing is largely determined by the editor's understanding of the manuscript subject area. In our model, the freelancers were subject-area experts, whereas the reviewers, who had some background in the relevant broad subject area, were trained specifically in the semantics of language and presentation. Thus, our results strongly support our hypothesis and are consistent with Boomhower's findings that technical editing is best achieved with one editor focusing on the technical content, with special consideration to the target audience, and another focusing on language and the mechanics of copyediting[7]. This division of responsibilities is important as two editors working on a single document may well end up undoing each other's changes or making contradictory changes, owing to the arguably subjective nature of language editing. Finally, on the basis of the assessors' ratings, we classified each edited and reviewed version of the sample set as poor (score of 1 for any parameter or ≤6 overall) or excellent (score of 4 for any parameter or ≥10 overall), considering that a poor manuscript was likely to be rejected on grounds of language by a journal peer reviewer while an excellent manuscript would definitely not be rejected on grounds of language. Our findings—that the reviewed versions were rarely classified as poor and often classified as excellent—imply that the review process, by and large, improved the manuscripts to a publishable standard in terms of the parameters assessed. An additional benefit of the present freelancer–reviewer model is that it can allow two-way exchange of information between freelance editors and centralized reviewers. This provides a channel by which freelance editors can receive reliable feedback about the quality of their work; similarly, in-house reviewers can acquire better subject-area expertise by studying the changes made by the freelance editors.

This study has some limitations. First, while our results support the hypothesis that trained language editors can enhance the quality of manuscripts that have previously been edited by subject area experts, our quality assessment did not factor in whether the editors involved were in fact freelancers or in-house employees. It is possible that the quality of the output would be the same if the roles of the two editors involved in the process were to be interchanged; this could be an aspect for future investigations. Moreover, it would be interesting for future studies to compare manuscripts edited by freelance subject-area experts with those edited by in-house editors alone. Another limitation of this study is that the time spent by the freelancer and in-house reviewer on each manuscript—a factor that could influence the quality of editorial output—was not considered in the quality assessment. Finally, a few papers received poor ratings even after review, and we were unable to explore the reasons for this finding since this was a retrospective study. Nevertheless, this finding implies that the editing and reviewing processes can be further refined for better outcomes. Future studies could employ an analysis that accounts for the editing time and could explore technology- or training-based methods to further enhance the results attained with this combined model.

CONCLUSION

Our results support our hypothesis that a freelance editing model offers subject-area expertise as its main strength, while a well-trained in-house reviewing workforce helps implement strict control over language quality and presentation-related aspects of professional scientific editing. Thus, combining freelance editing with in-house review can optimize the quality of output achieved in language editing.

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DISCLOSURE

Both the authors of this paper are employees of Cactus Communications, which uses the freelancer-reviewer model described in the study.

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