A pragmatic approach to formatting manuscripts of research papers

Yateendra Joshi

Are you annoyed by the insistence of some journals on exact formatting, such as 'Do not put a period at the end of figure captions' or 'Use superscript numerals to indicate affiliations'? 'Wish the journal would give greater attention to having my manuscript reviewed quickly than to such formatting trivia', I hear you muttering. Research itself is difficult and costs money, time and effort, and writing an account of that research in the form of a publishable manuscript is not particularly easy either. By the time a manuscript is ready for submission to the chosen journal, its authors have exhausted nearly all the energy and attention they are willing to spend on that research – and need to keep plenty in reserve for addressing the reviewers' comments, multiple revisions and proofreading. After uploading their manuscripts, authors would probably turn with relief to the next research project instead of wasting their time on checking whether '&' is used instead of 'and' in parenthetical citations or whether the citation number is placed after – instead of before – the dot that ends a sentence.

A recent article in *Nature*[1] reveals 'millions of dollars in time wasted making papers fit journal guidelines' and suggests that the 'high cost of "reformatting" prompts a call for journals to change their requirements'. Another article[2] mentions that the 'effort to comply with submission requirements has significant global economic burden, estimated at over $1.1 billion annually when accounting for a research team's time'[2]. Yet another estimates the annual cost at US$ 477 per manuscript or US$ 1908 per person[3].

Whether these costs are justified and, if they are, who should incur them is far beyond my worm's-eye view as a copy editor. Instead, I suggest a pragmatic way out based on the premise that once the minutiae of formatting are pointed out and explained, it should be easy for the authors to decide whether to attend to the task themselves or to outsource it. By itself, the task is not so much difficult as tedious. But then, so are many tasks in research, be it emasculating thousands of flowers, recording hundreds of observations, or running dozens of RT-PCR assays. Formatting a manuscript cannot be difficult – certainly not for those who grapple daily with matters far more difficult and abstract, such as the

behaviour of nanoparticles, economies of nations, or molecular mechanisms of gene action.

If formatting manuscripts is tedious but not difficult, why do their authors rebel against the task? My guess is simply because it strikes them as unfair, trivial and menial – way below their pay grade, as it were. Even more to the point, journals do not always explain clearly what they mean by formatting. On the one hand, many instruct their authors to keep formatting to a minimum: a common typeface such as Times New Roman, left-justified text set in one column without hyphenation and usually double-line spacing. Then, in the same breath, they instruct the authors to arrange keywords alphabetically, separate them with semicolons and use the title case for each keyword. They also offer similarly detailed formatting instructions for affiliations, headings and subheadings, table titles, figure captions and references.

This is why I now set out to explain formatting in all its mind-numbing details: authors do not have to read the rest of the text but ask their secretaries or Ph.D. students or graduate assistants to ensure that the manuscript is prepared accordingly. To make formatting easier, the points are grouped by the parts of a typical manuscript in the IMRaD format (introduction, methods, results and discussion), preceded by the title, names of authors and their affiliation, the abstract and keywords (Table 1).

Remember to treat formatting as a separate task during which you focus only on the appearance of the text and not on its meaning. Before you begin, open a copy, in PDF, of any recent article from the target journal – the journal for which you are formatting the manuscript – and be guided by its choices. Here is an example: if the journal sets the title left-aligned, so should you; if the journal sets it in bold, follow suit; and if the title is in the sentence case (normal capitalization, as in a sentence), format your title likewise. Use Table 1 as a checklist as you go along.

Lastly, here are a few tips before you start.

• Remember that the aim of formatting a manuscript is not to produce one that *looks* identical to the final published version in print but to make it easier and quicker for the production staff at the publisher's end

to do so. That is why formatting that affects the entire document – paper size, margins and typeface (font), for example – is less critical.

• In particular, avoid justified text. Also, avoid Times New Roman, which was never designed to be read on a screen; instead, choose Georgia or Sitka, both of which are far more comfortable to read on a screen.

• Focus on minor details or micro aspects such as headings (numbered or unnumbered?), sequence of keywords (alphabetical or not alphabetical?) and punctuation (table number followed by a dot, a space, a colon, or a hard return?).

• In particular, observe the following aspects of formatting the title and headings: alignment (left, centred, right or justified), weight (normal or bold), posture (normal or italics), and case (sentence case, title case or capital letters throughout).

Table 1 provides some idea of the minutiae of formatting manuscripts of research papers. Yes, they are trivial and time-consuming to comply with and also tedious, but certainly not difficult now that you know what to look for. Also, for any detail not found in Table 1, you can always examine the sample paper from the target journal. Once you comprehend it, formatting is not particularly time-consuming. Also, as already suggested, you can always outsource the task.

What about references, notorious for the exacting, arbitrary and complicated formatting? That is another topic, but now that you know the details that need to be attended to, formatting references should be a bit easier. I suggest that you examine the format of references for the following: (1) elements that make up a reference; (2) the sequence of those elements (for example, most European journals put the year of publication next to the names of authors, whereas most US journals move the year of publication closer to the journal's volume number); (3) punctuation between different elements and even within an element (initials of authors separated by spaces, by dots, with both, with neither?), and (4) typography, such as the use of bold and italics. Also, many tools are available to automate the task of formatting references (Zotero-Bib, Mendeley Cite and EndNote, for example). Although, to the best of my

Table 1. Formatting options for different parts of a manuscript

Part	Option
Title	
Alignment	Left, centred, right?
Weight	Bold or normal?
Posture	Italics or normal?
Capitalization	Title case, sentence case or capitals only?
Names of authors	
Initials	Followed by dots or spaces, or neither or both
Multiple authors	use 'and' before the last author? A comma before that 'and'?
Affiliations	
Markers for affiliation	Superscript numerals?
	Superscript letters?
	Other symbols?
Address	Complete street address, including postal code or city and country only?
Keywords	Key words or keywords (two words or one)?
	Weight (bold or normal?)
	Posture (italics or normal?)
	Trailing punctuation (space or a colon?)
	Body of abstract continued on the same line or on the next line?
Terms supplied as keywords	Alphabetically arranged?
	Separated by commas, spaces, semicolons, or dots?
	Capitalization: for all terms or only for first term? If for all terms, all the words in a term or only the first word?
Abstract (as a heading)	Weight (bold normal?)
	Posture (italics or normal)
	Case (initial capital or capitals only?)
Headings of different levels	Alignment (left, centred, or right?)
	Indented or flush with the left margin?
	Weight (bold or normal?)
	Posture (italics or normal)
	Capitalization (sentence case or title case or capitals only?)
	Numbered?
	If so, dot after the number?
Table/figure number	The word 'Table' in bold or italics or normal? Lowercase (Table) or all capitals (TABLE)?
	Number Arabic or roman? Bold or normal?
	Followed by space or a colon or a dot?
	Title on the same line or on next line?
	Figure or Fig.?
Table title and figure caption	Capitalization (sentence case or title case?)
	Bold or normal?
	Dot at the end?
	Labels for a figure with panels: capitals or lower case (A, B, C or a, b, c)? Enclosed or naked? If enclosed, within round brackets (parentheses?) or square brackets?

knowledge, no such tool exists at present for formatting entire manuscripts, going by the astounding progress in artificial intelligence, formatting may become a matter of issuing a simple command: 'Format the attached file for journal *XYZ*.'

If this note makes you take a pragmatic approach to the task of formatting – instead of merely being exasperated with a journal's insistence on it – it has served its purpose.

1. Kozlov, M., *Nature*, 2023; https://www.nature.com/articles/d41586-023-01846-9
2. Jiang, Y., Lerrigo, R., Ullah, A., Alagappan, M., Steven, S. M., Goodman, N. and Sinha, S. R., *PLoS ONE*, 2019, **14**, e0223976; https://doi.org/10.1371/journal.pone.0223976
3. Allana, G., LeBlanc, A. G., Barnes, J. D., Saunders, T. J., Tremblay, M. S. and Chaput, J.-P., *PLoS ONE*, 2019, **14**, e0223116; https://doi.org/10.1371/journal.pone.0223116

Yateendra Joshi lives at A-1/702 Landmark Garden, 78 Kalyani Nagar, Pune 411 006. India.
e-mail: yateendra.joshi@gmail.com