

Reading research papers- some guidelines

In reading papers, it is useful to ask the following:

- What is the background to the paper- that is, the historical context? What was known before the present study was performed?
- What is the broad question that the authors wish to ask- for example, how does the embryo decide to form a neural tube?
- What is the specific question that the authors ask- for example, what is the role of the actin gene in regulating neural tube formation?
- What hypotheses are proposed and tested?
- What experimental approach is taken to ask the specific hypotheses? That is, for each figure what experiments were performed? What aspect of the specific question does each experiment address?
- Are the experimental approaches appropriate, or would some other approach have been more definitive?
- Have appropriate controls been performed?
- Are you convinced by the conclusions that the authors draw from each experiment?
- Are the hypotheses made supported or not supported?
- Have the authors answered the specific question they set out to? Do you think they have contributed a substantial or just a small increase to understanding the broad question?
- What experiments would logically follow from this study?