ФИЛОЛОГИЧЕСКИЕ НАУКИ

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THE WRITING OF ACADEMIC ARTICLE

Academic writing does not take place in a social vacuum, and the motives for writing are mixed and various. Today's academics are expected to produce papers, and their livelihood depends upon it. This affects what is researched, who does it, who writes it up, where it is published, and so on. Research articles typically have a standard structure to facilitate communication, which is known as IMRAD (introduction, method, results and discussion), although, of course, there are variations on this basic format. In this article I want to give information with more detail. It is important to note here, of course, that this structure is actually a charade. Scientists do not proceed in the way that IMRAD implies. MRAD is a formula for writing up, and it is a method for making the scientific enterprise look much more logical than it actually is. Similarly, although the language of the scientific article may appear to be precise, impersonal and objective, this, too, is misleading. The language of scientific text is also the language of rhetoric and persuasion. Table 1. lists some rhetorical devices that the reader will no doubt find in this text.

Key words: *method, discussion, research, result, abstract, title, author, background.*

TITLES

All articles begin with a title. Most include an abstract. Several include 'key words'. All three of these features describe an article's content in varying degrees of detail and abstraction. The title is designed to stimulate the reader's interest. The abstract summarizes the content. The half-dozen or so key words, sometimes called 'descriptors', together with the title and the abstract, facilitate computer-based search and retrieval.

Although, logically, it seems sensible to start by discussing the title, it is when finishing an article that authors need to attend to it more assiduously. No doubt throughout all the drafting and preparation there will have been a working title (and a suitable journal) in mind, and, probably, this title will have changed every so often as better ways of conveying what the paper is about have come to mind. Now, at the end, it is the time to finalize it.

A good title should attract and inform the readers and be accurate. It needs to stand out in some way from the other thousands of titles that compete for the reader's attention, but it also needs to tell the reader what the paper is about. Furthermore, as the success of many computer-based searches depends upon the title, it is important to include in it some of the key words relating to the topic of the paper. Titles come in many forms [1].

Authors

Providing the name of a single author is no problem. Providing the name of a pair of authors might require resolution in terms of who comes first. The problem gets more difficult as the number of authors increases. The American Psychological Association (APA) *Publication Manual* (2001) gives clear advice on allocating credit for authorship. It states (pp. 395–6) that:

- The sequence of names of the authors to an article must reflect the relative scientific or professional contribution of the authors, irrespective of their academic status.
- The general rule is that the name of the principal contributor should come first, with subsequent names in order of decreasing contribution.
- Mere possession of an institutional position on its own, such as Head of the Research team, does not justify authorship.
- A student should be listed as a principal author on any multi-authored article that is substantially based on the student's dissertation or thesis.

However, the APA *Publication Manual* refers – in the main – to social science publications. In the sciences, the number of authors on individual papers can be very large and this can cause problems. One solution has been to list in more detail the contribution of each individual author to a multi-authored paper. Thus, a typical footnote might read: *Contributors*: A and B conceived of and designed the study, and C wrote the required program. D, E and F analyzed and interpreted the data. A and D drafted the paper and B and E critically revised it. All of the authors approved this final version. Different medical journals, however, have different requirements for listing the contributions of authors. This means that the same person might be credited in different ways for his or her contribution to the same paper, according to which journal it is submitted. Some of the contributions listed by Ilakovac *et al*. include:

- conception and design of the study;
- collection of the raw data;
- statistical expertise/advice;
- analysis and interpretation of the data;
- drafting of the article;
- critical revision of the article for important intellectual content;
- administrative, technical and logistical support;
- final approval of the article.

Normally, of course, these details may not matter. What matters is the contribution of the article, not who is saying it, but in these days of impact factors and citation analyses, details such as these are seen as important [7].

Abstracts

The abstract, although it heads the article, is often written last, together with the title. This is partly because writers know what they have achieved, and partly because it is not easy to write an abstract. Abstracts have to summarise what has been done, sometimes in as few as 150 words. It is

easier to write an abstract if you remember that all abstracts have a basic structure. Indeed, the phrase 'structured abstracts' says it all. This kind of abstract, common in medical research journals and now appearing in many social science articles, can be adapted for most normal purposes.

Structured Abstracts

Structured abstracts are typically written using five sub-headings – 'background', 'aim', 'method', 'results' and 'conclusions'. Sometimes the wording of these sub-headings varies a little – 'objectives' for 'aim', for example, but the meaning is much the same. I concluded that, compared with traditional abstracts, structured abstracts:

- contained more information;
- were easier to read;
- were easier to search;
- facilitated peer review for conferences;
- were generally welcomed by readers and by authors.

Table 1

Below shows a typical structured abstract

○ **Background.** In 1997 four journals published by the British Psychological Society began publishing structured abstracts. ○ **Aims.** The aim of the studies reported here was to assess the effects of these structured abstracts by comparing them with original versions written in a traditional, unstructured format. ○ **Method.** The authors of the articles accepted for publication in the four journals were asked to supply copies of their traditional abstracts (written when the paper was submitted for publication) together with copies of their structured abstracts requested by the editor when their paper was accepted. Forty-eight such requests were made, and thirty pairs of abstracts were obtained. The abstracts were then compared on a number of measures.' ○ **Results.** Analysis showed that the structured abstracts were significantly more readable, significantly longer and significantly more informative than the traditional ones. Judges assessed the contents of the structured abstracts more quickly and with significantly less difficulty than they did the traditional ones. Almost every respondent expressed positive attitudes to structured abstracts. ○ **Conclusions.** The structured abstracts fared significantly better than the traditional ones on every measure used in this enquiry. We recommend, therefore, that editors of other journals in the social sciences consider adopting structured abstracts [6]

Key Words

Key words typically:

1) allow readers to judge whether or not an article contains material relevant to their interests;

2) provide readers with suitable terms to use in web-based searches to locate other materials on the same or similar topics;

3) help indexers/editors group together related materials in, say, the end of-year issues of a particular journal or a set of conference proceedings;

4) allow editors/researchers to document changes in a subject discipline (over time); and

5) link the specific issues of concern to issues at a higher level of abstraction.

Who Uses Key Words?

There appear to be no formal requirements for key words, no rules for formulating them, little guidance on how to write them, and no instructions for reviewers on how to assess them. This is surprising in view of the fact that, presumably, a wise choice of key words increases the probability that

a paper will be retrieved and read, thereby potentially improving citation counts and journal impact factors. Table 2 shows, however, that there are typical disciplinary differences in the percentage of journals using key words [5].

Table 2

The approximate percentages of research journals in different areas and disciplines supplying key words

Arts	*Education*	*Psychology*	*Science*	*Medicine*	*Statistics*
5	**20**	**30**	**50**	**50**	**75**

Introductions

It is but a short step from structured abstracts to structured texts. Here the Swales and Feak (2004) describe what they characterize as 'moves' in the various sections of academic articles. Basically, a 'move' is a stage in the argument that all writers go through. The 'moves' for the introduction are typically as follows:

- ***Move 1*** **:** The authors establish a research territory:

a) by showing that the general research area is important, central, interesting, problematic or relevant in some way (optional);

b) by introducing and reviewing items of previous research in the area (obligatory).

- ***Move 2*****:** They then establish a 'niche' by indicating a weakness in the account so far:

a) by indicating a gap in the previous research, raising a question about it or extending previous knowledge in some way (obligatory).

- ***Move 3*****:** They then occupy the niche by saying they are going to put this right:

a) by outlining the purposes or stating the nature of the present research (obligatory);

b) by listing research questions or hypotheses to be tested (optional);

c) by announcing the principal findings (optional) [10].

Methods

Method sections vary in journal articles, but rather less so than introductions. This is because the 'moves' in the method sections generally involve working through a series of subsections. Most method sections are usually subdivided (with subheadings) into three sections, as follows:

1. Participants.

2. Measures.

3. Procedure(s).

If no participants are involved, then the method simply describes the measures and procedure(s). Method sections may be brief and succinct – when the methods used are well known and standardised – or quite lengthy, when the methods used are new or different and thus require careful elaboration. Students and authors are typically instructed to write their method sections in such a way that readers can repeat the method from the descriptions given.

A useful device for clarifying the procedure or the method for the reader – especially if it is complicated – is to summarise it in a table or figure. Figure 1 gives a schematic version of Slatcher and Pennebaker's prose description of their method. Such procedures, though, are rarely used. None of the authors of fifty-six articles in the 2005 volume of the *Journal of Educational Psychology* used this strategy, and only two provided illustrations of the equipment used. However, eleven (i.e. twenty per cent) of these articles did include figures to illustrate either the theoretical models underlying the reasoning for their experiments or the analyses that they were going to use.

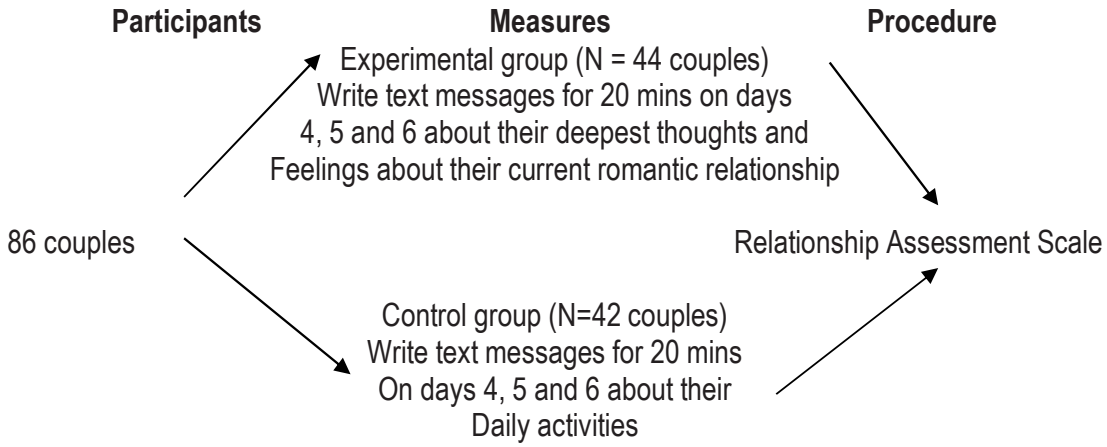

Figure 1. A schematic illustration of the prose version of the Method used in the study [9].

Results

A 'moves' analysis of the results sections of academic articles either looks like this:

- ***Move 1:*** State the main findings in order – relating them in turn to the hypotheses and methods used.
- ***Move 2*****:** State the subsidiary findings – relating them in turn to the hypotheses and methods used. or it is an interweaving of the two – the first set of main findings and related subsidiary ones, followed by the second set, and so on [8].

Discussions

Discussions, like introductions, have a typical structure. Lewin *et al*. (2001) and Swales and Feak (2004) describe typical 'moves' in the discussion sections of academic research papers. Putting these descriptions together suggests the following moves:

- ***Move 1***: Restate the findings and accomplishments.
- ***Move 2*****:** Evaluate how the results fit in with the previous findings – do they contradict, qualify, agree or go beyond them?
- ***Move 3*****:** List potential limitations to the study.
- ***Move 4*****:** Offer an interpretation/explanation of these results and ward off counter-claims.
- ***Move 5*****:** State the implications and recommend further research.

Discussions, then, go beyond a summary of the findings and, indeed, there may be disciplinary differences in how they are approached. For instance, found that the discussion sections of papers in sociology and political science were similar in format to those in the sciences, whereas those in history were less complex. Swales and Feak (2004) state that some scientists believe that a long discussion implies weak methods and results, whereas social scientists and people in the arts may well believe the opposite.

Acknowledgements

Most academic articles contain acknowledgements to various sources of help received during their preparation, although one editor of my acquaintance steadfastly deletes them on the grounds that they add nothing to the content. However, I believe that it is courteous to thank sources of financial support and colleagues and referees for their help in improving articles [9].

References

Many different styles of referencing have developed over the years. National standards have been agreed in the USA, UK, Europe and China. However, few publishers appear to follow these standards precisely, perhaps because they each allow some degree of choice. Today variation seems rife, and this is made worse by computer-based systems for preparing references, such as EndNote, Procite and Reference

Manager. EndNote (2007) proudly boasts that it includes 'more than 2,300 predefined bibliographic styles for leading journals', although quite why anyone should want such a number is anybody's guess. Currently there are four main styles of referencing for academic articles, as follows:

1. *The APA style.* This system is also known as the Harvard or, more colloquially, as the 'name(date)' system. This is because an author's surname in the text is followed by the date of the publication in brackets, and entries in the reference list are listed alphabetically, starting with the name and the initials of the author(s) followed by the date of publication for each entry. For example:

– Sharples, M. (Ed.). (1993). *Computer supported collaborative writing.* London: Springer-Verlag.

2. *The Modern Languages Association (MLA) style.* In this version the authors' surnames (with or without the dates) appear in the text and the first author's surname comes first in the reference list. This is followed by his or her first name, but first names then come first for any additional authors. Dates of the publications are given after journal titles, or at the end of the references for books, etc. The list is ordered alphabetically. For example:

– Sharples, Michael (Ed.). *Computer Supported Collaborative Writing.* London: Springer-Verlag, 1993.

3. *The Institute of Electronic and Electrical Engineers (IEEE) style.* Here, the authors in the text are numbered in order of their appearance in the text, sometimes without their names, and the numbers are enclosed in square brackets. The reference list is then numbered sequentially. Names are presented with the initial(s) first, followed by surnames. Dates of the publications are given after journal titles, or at the end of the references for book, etc. Journal titles are sometimes abbreviated. For example:

– M. Sharples, Ed., *Computer Supported Collaborative Writing.* London: Springer-Verlag, 1993.

4. The Vancouver style, popular in medical journals, is named after its inception following agreements made during a meeting in Vancouver in 1987 by the International Steering Committee of Medical Editors. Here, as with the IEEE system, the authors are numbered in the text in order of their appearance, and the numbers are enclosed in square brackets. The reference list is numbered sequentially, but the authors are listed surnames first, followed by their initials. Again the dates of publications are given after journal titles, or at the ends of the references for books etc. The key feature of the Vancouver style is its 'spare' typography and punctuation, and the use of abbreviated journal titles. For example:

– Sharples M, editor. Computer supported collaborative writing. London: Springer-Verlag, 1993 [3].

Footnotes

Some journals in some disciplines use footnotes as well as references. Footnotes are most commonly found in journals in the humanities and least in journals in the sciences, with social science journals somewhere in between. The differences are that they are sometimes more extensive than references, often containing more exposition, and they usually appear, as their name suggests, at the foot of the page. However, it is also common to find such notes at the end of a chapter, or even grouped chapter by chapter at the end of a book.

The use of footnotes has an ancient pedigree. Slomanson (1987) dates the first use of the term to 1822, but cites the use of footnotes occurring shortly after 1066. Grafton (1997) is more cautious. He writes, 'Scholars have placed the birth of the footnote in the twelfth century, the seventeenth, the eighteenth, and the nineteenth – never without good reason' (p. viii). Be that as it may, what appears to happen with many academic journals is that footnotes first appear in their early history, but that these are then replaced with numbered references, before finally a name(date) system takes over. The

literature on writers and readers' attitudes to footnotes is long on anecdote and assertion, but short on evidence. Two common assertions are:

I. That footnotes seem irresistible, and that they can thus distract the reader;1 and

II. That it is sometimes difficult to find your place back in the main text to continue reading when you have moved away to read the footnote. In order to obtain some data on feelings such as these, I once gave a questionnaire on the topic to approximately fifty academics whose disciplinary [6].

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1 See what I mean . . .

Responding to Referees

Refereeing can be a lottery. Referees' comments – and recommendations – can vary. Consider three more referees' advice and comments to an editor about an article that I had submitted for publication:

- ***Referee 1*:** Accept. It would be quite helpful to non-specialists to provide grade reading equivalents to the Flesch scores to give perspective.
- ***Referee 2*:** Accept with revision. This paper addresses an interesting and important topic . . . Despite this . . . the results are somewhat of a mixed bag overall.

Accordingly I would recommend the following revisions before it is considered for publication. I begin with the more serious concerns and then touch on some relatively minor ones . . .

- ***Referee 3*:** Reject. [. . .] This paper conflates (this technical task) with some non technical terms, some common-sense beliefs about reading and writing that there is no strong evidence for, normative expectations of what texts should be and moralistic stances towards textual patterns, and relies un-analytically on a measure that aggregates factors and itself is not widely respected . . .

These quotations are extracts from the referees' reports. Which referee do you imagine I found most useful when asked by the editor to consider them all when making a resubmission? Answer: Referee 2. Referee 1 was complimentary, but did not require much.

The report contained only three sentences and was rather cursory. Referee 2 wrote two pages of useful suggestions and I was able to use most of these to improve the paper. Referee 3 wrote at length but required a completely different approach to the topic so that there was not much I could do to meet these criticisms [11].

Proofs

The day will come when the proofs of an article that you submitted some months ago arrive unexpectedly in the post or on your screen. The proofs will be accompanied by a note:

1. Indicating that they need to be corrected and returned to the publishers within a day or two; and

2. Making dire threats about the costs of making major changes.

Proofs allow the author to check the accuracy of the typesetting, especially if the text has been altered to fit the printer's house style, and possibly to make minor changes. In point of fact, most proofs these days have few spelling and typographical errors because the text is handled electronically. However, errors still creep in. It is indeed amazing that these 'typos' do occur, despite the fact that the text has been repeatedly read by the author(s), the journal editor, the referees and the copy editor setting the text.

Checking the accuracy of the typesetting is not the same as reading the text. When reading we make inferences, and the text flows on without us noticing minor errors. When checking the proofs, we need to look at every word, every number and every comma separately, two or three times at least. Some authors find it useful to read the individual sentences and the table entries backwards, and to do it at least twice – on separate occasions – using fresh copies of the text each time.

Publishers using printed rather than electronic methods usually supply a set of 'proofreaders' marks' – ways of indicating changes – that they send to the authors with the proofs). Authors are required to mark the text and to indicate in the margins their requirements.

However, these days, electronic proofs are more common, and these are typically accompanied by a numbered set of 'author queries'. Here, the numbers are printed in the text at the appropriate places, and a numbered list of queries is printed at the end. Typically, these ask about minor things, such as the spelling of a particular word or name; page numbers omitted in a reference; the date of a reference in the text being different from that in the reference list; the name of an author in the text spelled differently in the reference list; and whether or not references listed as 'in press' when the manuscript was submitted can now be updated, and so on [2].

Conclusion

Research articles typically have a standard structure to facilitate communication, which is known as introduction, method, results and discussion. All articles begin with a title and a goo title should attract and inform the readers and be accurate, the abstract is the heads of article the writers know what they have achieved, it is not easy to write an abstract. The key words allow readers to judge whether an article contains material relevant to their interests. The method sections are usually subdivided (with subheadings) into three sections, (participants, measures and procedure). The discussion sections of papers in sociology and political science were similar in format to those in the sciences, whereas those in history were less complex.

Currently there are four main styles of referencing for academic articles, (the APA style, the MLA style, the IEEE style and the Vancouver style). The use of footnotes has an ancient pedigree. Footnotes are most commonly found in journals in the humanities and least in journals in the sciences, with social science journals somewhere in between. Proofs allow the author to check the accuracy of the typesetting, especially if the text has been altered to fit the printer's house style, and possibly to make minor changes.

REFERENCES

1. Crosby, H. H. (1976). Titles, a treatise on . . . *College Composition & Communication*, *27*(4), 387–91.

2. Day, R. A. & Gastel, B. (2006). *How to write and publish a scientific paper* (6th edn). Cambridge: Cambridge University Press.

3. *EndNote* (2007). EndNote information. Retrieved 19 May 2007 from www.endnote. com/eninfo.asp.

4. Gbur, E. E. & Trumbo, B. (1995). Key words and phrases – the key to scholarly visibility and efficiency in an information explosion. *The American Statistician*, *49*(1), 29–33

5. Hartley, J. & Kostoff, R. N. (2003). How useful are 'key words' in scientific journals? *Journal of Information Science*, *29*(5), 433–8.

6. Hartley, J. (2007). There's more to titles than meets the eye: Exploring the possibilities. *Journal of Technical Writing and Communication*, *37*(1), 97–103.

7. Ilakovac, V., Fister, K., Marusic, M. & Marusic, A. (2007). Reliability of disclosure forms of authors' contributions. *Canadian Medical Association Journal*, *176*(1), 41–6.

8. Salovey, P. (2000). Results that get results. Telling a good story. In R. J. Sternberg (Ed.), *Guide to publishing in psychology journals* (pp. 121–32). Cambridge: Cambridge University Press

9. Slatcher, R. B. & Pennebaker, J. W. (2006). How do I love thee? Let me count the words. *Psychological Science*, *17*(8), 660–4.

10.Swales, J. M. & Feak, C. B. (2004). *Academic writing for graduate students* (2nd edn). Ann Arbor, MI: University of Michigan Press.

11.Warren, M. G. (2000). Reading reviews, suffering rejection, and advocating for your paper. In R. J. Sternberg (Ed.), *Guide to publishing in psychology journals* (pp. 169–86). Cambridge: Cambridge University Press.

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НАПИСАНИЕ НАУЧНОЙ СТАТЬИ

Академическое письмо не возникает в социальном вакууме, а мотивы написания неоднозначны и разнообразны. Ожидается, что сегодняшние ученые будут писать статьи, и от этого зависят их средства к существованию. Это влияет на то, что исследуется, кто это делает, кто это пишет, где это публикуется и так далее. Исследовательские статьи обычно имеют стандартную структуру для облегчения коммуникации, известную как IMRAD (введение, метод, результаты и обсуждение), хотя, конечно, существуют вариации этого базового формата. В данной статье мы хотим дать информацию более подробно. Здесь, конечно, важно отметить, что эта структура на самом деле представляет собой фарс. Ученые не действуют так, как предполагает IMRAD. MRAD — это формула описания и метод, позволяющий сделать научное предприятие гораздо более логичным, чем оно есть на самом деле. Аналогичным образом, язык научной статьи может показаться точным, безличным и объективным, и это тоже вводит в заблуждение. Язык научного текста является одновременно языком риторики и убеждения. В таблице 1 перечислены некоторые риторические приемы, которые читатель, несомненно, найдет в этом тексте.

Ключевые слова: *метод, обсуждение, исследование, результат, аннотация, название, автор, предыстория.*