

What should a literature review do?

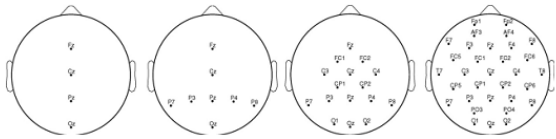
- Compare and contrast different authors' views on an issue
- Group authors who draw similar conclusions
- Criticise aspects of methodology
- Note areas in which authors are in disagreement
- Highlight exemplary studies
- Highlight gaps in research
- Show how your study relates to previous studies
- Show how your study relates to the literature in general
- Conclude by summarising what the literature says

What is its purpose?

- To define and limit the problem you are working on
- To place your study in an historical perspective
- To avoid unnecessary duplication
- To evaluate promising research methods
- To relate your findings to previous knowledge and suggest further research

What makes a good or bad literature review?

Good	Bad
<p data-bbox="203 1213 776 1283"><i>Analyses</i> information by finding evidence to support generalisations.</p> <p data-bbox="203 1318 256 1352">E.g.</p> <p data-bbox="203 1388 800 1583">The following section similarly describes the various categories of technology that are commonly utilized in gesture based systems. The limitations and common issues encountered when using such technologies are also discussed.</p> <p data-bbox="203 1619 753 1787">Gesture recognition systems fall into two main categories: those that require motion sensing devices be attached to the user (marker based), and those that utilize spatial tracking (markerless).</p>	<p data-bbox="823 1213 1370 1283">Simply describes what has been written in another paper.</p> <p data-bbox="823 1318 876 1352">E.g.</p> <p data-bbox="823 1388 1385 1556">In another study, user acceptance for a Sony AIBO and a battery-driven toy dog was compared at a geriatric health care facility which housed patients with severe dementia[5] ...</p> <p data-bbox="823 1591 1409 1724">In general, the results revealed increased levels of social interaction in the presence of both the AIBO and the toy dog ...</p> <p data-bbox="823 1759 1409 1892">A user study carried out at the University of Auckland in 2009 investigated age and gender factors that influence acceptance of robots in the healthcare industry[6].</p>

Good	Bad
<p><i>Synthesises</i> information by compiling information in a different way.</p> <p>E.g. creating a new set of principles based on other peoples work.</p> <ol style="list-style-type: none"> 1. Principle of Semiotic Clarity: There should be a 1:1 correspondence between semantic constructs and graphical symbols. 2. Principle of Perceptual Discriminability: Different symbols should be clearly distinguishable from each other. 3. Principle of Semantic Transparency: Use visual representations whose appearance suggests their meaning. <p><i>Evaluates</i> information to support an argument.</p> <p>E.g. Active video games can improve the physical activity of individuals and activity levels from active video games are significant enough to be considered as exercising, however because of limitations of the studies such as having minimal number of participants per study (below 50) and the studies being carried out in a short term (below 24 weeks), there is not enough evidence to conclude that active video games promote healthier behavior in the future.</p> <p>E.g. Detailed analysis shows that [the cognitive dimensions] has serious theoretical and practical limitations for evaluating and designing visual notations [86]:</p> <ul style="list-style-type: none"> • It is not specifically focused on visual notations and only applies to them as a special case (as a particular class of cognitive artifacts) [43]. • The dimensions are vaguely defined, often leading to confusion or misinterpretation in applying them [25, 43]. 	<p>Simply describes what has been written in another paper.</p> <p>E.g.</p> <p>In order to obtain the choicest signals from the BCI system, the number and placement of the electrodes must be taken into consideration. The best way to determine the most rewarding arrangement is by experimenting, using varying placements. The most extensive research on electrode placement was done by [5] where four electrode-placement combinations were tested. These used 4, 8, 16 and 32 electrode combinations respectively; this can be seen in Figure 1. On the other hand, [1] used 5 bipolar electrodes placed at positions C3, Cz, C4, O1 and O2.</p>  <p><i>This is bad because it doesn't generalise what [1] and [5] found out about placing electrodes. It just shows different ways of placing them. Anyone can tell you that. Not anyone can give you insight into what works well and what doesn't when placing electrodes though... That's what it should have commented on.</i></p>

Exercise:

Look at your literature reviews overall structure, reflect on it and rewrite it so it better supports analysis, synthesis and evaluation. If you don't have one then make a structure for one now.