For some people good writing comes naturally. But for the rest of us, it need not be difficult to write reasonably well with the help of some rules or guidelines. In this paper I outline some of the rules I use when writing. These help me to save time and to be as effective as possible.

1. The right attitude

It is essential that we have the right attitude with regard to the question “for whom are we writing?”. On one hand you are obviously writing for the benefit of the person who will read what you write. You have something to say, and your reader needs to hear your message. But on the other hand, you are also writing for your own benefit. Because you have a message, you need people to read about it. Without getting into the complex psychology of our motivations, we can all identify with the sense that when you have something to say you want people to hear it. So as a first guess we can say that the beneficiaries of your words are 50:50 your reader and you as the writer. Put another way, who is most privileged to have someone read what we write? Is it your reader, or is it you as the writer? I am sure that part of the search for success in writing is to realise how much of the privilege is the writer’s.

If you are writing for the benefit of the reader, you need to make sure that you help your reader as much as possible. One way to help the reader is to make reading your work as easy as possible, in both the fine detail and the larger picture. Allow your reader to sit back and enjoy your work, and take away from your reader as much of the effort as possible.

2. Preparation in the mind

You have a story to tell, but you need to be very clear in your mind exactly what this story is. And you only become clear by detailed rehearsal. Different people have different ways of rehearsing their story. Some people need to sit and write detailed notes, whereas others are able to rehearse their story as they walk home, or whilst they sit in the bath, or as they do the gardening. Whichever is more appropriate, you should not begin to write until you have a very clear idea of what you want to say.

Part of this rehearsal is to get excited about your story. What you are about to put into your reader’s hands is something that is very precious to you – it has absorbed time and effort, and you have some satisfaction in the main outcome. Telling the story should not be yet another effort, but should be something that excites you. You are about to take your reader on a journey through territory you have explored before anyone else has been there, and now you have explored it you want to show it to people. As you dwell on your story it will become exciting to you, and you should not think of taking anyone on your journey until you are excited about it. Your story is a treasure chest for which you have the key. Your initial exploration was exciting for you, and now you should be equally as enthused about sharing this excitement with your readers.

Golden rule – you are writing for the benefit of your reader. Make sure that you always aim to help your reader as much as you can.

Golden rule – Be very clear about what you want to write before you start.
3. Guide your reader through your work

It is wholly inappropriate to assume that your reader will be able to put as much effort into reading your work as you put into preparing it. It is likely that your reader will be picking up your work late at night, with a mug of cocoa to help relax. Or else your reader will be on a train with time to kill, but with half an anxious mind on the stations flashing by and the meeting at the other end. It is unlikely that your reader will have devoted a large part of the best time of the day to sit and study your words in a quiet atmosphere. Because of this, your reader will not be able to keep in mind complex arguments, or be able to cross-reference one part of your work with another. Your reader will not be able to look at a diagram or table and form the deduction you are hoping for. Worse than this, the chances are that if your reader is not able to make sense of what you are saying he or she will simply give up. Remember, your reader’s time is precious, and if your work does not immediately entertain and inform, your reader will instead choose something that does!

So how can you make your reader’s task as easy as possible? Some simple rules are

1. Careful use of sections and subsections with proper headings, effectively separating different parts of your story into self-contained compartments.

2. Use short sentences instead of complex ones, and in particularly avoid too many qualifications within single sentences. At the same time it is nice to have variety, and a long series of short sentences can be dull. The spirit of this rule is that short sentences are to be preferred where possible, but do not feel constrained when a long sentence would be appropriate.

3. Avoid all forward referencing unless you are simply aiming to whet the appetite for what is coming up. Never expect the reader to know something that you have yet to say, or expect the reader to read some text, a figure or a diagram later in the article and then come back to the point.

4. If you direct the reader to a diagram, table or equation, explain in plain words in the text what you want the reader to take from this. Do not expect the reader to draw the conclusions you want them to draw from any figure or table or equation.

5. Begin each paragraph with a sentence that anticipates both the content and purpose of the paragraph. And do not use a single paragraph to make several separate points; one point per paragraph is the rule.

Remember, you are not creating a complex web for your reader to untangle as a challenge!

4. Use a careful layout

The use of headings to divide your work into manageable chunks is self-evidently of value in making your work easier to read. The use of headings can extend below the level of main headings, and in this section we will explore the use of actual and virtual headings.

The main headings, which are often called Level A headings, are used to separate your work into distinct compartments, with the headings giving an indication of the content and purpose of the compartments. Frequently the first heading will be the “Introduction”, and the
last heading will be the “Conclusions”, with the headings in between depending on the story. For example, a laboratory report might have “Methods” and “Results” sections, whereas a biography might have sections such as “Early years”, “Student years”, “Time in Manchester” and so on.

Once you have defined the set of main headings, you may want to improve further the structure of your work by breaking some or all of your sections into subsections. For example, a section on experimental methods may contain subsections on sample preparation, sample characterisation, descriptions of main experimental techniques, data reduction, and preliminary treatment of analysis of experimental data. Again, the subsection headings (often called Level B headings) should tell your reader exactly what to expect in each subsection.

You can use further subdivisions with headings, called Level C headings, but these should only be used if necessary. Too many levels of headings create too much of a web, and it is not reasonable to expect your reader to go down too many levels and keep hold of your main purpose. Level C headings should really only be used to separate sets of paragraphs that present different facets of a single idea, such as different examples of a main point, or repetitions of a set of procedures.

Different headings should be differentiated by different type faces, and numbers with points (e.g. 1.1, 1.2, ...) can be used to good effect. You should also consider spacings before headings, with larger spacings before Level A headings than before Level C headings.

You should view your paragraphs as mini-sections in their own right, and the careful use of paragraphs will play a large part in helping your reader through your work. A paragraph should contain a single idea, perhaps one that is expanded, or illustrated, or contrasted with other ideas. Never let a paragraph ramble into making several points. The first sentence of each paragraph should tell your reader what to anticipate in the following sentences. Much thought should go into the choice of first sentence. Also avoid using single-sentence paragraphs. That is the style adopted by red-top newspapers, who write for a relatively low reading age.

In this article I have only used Level A headings. I also do something that breaks one of the rules I usually stick to, namely I have a first paragraph that is not under a heading. That is because it prepares the reader to expect each heading to correspond to a rule. If you do include text outside the normal heading system, have a good reason to do so, and do so only for a short amount of text.

5. Careful preparation

No-one would argue against careful preparation, but nevertheless many people embark on a venture without adequate preparation. Preparation achieves two purposes. First, it maximises the prospect of success. Second, it minimises the wastage of time and effort.

There are two ways in which the writer can be fully prepared. The first is to ensure that all the material is at hand and the story to tell is complete. It is easy to start writing a section before all the data have been analysed, and figures prepared. But it may later turn out that you don’t have time to complete your data analysis, and then your story will have changed.

Golden rule – Careful planning saves time and helps you achieve your purpose in writing.
The second way in which the writer can be prepared is to carefully sort your story into a detailed layout before you start writing detailed text. My way is to follow the following steps:

1. Decide on what your story contains, and exclude sub-plots that are superfluous
2. Decide on your main headings and the content and purpose of each section
3. Decide on the set of Level B headings you may want to use within each section
4. Select the diagrams and tables you will need for each section or subsection
5. Order the points of each section or subsection, and write the first sentence of each paragraph
6. Once you can see how each subsection is panning out, decide whether the flow of ideas could benefit from the use of Level C headings.
7. Finally write the text within each paragraph

Contrary to the advice given in many manuals on writing, I would argue that with careful preparation your first draft should be very close to your final version. There is no point writing something twice. The corollary to this is that you should make it a rule not to write anything unless you know where you are heading. It is very tempting when you are stuck to just write anything with the view of editing it later. This is most wasteful of time, and may actually divert you away from the best path in your telling of your story. It is better to write nothing at all than write something that is not well-planned and carefully constructed.

6. Some short points about style

1. Use an attractive and consistent type style. My favourite font is Optima; find your own favourite. Use a consistent margin justification throughout. Use a line spacing within paragraphs that is slightly larger than the font size (such as 14–16 point spacing with 12 point type face), and set up your word processor to force this line spacing (without this you may get variable line spacing if you use subscripts and superscripts or some special fonts). Use different fonts or font size/style for headings, but avoid making your headings too brash. You are not the owner of a McDonald’s restaurant trying to attract passing motorists! Never ever use underlining – it simply tells the reader that you don’t know how to use the range of facilities offered by a modern word processor. Underlining used to be the only flashy thing a typewriter could manage, but you will never see underlining in a book or journal.

2. Use variety in your choice of phrases, and in your sentence construction. Not too much variety so that your story becomes an eclectic collection of styles, but enough to retain the interest of your reader.

3. Be explicit in your choice of phrases. If you want to tell the reader something as an aside, begin your sentence with “As an aside…”, or “In passing we can also note that…” If you want to make a contrast between something you have said and another idea you may
want to raise, use appropriate sentence beginnings such as “On the other hand”, or “However, we can also make the opposite point that ...”. If, after a complex argument, you want to summarise or reinforce the point, you can begin the sentence with “To summarise, we see that ...”, or “The point is that ...”. Do not hide your message behind subtle turns of phrase.

4. I like the use of the first person, but this needs to be used with care. You are not telling the story of your holiday, and even if you did, you would achieve better effect by mixing first and third person. You should aim to use the third person as much as possible, with appropriate sprinkling of the first person for variety. The use of “we” can take on several meanings: you and your co-authors, you and the reader, you and the rest of the community, or simply the “Royal We”. You should aim not to mix up these usages.

5. Describe the main message from a diagram or table within the text so that the reader can continue without having to actually look at the diagram or table. Do not expect the reader to be able to break away from the text, interpret the data in the diagram or table, and then come back to the point you were making in the text without having forgotten what you were saying. A diagram or table should be viewed as supporting evidence or a helpful recasting of your arguments, to which the reader can refer if they need convincing.

6. Similarly, do not expect your reader to understand an equation. Instead, in the sentence before an equation, explicitly tell the reader what the equation is doing, and in the sentence after the equation summarise what the equation has done. That way the reader will be able to read the text without having to fully understand the mathematics of the equation. The equation therefore act as reference material, to which the reader can turn if needing to use your work for something else.

7. Sometimes you can create a good effect by breaking standard rules. For example (and I have done so in this document) you might like to begin a sentence with the word “But”, which is something we do in normal conversation. I even once begun a sentence with the word “Well” in a scientific paper. However, you need to be very careful when you do break the rules. My motto is that you have to properly understand the rules before you should try to break them, which is as true in art and music as it is in writing.

7. Summary

In this article I have discussed the rules I follow when I write. These come from my own experience of writing scientific papers, grant proposals, internal notes etc. I know that other colleagues have different approaches (for example, I take the view that my first draft of a document should be close in quality to the final draft, whereas others think the first draft is more of a starting point; and others have different personal rules about writing in the first person or the extent to which you can break the rules for effect), but we would all advise against starting to write without sufficient preparation. Developing your own approach is part of your own personal development, but it is better do so by learning from others rather than by trial and error. After all, you want to avoid the common scenario of sitting in front of a computer screen just typing wilding hoping something with emerge!

Martin Dove