

Checklist: Writing a Research Article

- The **title** emphasizes what is most important about the paper (often the main conclusion but sometimes also the methods used)
- The **abstract** reads like a mini-version of your paper, complete with statements on the background, scientific question or goal, approach, results, interpretation, and conclusion
- The **abstract** contains keywords that other scientists are likely to enter into searchable online databases
- The **introduction** allows a reader to understand the relevant work that preceded your paper, your scientific question or goal, your approach to achieving your goal and a brief summary of your main findings
- The **introduction** does not contain any information that is irrelevant to the rest of the paper
- The **abstract** and **introduction** clearly state why your research is important and novel
- The **methods** section is detailed enough to allow another scientist in your field to duplicate your experiments with exactly the same reagents, equipment, computer software, and strains of model organisms
- Each experiment described in the **results** section contains its own rationale, statement of methods, result, and conclusion
- The **results** are described in a logical order that fits into a scientific narrative (and not necessarily the order with which you performed the experiments)
- Figures** and **figure legends** contain all information necessary to understand the major experiments without a reader having to consult the main text
- The **discussion** highlights the contributions of your experiments to your field and analyzes results that readers are likely to find most puzzling or interesting
- The **discussion** does not read like a recapitulation of your results section
- The **discussion** contains a final conclusive paragraph or statement that serves as a final “take-home” message for your readers
- The **references** you cite are the most appropriate for describing previous studies in the field, usually primary research articles instead of reviews
- The **references** cite multiple authors within your field and investigators likely to be asked to review your submission
- The manuscript follows all directions specified by the journal to which you are submitting
- The manuscript is completely free of errors, typos, and grammatical mistakes
- You have solicited and received feedback from multiple colleagues on both content and style