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Writing@CSU Writing Guide

Abstracts

Abstracts are formal summaries writers prepare of their completed work. Abstracts are important tools for readers, especially as they try to keep up with an explosion of information in print and on the Internet.

Definition of Abstract

Abstracts, like all summaries, cover the main points of a piece of writing. Unlike executive summaries written for non-specialist audiences, abstracts use the same level of technical language and expertise found in the article itself. And unlike general summaries which can be adapted in many ways to meet various readers' and writers' needs, abstracts are typically 150 to 250 words and follow set patterns.

Because readers use abstracts for set purposes, these purposes further define abstracts.

Purposes for Abstracts

Abstracts typically serve five main goals:

Help readers decide if they should read an entire article

Readers use abstracts to see if a piece of writing interests them or relates to a topic they're working on. Rather than tracking down hundreds of articles, readers rely on abstracts to decide quickly if an article is pertinent. Equally important, readers use

abstracts to help them gauge the sophistication or complexity of a piece of writing. If the abstract is too technical or too simplistic, readers know that the article will also be too technical or too simplistic.

Help readers and researchers remember key findings on a topic

Even after reading an article, readers often keep abstracts to remind them of which sources support conclusions. Because abstracts include complete bibliographic citations, they are helpful when readers begin writing up their research and citing sources.

Help readers understand a text by acting as a pre-reading outline of key points

Like other pre-reading strategies, reading an abstract before reading an article helps readers anticipate what's coming in the text itself. Using an abstract to get an overview of the text makes reading the text easier and more efficient.

Index articles for quick recovery and cross-referencing

Even before computers made indexing easier, abstracts helped librarians and researchers find information more easily. With so many indexes now available electronically, abstracts with their keywords are even more important because readers can review hundreds of abstracts quickly to find the ones most useful for their research. Moreover, cross-referencing through abstracts opens up new areas of research that readers might not have known about when they started researching a topic.

Allow supervisors to review technical work without becoming bogged down in details

Although many managers and supervisors will prefer the less technical executive summary, some managers need to keep abreast of technical work. Research shows that only 15% of managers read the complete text of reports or articles. Most managers, then, rely on the executive summary or abstract as the clearest overview of employees' work.

Types of Abstracts

Although you'll see two types of abstracts—informative and descriptive—most writers now provide informative abstracts of their work.

Descriptive Abstract

A descriptive abstract outlines the topics covered in a piece of writing so the reader can decide whether to read the entire document. In many ways, the descriptive abstract is like a table of contents in paragraph form. Unlike reading an informative abstract, reading a descriptive abstract cannot substitute for reading the document because it does not capture the content of the piece. Nor does a descriptive abstract fulfill the other main goals of abstracts as well as informative abstracts do. For all these reasons, descriptive abstracts are less and less common. Check with your instructor or the editor of the journal to which you are submitting a paper for details on the appropriate type of abstract for your audience.

Informative Abstract

An informative abstract provides detail about the substance of a piece of writing because readers will sometimes rely on the abstract alone for information. Informative abstracts typically follow this format:

1. Identifying information (bibliographic citation or other identification of the document)
2. Concise restatement of the main point, including the initial problem or other background
3. Methodology (for experimental work) and key findings
4. Major conclusions

Informative abstracts usually appear in indexes like *Dissertation Abstracts International*; however, your instructor may ask you to write one as a cover sheet to a paper as well.

A More Detailed Comparison of Descriptive vs. Informative

The typical distinction between descriptive and informative is that the descriptive abstract is like a table of contents whereas the informative abstract lays out the content of the document. To show the differences as clearly as possible, we compare a shortened Table of Contents for a 100-page legal argument presented by the FDA and an informative abstract of the judge's decision in the case.

Related Information: Informative Abstract of the Decision

Summary of Federal District Court's Ruling on FDA's Jurisdiction Over, and Regulation of, Cigarettes and Smokeless Tobacco

May 2, 1997

http://www.fda.gov/opacom/backgrounders/bg97-9.html

On April 25, 1997, Judge William Osteen of the Federal District Court in Greensboro, North Carolina, ruled that FDA has jurisdiction under the Federal Food, Drug, and Cosmetic Act to regulate nicotine-containing cigarettes and smokeless tobacco. The Court held that "tobacco products fit within the FDCA's definitions of drug and device, and that FDA can regulate cigarettes and smokeless tobacco products as drug delivery devices under the combination product and restricted device provisions of the Act.

With respect to the tobacco rule, the Court upheld all restrictions involving youth access and labeling, including two access provisions that went into effect Feb. 28: (1) the prohibition on sales of cigarettes and smokeless tobacco products to children and adolescents under 18, and (2) the requirement that retailers check photo identification of customers who are under 27 years of age.

The Court also upheld additional access and labeling restrictions originally scheduled to go into effect Aug. 28, 1997, including a prohibition on self-service displays and the placement of vending machines where children have

access to them. The Court also upheld the ban on distribution of free samples, the sale of so-called kiddie packs of less than 20 cigarettes, and the sale of individual cigarettes. However, the Court delayed implementation of the provisions that have not yet gone into effect pending further action by the Court.

The Court invalidated on statutory grounds FDA's restrictions on the advertising and promotion of cigarettes and smokeless tobacco. Judge Osteen found that the statutory provision relied on by FDA, section 520(e) of the Act (21 U.S.C. 360j(e)), does not provide FDA with authority to regulate the advertising and promotion of tobacco products. Specifically, the Court found that the authority in that section to set "such other conditions" on the sale, distribution, or use of a restricted device does not encompass advertising restrictions. Because Judge Osteen based his ruling on the advertising provisions on purely statutory grounds, he declined to consider the First Amendment challenge to those parts of the rule. The government is appealing the advertising portion of the ruling.

(accessed January 26, 1998)

Related Information: Sample Descriptive Abstract

"Bonanza Creek LTER [Long Term Ecological Research] 1997 Annual Progress Report"
http://www.lter.alaska.edu/pubs/1997pr.html

We continue to document all major climatic variables in the uplands and floodplains at Bonanza Creek. In addition, we have documented the successional changes in microclimate in 9 successional upland and floodplain stands at Bonanza Creek (BNZ) and in four elevational locations at Caribou-Poker Creek (CPCRW). A sun photometer is operated cooperatively with NASA to estimate high-latitude atmospheric extinction coefficients for remote-sensing images. Electronic data are collected monthly and loaded into a database which produces monthly summaries. The data are checked for errors, documented, and placed on-line on the BNZ Web page. Climate data

for the entire state have been summarized for the period of station records and krieged to produce maps of climate zones for Alaska based on growing-season and annual temperature and precipitation.

(accessed January 26, 1998)

Related Information: Sample Informative Abstract based on Experimental Work

Palmquist, M., & Young, R. (1992). The Notion of Giftedness and Student Expectations About Writing. *Written Communication,* 9(1), 137-168.

Research reported by Daly, Miller, and their colleagues suggests that writing apprehension is related to a number of factors we do not yet fully understand. This study suggests that included among those factors should be the belief that writing ability is a gift. Giftedness, as it is referred to in the study, is roughly equivalent to the Romantic notion of original genius. Results from a survey of 247 postsecondary students enrolled in introductory writing courses at two institutions indicate that higher levels of belief in giftedness are correlated with higher levels of writing apprehension, lower self-assessments of writing ability, lower levels of confidence in achieving proficiency in certain writing activities and genres, and lower self-assessments of prior experience with writing instructors. Significant differences in levels of belief in giftedness were also found among students who differed in their perceptions of the most important purpose for writing, with students who identified "to express your own feelings about something" as the most important purpose for writing having the highest mean level of belief in giftedness. Although the validity of the notion that writing ability is a special gift is not directly addressed, the results suggest that belief in giftedness may have deleterious effects on student writers.

Related Information: Sample Informative Abstract based on Non-experimental Work

Environmental Impact Statement. Federal Register: December 11, 1997 (Volume 62, Number 238). "Endangered and Threatened Wildlife and Plants; Proposed Revision of Special Regulations for the Gray Wolf." Fish and Wildlife Service, Department of the Interior.

http://www.epa.gov/fedrgstr/EPA-SPECIES/1997/December/Day-11/e32440.htm

On November 22, 1994, the U.S. Fish and Wildlife Service published special rules to establish nonessential experimental populations of gray wolves (Canis lupus) in Yellowstone National Park and central Idaho. The nonessential experimental population areas include all of Wyoming, most of Idaho, and much of central and southern Montana. A close reading of the special regulations indicates that, unintentionally, the language reads as though wolf control measures apply only outside of the experimental population area. This proposed revision is intended to amend language in the special regulations so that it clearly applies within the Yellowstone nonessential experimental population area and the central Idaho nonessential experimental population area. This proposed change will not affect any of the assumptions and earlier analysis made in the environmental impact statement or other portions of the special rules. (accessed January 26, 1998)

Related Information: Table of Contents of the Argument

Court Brief (edited Table of Contents) Filed Dec. 2, 1996, by the Department of Justice in defense of FDA's determination of jurisdiction over cigarettes and smokeless tobacco products and its regulations restricting those products to protect children and adolescents. http://www.usdoj.gov/civil/cases/tocnts.htm
Statement of the matter before the court; statement of material facts

1. The health effects of cigarettes and smokeless tobacco
2. The basis for the assertion of jurisdiction
    1. The evidence that nicotine in cigarettes and smokeless tobacco "affect[s] the structure or any function of the body"

2. The evidence that the pharmacological effects of nicotine in cigarettes and smokeless tobacco are "intended"
3. The evidence that cigarettes and smokeless tobacco are "combination products"

3. The rule
    1. Cigarettes and smokeless tobacco as combination products
    2. The regulatory goal
    3. Youth access restrictions
    4. Advertising and promotion restrictions

Questions Presented

Arguments

Congress has not precluded FDA from regulating cigarettes and smokeless tobacco under the FDCA.

1. "Customarily marketed" cigarettes and smokeless tobacco are not exempt from regulation under the FDCA
    1. Standard of review: Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.
    2. Chevron, step one
    3. Chevron, step two: FDA's application of the FDCA to cigarettes and smokeless tobacco is "based on a permissible construction of the statute"

2. The Federal Cigarette Labeling and Advertising Act, Comprehensive Smokeless Tobacco Health Education Act, and the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act do not foreclose FDA from regulating cigarettes and smokeless tobacco under the FDCA
    1. No statute, or combination of statutes, can override the FDCA in the absence of express preclusion or other clearly expressed Congressional intent
    2. Federal Cigarette Labeling and Advertising Act
    3. Comprehensive Smokeless Tobacco Health Education Act
    4. Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act

3. The separation of powers doctrine does not prohibit FDA's regulation of tobacco products

Nicotine in cigarettes and smokeless tobacco is a drug, and cigarettes and smokeless tobacco are drug delivery devices under the FDCA.

1. Cigarettes and smokeless tobacco fall squarely within the Act's drug and device definitions
    1. Cigarettes and smokeless tobacco "affect the structure or any function of the body"
    2. Nicotine's effects are intended by the manufacturers

2. FDA's application of the medical device provisions to cigarettes and smokeless tobacco does not affect FDA's jurisdiction over these products
    1. Cigarettes and smokeless tobacco are combination drug/device products and may be regulated under the Act's device authorities
    2. FDA's application of device provisions to cigarettes and smokeless tobacco is reasonable

The restrictions imposed by FDA on advertising and other promotion of cigarettes and smokeless tobacco are fully consistent with the first amendment.

1. The agency's regulations must be judged pursuant to the Supreme Court's Central Hudson standard
    1. The Central Hudson standard and the proper First Amendment analysis
    2. Recent rulings by the Supreme Court in 44 Liquormart, and by the Fourth Circuit in Anheuser-Busch and Penn Advertising
    3. In applying the Central Hudson test, the Court's decision should be based on the record created by the Agency, and the reasonable determinations made by FDA are not to be disregarded

2. The government's interest here is plainly substantial
3. FDA has demonstrated that advertising affects tobacco use by minors, to the detriment of the public health, and that the agency's restrictions on advertising of these products should alleviate that problem to a material degree

4. FDA's advertising restrictions are narrowly tailored
    1. The restrictions are designed to preserve the flow of information to lawful consumers
    2. The availability of non-Speech related regulatory alternatives does not invalidate FDA's regulations
    3. Each of FDA's individual advertising restrictions is narrowly tailored

Conclusion

(accessed January 26, 1998)

Bibliographic Citation or Identification

As more and more databases are stored and accessed electronically, abstracts are more frequently reproduced apart from the entire article or document. In a large corporation or government entity, for instance, an abstract of a progress report might be circulated and stored in a dozen offices or on multiple computers even though the report itself is filed in only one location. Clear identification is crucial so that readers who want to review the entire text can locate it from the information given with the abstract.

Depending on where your writing is printed and stored, you'll need to include different kinds of identifying information with your abstract:

Bibliographic Citation

If your writing will be printed and disseminated as a book, part of a book, or an article in a journal or magazine, give a full bibliographic citation that includes all the publication information so that readers can find print copies of the article (even if your abstract will appear in unrelated electronic databases). For example, an abstract for a journal article begins with this citation:

> Harris, L.D., & Wambeam, C.A. (1996). The Internet-Based Composition Classroom: A Study in Pedagogy. *Computers and Composition*, 13(3), 353-372.

Organizational Identification

If your abstract is part of a corporate or government document that will not be printed or disseminated outside the organization, you need only include your name, the title of the document, its completion date, a project name (if you produced the document as part of the work on a larger project), and an authorization or organizational number (if there is one).

If your abstract will be circulated outside your organization (for instance, if you work for a consulting company that writes reports for other companies), add to the information above: your company or organization name, the name of the organization that commissioned the document, a contract number (if there is one), a security classification (as appropriate for government documents), and key words to help in cataloguing your abstract.

Internet Citation

If you're "publishing" your own work on the World Wide Web or if your writing will appear on the Internet as part of a full-text electronic database, you can save readers time by citing the Internet address for the full text. Typically, writers note **both** print publication information and the URL (universal resource locator)--the *http* or *www* address--with the abstract.

For example, one of the abstracts cited in this module has this citation that includes both bibliographic information and the Internet address:

> Environmental Impact Statement. "Endangered and Threatened Wildlife and Plants; Proposed Revision of Special Regulations for the Gray Wolf." Federal Register: December 11, 1997 (Volume 62, Number 238). Fish and Wildlife Service, Department of the Interior. *http://www.epa.gov /fedrgstr/EPA-SPECIES/1997/December/Day-11/e32440.htm*

Processes for Writing Abstracts

Unless you work for an abstracting service, you'll usually write abstracts of your own finished work. This section explores some strategies for drafting your abstract.

Cut and Paste Method

Beginning with reading may seem odd since you wrote the paper, but it can frequently be the fastest way to write an abstract because it allows you to "lift" as much of the abstract from your original paper as possible.

1. As you read through your own paper, highlight or copy sentences which summarize the entire paper or individual sections or sub-points of your main argument.
2. Write (or copy) a sentence that summarizes the main point.
3. Add sentences that summarize sections (or write new sentences for sections that lack a concise summary sentence).
4. If you're writing a descriptive abstract, you're ready to begin revising.
5. If you're writing an informative abstract, look through your paper for details, particularly of key findings or major supporting arguments and major conclusions. Paste these into your abstract and proceed to editing for consistency and length--frequently in the original "cuts" you will still have more detail than is necessary in an abstract.

Outlining Method

Frequently, the best place to start writing an abstract is to first make an outline of the paper to serve as a rough draft of your abstract. The most efficient way to do this is to write what Kenneth Bruffee calls a descriptive or "backwards" outline.

Backwards Outline Instructions

1. Read through each paragraph of your paper and write one phrase or sentence that answers the question "what does this paragraph do?"
2. Take your list of descriptions for each paragraph and look for connections: i.e., do these 3 or 5 paragraphs do something similar? What is it?
3. When you've reduced your outline to 4 or 5 accurate generalizations, you most likely have a descriptive abstract.
4. If you're writing an informative abstract, fill in key details about your content.

Detailed Backwards Outline

Because informative abstracts need more detail, the regular backwards outline may not be as useful a strategy for this type of abstract. Instead, do a backwards outline on the left-hand side of a piece of paper. Then, on the right-hand side, answer the

question "what does this paragraph *say?"* for each paragraph in the paper. Then complete the steps below:

1. Take your first column and generalize down to 4-5 sentences about what the paper *does.*
2. Use these sentences as topic sentences for the paragraphs in your abstract.
3. Now, go to your second column and choose appropriate content for each section you outlined in #2. In other words, use the right-hand column to fill in details about what your paper says on each point outlined in #2.

Key Issues in Preparing Abstracts

Concise, Accurate Statement of the Main Idea

Abstracts begin with a one-sentence summary of the main point of your paper and often introduce the problem the paper explores. Especially for papers based on research, the first sentence (or two) of the abstract announces the subject and scope of the research as well as the problem and your thesis. That's quite a bit of information to condense into a sentence or two, and so the concise statement of the main idea often takes careful revision.

Condensing Information for Non-research Papers

Most non-research papers can be summed up in a nutshell statement—a single sentence that boils down a paper to its essential main point and doesn't aim to capture details, supporting arguments, or types of proof.

One-sentence Summaries for Different Types of Papers
Each of these non-research papers summarizes its main point based on its overall purpose:

> This paper argues that the "saving democracy" rhetoric surrounding the Gulf War was merely a mask for the U.S.'s interest in keeping oil prices down. (From a political science paper whose purpose was to construct an *argument*.)

Ethnography and ethnology are the preferred research methods of many anthropologists. (From an anthropology paper whose purpose was to *inform* others about a research methodology.)

Condensing Information for Research Papers

In addition to stating the main point of the paper, research-based papers often need to set up the context and scope of the research as well. Setting the context includes stating the subject of your work as well as the problem that prompted your research. You might also refer to major researchers who have already done work on your topic as a way of setting the context. Remember, too, that your abstract must always include the main point of your paper, so don't neglect that focus as you work on stating the problem and context. Click on the following links to view examples of condensed statements in research papers:

> ## Related Information: Example 1
>
> In this example, note that the writer uses the names of key researchers to set the context and then focuses on what researchers don't yet know. After setting up the problem he's addressing in the research, the writer then announces the scope and focus of the paper in the second sentence:
>
> > Research reported by Daly, Miller, and their colleagues suggests that writing apprehension is related to a number of factors we do not yet fully understand. This study suggests that included among those factors should be the belief that writing ability is a gift. . . .

> ## Related Information: Example 2
>
> In this example, the writer announces the subject and scope of the research although he doesn't set context or suggest the problem that prompted the research. Depending on your ultimate goals for the abstract, you may be more successful with this approach that states the main point of your research paper even without setting context:

> This report examines the changes in photosynthesis with an energy-producing carnivorous plants, specifically the Venus Fly Trap. (From a botany research report which involved original lab research.)

Beware of Focusing too Narrowly

No one who has ever written a concise restatement of a complex point will claim that the work was easy or straightforward. Usually, a writer needs to work back and forth between revising the restatement and re-reading the paper to be sure the main idea is stated accurately and clearly. Having worked so hard on that point, though, don't assume that you don't need to revise other parts of your abstract. In this example, the writer restates only the main point and dismisses key information from the 15-page document that should be included in the abstract.

Sample Abstract with Overly Narrow Focus

Community Right-to-Know Notice. *Federal Register*: January 23, 1998 (Volume 63, Number 15). "Phosphoric Acid; Toxic Chemical Release Reporting." Environmental Protection Agency (EPA).

http://www.epa.gov/fedrgstr/EPA-WASTE/1998/January/Day-23/f1644.htm

EPA is denying a petition to delete phosphoric acid from the reporting requirements under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and section 6607 of the Pollution Prevention Act of 1990 (PPA). This action is based on EPA's conclusion that phosphoric acid does not meet the deletion criteria of EPCRA section 313(d)(3). Specifically, EPA is denying this petition because EPA's review of the petition and available information resulted in the conclusion that phosphoric acid meets the listing criterion in EPCRA section 313 (d)(2)(C) in that the phosphates that result from the neutralization of phosphoric acid may cause algal blooms. Algal blooms result in deoxygenation of the water and other effects that may ultimately lead to a number of serious adverse effects on ecosystems, including fish kills and changes in the composition of animal and plant life.

(accessed January 26, 1998)

Test Your Ability to Judge Conciseness

The biggest problem writers run into when beginning an abstract is providing enough accurate information to convey an article's main idea without providing more detail than is needed. To test your ability to judge conciseness, read the detailed summary below, and then judge sample restatements of the main idea.

A Detailed Summary

A summary of: Jaime O'Neill, No Allusions in the Classroom, *Newsweek*, September 23, 1985.

Author Jaime O'Neill's article, "No Allusions in the Classroom," emphasizes the communication problem between teachers and students due to the students' lack of basic knowledge. The author supports this assertion by using a combination of personal experience, evidence obtained from recent polls, other professors' opinions, and the results of an experiment he conducted in his own classroom. The experiment O'Neill conducted was an ungraded eighty-six question "general knowledge" test issued to students on the first day of classes. On this test, "most students answered incorrectly far more often than they answered correctly." Incorrect answers included fallacies such as: "Darwin invented gravity" and "Leningrad was in Jamaica." Compounding the problem, students don't ask questions. This means that their teachers assume they know things that they do not. O'Neill shows the scope of this problem by showing that, according to their teachers, this seems to be a typical problem across the United States. O'Neill feels that common knowledge in a society is essential to communicate. Without this common knowledge, learning is made much more difficult because teacher and student do not have a common body of knowledge from which to draw. The author shows the deterioration of common knowledge through poll results, personal experience, other teachers' opinions, and his own experiment's results.

Related Information: Restatement Test Answers

- In "No Allusions in the Classroom," professor Jaime M. O'Neill discusses the frustrations he had with his students not understanding his allusions.
  Is this a concise statement of the article's main idea?
  - **Yes** - This sentence is inaccurate. While O'Neill was frustrated that his students didn't understand his allusions, the reason he was frustrated is because this lack of knowledge led to a communication problem. The problem of communication in the classroom is O'Neill's main point. The students' misunderstanding of allusions only illustrates this point.
  - style="color:#0000ff;">**No** - While O'Neill was frustrated that his students didn't understand his allusions, the reason he was frustrated is because this lack of knowledge led to a communication problem. The problem of communication in the classroom is O'Neill's main point. The students' misunderstanding of allusions only illustrates this point.
- In the article "No Allusions in the Classroom," a teacher of 15 years, Jaime M. O'Neill exposes the overall lack of basic knowledge of college students in areas of history, geography, and politics.
  Is this a concise statement of the article's main idea?
  - **Yes** - While part of what O'Neill does is expose his students lack of knowledge, he is trying to demonstrate how that lack of knowledge leads to miscommunication. This sentence ignores the communication aspect of his main point.
  - style="color:#0000ff;">**No** - While part of what O'Neill does is expose his students lack of knowledge, he is trying to demonstrate how that lack of knowledge leads to miscommunication. This sentence ignores the communication aspect of his main point.
- In the article "No Allusions in the Classroom," the author, Jaime M. O'Neill relays his frustrations resulting from what he finds to be a lack of basic or common knowledge of the American student. He is a professor who has taught at several different colleges in the United States. Through his experiences in the classroom he noticed the fact that students were not catching on to his allusions. He states in the article that this miscommunication is causing a problem in the education process.
  Is this a concise statement of the article's main idea?
  - style="color:#ff0000;">**Yes** - While this statement is the most accurate so far (because it includes O'Neill's main point that a lack of common knowledge leads to miscommunication in the education

process), it fails to show the connection between the two parts of the main point. Nor is it concise, because it separates those two parts of the main point with irrelevant information.
    - **No** - While this statement is the most accurate so far (because it includes O'Neill's main point that a lack of common knowledge leads to miscommunication in the education process), it fails to show the connection between the two parts of the main point. Nor is it concise, because it separates those two parts of the main point with irrelevant information.
- In "No Allusion in the Classroom," by Jaime M. O'Neill, the problem of ignorance is discussed. Jaime O'Neill says that college students lack common knowledge and it is interfering with education.
  Is this a concise statement of the article's main idea?
    - style="color:#ff0000;">**Yes** - Though this is the best we've seen so far, it could still be improved slightly by combining the two sentences to make it more concise.
    - style="color:#0000ff;">**No** - Though this is the best we've seen so far, it could still be improved slightly by combining the two sentences to make it more concise.
- Author Jaime O'Neill's article "No Allusions in the Classroom", emphasized the communication problem between teachers and students due to the students' lack of basic knowledge.
  Is this a concise statement of the article's main idea?
    - style="color:#ff0000;">**Yes** - This is an accurate and concise portrayal of O'Neill's main idea.
    - style="color:#0000ff;">**No** - This is an accurate and concise portrayal of O'Neill's main idea.

Related Information: Sample Restatements of Main Idea

To test your ability to find a balance between insufficient/inaccurate information and too much information, judge these sample restatements of the main idea of Jaime O'Neill's article.

- In "No Allusions in the Classroom," professor Jaime M. O'Neill discusses the frustrations he had with his students not understanding his allusions.
  Is this a concise statement of the article's main idea?
  - Yes
  - No
- In the article "No Allusions in the Classroom," a teacher of 15 years, Jaime M. O'Neill exposes the overall lack of basic knowledge of college students in areas of history, geography, and politics.
  Is this a concise statement of the article's main idea?
  - Yes
  - No
- In the article "No Allusions in the Classroom," the author, Jaime M. O'Neill relays his frustrations resulting from what he finds to be a lack of basic or common knowledge of the American student. He is a professor who has taught at several different colleges in the United States. Through his experiences in the classroom he noticed the fact that students were not catching on to his allusions. He states in the article that this miscommunication is causing a problem in the education process.
  Is this a concise statement of the article's main idea?
  - Yes
  - No
- In "No Allusion in the Classroom," by Jaime M. O'Neill, the problem of ignorance is discussed. Jaime O'Neill says that college students lack common knowledge and it is interfering with education.
  Is this a concise statement of the article's main idea?
  - Yes
  - No
- Author Jaime O'Neill's article "No Allusions in the Classroom", emphasized the communication problem between teachers and students due to the students' lack of basic knowledge.
  Is this a concise statement of the article's main idea?
  - Yes
  - No

Organization of Subpoints

After a summary of the main topic/problem/point of your paper or report, the abstract provides some detail on how you reached this point. The information

provided in the abstract should follow the organization of the paper/report itself, almost like providing an outline for the reader in text form.

Related Information: Abstracts of Papers With Sub-Headings

When abstracting a paper that has headings and sub-headings, use those to help you identify key parts of the paper for your abstract. The following sample abstract, based on a research paper, uses the introduction, subjects, methods, results, and discussion headings from the original paper.

Note: The numbers in this abstract are for illustration purposes only. Number 1 designates a concise statement of the main point and "problem" prompting the research. Number 2 designates a summary of the selection of research subjects. Numbers 3 and 4 correspond to summaries of research methods and results, respectively, and Number 5 designates a summary of conclusions.

(1) "Students in networked classrooms" examines the question of whether students in a computer classroom are more likely to engage in peer review than students in traditional classrooms. **(2)** To test this question, two classes in each environment were studied. **(3)** An observer participated in all four classes for the duration of a semester, noting the nature of the interaction between students. Further, the observer interviewed both students and teachers about the nature of peer interaction and review. **(4)** Based on this sample, the study finds that students in computer classrooms are more likely, by a ratio of 2:1, to engage in peer review.**(5)** As a result of this finding, the paper concludes that for this one variable, computer classrooms are a more effective environment in which to teach writing.

Related Information: Abstracts of Papers Without Headings

When abstracting a paper that doesn't have headings and sub-headings, you must depend on your sense of major "chunks" in the text. As you'll see in the

following example, this writer followed his concise statement of the main point with two sentences that focus on the two main arguments presented in the paper.

Note: *The numbers in this abstract are for illustration purposes only. Number 1 designates a concise statement of the main point. Number 2 designates a summary statement of the first major argument and its support (five pages in the original article). Number 3 corresponds to a summary of the second major argument (two pages in the original), and Number 4 corresponds to the second argument's support (two pages).*

(1) This paper argues that the "saving democracy" rhetoric surrounding the Gulf War was merely a mask for the U.S.'s interest in keeping oil prices down. **(2)** Such an argument is made by first describing the ways in which OPEC controlled oil prices by limiting sales, pointing specifically to how Kuwait was producing more oil than allowed by current OPEC agreements. **(3)** Second, the paper examines why the U.S. was invested in keeping good relations with the only two OPEC nations--Kuwait and Saudi Arabia--which frequently made trade agreements that benefited the U.S. **(4)** Finally, the paper does a close reading of the newspaper coverage of the Gulf War, examining how an early recognition of the monetary incentive changed to a democratic one when Bush ordered trOops to Saudi Arabia.

Use of Details

Details should be used judiciously in abstracts. Determining the amount of detail to provide depends a great deal on what type of abstract you are writing (informative or descriptive), the complexity of the paper, the word limit for the abstract, and the purposes you imagine readers of your abstract have for reading.

Complexity of the Paper

An abstract of a five-page progress report is likely to be shorter than an abstract for a 100-page Master's thesis, mainly because a long paper will include more main

ideas, not just details. Keep in mind your readers and their reasons for reading your abstract. Focus your abstract on main ideas and provide only those details that are crucial for readers to understand your main points.

Word Limit for the Abstract

Some publications limit the length of abstracts to no more than 75 words. Others allow abstracts of complex documents to run up to 350 words. Be sure to check the publication's guidelines. If it has a low word limit, concentrate on capturing only main ideas from your paper. Don't try to cut a 200-word abstract down to 125 words by simply cutting connecting words, articles, etc. Even the shortest abstracts need to be readable, not telegraphic.

Readers' Purposes

If you're abstracting a report for technical managers, more detail is probably better. But if you're abstracting for a publication, readers will probably skim the abstract to see if they should read the article. Don't give readers more detail than you imagine they'll need to suit their primary goal in reading your abstract.

The five main purposes for abstracts are discussed elsewhere in this guide.

Revising and Editing

When you work from your own texts, abstracts are usually easy to draft. After all, most writers begin by cutting and pasting from the text itself. But abstracts can be tricky to revise and edit, particularly if you need to reach a low word count. In this section, we offer some advice on strategies for moving from a first draft of an abstract to a polished finished version.

Being Concise

When you cut and paste parts of your paper into your draft abstract, you may find that you initially include words and phrases that clarify the meaning in the paper but that simply add extra words in the abstract. Read your drafts carefully to cut unnecessary words. Note that the italicized words in the example can be cut without any loss of meaning in the abstract.

Palmquist, M. (1995). "Students in Networked Classrooms." *Computers and Composition, 10*(4), 25-57.

"Students in networked classrooms" examines *the question of* whether students in a computer classroom are more likely to engage in peer review than students in traditional classrooms. *To test this question*, two classes in each environment were studied. An observer participated in all four classes for the *duration of a* semester, noting *the nature of the* interaction between students. Further, the observer interviewed both students and teachers about *the nature of* peer interaction and review. *Based on this sample*, the study finds that students in computer classrooms are more likely, by a ratio of 2:1, to engage in peer review. *As a result of this finding* , the paper concludes that, for this one variable, computer classrooms are a more effective environment in which to teach writing.

Smoothing out Connections

After you revise for conciseness, you will also want to be sure that each sentence in your abstract leads smoothly into the next. Sometimes you need to add or change transitional words and phrases. Sometimes you need to repeat key words. And sometimes, you need to combine sentences so that the connections between ideas are logically clear.

In our example, we combine what were sentences 2 and 3 and the last two sentences.

Palmquist, M. (1995). "Students in Networked Classrooms." *Computers and Composition, 10*(4), 25-57.

This paper examines whether students in a computer classroom are more likely to engage in peer review than students in a traditional classroom. Two classes in each environment were observed, with the participant-observer noting interactions between students. Further, the observer interviewed both students and teachers about peer interaction and review. The study finds that students in computer

classrooms are twice as likely to engage in peer review and concludes that, for this one variable, computer classrooms are a more effective environment in which to teach writing.

Avoiding Telegraphic Abstracts

A highly condensed style can save money when you send a telegram but can make abstracts too dense. Don't cut articles (*a, an, the*) or connecting words that show relationships among ideas. Do repeat key words that show the content of your paper. Abstracts may be short, but they are meant to be readable.

Polishing Style

A reader looks at a summary for the sole purpose of getting a quick glimpse of the article. As a result, she doesn't want to waste time with a lot of phrases and words that do not further the meaning, nor is she interested in the summary writer's opinion. Accounting for audience needs, there are three generalizable principles about the style of summaries:

Use of "I"

Although use of "I" or "we" is acceptable in some disciplines, many frown on its use in abstracts. Read several abstracts in the publication you're submitting to or the databases you expect to include your abstract. When in doubt, do not use "I." Instead, use the following strategies:

Substitute for "I"
Most abstracts make the paper/report/study the focus of the abstract and the grammatical subject of sentences in the abstract. Try these sentence openers:

- This paper explores. . .
- This study suggests. . .
- The report investigates. . . .

Passive Voice In combination with substitutes for "I," passive voice helps writers focus on the paper/report/study. Instead of, "I propose that ethnography is a better research method than case study" (active voice), the abstract might use:

"Ethnography is proposed as a better research method than case study." (passive voice) Be sure to combine substitutes for "I" with passive voice to avoid overusing the passive.

Use of Quotes

When using your own sentences, you don't need to put them in quotation marks. For example, if your methods section begins with "Three methods were used to investigate this question: case study, surveys, and observational research," feel free to repeat the sentence in its entirety in the abstract. Remember, however, the following points:

- Revise the sentence so it makes sense in the abstract (i.e., if you have not summarized "this question" in the abstract, omit substitute for that phrase).
- Do not "lift" sentences which are not your own (i.e., quotes from other people's work).

Use of Literary Present Tense

Abstracts use the present tense because we assume texts speak to the present even if their authors are dead and/or wrote the words in the past. As a result, write about the text and/or author as if they were composing the words at the moment. For example:

- Hemingway describes Paris as.....
- The Declaration of Independence states that all men are created equal.

Caution: This rule varies from discipline to discipline.

Abstracts in Specific Disciplines

Abstracts have common elements and uses, but read enough abstracts in your field to be aware of their specific details or differences. Choose from the examples to see additional sample abstracts. The abstract from Civil Engineering includes instructor comments.

Civil Engineering

MASK Engineering has designed a performing arts center for the CSU campus in order to provide a complex that will better serve the campus and the community. This facility will not only improve the performing arts programs on campus but will encourage students and community members to attend more cultural events in Fort Collins. The capacity of the new facility will exceed that of existing structures on campus, and the quality of sound and aesthetics will be improved. Some of the features included are a large performing hall, a coffee shop, a banquet hall, and a recording studio. The total area of the complex is 56,500 square feet split into three levels.

Instructor Comments

This abstract summarizes the accomplishments of the project and what it will do. It also summarizes some of the actual design and indicates that it's going to include a performing hall, coffee shop, banquet hall, and recording studio.

The writing, however, could be a little tighter in my opinion. The first sentence looks like it's around 20 words long. First of all, the expression "will better service the campus and the community" doesn't mean anything. What does "better serve" mean? A better choice might be, "MASK Engineering has designed a new Performing Arts Center that will meet the needs of the theater community," or something more specific.

The second sentence is typical. It gives the particular vehicle for doing the programs. However, it implies that the facility improves programs, and I'm not sure that's quite the right subject for this sentence. Furthermore, there's no point to the word "but" here. There's no contrast here, so this is a grammatical problem. This kind of problem can be avoided through careful reading, asking what each sentence accomplishes.

The abstract gets stronger after this. "The capacity of the new facility will exceed that" is very specific. "The quality, sound and aesthetics will be improved. Some of the features included are this..." The writers are very good at being descriptive. I think engineering students are more comfortable with the descriptive aspect of their material than with the lead-in.

English

LeCourt, D. (1996. Composition's Theoretical Irony: WAC as Uncritical Pedagogy. *Journal of Advanced Composition, 16*(3), 389-406.

This paper argues that writing across the curriculum has failed to consider how its practices and theories serve to inscribe students within normalized discourses. As scholars such as Susan McLeod, Anne Herrington and Charles Moran begin to re-think the way writing-across-the-curriculum programs have situated themselves within composition theory, an intriguing disparity has presented itself between writing-to-learn and learning-to-write. As McLeod points out, these two approaches to WAC, which she designates the "cognitive" and the "rhetorical," respectively, exist in most programs simultaneously despite their radically different epistemological assumptions. This paper suggests, however, that despite the two approaches' seeming epistemological differences, they work toward a similar goal: the accommodation or inscription of (student) subjects into the various disciplinary strands of academic discourse. From a poststructural perspective, the goals of both these models function as a coherent technology of subject production. Writing to learn exercises provide a discursive space in which students learn to write themselves as subjects of the discourse, using the writing space to "practice" an integration of self with a disciplinary subjectivity. The rhetorical model reinforces such an integration even more strongly, providing explicit instruction in how the discursive subject must write herself in order to produce "effective" prose which mirrors the texts of other "speaking" subjects of the discourse. In sum, both approaches to WAC are subject to the same description and critique of how academic discourse seeks to inscribe students as subjects that has been forged against composition instruction in English departments (e.g., Schilb, Clifford, Faigley). Ironically, in WAC, we have presumed a clear mission for writing instruction that is not nearly so evident in our own approach to advanced literacy. The paper concludes, then, by offering yet a third model of WAC, one which suggests that students, as well as their instructors, engage in the investigative process of discovering how discursive conventions relate to their discipline's epistemology and consider how that connection limits what can be said or thought within that discourse.

Neurobiology

High Performance Computing Applications in Neurobiological Research; Muriel D. Ross, NASA Ames Research Center, Moffett Field, CA 94035; Kevin Montgomery, Sterling Software, Palo Alto, CA 94303; David G. Doshay, Sterling Software, Palo Alto, CA 94303; Thomas C. Chimento, Sterling Software, Palo Alto, CA 94303; Bruce R. Parnas, National Research Council Research Associate, Biocomputation Center, NASA Ames Research Center, Moffett Field, CA 94035

The human nervous system is a massively parallel processor of information. The vast numbers of neurons, synapses and circuits is daunting to those seeking to understand the neural basis of consciousness and intellect. Pervading obstacles are lack of knowledge of the detailed, three-dimensional (3-D) organization of even a simple neural system and the paucity of large scale, biologically relevant computer simulations. We use high performance graphics workstations and supercomputers to study the 3-D organization of gravity sensors as a prototypic architecture foreshadowing more complex systems. Scaled-down simulations run on a Silicon Graphics workstation and scaled-up, three-dimensional versions run on the Cray Y-MP and CM5 supercomputers.

To assist this research, we developed generalized computer-based methods for semiautomated, 3-D reconstruction of this tissue from transmission electron microscope (TEM) serial sections and for simulations of the reconstructed neurons and circuits. Sections are digitized directly from the TEM. Contours of objects are traced on the computer screen. Mosaicking images into sections, registration and visualization are automated. The same grids generated to connect contours for viewing objects provide tesselated surfaces for 1-D, 2-D and 3-D simulations of neuronal functioning. Finite element analysis of prism or segment volumes and color coding are used to track current spread after synapse activation. The biologically accurate simulation is reducible to a symbolic model that mimics the flow of information processing. Discharge patterns are displayed as spike trains. The symbolic model can be converted to an electronic circuit for potential implementation as a chip. The reconstructions can also be rendered in visual, sonic and tactile virtual media.

Using these methods, we demonstrated that gravity sensors are organized for parallel distributed processing of information. They have non-modular receptive fields that are organized into overlapping, dynamic cell assemblies. These provide a basis for functional degeneracy and graceful degradation. The sensors have two intrinsic microcircuits that are prototypic of more advanced systems. These microcircuits are highly channeled (type I cell to a nerve terminal called a calyx) and distributed modifying (type II cells and feedforward/feedback neural lOops). A circuit of extrinsic origin likely biases the intrinsic circuits. We use simulation methods to study the effects of intrinsic feedback-feedforward lOops and of extrinsically driven biases on discharge patterns. These and similar investigations into the functioning of huge assemblies of neurons require supercomputer capabilities and pave the way for studies of human brain functioning as a grand challenge in supercomputer applications.

http://biocomp.arc.nasa.gov/papers/hpc_abstract.94.html

(accessed February 3, 1998)

Geology

Department of the Interior - U.S. Geological Survey

Inventory of Landslides Triggered by the 1994 Northridge, California Earthquake
Edwin L. Harp and Randall W. Jibson
Open-File Report 95-213
USGS Denver, CO 80225
1995

The 17 January 1994 Northridge, California, earthquake **(M=6.7)** triggered more than 11,000 landslides over an area of about 10,000 km. Most of the landslides were concentrated in a 1,000-km area that includes the Santa Susana Mountains and the mountains north of the Santa Clara River valley. We mapped landslides triggered by the earthquake in the field and from 1:60,000-scale aerial photography provided by the U.S. Air Force and taken the morning of the earthquake; these were subsequently digitized and plotted in a GIS-based format, as shown on the

accompanying maps (which also are accessible via Internet). Most of the triggered landslides were shallow (1-5 m), highly disrupted falls and slides in weakly cemented Tertiary to Pleistocene clastic sediment. Average volumes of these types of landslides were less than 1,000 m, but many had volumes exceeding 100,000 m. Many of the larger disrupted slides traveled more than 50 m, and a few moved as far as 200 m from the bases of steep parent slopes. Deeper (>5 m) rotational slumps and block slides numbered in the hundreds, a few of which exceeded 100,000 m in volume. The largest triggered landslide was a block slide having a volume of 8X10E06 m. Triggered landslides damaged or destroyed dozens of homes, blocked roads, and damaged oil-field infrastructure. Analysis of landslide distribution with respect to variations in (1) landslide susceptibility and (2) strong shaking recorded by hundreds of instruments will form the basis of a seismic landslide hazard analysis of the Los Angeles area.

http://gldage.cr.usgs.gov/html_ files/ofr95-213/ABSTRAC2.html

(accessed February 3, 1998)

Citation: Please adapt for your documentation style.

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