THE STRUCTURE OF A SCHOLARLY PAPER

by Paul Sandringham

Writing a scholarly paper is nothing like writing an interesting article or a story. It's not even like writing a report. There are specific structural practises that make a scholarly paper effective – and take all the excitement and interest out of it.

THE PURPOSE MAKES THE DIFFERENCE

I sometimes encounter students trying to make their scholarly papers *exciting*. They develop a plot. There is suspense. We wonder what will happen. A subtle twist or killer argument near the end. It makes for good story-telling. It can even make for good journalism. But it is completely ineffective, because it is the right stuff in the wrong place.

I sometimes encounter students trying to make their scholarly papers *interesting and persuasive*. The arguments start subtly, and with gentle development they move inexorably (*unaufhaltsam*) to a convincing conclusion, proving beyond all doubt that the earth is a rhombic dodecahedron (*Rhombendodekaeder*) and the universe is neither expanding nor shrinking, but instead flowing like sand through an hourglass. It's wonderful stuff. It makes me want to read more. And it's understandable that students, especially undergraduates, will do this, because this is how "popular science" works. It could be good oratory. It is effective argument. But it is not scholarly.

There are times in all scholarly disciplines when passion is required. There are eras and phases where a new school of thought, a revolutionary approach is called for. And there are highly respected scholars who make use of both of the approaches above, becoming evangelists, so to speak, for a scientific cause. But it is important to understand that these are already highly respected scholars, and they are working at the meta-level of redefining a discipline, a science, precisely because they have done the hard hours.

I sometimes encounter students trying to make their scholarly papers *boring* and *factual*, like lab reports. They provide a scientific definition of an experiment and the results, and that is it. They, too, have boarded the wrong train. A scholarly paper is indeed more than just a lab report, although it may well include a lab report.

Do I ever encounter students getting it just right? Yes, I do. And I'm going to tell you what it is that they do to get it right. The reason they are getting it right is that they have understood the purpose of a scholarly paper.

Like a plot in a well-told story, a scholarly paper should reveal something that was hidden or confirm a suspicion.

Like an effective piece of rhetoric, a scholarly paper should convince the reader of something.

Like a lab report, a scholarly paper should present dry facts and a logical analysis that can be reproduced by any suitably trained reader.

A scholarly paper should combine all of these things. But it should do something else, too. It needs to communicate one clear step in the development of human knowledge, from start to finish. That step may be the consolidation of various aspects of knowledge to present a new perspective. It may be the application of existing knowledge to a very specific problem, or instead to a new general class of problems. It may be something startlingly new. There are many other possibilities, too.

Let me repeat, and elaborate on, the key statement from that paragraph.

The purpose of a scholarly paper is to communicate or argue one clear step in the development of human knowledge. That is all that the paper has to do, from start to finish. And that is what all of the paper has to do.

Maybe you want to print that paragraph out and put it on the wall above your desk. I did.

What this means is that there can be no doubt, at any time, about what this step in the development of knowledge is. And that is why there is no room for surprising twists, or for passionate argument. The argument can be there, the writing may be passionate, but the presentation must be dispassionate. And this is why a lab report is not enough – a lab report explains an experiment and the results. But a scholarly paper must interpret or apply those results in order to turn facts into knowledge.

Not every scholarly paper *advances* human knowledge. But every scholarly paper communicates or argues one aspect of human knowledge. If it doesn't, it's not a scholarly paper.

Once you have understood that purpose, the basic structure of scholarly papers begins to make sense.

STAYING ON MESSAGE

In marketing and in politics (is there a difference?), a popular maxim is to "stay on message". *Bleib bei der Botschaft*. When it comes to scholarly writing, it isn't just a maxim. It isn't just a good piece of advice. It is something we need to elevate to the level of commandment.

I have put together a simplistic summary of the structure of an effective scholarly paper. Later, we will look at the proper labels for the different parts of the paper, but I want to start by using this model, because it reinforces the idea of staying on message, and it shows us how the structure can help us achieve our purpose.

1. **I tell you what I'm going to tell you about.**
   Ich sage dir, worüber ich dir was sagen werde.
2. **I tell you why (and why it might interest you).**
   Ich sage dir, warum dich das interessiert – und mich auch.
3. **I tell you what I'm going to tell you.**
   Ich sage dir, was ich dir sagen werde.
4. **I tell you what others have told us about it.**
   Ich sage dir, was andere dazu gesagt haben.
5. **I tell you how.**
   Ich sage dir, wie.
6. **I TELL YOU!**
   ICH SAG ES DIR!
7. **I tell you more.**
   Ich sage dir noch mehr dazu.
8. **I tell you what I told you.**
   Ich sage dir, was ich dir gesagt habe.
9. **I tell you what I didn't tell you.**
   Ich sage dir, was ich dir nicht gesagt habe.
10. **I TOLD YOU! AND I TOLD YOU SO!**
    HAB' ICH DIR DOCH GESAGT!

There, that's nice and scholarly, isn't it?

This isn't set in concrete. There may be ten items, but they are not engraved on tablets of stone. Sometimes it makes more sense to change the order a little (e.g. 4 and 5), and sometimes you might leave a step out. But the message is clear: STAY ON MESSAGE. *Bleib bei der Botschaft.*

PUTTING THE MODEL INTO PRACTICE

A realistic structure for a scholarly paper, of course, looks a little different. But things do map surprisingly well between this model and a real structure.

There are a couple of pages that come at the front, and a couple at the back, which are important – but we will ignore them for now. They are "supplementary material". The structure could look like this:

a. Introduction / *Einleitung*
b. Literature review / *Literaturüberblick*
c. Methodology / *Methodologie*
d. Body of the paper / *Hauptteil der Argumentation*
e. Additional observations including difficulties / *Zusätzliche Anmerkungen, einschließlich Probleme*
f. Conclusions / Schlussfolgerungen
g. Ideas for further work / *Ideen für weiterführende Arbeit im Bereich*
h. Summary / *Zusammenfassung mit kurze Wiederholung des Ziels, der Argumentation und der Ergebnisse*

Now, this structure looks more scholarly. But it is exactly the same thing, except a little harder to understand.

Points 1 to 3 of the colourful model go in the Introduction, in that order. An introduction starts with a general description of the topic, followed by why it matters and is worth writing about. Then there is a statement of what you aim to achieve/prove/demonstrate/argue/examine. In other words, the end of the introduction is a clear statement of your exact question. What is your topic? Thinking back to our lesson on defining the topic, you can mention here if your project is *normative* or *positive*. You don't have to use those words, but explain whether you are setting out to describe the way things are, or say how they could/should be?

Point 4 is the Literature Review. As mentioned above, this could also come after the Methodology, which is Point 5. But what are these two things?

The Literature Review is the next step from an annotated bibliography ("*kommentierte Bibliographie*"), which you may have already written. In a literature review, you present the current state of knowledge related to your topic. What are the important theories and ideas, what are the latest developments, what arguments are going on in the field? Who are the leading scholars, and what do they say? An annotated bibliography is a good basis, because you can use it as the raw material to write a literature review. That is why it is important to make a complete (exhaustive) list of sources on a very specific topic.

The Methodology explains how you are going to explore your topic. It includes any theories or models you may want to use. It includes the definition of criteria for measuring things, for identifying advantages and disadvantages, for determining success. And it includes a description of any practical project you may be doing for your company. Thinking back to our lesson on defining the topic again, you can explain here whether your project is *theoretical*, *empirical*, *meta-analytical* or *modelling*. You may not use those exact words, but they will help.

Point 6 is the Body of the Paper. This is where you actually fulfil the methodology to answer the questions, and you describe it. It can be broken down into several logical phases. This is the "lab report" part of the paper. This will be several "chapters" or "sections".

Point 7 is the Additional Observations, where you include extra things that you didn't necessarily expect to find out. Problems. Difficulties. Surprises – good or bad. If you were writing a lab report, this would be an appendix (*Anhang*).

Point 8 is the Conclusions. This is where you present the answer to your question(s). The answer may be to say that you failed. That, scientifically, is valid.

Point 9, the Ideas, is something many students leave out until they are working on a master's thesis or doctoral dissertation. That is a shame. It shows that you are thinking as a scholar, a scientist. You are seeing other questions that may be of interest, or further applications of your work. You are identifying the things that you discovered but which you did not have time for. They were outside the scope. They could be ideas for you later. They could be ideas for others. But they show, together with the Literature Review, that you are a real scholar, because you engage with what has already been done AND realise that the work of building knowledge is never complete.

Point 10 is the Summary. Put it all together again to repeat the message in one final section.

THE EXTRA BITS

No scholarly paper is complete without a few extra items at the start and end.

You need a Title Page. The University website has downloads available that show what this should look like.

You need an Abstract, which is a description of the project. Effectively, you summarize the introduction, methodology and summary. The total abstract will normally be shorter than the introduction, but it provides enough information for your reader to know at a glance what it is about. It should include the main question, perhaps in a shortened form.

You may/should include a section where you thank and acknowledge other people for their help. This is called Acknowledgments.

You may/should have a statement, signed, to say that this is your own work and not plagiarised. This is the Declaration. A model should be available online on the University downloads page.

You need a Table of Contents (*Inhaltsverzeichnis*), which will include

You should have other indexes as well, called Lists in English. They will be for Tables, Figures and Illustrations. In German, figures and illustrations are normally one list, so you have a *Tabellenverzeichnis* and an *Abbildungsverzeichnis*. Of course, you only have these if you need them.

There will be a List of References at the end – the *Quellenverzeichnis*.

You may also include a Bibliography. This is not an annotated bibliography, but instead a list of books and possibly articles you have read and can recommend that relate to the topic, even when you do not refer to them in the List of References. This is not really needed for a *Projektarbeit* but would be good for the *Bachelorarbeit* and is really a must for a *Masterarbeit* or *Doktorarbeit*.

And you may have Appendices (*Anhänge*). Here, you will include any raw data you acquired for the project, if it is not already available in published form elsewhere. You might decide to include program code here if it is useful for testing the project, but not really part of the main body of the paper. Test data could also be included.

Finally, don't forget the basics: headers and footers, page numbers, etc.

THE RESULT

If you follow this guide to structuring your paper, and argue dispassionately with logic, you can effectively claim that the world is indeed a rhombic dodecahedron. You could suggest as an idea for future study that we may be living on the inside and not on the surface. And that the universe is a suburb (*Vorort*) of Mannheim.

You probably wouldn't be right with those claims. You may not pass. But your paper will be scholarly, and that, at least, is an achievement.