



Description

Increasingly, academic and scientific journals are *requiring* authors to submit their manuscripts with additional or supplemental material. These requirements can be found in the instructions for author's page on each journal's website.

What is supplementary material? In brief, supplementary material includes *anything* that is relevant to your study or paper but is not included in the paper itself. The most common forms of supplementary material are as follows:

- Supplementary datasets
- Additional materials and methods information
- Charts and graphs describing any aspect of the study
- Genetic information in standard genetic nomenclature
- Chemical information, including chemical drawings
- Multimedia files like video or audio files
- Images used to obtain results from imaging systems
- Large data tables that are not practical to include in the manuscript itself

There may be many other forms of electronic supplementary material, and they all play a role in the preservation of scientific work.

Related: Done submitting supplementary material to your target journal? [Check out why data sharing is critical now!](#)

Top 4 Reasons Supplementary Material is Necessary

Some authors may think that they do not need to prepare supplementary materials for papers, or that they can include multimedia in the paper if it is really important. Although this might be true for some journals that do not accept supplementary submissions, in general, all authors should try to prepare such materials. Here are the top four reasons why.

1. Most importantly, supplementary materials are important for scientific progress. By including your extended methods, datasets, and results online, you make it possible for other researchers to

assess your work and, if necessary, to reproduce your findings. Replicability or reproducibility is one of the golden standards of the scientific method.

2. Supplementary materials make it easier for readers to find your paper. If readers do not subscribe to the journal, they may discover your supplementary materials online and the materials may lead them to your paper. Supplemental material “makes your article more discoverable, giving people another route to find your research.”
3. Publishing supplementary materials may help with plagiarism prevention. If your extended methods, materials, and data sets are online, a plagiarism detector can identify anyone attempting to plagiarize. Some research grants may require evidence of your past data collection, so having online data in the form of supplementary material helps you meet requirements for funding.
4. Online versions of your supplementary material provide a backup copy. If you accidentally lose your data or methods owing to a computer crash, you can be assured that the data still exists online in the journal’s electronic supplement database.

How Do I Prepare Supplementary Material?

There is no one answer to this question because every journal has a different standard for its supplements. When you start to prepare your manuscript text for publication, *always* check your target journal’s author guidelines. These guidelines will tell you how the journal prefers you to submit your supplementary material. Journals also have different standards governing what can be included as a supplement. For example, most journals require authors to describe the materials and methods in the manuscript text. However, *Science* [now requires authors](#) to submit most of their materials and methods information as a supplement.

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Next, determine how you should package the supplemental files and how you should reference them in the text. Some journals may request that each supplementary material is a separate file. Other journals may prefer that they are all contained in a single .pdf or .doc file. Further, some journals may request that you send all supplements in a .zip archive. If you submit supplementary materials, you may be required to reference them in the main text of the manuscript. Many journals have a specific format for these references. The bottom line is to always submit supplementary materials if possible, and always carefully check the requirements at your target journal’s website.

What are your biggest questions about supplemental materials? Have [supplementary materials](#) helped in your publications? Leave us a comment to let us know!

Category

1. Journal Guidelines
2. Reporting Research

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