You should now have detailed notes you can use to write your draft paper. If you don’t have one already, it may help to prepare an outline for each section which includes a number of major headings, sub-headings and paragraphs covering different points. If you need help in preparing an outline see our article Eight Steps to Developing an Effective Manuscript Outline at www.sfedit.net/newsletters.html. At this point you will need to convert your notes and outline into narrative form.

Some people recommend that you begin with the Introduction and continue in order through each section of the paper to help ensure flow. Others suggest that you begin with the easiest sections, which are usually the Methods and Results, followed by the Discussion, Conclusion, Introduction, References and Title, leaving the Abstract until the end. The main thing is to begin writing and begin filling up the blank screen or piece of paper.

1. **Consolidate all the information.** Ensure you have everything you need to write efficiently, i.e., all data, references, drafts of tables and figures, etc.

2. **Target a journal.** Determine the journal to which you plan to submit your manuscript and write your manuscript according to the focus of the targeted journal. The focus may be clearly stated within the journal or may be determined by examining several recent issues of the targeted journal.

3. **Start writing.** When writing the first draft, the goal is to put something down on paper, so it does not matter if sentences are incomplete and the grammar incorrect, provided that the main points and ideas have been captured. Write when your energy is high, not when you are tired. Try to find a time and place where you can think and write without distractions.
4. **Write quickly.** Don't worry about words, spelling or punctuation at all at this stage, just ideas. Keep going. Leave gaps if necessary. Try to write quickly, to keep the flow going. Use abbreviations and leave space for words that do not come to mind immediately.

5. **Write in your own voice.** Expressing yourself in your own way will help you to say what you mean more precisely. It will be easier for your reader if they can “hear” your voice.

6. **Write without editing.** Don't try to get it right the first time. Resist the temptation to edit as you go. Otherwise, you will tend to get stuck and waste time. If you try to write and edit at the same time, you will do neither well.

7. **Keep to the plan of your outline.** Use the headings from your outline to focus what you want to say. If you find yourself wandering from the point, stop and move on to the next topic in the outline.

8. **Write the paper in parts.** Don't attempt to write the whole manuscript at once, instead, treat each section as a mini essay. Look at your notes, think about the goal of that particular section and what you want to accomplish and say.

9. **Put the first draft aside.** Put aside your first draft for at least one day. The idea of waiting a day or more is to allow you to “be” another person. It is difficult to proofread and edit your own work; a day or more between creation and critique helps.

10. **Revise it.** Revise it and be prepared to do this several times until you feel it is not possible to improve it further. The objective is to look at your work not as its author, but as a respectful but stern critic. Does each sentence make sense? In your longer sentences, can you keep track of the subject at hand? Do your longer paragraphs follow a single idea, or can they be broken into smaller paragraphs? These are some of the questions you should ask yourself.

11. **Revise for clarity and brevity.** Revise sentences and paragraphs with special attention to clearness. For maximum readability, most sentences should be about 15-20 words. For a scientific article, paragraphs of about 150 words in length are considered optimal. Avoid using unnecessary words.

12. **Be consistent.** Often a manuscript has more than one author and therefore the writing may be shared. However, the style needs to be consistent throughout. The first author must go through the entire manuscript and make any necessary editorial changes before submitting the manuscript to the journal.