



New ways of making academic articles easier to read¹

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ABSTRACT. Numerous texts and articles provide guidelines on how to write academic articles. The aim of this particular paper, however, is to focus on more recent techniques in this respect that authors might like to consider when they are writing and revising text. Using examples mainly drawn from recent issues of the International Journal of Clinical and Health Psychology (IJCHP), I discuss new approaches to the presentation of titles, abstracts, reader guidance, introductions, methods, results, tables, figures and conclusions. Furthermore, where appropriate, I make reference to possible differences between the writing styles of Spanish and English authors, since the IJCHP publishes papers in both of these languages. There appear to be a number of different ways in which we can improve these particular aspects of academic writing, but some of these ways might be judged more acceptable in the writings of established authors rather than in those of novices, especially those writing in a second language.

KEYWORDS. Academic writing. Titles. Structured abstracts. Text-tables. Theoretical study.

RESUMEN. Numerosos textos y artículos proporcionan guías sobre cómo escribir artículos académicos. El objetivo de este documento, en particular, consiste en centrarse en las técnicas más recientes al respecto que pueden ser consideradas por los autores a la hora de escribir o revisar textos. Utilizando ejemplos mayoritariamente sacados de los números recientes de *International Journal of Clinical and Health Psychology* (IJCHP), se comentan nuevas aproximaciones a la presentación de títulos, resúmenes,

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orientaciones de lectura, introducciones, métodos, resultados, tablas, figuras y conclusiones. Es más, dónde resulta apropiado, se hace referencia a las posibles diferencias en los estilos de autores españoles y anglosajones, dado que IJCHP publica artículos en ambos idiomas. Parece que hay varias maneras de mejorar este aspecto particular de escritura académica, aunque algunas de las maneras de hacerlo pueden parecer más aceptables para la escritura de los autores bien establecidos en comparación con los más novatos, sobre todo si escriben en un segundo idioma.

PALABRAS CLAVE. Escritura académica. Títulos. Resumen estructurado. Tablas de texto. Estudio teórico.

Articles in the International Journal of Clinical and Health Psychology (the IJCHP) follow a standard sequence. The title is followed by the abstract and a set of key words. Then the articles themselves are typically presented in four parts: Introduction, Method, Results and Discussion (the IMRAD sequence). Finally references are provided in the APA style.

A more fine-grain analysis reveals that the title is followed by the names of the author(s), the abstract and the keywords, and, in footnotes on the first page, there are acknowledgements to other colleagues and/or sources of funding, and a postal and e-mail address for correspondence. The Introduction usually comprises a discussion of previous research and an indication as to how the paper in question will develop it further. The Method typically describes the participants, the measures used, the procedures undertaken and the statistical analyses employed. The Results section, as its name implies, presents text supported by tabular and graphic materials to indicate the findings. The Discussion recapitulates the aims of the study (from the Introduction) and then discusses the new findings in this context, together with possible limitations and strengths of the study. The Discussion usually ends with some conclusions – either separately or at the end of the Discussion section.

The purpose of this article is not to reiterate most of the usual advice and comment on how to write these different sections effectively. Much is known, and most authors have tacit knowledge of what to do acquired from previous practice. For those in doubt, or with particular queries, there are several useful texts (*e.g.*, Belcher, 2009; Day and Gastel, 2006; Hartley, 2008; Silvia, 2007; Sternberg, 2000, Sternberg and Sternberg, 2010). And IJCHP itself has published a number of guidelines related to writing papers in Psychology (*e.g.*, Botella and Gambará, 2006; Fernández-Ríos and Buéla-Casal, 2009; Ramos-Álvarez, Moreno-Fernández, Valdés-Conroy, and Catena, 2008; Virués-Ortega and Moreno-Rodríguez, 2008).

No, the aim of this article is to introduce a number of recent developments in writing academic journal articles that might help us all to write a little more clearly, and make it easier for readers to appreciate what we are saying. These new developments are difficult to characterise under conventional headings, and not all of them can be employed in IJCHP without changes in editorial policy. Perhaps the easiest way to discuss them is to introduce them in the order in which they would appear in a standard piece. I propose then, in this article, to comment on the following issues:

- Formatting the titles
- Listing the functions of authors
- Improving the abstracts
- Introducing 'Notes for Practitioners'
- Using 'moves' in the Introductions
- Writing the text
- Using flow charts in the method sections
- Using 'text tables' in the results section
- Clarifying tables and figures
- Clarifying the conclusions

Formatting the titles

Table 1 presents five titles from English articles in IJCHP, 2011 (11, Nos. 1 and 2), with each one followed by a suggested improvement. Basically my aim is to make these titles more informative, and I hope that authors can see that this can be achieved by thinking a little more about the requirements of readers.

But there is more to titles than one thinks. In my book (Hartley, 2008), I distinguish between 13 types of titles in English academic articles. These include titles that raise an issue compared with titles that tell you what happened (compare 1a and 1b), titles that give you just a bit more information (compare 2a and 2b), titles that ask a question and those that just state the results (compare 3b with 3a and 4b with 4a).

TABLE 1. Original (a) and suggested (b) revisions for titles of articles in IJCHP, 2011, 11, 1.

1a.	Efficacy of virtual reality exposure therapy combined with two pharmacotherapies in the treatment of agoraphobia.
1b.	Combining virtual reality exposure therapy with the antidepressant drugs venlafaxine and paroxetine is better than traditional techniques for decreasing agoraphobia.
2a.	Assessing the links among adolescent and youth offending, antisocial behaviour, victimization, drug use, and gender.
2b.	Assessing the bi-directional relationships between adolescent and youth offending, antisocial behaviour, victimization, drug use, and gender.
3a.	Attitudes toward seeking therapy among Puerto Rican and Cuban American young adults and their parents.
3b.	How does acculturation affect the attitudes of Puerto Rican and Cuban American young adults towards mental illness and therapy?
4a.	A meta-analytic reliability generalization study of the Maslach Burnout Inventory.
4b.	How reliable are the subscales in the Maslach Burnout Inventory? A meta-analytic study.
5a.	Validation of a reduced Spanish version of the Index of Spouse Abuse.
5b.	The development and validation of a shortened Spanish version of the Index of Spouse Abuse.

Note. The revised versions contain more information. (Titles reproduced with permission of the authors and IJCHP).

There are several kinds of titles that I think authors should avoid when submitting articles. It is unwise to include acronyms in titles without spelling them out. Many such acronyms will be unfamiliar to potential readers. It is unwise to include humour in titles: what is humorous in one country might not be in another. It is unwise to use puns in titles. Not everyone grasps them. It might be useful to give the title as a question – but it is perhaps more useful to give a brief answer to the question as well.

In a recent study of 2,172 titles in six open-access journals, Jamali and Nikzad (2011) found that there were small but significant differences between articles with different types of title in terms of their downloads and citations. In brief:

- Articles with shorter titles (median length 8 words) were downloaded slightly more than those with longer ones (median length 10 words).
- Articles posing questions were downloaded slightly more – but cited slightly less.
- Titles containing colons tended to be longer (median 10 words), but they received fewer downloads and citations.

Personally I prefer titles that are clear, detailed and informative. Consider the following:

- Evaluating research: from informed peer review to bibliometrics (Abramo and D'Angelo, 2011).
- Informed peer review and uninformed bibliometrics (Neufeld and von Ins, 2011).

Both of these titles seem relatively clear, but then consider that the first one is referring to national research-assessment exercises, and the second one to assessing applicants for research grants. Both of these titles could better inform their readers - the first by perhaps starting with, 'Evaluating national research', and the second by perhaps starting with, 'Awarding research grants'.

Finally, in this section, we might note that Soler (2011) has distinguished between the titles of review articles and the titles of research papers in social and biological science journals published in English and in Spanish. Soler found that the titles of research papers were longer than those of review articles in general, and that the titles of research papers in the social sciences were longer when they were written in Spanish.

Listing the functions of authors

The number of people contributing to academic papers is increasing (Lewison and Hartley, 2005). Because of this, and the need for the various national and international research-assessment measures to distinguish between the contributions of the separate authors to a single paper, there have been calls for the functions of all the authors on a paper to be listed. Thus, a typical footnote of the future in IJCHP might read:

- Contributors: A and B conceived of and designed the study, and C wrote the desired program. D, E and F analysed and interpreted the data. A and D drafted the paper and B and E critically revised it. All of the authors have approved this final version of the text.

The last sentence in this footnote is particularly important in these days of increasing litigation and the retraction of articles (Fang and Casadevall, 2011; Steen, 2011).

Sternberg and Sternberg (2010, pp. 242-43) list seven points to consider when deciding on the sequence of the authors of papers; these include those who:

- Had the original idea.
- Made a contribution – however small.
- Were the most senior.
- Were the most junior.

Their discussion indicates that there is no single way of deciding on the sequence of authors for a paper. These issues have to be thought through for each one.

Improving the abstracts

Most scientific articles contain an abstract of some kind. Normally these abstracts provide information about the background to a particular issue, what the research aimed to address, how it was carried out, and what happened. Also, as shown in the abstract to this paper above, there are often some conclusions.

Today, however, there is a strong move towards using ‘structured abstracts’ in medical and psychological journals (see Hartley, 2008; Zhang and Liu, 2011) - and I recommend that IJCHP should consider their adoption. Structured abstracts typically present their information under 5 (or more) separate headings: *e.g.*, Background, Aim(s), Method(s), Results and Conclusions. Such abstracts usually contain more information than traditional ones but their standard layout helps readers to grasp this information more quickly (Hartley, Sydes, and Blurton, 1996). Editors sometimes object to structured abstracts on the grounds that they take up more space but this argument is hard to follow when many journals, such as IJCHP, always start their new articles on a right-hand page (Hartley, 2002). However, space can be saved by writing a structured abstract first, and then deleting the sub-headings – although the result is not as clear.

TABLE 2. The initial abstract to this paper is re-presented here in a structured form – with standard subheadings. If, however, editors/journals do not publish structured abstracts they can be re-written without the sub-headings, as shown at the start of this paper.

Structured Abstract

Background. Numerous texts and articles provide guidelines on how to write academic articles.

Aims. The aim of this particular paper, however, is to focus on more recent techniques in this respect that authors might like to consider when they are writing and revising text.

Methods. Using examples mainly drawn from recent issues of the International Journal of Clinical and Health Psychology (IJCHP), I discuss new approaches to the presentation of titles, abstracts, reader guidance, introductions, methods, results, tables, figures and conclusions. Furthermore, where appropriate, I make reference to possible differences between the writing styles of Spanish and English authors, since the IJCHP publishes papers in both of these languages.

Results and Conclusions. There appear to be a number of different ways in which we can improve these particular aspects of academic writing, but some of these ways might be judged more acceptable in the writings of established authors rather than in those of novices, especially those writing in a second language.

Note. In experimental studies the Results and Conclusions are typically given under two separate headings.

Research on structured abstracts typically concludes that structured abstracts:

- Contain more information
- Are easier to read
- Are easier to search
- Facilitate peer review for evaluating conference submissions, and
- Are generally welcomed by readers and authors (Zhang and Liu, 2011)

There are some slight differences between the content and style of abstracts written in English and Spanish (Martin-Martin, 2003; Martin-Martin and Burgess, 2010) but these differences might be reduced if structured abstracts were to be used by both the English and the Spanish authors in IJCHP.

Introducing ‘Notes for Practitioners’

There has been an increase in professional journals of what I call here, ‘Notes for Practitioners’. These notes are similar in function to those in the ‘boxes’ that can be found in BMJ journals under the heading, ‘What this study adds’. Such notes directly inform practitioners about what is known, what is new and what are the implications of the findings on the topic in question. Table 3 gives an example of such ‘practitioner’s notes’ that I have written for a paper that appeared earlier in IJCHP. There have also

been suggestions that the authors provide information about the strengths and limitations of their studies in these boxed asides - as is sometimes done in articles in the British Journal of Psychiatry, and the British Journal of Educational Technology. It might be a good idea to present such notes in IJCHP.

TABLE 3. An example of possible practitioners' notes for a paper published in IJCHP on the links between adolescent and youth offending and antisocial behaviour (Estevez and Emler, 2011). Such notes help the reader practitioner to grasp the message of the paper.

Practitioners' Notes

What is already known about this topic:

- 1 Previous research on risk factors for adolescent offending and antisocial behaviour raises unresolved questions about their direction of influence. For example, do they contribute independently? Are there bi-directional influences? Do they operate to the same extent in boys and girls?

What this paper adds:

- 2 An assessment of the data available on questions such as these based on questionnaire responses from 2,528 participants aged 11-16 and 2,452 participants aged 17-25 with roughly 25% of boys and girls in all four groups.
- 3 The findings show significant sex differences (in both age groups) with boys reporting more anti-social behaviour than girls, and significant age effects, with older participants reporting more antisocial behaviour than the younger ones.

Implications for practice/policy:

- 4 Intervention programs should focus on high-risk teenagers of both sexes.
 - 5 The key aspect to preventing violence and reducing crime in our current societies lies in protecting youths against victimisation and involvement in anti-social behaviour, along with the problems of drug abuse.
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Using 'moves' in the Introduction

Introductions to academic articles follow a typical pattern. Swales and Feak (2004) and Adnan (2008), amongst others, outline this pattern in terms of what they call 'moves'. 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.
- b) By introducing and reviewing items of previous research in the area.

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.
- b) By raising a question about it.

- c) By adding to what is known.
- d) Indicating how they will extending previous knowledge.

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.
- b) By listing research questions or hypotheses to be tested.
- c) By announcing the structure of the paper.
- d) By stating the principal findings.

The last of these moves, Move 3d, is rarely used in Psychology articles. Authors more typically move directly from 3b to the Method section. However, Move 3d does appear in some psychology papers, and perhaps it is a feature that could be adopted more generally in IJCHP as it can help the reader grasp the significance of what is to be reported next in the Method and Results section.

Using such a framework of 'moves' provides a set of expectations for readers and it helps them to follow the organisation of the Introduction. It appears though that there are some differences between English and Spanish authors in how they follow such moves. Burgess (2002), for example, compared the Introductions to 104 research papers in the following conditions:

<i>Source of articles</i>	<i>No. of articles</i>	<i>First language of authors</i>	<i>language of publication</i>	<i>Approx. % omitting Move 2</i>
International linguistics journals	27	various	English	11%
Spanish Hispanic studies journals	29	Spanish	Spanish	13%
Spanish English studies journals	28	Spanish	English	40%
Spanish English studies journals	20	Spanish	Spanish	35%

Burgess concluded, because of the findings reported in the right hand-column of this table, that variations in the relationships between the authors and their audience had a more important influence on the structure of the Introductions than did the first language of the author, the language of the publication, or the area of specialisation. Similar conclusions were also reached by Mur-Dueñas (2008).

Finally, in this section on Introductions, we might note that I once published a list of various ways of starting the Introduction to attract a reader's attention (Hartley, 2009). These included:

- Opening with a quotation above the text, *e.g.* «Anyone who wishes to become a good writer should endeavour, before he allows himself to be tempted by the more showy qualities, to be direct, simple, brief, vigorous and lucid» (Fowler and Fowler, 1906, p. 11).
- Opening with a scenario or event, *e.g.* Sylvie is a typical college student. She does, however, have persistent doubts about her ability to understand the reasons for people's behaviour.
- Opening with a dramatic statistic, *e.g.* Shakespeare's Hamlet is a play of 29,551 words about a fictitious prince of Denmark.
- Opening with a question, *e.g.* Have you ever experienced «The impostor dream» - a dream on which you are exposed as a fraud, undeserving of your new status?

Indeed, like my 13 different types of title, I found 13 different types of opening sentences! For this particular article I chose to start with a simple statement.

Writing the text

Few readers can have failed to notice that I often use the first person and the present tense ('I think that...') in this paper rather than the third person in the past - 'Hartley (2008) suggested that...'. Writing in this more personal way seems to contradict much that is known (but generally disliked) about academic text (Hartley, 2008). Nonetheless, the advocates of clear writing do not appear to have entirely won the day. Table 4 presents some readability statistics for the first paragraph of the Introduction section in six (unspecified) articles in IJCHP. The Flesch score, named after the journalist Rudolph Flesch, is a commonly used American measure of Reading Ease, where a high score (max. 100) means that the text is very simple, and a low score (below 30) means that the text is very difficult. As far as academic articles are concerned, Hartley, Pennebaker, and Fox (2003) found mean Flesch scores of 18 for the abstracts, 21 for the Introductions, and 23 for the Discussion sections in 80 articles from the Journal of Educational Psychology published between 1997 and 2001.

The data shown in Table 4 were obtained by applying Microsoft's Office 97 spelling and grammar tools to samples from the Introductions to six articles published in IJCHP. Data such as these suggest that articles in IJCHP are not easy to read – except perhaps by specialists. And presumably articles written in English will be harder for Spanish readers, and articles written in Spanish will be difficult if not impossible for English ones.

TABLE 4. Readability statistics for various articles in IJCHP based on samples of approx. 300 words from their Introductions. Flesch scores (named after the writer, Rudolph Flesch) range from 1 to 100, where a low score indicates that the text is hard to read. Texts scoring below 30 are classed as ‘very difficult’ and are typical of academic articles (see Hartley, 2008 or Hartley *et al.*, 2003 for more details).

<i>Article</i>	<i>No. of sentences</i>	<i>Mean sentence length (no. of words)</i>	<i>Proportion of passives (%)</i>	<i>Flesch reading ease score</i>
1	13	24.	7	32.2
2	13	28.4	46	24.4
3	14	26.2	14	12.2
4	8	37.3	16	25.4
5	12	19.7	25	22.6
6	14	21.8	35	34.1

So, if we wish to increase the accessibility of research articles in general, and in IJCHP in particular, then something needs to be done about the ways that they are written to make them easier to understand by non-specialist readers. This present article is written with this aim (and it is not easy to do, especially by writers whose first language is not English). Indeed, the statistics provided for article number 6 in Table 4 are statistics for this present article – so you can see that only a little has been achieved in this respect. Chapter 6 in Sternberg and Sternberg (2010) provides a set of guidelines in this respect, and Chapter 8 in the same text summarises the American Psychological Association’s (2010) ‘Guidelines for writing psychology papers’. Here I simply add to these by noting that, if English is not their first language, then such authors writing in English should try to seek the guidance of native speakers of English in their particular discipline.

Using flow charts in the methods section

Students and authors are typically instructed to write the Method section in such a way that readers can repeat the method from the description given. Day and Gastel (2006), for example, recommend that authors ask colleagues who are unfamiliar with what was done to read their account to see if they can follow it. They think that this is a useful procedure because authors are sometimes too close to what they did and might forget to mention some tiny – but crucial – detail, or take the sequence of events for granted.

A useful device for clarifying the procedures reported in the Method section is to summarise them in a table or a flow chart. Figure 1, from Walsh, Rooney, Appleby, and Wilkinson (2000), provides an example illustrating the numbers of manuscripts randomly assigned to two different refereeing processes, and how many got refereed. Figure 1 is rather small, but there are other examples of larger flow charts depicting different routines for different experimental conditions – see *e.g.*, Bower-Crane *et al.* 2008; Clarke, Snowling, Truelove, and Hulme, 2010; Gotzsche, 2006; and Weis and Cerankosky, 2010.

However, such flow charts are rarely used for this purpose in psychology journals, and none of the articles in IJCHP Vol 11 Nos 1 and 2 employ them. Editors and publishers, of course, may not like such flow charts in their journals on the usual grounds: they take up too much space – although this again is no longer relevant for electronic journals.

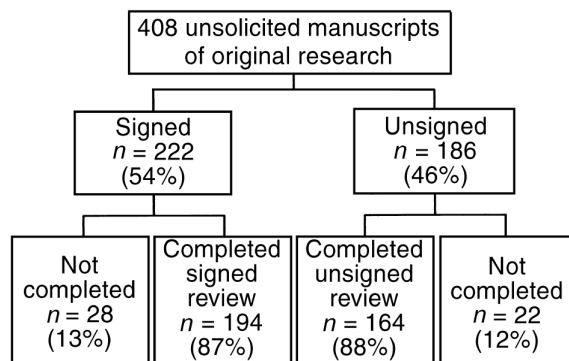


FIGURE 1. A flow chart to clarify the method section in a journal article (from Walsh *et al.*, 2000). Consider how much easier it is to follow this flowchart than it would be to read about this procedure in conventional prose. (Figure reproduced with permission of the authors and the British Journal of Psychiatry.)

Another rare, but occasional technique used to improve the Method sections in electronic journals is to introduce video inserts into papers. (See, for example, the International Journal for the Scholarship of Teaching and Learning at www.georgiasouthern.edu/ijstol). Such procedures illustrate the developing nature of journal publication.

Using ‘text tables’ in the Introduction and Results sections

‘Text-tables’ are simple tables, with no or minimal chart-like elements, that can be incorporated directly within a sentence or two (Kozak, 2009; Kozak and Hartley, 2011a). Text-tables are efficient ways of conveying information that can be difficult to read within one or two sentences, but which is too simple to present within a regular table. Table 5 provides an example. Here it can be seen that the information in the original text has been set a) in a tabular format, b) in a different typeface and c) re-sequenced to make it easier for the reader to grasp the information. Kozak and Hartley (2011a) showed that readers in the social and the natural sciences markedly preferred small text-tables to convoluted text of the sort shown in Table 5. Text tables are rare in academic articles, but some can be found. Graffigna, Bosio and Olson (2010), for example, use a text table in their method section to outline the number of respondents in each of the 8 conditions in their enquiry.

Earlier in this paper I used a (rather large) text table in the section above on Introductions in order to outline the conditions used in Burgess's (2002) study of 'moves' in Spanish and English Introductions. The conditions and the results in the original paper (and the abstract) were described in prose that was very hard to follow. But this example is a little large for a text-table and it would perhaps have been better presented as a straightforward table. Readers would have difficulty with this particular text table if it started at the bottom of a page and ended on the next one.

TABLE 5. An example showing how a piece of complex text can be turned into a simpler text-table (from Kozak, 2009). Here the bottom text is easier to read and the findings are presented a) in a more logical order and b) in a different and slightly larger typeface to give them more salience. (Table reproduced with the permission of the author and European Science Editing.)

Original text

Hypothesis tests for the independence of the variables clustering I and II were not rejected, since the value of X^2 statistic was 4.8 and the significance (p -value), computed by Monte Carlo method, was .570. In the case of the contingency table for the variables clustering I and clustering III, the hypothesis was not rejected, either; X^2 value was 4.0 and Monte Carlo significance .507. The hypothesis test for the independence of the clustering II and clustering III was rejected since the X^2 value was 20.0 and the computed significance was smaller than .001.

Revised text

The results of hypothesis testing for the independence of the following pairs of variables (clusterings I, II and III) were as follows (p values were computed by Monte Carlo Method):

I and II	Not rejected	($X^2 = 4.8, p = .570$)
I and III	Not rejected	($X^2 = 4.0, p = .507$)
II and III	Rejected	($X^2 = 20.0, p < .001$)

Clarifying tables and figures

Captions

For some archaic reason the captions to tables are normally presented at the top of the table and the captions to figures at the bottom (I would prefer them both at the top where they can tell the reader what to look for). However, no matter where they occur, many captions could be improved by giving the reader more details and by telling them what they should look out for.

Here, for example, are two captions each followed by my suggestions as to how they might be improved:

- Original: Table 1. Internal consistency of the WHOQOL-BREF at baseline. Cronbach's alpha for the total Groups SG1 and SG2, and for the breast cancer

and benign breast problems groups separately (Van Esch, Den Oudsten, and De Vries, 2011).

- Suggested revision: Table 1. Internal consistency of the WHOQOL-BREF at baseline. The table shows Cronbach's alpha for the total Groups SG1 and SG2, and for the breast cancer and the benign breast problems groups separately. It can be seen that the coefficients are higher in the groups with the benign breast problems.
- Original: Figure 1. A comparison of multiple- and single-system models of implicit social cognition (Amodio and Ratner, 2011).
- Suggested revision: Figure 1. A comparison of multiple system (top) and single-system (bottom) models of implicit social cognition. It can be seen that the main differences lie between....

I have tried to put these suggestions into practice in this paper. Normally, good examples of helpful figure and table captions can be found in the journal, *Current Directions in Psychological Science*.

The layout of tables

Many tables are difficult to read because they contain numerous numbers and they are badly spaced (Hartley, 1991, 2008). Furthermore, the language used to describe the contents of the tables is often highly technical and difficult to follow. In this paper Tables 6a and 6b, and Tables 6c and 6d, provide examples of how two tables might be re-organised to make their contents clearer. In Table 6a it is difficult to separate the different conditions from each other, and the linear array in Table 6b makes the findings clearer. The reverse occurs with Tables 6c and 6d. The linear array in Table 6c makes it difficult to compare and contrast the measures, whereas this is simplified in the matrix arrangement of Table 6d. Sternberg and Sternberg (2010) offer more precise guidance on these matters. Nicol and Pexman (2010b) provide examples to copy from when setting out tables for articles in the APA style.

TABLE 6. Examples of original and revised tables where the revisions make the original tables easier to read. (See text for explanations).

<i>6a Original tabular organisation used in a table of results</i>				
	Visual training	No visual training		
Verbal training	75.20	62.70		
No verbal training	62.10	39.50		
<i>6b Revised version of the table</i>				
No Training	Visual training only	Verbal training only	Both visual and verbal training	
39.50	62.10	62.70	75.20	
<i>6c Original tabular arrangement in a table of results</i>				
Measure	Grade 1	Grade 2		
	Pre-test	Post-test	Pre-test	Post-test
<i>M</i>	16.72	19.79	18.63	20.21
<i>SD</i>	1.70	1.86	2.93	2.97
<i>6d Revised version of the table</i>				
Grade 1	<i>M</i>	Pre-test	Post-test	
		16.72	19.79	
Grade 2	<i>SD</i>	1.70	1.86	
		18.63	20.21	
	<i>SD</i>	2.93	2.97	

The layout of figures

There appears to be less advice about the layout of figures in psychology articles compared to that of tables. Hartley (2008) provides a short discussion and Sternberg and Sternberg (2010) also discuss these matters. Nicol and Pexman (2010a) provide examples to copy from when using graphs and charts in journals following the APA style.

One issue that has received some discussion, however, concerns the relative merits of 2-dimensional versus 3-dimensional bar charts. Here it is generally agreed that 2-dimensional charts (of the sort shown in Figure 2) are easier to read than are 3-dimensional ones (see Hartley and Yates, 2001, for references). Finally, we should perhaps remind ourselves here that graphs and charts that look fine in colour on computer screens will not do so when printed in black and white on smaller journal pages. It is good advice to check this before submitting fancy graphics for journal publication in black and white.

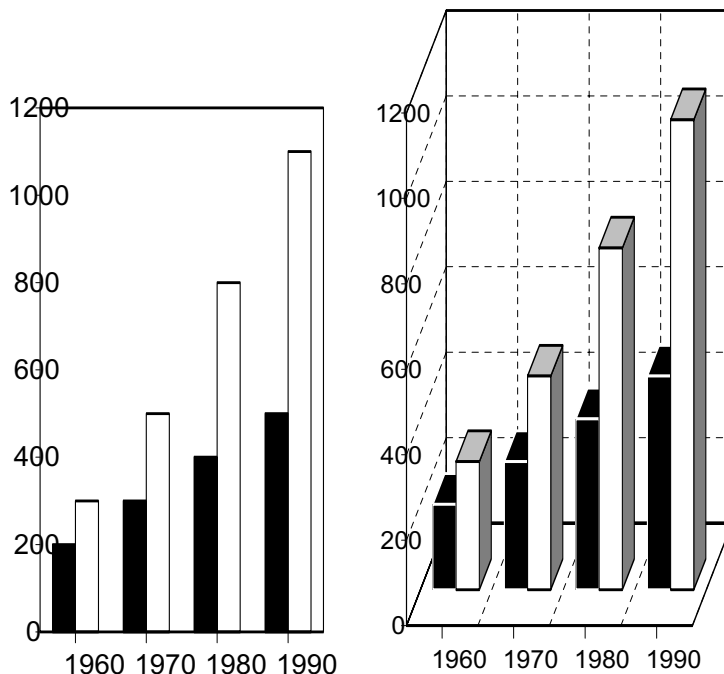


FIGURE 2. A 2-dimensional graph and a 3-dimensional one for the same data. Although readers may prefer the three-dimensional display on the right, it is probably easier to extract information from the two-dimensional version on the left.

Positioning tables and figures

Typesetters often place tables and figures at the top or the bottom of the page without reference to where they are first mentioned in the text. The UK weekly magazine *Country Life* produces wonderful examples of where the numbering of the figures in their key articles frequently bears no relation to how these illustrations are sequenced in the text! Thus the links in the text often run as: see Figure 3; see Figure 5; see Figure 1; see Figure 4; see Figure 2 – in that order. However, this problem is not so extreme in academic text. Indeed, authors can have greater control over the positioning of tables and figures in the text than they might imagine. Authors can ask for changes in this respect at proof stage, and these are often carried out. Happily the tables and figures in *IJCHP* normally appear immediately after their first mention in the text – which makes good sense. There is a slight problem, though, in that these tables and figures often seem to be reduced in size to make them fit within the column width of the page – which can sometimes cause problems for readers.

Clarifying the Conclusions

As noted earlier, scientific papers typically follow the IMRAD structure (Introduction, Methods, Results and Discussion). In papers such as these there is often an extra final heading, Conclusions, but this depends in part upon the format specified for particular journals. In the two issues of IJCHP that I have examined in detail, all of the 19 articles used the heading. Discussion, one also used Conclusions, and one had a final subheading at the end of the Discussion – Clinical Applications.

Thus the use of a section headed Conclusions seems to depend partially on the discipline, partially on the journal requirements, and partially on the whim of the authors. However, if authors do choose to have a Conclusions section, are some ways of presenting conclusions more helpful than others – especially for busy readers?

Kozak and Hartley (2011b) discuss this issue in more detail and argue for the value of listing the main conclusions rather than spelling them out in lengthy prose. Indeed, they particularly recommend the use of ‘bullets’ for this. Here, for this paper, I leave it for the readers to judge the value of this procedure for presenting conclusions for themselves.

So, as far as this particular paper is concerned, my concluding remarks are: I have tried to show some alternatives to traditional ways of doing things; I have suggested that implementing some of these changes may be difficult, but not impossible; I have noted that there may be minor different cultural differences between texts written in Spanish and English, but this really needs more discussion elsewhere; I think possibly that some of these new ways of writing may be judged less acceptable in the writings of novices, and especially those writing in a second language; But my main conclusion is that I do believe that it is possible to make articles in psychology journals easier to read. And that – for me - is a desirable thing.

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