



CBE Documentation

Based on:
Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers 6th edition, 1994

LIBRARY

Scientific Style and Format (6th ed.), a publication of the Council of Biology Editors (CBE), outlines proper documentation style for writers in many areas of the sciences, and particularly the biological sciences. CBE bases its standards for documentation on those presented in *National Library of Medicine Recommended Formats for Bibliographic Citation* (NLM 1991). In its style manual, CBE offers two different systems of documentation:

Citation-Sequence System (C-S) Name-Year System (N-Y)

The Citation-Sequence System of documentation is the more sparing and efficient of CBE's two styles. In this system, full bibliographic information is given in the References, and citations in the text are made by way of numbers, which are ordered sequentially throughout the text. These numbers correspond with and point to numbered entries in the reference list. CBE notes that the advantages of using the Citation- Sequence System are that it interrupts the flow of the text minimally and that it conserves space and paper. The disadvantages, according to CBE, are:

- 1) readers have to work harder (referring to the References) to know which source is the referent for a numeric citation,
- 2) it is difficult to add in or take out sources from a text in the late stages of publication,
- 3) since their names are not mentioned in the text, authors receive less recognition than they would if another system of documentation were used.

However, regardless of these disadvantages, many professors, editors, and scholars in the sciences prefer the Citation-Sequence System to any other.

The Name-Year System of documentation is the more descriptive and elaborate of CBE's two styles. In this system, full bibliographic information is given in the References, and citations in the text consist of parenthetical notes which include author name(s) and source date(s) corresponding with alphabetically arranged entries in the reference list. CBE notes the advantages of using the Name-Year System are:

- 1) citing at least author names and dates (rather than just numbers, as in the Citation-Sequence System) within the text provides at least some context for the reader,
- 2) it is easy to add in or remove sources from a text in the late stages of publication.

The disadvantages, according to CBE, are that numerous citations in this style can be overwhelming and distracting for readers and that format for reference list entries (and for the reference list itself) is more complicated than that of the Citation-Sequence System. However, regardless of these disadvantages, the Name-Year System is the preferred method of documentation for many professors, editors, and scholars in the sciences.

Citing Sources Within Your Paper (Citations) Citation-Sequence (C-S)

Text citations in the Citation-Sequence system are quite straightforward. Each time material from a source is cited, a superscript number is placed directly after the cited material, much like a footnote or endnote number would be placed:

It has been concluded¹ that...

In this case, the number 1 refers to an entry in the reference list which is assigned the same number. Any time this source is cited in the text, the number 1 will be used. Citations are numbered sequentially throughout the text, and entries in the reference list occur in the order of their first citation in the text.

When citing multiple sources at one point in the text, list all number citations in superscript, placing commas between them. When listing a sequence of more than two consecutive entries in the reference list, cite the first and last numbers of the sequence with a dash between them.

Example: Several studies^{3, 4, 7, 9-12} have arrived at this same conclusion...

When citing a source "second-hand" (i.e., a source which is cited in one of the sources you are using), include the phrase "cited in" in the superscript citation.

Example: This process^{16 (cited in 17)} was instrumental in...

In cases where superscript text is not available, CBE advocates placing citations in parentheses. However, in these situations, it might be necessary to make distinctions between numerical citations and other numerical notes in parentheses.

Example: Our sample group (8 participants) did indeed produce the results we anticipated (4).

Citing Sources Within Your Paper (Citations) Name Year System (N-Y)

The Name-Year System of documentation emphasizes author's last name and date of publication, with page numbers being cited only if a particular part of the source is being cited or if a direct quotation is used. It interacts with the reference list, as each reference to a name of an author or anonymous text made within the paper must point to a reference entry at the end of the paper. In this way, all specific bibliographic information is kept in the reference list, and all information about specific location of quotes, ideas, facts, etc. in the original source is placed in parentheses where it is most relevant within the paper.

General Formats for Reference Citations in Text

When citing sources within the text, it is necessary to know:

- 1) the last name(s) of the author(s),
- 2) the year of publication, and, in some cases,
- 3) the page number(s) where the cited material may be found.

When you cite an entire work (rather than a part of a work), you need to document the last name of the author and the year of publication. (No page numbers are necessary when you are citing a work in its entirety.) The citation format varies according to whether or not the author's name is mentioned in the sentence, near the citation of the document

When the document is not cited near the author's name in the text, both the last name of the author and the date should be cited. The citation is placed in parentheses, and it follows directly the pertinent information that is being cited. When the citation falls at the end of the sentence, the parenthetical note precedes the end punctuation (period). There is no comma between the author's name and the date.

Example: In a recent study (Niemann 1994)...

When you mention the author's name in the sentence, include a parenthetical note directly or closely following the name. In this note, include the year of publication followed by a comma and page number (if a specific piece of information is being quoted or paraphrased).

Example: Anderson (1997) determined that...

When the author's name is not mentioned in the sentence, near the citation of the document, you must include all three elements (name, date, and page numbers if a specific piece of information is being quoted or paraphrased) in the parentheses, directly following the pertinent material being cited. When the citation falls at the end of the sentence, the parenthetical note precedes the end punctuation (period). There is one comma separating the date and the page number, which is preceded by the abbreviation "p" with no period following.

Example: In one such study (Anderson 1997, p 27)...

About the Reference List

The reference list is properly named "References" or "Cited References," and it includes entries for all sources you have actually cited in your text. If you would like to list other sources that contributed to your writing and thinking (but are not specifically cited in the text), it is best to include these entries in a separate list entitled "Additional References." Sources you wish to list as further reading suggestions for your audience should be included in yet another type of list with a more general name like "Additional Reading" or "Bibliography."

The reference list is located at the end of your paper, and it includes all of the bibliographic details your readers need in order to seek out your sources on their own (i.e., to replicate your research).

Format of Entries for Particular Types of Sources

BOOKS

General Formats

The bibliographic elements, their sequence, punctuation, and spacing for most references to a book are as follows.

C-S Author(s) [or editor(s)]. Title. Place of publication: publisher name; Year. Number of pages.

N-Y Author(s) [or editor(s)]. Year. Title. Place of publication: publisher name. Number of pages.

Examples of Formats

Books with Authors

C-S Voet D, Voet JG. Biochemistry. New York: J Wiley; 1990. 1223 p.

[Note: In the C-S system, the form of citation is always the superscript number of the reference.]

N-Y Voet D, Voet JG. 1990. Biochemistry. New York: J Wiley. 1223 p.
Form of Citation: (Voet and Voet 1990)

Books with Editors

C-S Gilman AG, Rall TW, Nies AS, Taylor P, editors. The pharmacological basis of therapeutics. 8th ed. New York: Pergamon; 1990. 1811 p.

N-Y Gilman AG, Rall TW, Nies AS, Taylor P, editors. 1990. The pharmacological basis of therapeutics. 8th ed. New York: Pergamon. 1811 p.
Form of Citation: (Gilman and others 1990)

Book with Full Names for Authors or Editors

C-S Voet, Donald; Voet, Judith G. Biochemistry. New York: J Wiley; 1990. 1223 p.

C-S Gilman, Alfred G; Rall, Theodore W; Nies, Alan S; Taylor, Palmer, editors. The pharmacological basis of therapeutics. 8th ed. New York: Pergamon; 1990. 1811 p.

N-Y Voet, Donald; Voet, Judith G. 1990. Biochemistry. New York: J Wiley; 1223 p.
Form of Citation: (Voet and Voet 1990)

N-Y Gilman, Alfred G; Rall, Theodore W; Nies, Alan S; Taylor, Palmer, editors. 1990. The pharmacological basis of therapeutics. 8th ed. New York: Pergamon. 1811 p.
Form of Citation: (Gilman and others 1990)

Organization as Author; Note as Series Statement

- C-S ASTM Committee E-8 on Nomenclature and Definitions. Compilation of ASTM standard definitions. 3rd ed. Philadelphia: American Soc for Testing and Materials; 1976.
- C-S International Organization for Standardization. Statistical methods. Geneva: International Standards Organization; 1979. (ISO standards handbooks: 3).
- N-Y [ASTM] ASTM Committee E-8 on Nomenclature and Definitions. 1976. Compilation of ASTM standard definitions. 3rd ed. Philadelphia: American Soc for Testing and Materials.
Form of Citation: (ASTM 1976)
- N-Y [ISO] International Organization for Standardization. 1979. Statistical methods. Geneva: ISO; (ISO standards handbooks: 3).
Form of Citation: (ISO 1979)

SCHOLARLY OR PROFESSIONAL JOURNAL ARTICLES

General Formats

The bibliographic elements, their sequence, punctuation, and spacing for most references to journal articles are as follows.

- C-S Author(s). Article title. Journal title year month;volume number(issue number):inclusive pages.
- N-Y Author(s). Year. Article title. Journal title volume number(issue number):inclusive pages.

Examples of Formats

Standard Journal Article

- C-S You CH, Lee KY, Chey RY, Menguy R. Electrogastrographic study of patients with unexplained nausea, bloating and vomiting. *Gastroenterology* 1980 Aug;79(2):311-4.
- C-S Steiner U, Klein J, Eiser E, Budkowski A, Fetters LJ. Complete wetting from polymer mixtures. *Science* 1992 Nov 13;258(5085):1122-9.
- [Note that in the C-S system, the form of the citation is always the superscripted number of the reference, which is the number representing the sequence in which the reference was first cited.]
- N-Y You CH, Lee KY, Chey RY, Menguy R. 1980. Electrogastrographic study of patients with unexplained nausea, bloating and vomiting. *Gastroenterology* 79:311-4.
Form of Citation: (You and others 1980) [or] (You et al. 1980)
- N-Y Steiner U, Klein J, Eiser E, Budkowski A, Fetters LJ. 1992 Nov 13. Complete wetting from polymer mixtures. *Science* 258(5085):1122-9.
Form of Citation: (Steiner and others 1992)
- [or]
- Steiner U, Klein J, Eiser E, Budkowski A, Fetters LJ. 1992. Complete wetting from polymer mixtures. *Science* 258:1122-9.

NEWSPAPER AND MAGAZINE ARTICLES

General Formats

Reference to newspapers and magazines (non-scholarly periodicals) include the same general information as journal-article references but refer to specific details of newspaper or magazine style and format.

- C-S Author(s). Article title. Newspaper title and date of publication;section designator:page number(column number).
- C-S Author(s). Article title. Magazine title and date of publication:page numbers.
- N-Y Author(s). Date of publication. Article title. Newspaper title;section designator:page number(column number).
- N-Y Author(s). Date of publication. Article title. Magazine title:page numbers.

Examples of Formats

Signed Newspaper Article

- C-S Rensberger B, Specter B. CFCs may be destroyed by natural process. Washington Post 1989 Aug 7;Sect A:2(col 5).
- N-Y Rensberger B. Specter B. 1989 Aug 7. CFCs may be destroyed by natural process. Washington Post;Sect A:2(col 5).
Form of Citation: (Rensberger and Specter 1989)

Unsigned Newspaper Article

- C-S [Anonymous]. Gene data may help fight colon cancer. Los Angeles Times 1990 Aug 24;Sect A:4.
- N-Y [Anonymous]. 1990 Aug 24. Gene data may help fight colon cancer. Los Angeles Times;Sect A:4.
Form of Citation: (Anonymous 1990)

Magazine Article

- C-S Lu C. A small revelation: Newton has arrived at long last. Macworld 1993 Sep:102-6.
- N-Y Lu C. 1993 Sep. A small revelation: Newton has arrived at long last. Macworld:102-6.
Form of Citation: (Lu 1993)

CONFERENCE PUBLICATIONS: PROCEEDINGS

General Formats

References to entire proceedings should include the following information with this sequence, punctuation, and spacing.

- C-S Editor(s). Title of publication or conference. Name of conference (if not the 2nd element); inclusive dates of conference; place of conference. Place of publication: publisher; date of publication. Total number of pages.
- N-Y Editor(s). Date of publication. Title of publication or conference. Name of conference (if not the 2nd element); inclusive dates of conference; place of conference. Place of publication: publisher. Total number of pages.

Examples of Formats

Proceedings with Title Different from Conference Name

- C-S Vivain VL, editor. Child abuse and neglect: a medical community response. 1st AMA National Conference on Child Abuse and Neglect; 1984 Mar 30-31; Chicago. Chicago: American Medical Assoc; 1985. 256 p.
- N-Y Vivain VL, editor. 1985. Child abuse and neglect: a medical community response. 1st AMA National Conference on Child Abuse and Neglect; 1984 Mar 30-31; Chicago. Chicago: American Medical Assoc. 256 p.
Form of Citation: (Vivian 1985)

Proceedings Without Separate Title

- C-S Ferguson RM, Sommer BG, editors. Proceedings of a Conference on the Clinical Management of the Renal Transplant Recipient with Cyclosporine; 1985 Nov 3-5; Palm Springs, FL. Orlando (FL): Grune & Stratton; 1986. 216 p.
- N-Y Ferguson RM, Sommer BG, editors. 1986. Proceedings of a Conference on the Clinical Management of the Renal Transplant Recipient with Cyclosporine; 1985 Nov 3-5; Palm Springs, FL. Orlando (FL): Grune & Stratton. 216 p.
Form of Citation: (Ferguson and Sommer 1986)

Proceedings Without Editor

- C-S [Anonymous]. Symposium on Nonhuman Primate Models for AIDS; 1989 Oct 11-13; Portland, OR. [Portland]: Oregon Regional Primate Center; 1989. 115 p.
- N-Y [Anonymous]. 1989. Symposium on Nonhuman Primate Models for AIDS; 1989 Oct 11-13; Portland, OR. [Portland]: Oregon Regional Primate Center. 115 p.
Form of Citation: (Anonymous 1989)

SCIENTIFIC AND TECHNICAL REPORTS AND THEIR PARTS

General Formats

Most of the references for reports are similar in content and style to those for books, but additional information is likely to be needed for adequate identification.

- C-S Author(s) (performing organization). Title. Place of publication: publisher or sponsoring organization; date of publication. Report number. Contract number. Total number of pages. Availability statement.
- N-Y Author(s) (performing organization). Date of publication. Title. Place of publication: publisher or sponsoring organization. Report number. Contract number. Total number of pages. Availability statement.

Examples of Formats

US Government Report with Separate Performing Organization

- C-S Cooper LN (Department of Physics, Brown University, Providence RI). Theoretical and experimental research into biological mechanisms underlying learning and memory. Final progress report 1 Aug 88-31 Jul 89. Washington: Air Force Office of Scientific Research; 1990 Apr 24. Report nr AFOSR-TR-90-0672. Contract nr AFOSR-88-0228;2305;B4. 19 p. Available from: NTIS, Springfield, VA; AD-A223615.
- N-Y Cooper LN (Department of Physics, Brown University, Providence RI). 1990. Theoretical and experimental research into biological mechanisms underlying learning and memory. Final progress report 1 Aug 88-31 Jul 89. Washington: Air Force Office of Scientific Research. Report nr AFOSR-TR-90-0672. Contract nr AFOSR-88-0228;2305;B4. 19 p. Available from: NTIS, Springfield, VA; AD-A223615.
Form of Citation: (Cooper 1990)

US Government Report Without Separate Performing Organization

- C-S National Institutes of Health (US) [NIH]. Report of the Human Fetal Tissue Transplantation Panel, consultants to the Advisory Committee to the Director, NIH. Final report. Bethesda (MD): NIH; 1988 Dec. 2 volumes. Available from: NTIS, Springfield, VA; PB90-155268, PB90-155276.
- N-Y [NIH] National Institutes of Health (US). 1988 Dec. Report of the Human Fetal Tissue Transplantation Panel, consultants to the Advisory Committee to the Director, NIH. Final report. Bethesda (MD): NIH. 2 volumes. Available from: NTIS, Springfield, VA; PB90-155268, PB90-155276.
Form of Citation: (NIH 1988)

Non-government Report

- C-S Johns Hopkins University [JHU], Applied Physics Laboratory. Biomedical research, development, and engineering at the Johns Hopkins University Applied Physics Laboratory. Annual report 1 Oct 78-10 Sep 79. Laurel (MD): JHU; 1979 Oct. Report nr JHU/APL/MQR-79. 74 p.
- N-Y [JHU] Johns Hopkins University, Applied Physics Laboratory. 1979 Oct. Biomedical research, development, and engineering at the Johns Hopkins University Applied Physics Laboratory. Annual report 1 Oct 78-10 Sep 79. Laurel (MD): JHU. Report nr JHU/APL/MQR-79. 74 p.
Form of Citation: (JHU 1979)

LEGAL, GOVERNMENT, AND AGENCY DOCUMENTS

Cases

Jackson v. Metropolitan Edison Co., 348 F. Suppl. 954, 956-58 (M. D. Pa. 1972)
[The abbreviation "F. Suppl." stands for *Federal Supplement*.]

Willis v. Thomas, 600 P.2d 1079, 1083 (Alaska 1979)
[The abbreviation "P.2d" stand for *Pacific Reporter*.]

Statutes

National Environmental Policy Act of 1969, § 102, 42 U.S.C. § 4332 (1982)
[The abbreviation "U.S.C." stand for *United States Code*.]

A US Senate Bill, Un-enacted

S. 2830, 96th Cong., 2d Sess. § 8 (1980)
Form of Citation: (S. 2830, 1980)

An Enacted State (Utah) Joint Resolution

H.R.J. Res 1, 40th Leg., 2d Spec. Sess., 1974 Utah Laws 7
Form of Citation: (H.R.J. Res. 1, 1974)

A US Senate Hearing

Toxic Substances Control Act: Hearing on S. 776 Before the Subcomm. on the Environment of the Senate Comm. on Commerce, 94th Cong., 1st Sess. 343 (1975)
Form of Citation: (Toxic Substances Control Act 1975)

AUDIOVISUAL PUBLICATIONS AND MATERIALS

General Formats

For the citation-sequence system, the format differs from formats for journal articles and books by having the title as the 1st field.

- C-S Title [type of medium]. Author(s) or editor(s) or any combination of these. Producer (if corporate and different from publisher). Place of publication: publisher; date of publication. Physical description. (Series statement if available). Accompanying material. Availability statement.
- N-Y Author(s) or editor(s) or any combination of these. Date of publication. Title [type of medium]. Producer (if corporate and different from publisher). Place of publication: publisher. Physical description. Series statement (if available). Accompanying material. Availability statement.

Examples of Formats

Audiocassette

- C-S Topics in clinical microbiology [audiocassette]. Clark R and others, editors; American Society for Microbiology, producers. Baltimore: Williams & Wilkins; 1976. 24 audiocassettes: 2-track, 480 min. Accompanied by: 120 color slides, 2 X 2 in; 1 guide.
- N-Y Clark R and others, editors. 1976. Topics in clinical microbiology [audiocassette]. American Society for Microbiology, producers. Baltimore: Williams & Wilkins. 24 audiocassettes: 2-track, 480 min. Accompanied by: 120 color slides, 2 X 2 in; 1 guide.
Form of Citation: (Clark and others 1976)

Videocassette

- C-S New horizons in esthetic dentistry [videocassette]. Wood RM, editor. Visualeyces Productions, producer. [Chicago]: Chicago Dental Society; 1989. 2 videocassettes: 170 min, sound, color with black and white, ½ in. (Clinical topics in dentistry; Nr 46). Accompanied by: 1 guide. Available from: Great Plains National Instructional Television Library, Lincoln, NE.
- N-Y Wood RM, editor. 1989. New horizons in esthetic dentistry [videocassette]. Visualeyces Productions, producer. [Chicago]: Chicago Dental Society. 2 videocassettes: 170 min, sound, color with black and white, ½ in. (Clinical topics in dentistry; Nr 46). Accompanied by: 1 guide. Available from: Great Plains National Instructional Television Library, Lincoln, NE.
Form of Citation: (Wood 1989)

DISSERTATIONS, THESES, AND THEIR PARTS

General Format

References to dissertations, theses, and similar academic documents follow the general format as references to books but with some other specific elements.

- C-S Author. Title [type of publication]. Place of institution: institution granting the degree; date of degree. Total number of pages. Availability statement.
- N-Y Author. Date of degree. Title [type of publication]. Place of institution: institution granting the degree. Total number of pages. Availability statement.

Examples of Formats

- C-S Ritzmann RE. The snapping mechanism of *Alpheid* shrimp [dissertation]. Charlottesville (VA): University of Virginia; 1974. 59 p. Available from: University Microfilms, Ann Arbor, MI; AAD74-23.
- N-Y Ritzmann RE. 1974. The snapping mechanism of *Alpheid* shrimp [dissertation]. Charlottesville (VA): University of Virginia. 59 p. Available from: University Microfilms, Ann Arbor, MI; AAD74-23.
Form of citation: (Ritzmann 1974)

Type of Publication

The type of publication is specified within square brackets at the end of the title. In some instances an indication of the degree level may be needed.

[dissertation] [DPhil thesis] [MSc thesis]

ELECTRONIC PUBLICATIONS

General Formats

The format recommended by the NLM for references to electronic-journal articles is like that for print-journal articles.

- C-S Author(s). Title of article. Abbreviated journal title [type of medium] date of publication; volume number(issue number):pagination. Availability statement. [Date of accession if needed].
- N-Y Author(s). Date of publication. Title of article. Abbreviated journal title [type of medium]; volume number(issue number):pagination. Availability statement. [Date of accession if needed].

Examples of Formats

Electronic-Journal Articles

- C-S Cisler S. MediaTracks. Public Access Comput Syst Rev [serial online] 1990;1(3):109-15. Available from: Public Access Computer Systems Forum PACS-L via the INTERNET. Accessed 1990 Nov 29.
- N-Y Cisler S. 1990. MediaTracks. Public Access Comput Syst Rev [serial online];1(3):109-15. Available from: Public Access Computer Systems Forum PACS-L via the INTERNET. Accessed 1990 Nov 29.
Form of Citation: (Cisler 1990)
- C-S Harrison CL, Schmidt PQ, Jones JD. Aspirin compared with acetoaminophen for relief of headache. Online J Therap [serial online] 1992 Jan 2;Doc nr 1:[4320 words; 10 paragraphs]. 5 figures; 10 tables.
- N-Y Harrison CL, Schmidt PQ, Jones JD. 1992 Jan 2. Aspirin compared with acetoaminophen for relief of headache. Online J Therap [serial online];Doc nr 1:[4320 words; 10 paragraphs]. 5 figures; 10 tables.
Format of Citation: (Harrison and others 1992)

ELECTRONIC BOOKS (MONOGRAPHS)

General Formats

The general formats are like those for books and parts of books.

Examples of Formats

Electronic Books (Monographs)

- C-S MARTINDALE ONLINE [monograph online]. London: Pharmaceutical Society of Great Britain; 1989 [updated 1980 Dec]. Available from: Dialog Information Services, Palo Alto, CA. Related to the publication Martindale, The Extra Pharmacopoeia. Accessed 1990 Jan 10.
- N-Y [PSGB] Pharmaceutical Society of Great Britain. 1989. MARTINDALE ONLINE [monograph online]. London: PSGB; [updated 1989 Dec]. Available from: Dialog Information Services, Palo Alto, CA. Related to the publication Martindale, The Extra Pharmacopoeia. Accessed 1990 Jan 10.
Form of Citation: (PSGB 1989)

