

## Reviewing the Literature

A literature review in a thesis is a critical review of literature relevant to your field of study. It's not a summary of the whole field, or a haphazard regurgitation of everything you've read in the field but an organised and critical discussion that lets your reader see what you've 'made' of the literature relevant to the topic of your thesis and your research question. It functions to contextualise your research within that research field by identifying where there are gaps in previous research that your own research will help to fill. To see how a literature review can be organised so that it provides a critical review of the field relevant to the thesis topic and shows how previous research both informs and provides a rationale for the suggested research, see the annotated discipline examples.

Producing a literature review product that *is* an organised and critical discussion of the literature and that *does* lead towards a rationale for your thesis is often a reflection a sound reviewing process. During the process of reviewing the literature, it's helpful to continually categorise the research literature you're reading. You might organise your note taking via the conceptual, methodological, theoretical or philosophical differences or similarities you find in the literature as well as via any chronological organization that's more immediately apparent. To help you clarify these concepts/similarities/differences in the field, you might also develop a map or schema that represents those ideas: this schema can then be used to help you develop a clear, critical organization when it comes to writing the lit review. Before you begin writing, you might ask the following questions, adapted from the University of Toronto's lit review resources, as a guide to ensure what material should be in your lit review so that it's focussed on appropriate prior research:

- What is the specific thesis or research question my literature review helps to define?
- What type of lit review am I conducting and presenting? Am I looking at issues of theory, methodology, policy, qualitative research, or quantitative research (e.g. on the effectiveness of methods or procedure)?
- What is the scope of my review? How can I ensure that I use all and only the relevant material in my written lit review?
- Have I critically evaluated the literature in such a way that I understand the controversies in the field and the methodological/theoretical flaws that exist in previous research and see the gaps that my research can fill? (<http://www.utoronto.ca/writing/litrev.html>)

When you begin writing, your evaluation of the literature should be clearly visible in the way you organise the information and in the way you present or discuss information. The organisation of the information via the conceptual, methodological, theoretical or philosophical differences or similarities in the literature that you noted during the reviewing of the literature can made clearly visible by presenting those concepts in paragraph beginnings, making them obvious to the reader: notice this organisational signposting in the Biology example where previous research is grouped according to studies differentiated by methodology. In making decisions about organization, you will sometimes you will need to choose a focus on *what* has been found out in previous research (in which case you focus on concepts and background the researchers) or on *who* has carried out previous research (in which case you foreground the researchers) but always make sure you have a sound rationale for focussing on one rather the other. Notice these differences in the discipline examples.

Literature reviews are sometimes mistakenly written up as just summaries of previous research instead of critical pieces of writing that contextualise or provide background to a new piece of research. The following example of a *poor* lit review (adapted from the Asian Institute of Technology's lit review resource) shows a range of common mistakes: it summarises research in the field without showing any evaluation via its organization or focus, other than a superficial chronological organization of the research; it focuses on 'who' did the research instead of more appropriately on 'what' had been done or found; and it doesn't indicate how that research relates to the writer's own research.

In the past, much has been discovered in the field of coastal erosion and the beach profiles that result from such erosion. Numerous laboratory experiments and field observations have been conducted to identify the mechanics and impact of coastal erosion. This research is reviewed below.

JACHOWSKI (1964) developed a model investigation conducted on the use of interlocking precast concrete block in seawalls. After a survey of damage caused by severe storms on the coast of the USA, a new and specially shaped concrete block was developed for use in shore protection. This block was designed for use in a revetment type seawall that would reduce wave run-up and overtopping, and scour at the base or toe of the wall and be both durable and economical. It proved that effective shore protection could be achieved utilizing these units.

SELEZOV and ZHELEZNYAK (1965) conducted experiments on the scouring of sea bottom in front of harbor seawalls, via a theoretical investigation of solitary wave interaction with a vertical wall using a Boussinesque type equation. It showed that the numerical results were in reasonable agreement with laboratory experimental data.

The research isn't reviewed here; It's simply reported.

Notice the paragraph focuses on 'who' did the research instead of more appropriately on 'what' had been done or found.

Structured using only chronology as an organising principle, this review is asking the *reader* to determine how these studies might be related in terms of methodology or some other factor.

(adapted from material accessed at <http://www.clet.ait.ac.th/EL21LIT.HTM#writing%20your%20own>.)

To see more successful examples that do show evaluation, that focus appropriately on 'what' was done or 'who' carried out research, and that provide a sound rationale for further research, go to the discipline examples. Notice in the Biology example how the focus on studies rather than authors allows the methodology of previous studies to become the major organising principle for the review. Also note how this review of methodological problems provides a rationale for the study.

Literature reviews can be found in different positions within a thesis depending on the type of research being reported and the discipline it's situated in. They can be embedded into introduction chapters or sections or can exist as a totally separate chapter. They can also be embedded into a number of chapters when each chapter is dealing with a new sub-topic that requires its own review of relevant literature. The decision about where the literature review is to be placed should be guided what's acceptable or common in theses in your discipline and by the requirements of your particular research. What the literature review is called differs too depending on the kind of research and the discipline: sometimes it might be called the 'literature review' and sometimes it might be given a title that reflects the topic being reviewed. Whatever it's called and wherever it's positioned within a thesis, the literature review's role is an important one within the thesis.

## References

Bell, J. (1987). *Doing your research project* Bristol: Open University.

Murison, E. & Webb, C. (1991). *Writing a Research Paper* Sydney: Learning Assistance Centre, University of Sydney.

*Writing up research* Language Centre, Asian Institute of Technology at <http://www.clet.ait.ac.th/el21open.htm> - accessed 30/5/05

*Writing at the University of Toronto* University of Toronto at <http://www.utoronto.ca/writing/index.html> - accessed 30/5/05