**Creating and Using Writing Outlines**

**Introduction**

Whether you are writing a lab report, an essay, a journalistic piece or a scientific journal article, it is imperative that you plan what you are going to write before you put pen to paper or fingers and thumbs to keyboard; if you fail to prepare, you should prepare to fail!

Many people believe that producing a plan (or a writing outline) is a waste of time, thinking that valuable hours used this way could instead be spent on actually writing or editing the piece of work the outline is designed to guide. However, without a well-defined writing outline, it is surprisingly difficult to put your thoughts into text in a balanced, logical way, and this just makes the editing process even more of a headache. Ultimately, you will find that you save much more time by creating and using a writing outline.

There are three main stages to producing any piece of scientific written work. These are:

1. **Research** (searching, reading, and making summaries of interesting, relevant work to include in your writing)
2. **Writing** (***creating and using a writing outline,*** writing a draft)
3. **Editing** (cutting unnecessary content, tightening up grammar, adding in topic sentences and smooth transitions)

**1: Before Creating and Using a Writing Outline**

Before it comes to the second stage when you create and use your writing outline, it is important to acknowledge the role played in summarizing material you read that will make it into your piece of writing in the form of cited work (for more information on integrating sources into your work, see the associated page on our site).

Reading lots of relevant material is important to make sure you are able to present an up-to-date picture of the current thinking in the area of research you are writing about, but the more you read, the less you remember, and the less you remember, the more you forget! This is why it is vital that you make short summaries of work that you read, in case you wish to cite this material in your written draft.

Even if you are working with a relatively small number of sources, you’ll be surprised how quickly you forget the content in these, and how often you have to re-read whole articles when it comes to writing your piece to find something to cite. When it comes to writing a detailed report, or a journal article in which you might cite more than 20 other pieces of work, it would be impossible to effectively cite material without making short summaries.

You could choose to either:

1. Print each article and annotate it with coloured pens (underline interesting points, make brief notes in the margins)

**OR**

1. Compile a document that comprises five or six lines of information outlining the major content and/or arguments made by the author(s) of each article

Either way, you should have hard copies of your own summarized material that you can refer to quickly and easily when writing. You will also plug some of this information in to your writing outline before you start writing…

**2: Creating a Writing Outline**

Depending on the purpose of your written work, and on the audience you are addressing, the approach you must take to logically deal with the question being asked might differ. However, whether you are writing a detailed research-based journal article that will be read by specialists of the discipline, or a journalistic article that will be read by the general public, you should still aim to break down a plan into sections and sub-sections that will each need to be addressed in your final piece of work.

Think of the *Contents* page of a book: this is what you writing outline should look like, with each chapter building on the one before and ‘signposting’ a change of direction in terms of content.

**Some Examples**

1. If you are writing a lab report or a scientific journal article, you should start by arranging a skeleton of the outline in IMRAD form (*Introduction, Methods, Results and Discussion*). Then, you should add in ‘sub-chapters’ in each section to denote specific pieces of content that you will need to write.

For example, in the *Introduction* section, you might add in sub-sections detailing: a) historically important research/experiments in this field, b) current thinking, c) the importance of adding to current thinking…

1. If you are writing a journalistic article, you should start by writing the basic structure of your piece (‘*Hook’/Opening [Who, What, Where, When, Why], Specific Information about the News, Introduce Expert, Quote Expert, Future Directions, Summary*). Then, you should add in ‘sub-chapters’ in each section to denote specific pieces of content that you will need to write.

For example, in the ‘*Hook’/Opening [Who, What, Where, When, Why]* section, you might add in sub-sections detailing: a) Who – Dr Lily Reilly, and her affiliation, b) What – Wolf Escape in Irish Forest, c) Where – County Wicklow, 5 km from local town, d) When – Two weeks ago, e) Why – Interesting because it could be hunting local pets/farm animals, and people are scared…

**Adding to a Writing Outline**

Once you have your completed writing outline in ‘Chapters’ form, you can start to plug in information from the material you summarized before writing the outline.

For example, in the case of the lab report/journal article, you can start to plug in all the material that you read about regarding current thinking in the field of research you are working in. You can do this in abbreviated form (or use bullet-points), but make sure you use some sort of coding system so you know which source the information is coming from.

***Grading-related Tip!***

If you are completing a piece of writing that will be graded, pay attention to the breakdown of marks. Although assigning word limits to specific sections of a piece of writing in an outline is not always a good idea, you should pay attention to elements that are worth the bulk of your grade.

For example, if your instructor tells you that 50% of the marks will be awarded for the *Introduction* section, you should focus your attention on this section. When creating an outline, make sure you give equal – and sufficient – attention to the different content elements that should appear in this *Introduction.*

**An Example Outline**

Imagine you are writing a journal article about the effect of an invasive plant species in North American grasslands, having completed an experiment to see whether planting other native species could help reduce the spread of the most invasive species. Your writing outline might look something like this (**red numbers** indicate summary material that can be plugged in/cited here in your writing):

1. **Introduction**
2. Background information about the spread of the ‘invasive species’ of interest
3. Biological information (style of growth, lifespan etc) **1, 5, 7**
4. Range **2, 5**
5. How long has it been in these grasslands? **3, 12**
6. Rate of spread? **4, 6, 8**
7. **Negative effects of this invasive species**
8. Out-competes native species (some endangered) **9, 10, 11, 14**
9. Increases likelihood of wildfires **12, 13**
10. Inedible to grazing animals (cattle) **6, 11, 15**
11. Economic cost to conservationists controlling its spread **16**
12. **Current management options and hopes for the future**
13. Fertiliser **14, 17**
14. Plant other species to compete with it **18, 19, 22**
15. Mowing **20, 21**
16. Could we use native species to compete with it and prevent its spread?
17. **Methods**
18. Study sites
19. Experimental set-up
20. Statistical analyses used
21. **Results**
22. Tested native species reduces its spread by 60% in dry conditions
23. Tested native species reduced its spread by 15% in wet conditions
24. Success of native species increases if it is sown earlier in the year
25. **Discussion**
26. Compare results of this species with other native species tested by others **18, 19, 22**
27. How might conservation plans be designed to use this native species? **16, 23**
28. Predictions for economic saving that could be made if invasive spread was reduced by 15-60%
29. Suggestions for future research
30. Limitations of study

**Using a Writing Outline**

Now that you have your writing outline and your summarized material to plug in to it, you can begin writing. The most important thing at this point is to write a ***draft****;* a draft is just that – it doesn’t need to flow perfectly, and the grammar can be imperfect at this point, so don’t spend too long refining the way you are wording each sentence.

The main goal here is to refer to your writing outline and tackle each section and sub-section from a content perspective. If you have put the work into your summaries and writing outline, you will be surprised how quickly you can write a whole piece like this.

Before you move on to stage three (**Editing**), make sure you wait at least 24 hours before returning with fresh eyes and a fresh perspective.

**After Using a Writing Outline (Editing)**

To make the editing process as swift and efficient as possible, try to:

1. Cut any content that you feel is unnecessary (you should never be adding material at this stage)
2. Check the grammar for all of your sentences \*
3. Edit for clarity and succinctness (try to write simple, short sentences that are easy to interpret) \*\*
4. Add in topic sentences to start each paragraph (and try to make sure each paragraph only makes one main point) \*\*\*
5. Add in smooth transitions to make sure each sentence flows smoothly from the previous one \*\*\*

\* For more information on grammar and associated tips, see the resources on ‘Grammar and Style’ on our site. \*\* For help in editing for clarity and succinctness, see the relevant page ‘Editing, Succinctness, and Jargon’. \*\*\* For guidance on writing topic sentences and using smooth transitions, please see the pages on ‘Organizing’ on our site.

**Video Resource**

For a recap and for some extra information about creating and using writing outlines, please watch Grammar Squirrel’s [video](http://youtu.be/_ZWe3mmLcoA) on the UBC Science Writing [YouTube channel.](https://www.youtube.com/channel/UCvynvmsn_NTlS9lc8cH-OFw)