

## Portland State University Center for Transportation Studies Introduction to Library and Literature Research

With the advent of the Internet it is very tempting to think that all necessary resources for a project, thesis or dissertation will be available in full text after typing in a few words at Google.com. This notion should be discarded immediately. We will discuss the concepts of library and literature research, involving your need to access real books and articles contained in refereed/archival journals. You will need to use real library search tools and will also need to go to the library and physically touch some sources of information.

Several good sources for finding transportation journal articles and other documents are:

- [National Transportation Library](#)
- [TRIS Online](#)
- [Melvyl index](#)

NOTE: Library references for most relevant documents will be provided as output from your searches using these tools. You will have to actually look up the document in the PSU library or request it through interlibrary loan.

### TRANSPORTATION RESOURCES AT PORTLAND STATE UNIVERSITY

The following are selected information resources focused on transportation engineering that are available in the PSU Library.

The Portland State University Branford P. Millar Library is located at the southwest end of the campus, on the Park Blocks, at the corner of SW Park and Harrison. Some major features offered by the PSU Library include:

- [PSU Research Survival Online: A Library Guide for PSU Students](#)
- [Library Web Site](#)
- [Current Hours](#): normally open 24 hours a day for PSU students.
- [Vikat Online Catalog](#): find items owned by the PSU library.
- [Interlibrary Loan System](#): requesting articles (sometimes available via PDF files), books, proceedings, and other material not owned by the PSU Library, 7 day turnaround.
- [Orbis](#): request books from area academic libraries, 3 day turnaround.
- [Databases](#): explore on-line databases including EI Compendex and Lexis-Nexis.
- [Off Campus Access](#): if you want to access library resources from off campus, you need to use a proxy server.

### JOURNALS

The PSU Library offers the following journal features:

- [Vikat](#): search for journal titles owned by PSU.
- [Current Periodicals](#) are on the south side of the library [3rd Floor](#).
- Bound journals are shelved in the Transportation Stacks in the [Basement](#) or in the Engineering Stacks on the [5th Floor](#).
- [Full Text Electronic Journals](#): this is a link to a list of journals that are on-line directly,

which doesn't include many journals that are on-line through other databases.

This is a selective listing of the major journals covering (with links to the journal web sites) the transportation engineering and planning arena:

<a href="#">Access</a>
<a href="#">Accident Analysis and Prevention</a>
<a href="#">Annals of Regional Science</a>
<a href="#">Computer-Aided Civil and Infrastructure Engineering</a>
<a href="#">Growth and Change</a>
<a href="#">IEEE Transactions on Intelligent Transportation Systems</a>
<a href="#">International Journal of Logistics Management</a>
<a href="#">International Journal of Transport Management</a>
<a href="#">Internet Journal of Cooperative Transportation Dynamics</a>
<a href="#">ITE Journal</a>
<a href="#">ITS International</a>
<a href="#">ITS Journal</a>
<a href="#">Journal of the American Planning Association</a>
<a href="#">Journal of Advanced Transportation</a>
<a href="#">Journal of Computing in Civil Engineering (ASCE)</a>
<a href="#">Journal of Engineering Education</a>
<a href="#">Journal of Infrastructure Systems (ASCE)</a>
<a href="#">Journal of Public Transportation</a>
<a href="#">Journal of Transport Geography</a>
<a href="#">Journal of Transportation and Statistics</a>
<a href="#">Journal of Transport Economics and Policy</a>
<a href="#">Journal of Transportation Engineering (ASCE)</a>
<a href="#">Journal of the Transportation Research Forum</a>
<a href="#">Journal of Urban Economics</a>
<a href="#">Journal of Urban Planning and Development (ASCE)</a>
<a href="#">Mass Transit</a>
<a href="#">Metropolitan Universities Journal</a>
<a href="#">Public Roads</a>
<a href="#">Research &amp; Technology Transporter</a>
<a href="#">Traffic Engineering and Control</a>
<a href="#">Traffic Safety Digest</a>
<a href="#">Traffic World</a>
<a href="#">Transport Geography</a>
<a href="#">Transport Policy</a>
<a href="#">Transport Reviews</a>
<a href="#">Transportation</a>
<a href="#">Transportation &amp; Distribution</a>
<a href="#">Transportation Journal</a>
<a href="#">Transportation Quarterly</a>
<a href="#">Transportation Research. Part A, Policy and Practice</a>
<a href="#">Transportation Research. Part B, Methodological</a>
<a href="#">Transportation Research. Part C, Emerging Technologies</a>
<a href="#">Transportation Research. Part D, Transport and Environment</a>
<a href="#">Transportation Research. Part E, Logistics and Transportation</a>

<a href="#">Review</a>
<a href="#">Transportation Research. Part F, Traffic Psychology &amp; Behaviour</a>
<a href="#">Transportation Research Circular (Transportation Research Board)</a>
<a href="#">Transportation Research Record (Transportation Research Board)</a>
TR News
<a href="#">Transportation Science</a>
<a href="#">Urban Studies</a>

## ABSTRACTING AND INDEXING SERVICES

Use these databases or print indexes to find references to journal articles, books, conference papers and dissertations. Once you have located journal articles of interest, the second step is to search [Vikat](#) by the journal title to see if we have the title and year that you need.

- [Transportation Research Information Service \(TRIS\)](#). TRIS Online indexes over 420,000 records covering books, journal articles, technical reports and other articles. Coverage includes Federal, state, local and association publications and conference proceedings from the 1960s to the present. There are links provided when the full text document is available on the internet. Search the database by author, title, subject, corporate author/publisher, journal/conference title.
- [Transportation Research Board](#). TRB publishes a series of Transportation Research Records (TRR) each year after their annual meeting. PSU owns almost all of their publications, but for some reason the 1998 TRRs are missing from the collection. They publish several [technical reports series](#) that disseminate important transportation research results. Use the [TRB Publications Index](#) or the [Vikat](#) online catalog to locate reports on your topic. They also make available at [Research in Progress Database](#). Technical report series include:
  1. Transportation Research Record (listed by number at TE7.H5 No. XXXX)
  2. National Cooperative Highway Research Program. Report (TE7.N25)
  3. [National Cooperative Highway Research Program. Web Documents](#)
  4. Synthesis of Highway Practice (T7.U5—collection very limited at PSU)
  5. Synthesis of Transit Practice (T7.U5—collection very limited at PSU)
  6. Transit Cooperative Research Program. Report (Not owned by PSU)
  7. [Transit Cooperative Research Program. Web Documents](#)
- [TranStats: The Intermodal Transportation Database](#). Database provided by the Bureau of Transportation Statistics, U.S. DOT.
- [State of Oregon Department of Transportation](#). They have a [publications](#) page which has some recent [Research Reports](#) and [Research Notes](#) in PDF format.
- [ASCE Civil Engineering Database](#). The database covers ASCE documents published 1973 to present. It provides access to all the journals, conference proceedings, books, standards, manuals, magazines, and newsletters. A unique feature of the database is that it links discussions, closures, and erratas back to the original records. The full page image of all journal articles is available from 1999 to present. For coverage prior to 1973, use the "Cumulative Index to ASCE Publications," 1950-1979. Located the PSU Library Reference section, 2nd Floor at TA1 .A58 A5.
- [ABI Inform](#). Provides indexing and abstracts to articles from leading business and management publications. Full abstract and indexing coverage begins with 1992. Full text available for over 600 titles.

- [Academic Search Elite](#). Provides full text for over 3,200 scholarly publications covering academic areas of study including social sciences, humanities, education, computer sciences, engineering, and mathematics. Good resource for a few basic articles on a topic. Good for newspaper coverage and public policy and business aspects. This database is designed for undergraduate research.
- [Alternative Transportation Fuels Database](#). Coverage is 1984 to present.
- [ITS Berkeley Publications](#): The Institute of Transportation Studies at the University of California at Berkeley has a publication series, most are available as PDF files.
- [UCTC Publications](#): The University of California Transportation Center also has a publication series, and most are available.
- [ITS Decision Database](#): This is a helpful database relating to benefits of intelligent transportation systems.
- [PSU Center for Urban Studies Publications](#): The Portland State University Center for Urban Studies has most of its publications available online.
- [California PATH Database](#). Provides access to research on intelligent transportation systems. It contains over 24,000 records from the 1940s to the present.
- [EI Compendex](#). (Engineering Index) Coverage is 1970 - Present. The best multidisciplinary engineering database that indexes over 5000 engineering journals, conferences and technical reports. Use their subject headings to obtain more precise results. Access is provided by the following indexes: author, author's affiliation (university or company), keywords from the abstract and title, subject terms and source title (journal or conference title). Compendex is part of the Engineering Village 2. This service also provides specialized indexing of the Internet, a technical standards database, and a link to the U.S. Patent Database. Print copy in PSU Library Reference section, 2nd Floor at Z5851 .E62 beginning about 1919.
- [Dissertation Abstracts International](#). Indexes dissertations and theses written by graduates of North American and European universities since 1861. The complete text of dissertations written at Portland State University after 1997 are included.
- [Kluwer Online](#). Coverage is 1997 - Present. Provides full text access to over 700 journals covering all fields of science. Has a wide variety of mathematics journals. You are able to scan the table of contents or search the entire collection of articles by author, title, keywords or abstract words. You cannot currently search the full text of the articles.
- [National Transportation Library](#). Must see! Over 5,000 full-text documents on transportation planning. A service of the [U.S. Department of Transportation](#).
- [Web of Science](#): The Web of Science comprises three citation databases:  
*Humanities Citation Index*  
*Science Citation Index*  
*Social Sciences Citation Index*  
 Citation databases are multidisciplinary databases of bibliographic information gathered from thousands of scholarly journals. The databases may be searched by: topic, author, publication journal, author address, cited author, cited work, or cited year. **We highly recommend that students do citation searches in their research. In particular, if you have found a key article that covers your topic well, use the above index to search to see who else has cited the article.**
- Science Citation Index. (Sci Index Q 1 A1S36) Use this print multidisciplinary information source to track down papers that have cited an article of interest. Science and Engineering Center librarians can show you how to use this important resource. Online searches are available through a librarian.
- [ScienceDirect](#). Coverage is 1995 - Present. Provides full text access to a wide variety of science and engineering journals. Browse the table of contents of known journal titles or scan the listing of relevant titles for your subject. You may also search the database by

- title or abstract words, author, author's affiliation, and full text of the article.
- [Elsevier Web Editions](#): Rolling, current-year-only, access to PSU Library-subscribed journals published by Elsevier. Click on the Journals link at the top of the screen to access the titles.
- [Innovative Transportation Technologies](#): Prof. Jerry Schneider's very comprehensive website covering unconventional transit technologies, and much more.

## TRANSPORTATION STATISTICS

- [Bureau of Transportation Statistics](#). An excellent source of statistics on all types of transportation, from travel surveys to airline on-time statistics to transportation economics. Includes the [National Transportation Statistics, 2001](#) and the [Transportation Indicators Report](#).
- [Journal of Transportation Statistics](#). U.S. Dept. of Transportation, Bureau of Transportation Statistics. Electronic journal
- [TranStats: The Intermodal Transportation Database](#). Database provided by the Bureau of Transportation Statistics, U.S. DOT.
- [Statistical Universe](#). Database from Lexis/Nexis which provides access to a wide variety of statistical resources.

## HANDBOOKS AND OTHER REFERENCE WORKS

- Concise Encyclopedia of Traffic and Transportation Systems. Pergamon, 1991. (PSU Reference TA1145 .C58 1991)
- Highway Capacity Manual. Transportation Research Board, NRC, 2000. (PSU Reference has 1994 edition at HE336 .H48 H54 1994; HCM 2000 available in ITS laboratory) Provides techniques for determining the level of service for all types of facilities: multilane freeways to bicycle lanes.
- Highway Design and Traffic Safety Engineering Handbook. McGraw-Hill, 1999. (Not at PSU) Concentrates on design of roadways and their alignment and evaluates speed recommendations, safety criteria, and human factors.
- Highway Engineering. by Paul Wright. Wiley, 1996. (PSU Stacks TE145.W74 1996.) Comprehensive textbook.
- Highway Engineering Handbook. McGraw-Hill, 1996. (Not at PSU) Provides information on highway design, pavements, bridges, walls, safety systems, signs and economic analysis.
- [Manual on Uniform Traffic Control Devices](#). MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways. Published by the Federal Highway Administration. 2001 ed. (Available online at: <http://mutcd.fhwa.dot.gov/>)
- [Manual on Uniform Traffic Control Devices. \(MUTCD\) Standard Highway Signs](#). Available in metric and English units. 2002 edition. (Available online at: <http://mutcd.fhwa.dot.gov>)
- Manual of Traffic Signal Design. Edited by J. H. Kell. Prentice Hall, 1991. (PSU Stacks TE228.K44 1991)
- Manual of Transportation Engineering Studies. Prentice-Hall, 1994. (Old version in PSU Stacks at HE369.B65 1976; 1994 version available in ITS Laboratory) A "how to" guide for conducting field studies with appendices on data analysis and presentation.
- Policy on Geometric Design of Highways and Streets. 4th ed., AASHTO, 2001. (Old version PSU Stacks at TE175.A54 1990. New version in ITS Lab)
- Roadside Design Guide. AASHTO, 2002. (Old version PSU Stacks at TE228.A49)

1989)

- Standard Handbook for Civil Engineers. 4th ed. Edited by F.S. Merritt. McGraw-Hill, 1996. (PSU Stacks and PSU Reference at TA151.S8 1996)
- Traffic Calming: State of the Practice. Institute of Transportation Engineers, 1999. (available at <http://www.ite.org/traffic/tcstate.htm#tcsop>)
- Traffic Control Devices Handbook. Institute of Transportation Engineers, 2001. (Old version at PSU Gov. Info. Federal TD 2.8:T 67/3/983-2/pt.4)
- Traffic Engineering Handbook. 5th ed. Institute of Transportation Engineers, 1999. (Not at PSU)
- Traffic Signing Handbook. Institute of Transportation Engineers, 1997. (Not at PSU)
- Transportation Engineering Handbook. 4th ed. Prentice-Hall, 1992. (Not at PSU)
- Transportation Planning Handbook. 2nd ed. Institute of Transportation Engineers, 1999. (PSU Stacks HE152.5.T73 1999)
- Trip Generation : trip generation rates, plots, and equations. 6th ed. Institute of Transportation Engineers. (Old version PSU Stacks HE370.O75 T75 1987)
- Trip Generation Handbook. Institute of Transportation Engineers, 2001. (Not at PSU)

## WRITING RESOURCES and EVALUATION CRITERIA

Here are some useful sources of information from around the country relating to writing resources and evaluation criteria for sources:

- [Critically analyzing information sources](#)
- [Checklist of criteria of a scholarly article.](#)
- [Evaluating web sites.](#)
- [IEEE Standards Style Manual. The accepted format for bibliography citations.](#)
- [Turabian Samples for a bibliography.](#)
- [Citing sources and avoiding plagiarism.](#)
- [Assembling a list of cited works in your paper.](#)

## RELATED INFORMATION SOURCES

[Transportation Internet Subject Guide](#)

## PAPER FORMATS

Different journals and conferences require different paper formats and bibliographic styles. It is often convenient to follow the Transportation Research Board (TRB) [Information for Authors](#) procedures for preparing a manuscript. You should ensure that you follow the correct procedures from the beginning, which will avoid the tedious process of changing references later.

The TRB procedures include a particular method of citing references:

- The reference list shall include only those references cited in the text; number them in the reference list in the order they are first cited in the text.
- Denote a reference at the appropriate place in the text by an underlined or italic arabic numeral in parentheses, e.g., (2).
- Do not repeat a reference in the list and do not use *ibid.*, *idem*, *op. cit.*, or *loc. cit.* If a reference is cited more than one time in the text, repeat the number first assigned to the reference.

- Do not use footnotes to the text. Incorporate such notes within the text.

The following are some samples of the basic style for references:

Sample Reference Style for TRB Publications:

V. Zahavi and J.M. Ryan. Stability of Travel Over Time. In *Transportation Research Record 750*, TRB, National Research Council, Washington, D.C., 1980, pp. 70-75.

Sample Reference Style for Book:

D. Shinar. *Psychology on the Road: The Human Factor in Traffic Safety*. John Wiley and Sons, Inc., New York, 1978.

Sample Reference Style for Periodical:

J.K. Jolliffe and T.P. Hutchinson. A Behavioral Explanation of the Association Between Bus and Passenger Arrivals at a Bus Stop (in Japanese). *Transportation Science*, Vol. 9, No. 3, May 1975, pp. 248-282.

Sample Reference Style for Government Report:

B.J. Dempsey. *Climatic Effects of Airport Pavement Systems: State of the Art*. Report DOT2DRD-75-196. FHWA, U.S. Department of Transportation, 1976.

## CITING YOUR SOURCES

The following information is from PSU's [Write and Cite](#) web page.

### Plagiarism and Copyright

The idea of research is to study what others have published and form your own opinions. When you quote people -- or even when you summarize or paraphrase information found in books, articles or Web pages -- you must acknowledge the original author.

If you use someone else's words or ideas without crediting them, you are committing a type of theft called plagiarism. Plagiarism can be as obvious as turning in another person's paper or project as your own, or as sly as simply paraphrasing sections of various works. It is also incorrect to copy text from Web pages or other sources without identifying where they came from.

#### *How can you avoid plagiarism?*

- Take clear, accurate notes about where you found specific ideas
- Write down the complete citation information for each item you use
- Use quotation marks when directly stating another person's words
- Always credit original authors for their information and ideas

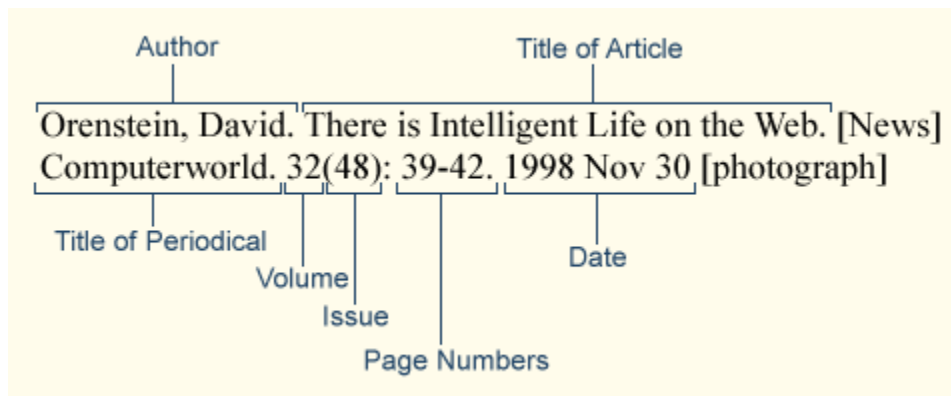
### Citing Your Sources

*Citing* : noting the source of a quote, paraphrase or idea as an authority or proof

Citing is the process of giving credit to the sources you used to write your paper. Citations can be located in the text or at the end of the work in a bibliography. It can be difficult to figure out what needs to be credited.

**Use this rule:** If you knew a piece of information before you started doing research, generally you do not need to credit it. You also do not need to cite well-known facts, such as dates, which can be found in many encyclopedias. All other information such as quotations, statistics, and ideas should always be cited in your papers.

As you create your list of cited sources, it is helpful to know what type of information you need to write down. Here is a citation from a periodical index with each of its important parts labeled.



Formats for citing are consistent so that other researchers may quickly identify the sources you used and easily locate them. To find the guidelines for a particular format you will need to look in a style manual. Your instructor will probably recommend a particular style manual such as *APA*, *MLA* or *Chicago Manual of Style*. Each style manual format includes the same basic parts of that citation, but may organize them slightly differently.

The Library keeps copies of all of the major style manuals at the 2nd floor reference desk. Many style guides are also online. For more on citation styles, check out the [PSU Writing Center's Resources Page](#).

### Additional Resources:

**PSU's Writing Center** page on citations:

<http://www.writingcenter.pdx.edu/resources/apa.html>

The Center's main page: <http://www.writingcenter.pdx.edu>. Go here for help on writing.

Electronic sources: <http://www.writingcenter.pdx.edu/resources/electronic.html>

**Humboldt State University Library:** A good overview of options and links

<http://library.humboldt.edu/~rls/bibdata.htm>

**Dartmouth University:** *Sources--Their Use and Acknowledgement* (a comprehensive source)

<http://www.dartmouth.edu/~sources/>

**American Psychological Association's Publication Manual** is often used as the standard for citations and references:

Main page: <http://www.apastyle.org/>

Tips: <http://www.apastyle.org/previoustips.html>

Electronic references: <http://www.apastyle.org/eleceref.html>

## THESIS OR DISSERTATION STYLES

If you are preparing a thesis or dissertation, please see the PSU [Thesis](#) and [Dissertation](#) guidelines. Take advantage of the [resources](#) offered by the PSU [Writing Center](#), including information on citation formats, including the [American Psychological Association](#) and the [Modern Language Association](#). If you are writing a Field Area Paper (FAP), see Prof. Jennifer Dill's [FAP Page](#).

## PRESENTATION TIPS

A research presentation in a classroom setting should be looked upon as an opportunity to gain experience making a professional presentation in a supportive environment, among your peers. The Transportation Research Board provides a useful [Guide for Speakers](#) that you should review. The Institute of Transportation Engineers also has some pointers for giving a [technical presentation](#), and some valuable [quick tips](#) for preparing and presenting visual aids for a technical presentation.

### Delivery

The primary contributors to an effective presentation are (a) technical content, (b) visual aids, and (c) skills of the speaker. Remember that a presentation may (should) differ from the printed paper and that the presentation gives the author an opportunity to discuss and emphasize highlights of the work, which may not be possible to do in the printed version. It is recommended that you think towards structuring your presentation as follows:

- Title
- **Objectives (i.e., what is the question?)**
- Outline of Presentation
- Methodology
- Body
- Summary
- Conclusion
- Perspectives

Do not read the paper or presentation. Practice to become completely familiar with your presentation so that you can speak from memory or notes. Concentrate on your delivery. Speak clearly and at a pace somewhat slower than normal conversation. Avoid a monotone. Can you be heard throughout the room? It is very important that you actually face your audience and make eye contact. Many people make the mistake of putting their back to the audience and facing the visual aids! Don't make this mistake, and feel free to print out some notes that contain images of your visual aids.

### Timing

Your presentation will almost always be limited in time. Most people are surprised when their time is up! It is very helpful if you practice your talk beforehand, keeping track of elapsed time. Recognize that actual presentations usually take longer than rehearsals. Help your audience by not exceeding your allotted speaking time.

### Visual Aids

Visual aids are always effective tools for communicating your ideas quickly, and therefore are recommended. However, remember that the visual aids are just a tool, and try to avoid making

them overly distracting with complicated backgrounds or moving cartoons. Never use “all text” visuals that convey no additional information to the audience. A maximum of one or two visuals should be used per minute of presentation. Text size should be large enough to be seen from the back of the room. TRB recommends using 24-point type for lettering done in ALL CAPITALS and 32-point for lettering in Capitals and Lowercase.

## RESEARCH POSTERS

Posters are often helpful means of presenting research progress or results in various settings. Poster sessions at the TRB Annual Meeting must follow a particular [format](#). TRB recommends that the lettering for the paper title and author name(s) should be at least 25.4 mm (1 in) high and that all other lettering should be at least 9.5 mm (3/8 in) high. Remember that a “picture” is preferred to text, and that you can often tell your story better with diagrams and graphics. Here is a sample [poster format](#) developed by Mike Rose, PSU MURP student.