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Writing an Abstract

What is an abstract?
An abstract is a 150- to 250-word paragraph that provides readers with a quick overview of your essay or report and its organization. It should express your thesis (or central idea) and your key points; it should also suggest any implications or applications of the research you discuss in the paper.

According to Carole Slade, an abstract is "a concise summary of the entire paper."
- The function of an abstract is to describe, not to evaluate or defend, the paper.
- The abstract should begin with a brief but precise statement of the problem or issue, followed by a description of the research method and design, the major findings, and the conclusions reached.
- The abstract should contain the most important key words referring to method and content: these facilitate access to the abstract by computer search and enable a reader to decide whether to read the entire dissertation.

Note: Your abstract should read like an overview of your paper, *not* a proposal for what you intended to study or accomplish. Avoid beginning your sentences with phrases like, "This essay will examine…" or "In this research paper I will attempt to prove..."

Bad abstract:	**Good abstract:**
This paper will look at the human genome project and its goals. I will prove that scientists have ethical and moral questions about genetic engineering because of this project.	Begun in 1988, the human genome project intends to map the 23 chromosomes that provide the blueprint for the human species. The project has both scientific and ethical goals. The scientific goals underscore the advantages of the genome project, including identifying and curing diseases and enabling people to select the traits of their offspring, among other opportunities. Ethically, however, the project raises serious questions about the morality of genetic engineering. To handle both the medical opportunities and ethical dilemmas posed by the genome project, scientists need to develop a clear set of principles for genetic engineering and to continue educating the public about the genome project.

(The examples above are taken from Form and Style (10th ed.), *by Carole Slade;* The Scott, Foresman Handbook for Writers (5th ed.); *and the* Publication Manual of the American Psychological Association (5th ed.).)

Note: The following are specifications for an abstract in APA style, used in the social sciences, such as psychology or anthropology. If you are in another discipline, check with your professor about the format for the abstract.

Writing an Abstract for an IMRaD Paper

Many papers in the social sciences, natural sciences, and engineering sciences follow IMRaD structure: their main sections are entitled Introduction, Methods, Results, and Discussion. People use the abstract to decide whether to read the rest of the paper, so the abstract for such a paper is important.

Because the abstract provides the highlights of the paper, you should draft your abstract *after* you have written a full draft of the paper. Doing so, you can summarize what you've already written in the paper as you compose the abstract.

Typically, an abstract for an IMRaD paper or presentation is one or two paragraphs long (120 – 500 words). Abstracts usually spend

- 25% of their space on the purpose and importance of the research (Introduction)
- 25% of their space on what you did (Methods)
- 35% of their space on what you found (Results)
- 15% of their space on the implications of the research

Sample IMRaD abstract:

Purpose	This paper analyzes how novices and experts can safely adapt and transfer their skills to new technology in the medical domain. To answer this question, we
Methods	compared the performance of 12 novices (medical students) with the performance of 12 laparoscopic surgeons (using a 2D view) and 4 robotic surgeons, using a
Results	new robotic system that allows 2D and 3D view. Our results showed a trivial effect of expertise (surgeons generally performed better than novices). Results also revealed that experts have adaptive transfer capacities and are able to transfer their skills independently of the human-machine system. However, the expert's performance may be disturbed by changes in their usual environment. From a
Implications	safety perspective, this study emphasizes the need to take into account the impact of these environmental changes along with the expert's adaptive capacities.

Try to avoid these common problems in IMRaD abstracts:

1. The abstract provides a statement of what the paper will ask or explore rather than what it found:

   X This report examines the causes of oversleeping. *(What did it find out about these causes?)*
   √ Individuals oversleep because they go to bed too late, forget to set their alarms, and keep their rooms dark.

2. The abstract provides general categories rather than specific details in the findings:

   X The study draws conclusions about which variables are most important in choosing a movie theater. *(What, specifically, are these variables?)*
   √ The study concludes that the most important variables in choosing a movie theater are comfortable seats and high-quality popcorn.