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## Writing an article

This article seeks to persuade you that you have much to offer as a writer—and to encourage you to submit articles (long or short) to journals such as this for publication. Writing is a good form of professional development and self-reflection.

Again we welcome Toby Spencer to help discuss aspects of writing. Toby is responsible for publishing our AAMT publications. This article describes how to set about writing an article for a journal.

Some of us became mathematics or science teachers by default. There was once such a limited range of subjects that students who could not write essays did mathematics and science. Computers changed that. Word processor software helped some of us overcome huge spelling and grammar hurdles and made it easy to edit and manipulate text. Word processors have empowered so many people to write that we sometimes think that using a word processor is somehow different to using other software tools.

Would-be writers need confidence and a realistic self-awareness. Teachers who can survive today's classrooms and educational institutions have already proven the multiplicity of their talents. Be assured that as a teacher you have become an expert diplomat, planner, organiser, administrator, sporting coach, mathematician and pedagogue.

However, we often misjudge our strengths and weaknesses. Those of us who routinely ask students to fill out feedback sheets discover that aspects of our teaching that we considered our weaknesses have gradually turned into our strengths—because those are the aspects that we have kept working on.

One of the purposes of journals such as *The Australian Mathematics Teacher* is to facilitate the sharing of discoveries and experiences. Most of the readers of AAMT publications are

teachers who understand that membership of this association is one of the best resources available, and that sharing experiences via the journals is one way in which members can support each other—and develop themselves.

I have found that there are many readers who will soon become mathematics teachers—much of the email I receive about CACTUS pages comes from teacher education students. There are also these students' lecturers who belong to associations to (among other reasons) try and keep in touch with what is happening in schools: they depend on articles written by classroom teachers. When they encounter excellence in students' work, they sometimes encourage their students to write for journals.

So: you have decided to write an article. You need to select the most appropriate avenue for your writing (and this will likely depend on the subject matter): *AMT* may not be the best medium to communicate with your intended readers. My first journal article was published 27 years ago in the *Australian Journal of Reading*—there would have been several very surprised English teachers! Choosing the most appropriate journal for your message will become obvious from your own reading—journals that you do not enjoy reading are unlikely to appreciate your writing style.

Having chosen a journal, study several issues carefully. Look for the writing styles that the editor prefers. Bear in mind that most journal editors are very supportive and will happily provide feedback or assistance if necessary to get the article to publication stage. Look for structures that are commonly used. Then look at the detailed aspects of presentation style. Which spelling standard is followed? How are footnotes and the bibliography or references presented?

There are probably three types of journal that

are likely to be relevant to you: research journals, mathematics journals, and teacher journals.

The most formal articles you are likely to prepare will be for a research journal, and may arise from a need to publish an outline of your own research. If you have written a thesis, then the article will likely be an abridged version. There are hundreds of well-known journals that publish little more than abridged theses. If your research was of an experimental nature, articles for such journals have to follow a particular format which matches that expected of the thesis. You always start with an abstract, state the problem you have investigated and summarise what others have written. You then describe the nature of your experiment, describe your findings, draw appropriate conclusions and recommend further research. Each of these sections has its own expected structure. In this way, any reader familiar with the format can scan your article very quickly and know exactly where to look for the information they need. Articles of this type are usually published in a journal recommended by your supervisor with your supervisor listed as the senior writer. You will not need any help from us.

Fortunately, mathematics is not so format-bound. Articles in mathematics journals tend to be shorter and follow the inherent logic and interest of their subject matter. They tend to focus on the mathematics itself, rather than matters of pedagogy.

Then there are the articles written for each other—peers and colleagues. They are made interesting and practical. The style is usually friendly and sometimes even chatty. The detached third person style of formal writing tends to be ditched in favour of a more direct approach.

Whatever the content, you will likely start your article with either a formal abstract or a paragraph that says what you are going to say.

Next is the main part of your article—where you tell your “story”—and then you need a conclusion. The final paragraph should summarise what you have written. Some folk like to sit down with a pile of journals such as this one and flick through, reading the final paragraph of each article. If your message is really important then you may wish to toady to such people, but otherwise, if they cannot be bothered reading the whole article, why give them snippets? Instead, use your opportunity to conclude your thoughts logically and encouragingly.

## Tips to help you write

1. Think about **what you know**—your own experiences. Don't think that your experience would be of no interest: what might seem commonplace to you might inspire somebody else to try something new.
2. Every “story” **needs a beginning, a middle, and an end**. Plot out a few notes to give your article a logical structure or flow.
3. **Stick to the point**. Don't waffle or discuss irrelevant matters. If you find you have something else important to say, then that's the basis for another article!
4. **Failure is just as important as success**—maybe more so as a learning experience. What have you learned from your experiences?
5. **Pad out your article with examples**: photos, student work samples, quotes, etc. and discuss what makes them important.
6. While not essential for all articles, including **references** to other work (academic or otherwise) adds credibility to your argument.
6. **Re-read and edit** your own work. Don't expect the first draft to be perfect.
7. Don't be afraid to **ask for help**—get a colleague, friend or partner to read your work.
8. In the first instance, **concentrate on the words** (what you want to say) rather than the layout.

Most of us would probably regard ourselves as “time poor” and would think that we have no time to write journal articles. However, there are some activities for which it is worth making time—before our first heart attack, we may give some thought to exercise and spending time with our families; we should also include some creative pursuits such as painting or writing.

Writing is a valuable creative activity that crystallises your thinking, lets you express yourself and allows you to help other educators. Try writing an article about an aspect of what you have been doing in your mathematics classroom—AMT would be pleased to consider it for publication!

