

Chapter 6 Basics of Report and Paper Writing

About This Chapter

This chapter describes text heading levels, preparation of a list of cited references and management of computerized bibliographic information. These matters are all things you must know in order to understand the style (format) required for writing a report or a paper.

In general, academic papers must meet all of these requirements: they must have novelty, effectiveness and credibility. Novelty means that the paper contains something new which has been added by the author; effectiveness means that the content contributes to the advancement of academia or industry; and credibility means that the content of the paper is reliable. None of these conditions is easy to meet. In other words, you can write a paper only about invaluable study findings which have been obtained as a result of months or even years of pondering, verification through experiments and correction through thorough discussions.

In a report, you put in writing certain knowledge and understanding. It is more like a composition rather than an academic paper in terms of format. However, your report must be based on your own understanding and must not be a patchwork of others' writings. Moreover, you need to cite the literature to which you referenced to form your understanding and clearly specify that literature by creating bibliography.

Reports on scientific experiments have somewhat different requirements and their formats may vary slightly depending on the specialist area. These reports mainly include the objectives of an experiment, experimental methods (this part may be omitted), results and discussion about the results. Again in this case, the discussion part requires reference to and citation of literature, such as comparisons to scientific facts which can be found in basic literature.

In each case, what you need is bibliographic information.

Bibliographic information is the information required to identify literature. It consists of multiple bibliographic elements, such as the "author's name," the "book name (title)," the "year of publication," the "place of publication," and the "publisher." Some people call a set of bibliographic information of each book referred to "literature information" (or sometimes the term literature information is used synonymously with bibliographic information). Every recently published book is given an International Standard Book Number (ISBN)¹ and each serial publication, such as academic journals, is given an International Standard Serial Number (ISSN).

Any literature or (series of) serial publication can be uniquely identified by these numbers alone, but in general, conventional bibliographic elements are used in bibliographic information².

Writing means to research and think thoroughly about what you are going to write. Writing also means to write something that "only you can write, in your own words." In reality, however, we often encounter a Frankenstein-like report which is a patchwork of pieces from various books and Web sites.

Keep in mind that you must clearly distinguish your ideas from others' ideas and establish a well-defined logical flow in your head before start writing.

¹ Since 2007, ISBN has changed to its current 13-digit form and the previous 10-digit ISBN was abolished. However, you can convert 10-digit ISBN into 13-digit ISBN by using a special formula and you can also search for and order books with 10-digit ISBN.

² ISBN or ISSN is rarely used as a bibliographic element in the reference list of academic journals. One of the reasons may be that it is difficult to include long strings of digits in the reference list of academic journals, which have only a limited space.

6.1 Text Heading Levels

You write a paper or a report because you want your readers to understand your ideas. Therefore unstructured, hard-to-read writing does not accomplish the purpose. By using heading levels, your writing becomes easier to read and the flow of your logic becomes easier to follow. On the other hand, you should be careful not to create too many levels of sub-headings because that will impair readability instead of enhancing it.

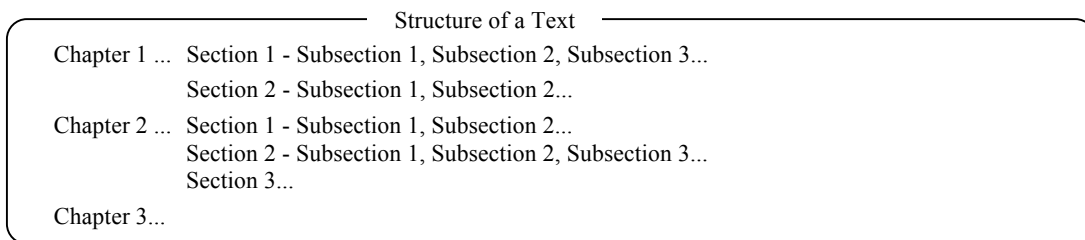
6.1.1 Part, Chapter, Section, Subsection, Sub-subsection and Paragraph

Table 6.1 shows the relationship between these text components: parts, chapters, sections, subsections, sub-subsections and paragraphs.

Table 6.1: Heading Levels of Text

Large ←Hyponymy → Small
Part
Chapter
Section
Subsection
Sub-subsection
Paragraph
Subparagraph

The text structure of an actual report or a paper looks as shown below. Depending on how you develop your argument, you can have a different number of subsections in different sections, for example where the first section consists of three subsections but the second section consists of two subsections.



Some contribution rules and style sheets specify the depth of heading levels allowed and the format of headings. The following list shows you some sample contribution rules. Even if there are no rules specified, the number of heading levels should be kept to about three.

- (Sample Rules)
- | |
|---|
| <p>(a) Level of headings</p> <ul style="list-style-type: none"> • Up to three levels: chapter, section and subsection <p>(b) Headings of sections and subsections</p> <ul style="list-style-type: none"> • Section headings should be numbered as (1), (2) and (3). • Subsection headings should be numbered as a), b) and c). • Do not use heading levels lower than subsection. |
|---|

Column: Software

Since software is intangible and some applications are easy to copy, there seems to be no end to the fraudulent use of software. However, such an act is a crime. Moreover, a report or a paper written using software without a proper license may be judged to be invalid if that act comes to light. Furthermore, the offender may be asked for monetary compensation. It is very important to observe software licensing provisions.

However, since even the academic packages of commercial office suite can be very expensive at times, not everyone can afford them. So there is a movement to provide software which “can be used freely without cost.” A representative example of such productivity suites (a package of applications software such as word processor and spreadsheet) is OpenOffice.org (<http://ja.openoffice.org>). The commercial software StarSuite 8 has been developed based on OpenOffice.org 2.0. Therefore, OpenOffice.org 2.x and StarSuite 8 are very compatible in terms of files and operability.

Using the free licensing available to educational institutions, Waseda University has installed StarSuite 8 on all PCs in the computer rooms under the management of MNC. StarSuite 8 is also sold quite cheaply.

In addition, a variety of application software is now available free of charge as alternatives to commercial products. You can also participate in the development of such software by actively using it and reporting problems (if you find any) to the developer.

In any event, you should never fraudulently use software.

6.1.2 Outline Processor

When considering text structure, you can use software called an outline processor to help you write text with heading levels. You can also use the software as an idea processor, to write down ideas and content using the software whenever they occur to you and build on the ideas and contents to write text at a later date. It is very useful when writing a long paper over relatively long period of time, such as a Bachelor's Thesis.

Some stand-alone outline processors can be used as a word processor because they can pass over data as is to word-processing software or because they have capability to format text and to set out documents for printing. Over several years, the authors have asked liberal arts students when advising them on their graduation theses to use these outline processors for writing their papers. However, from the viewpoint of operability, many of the students asked to be allowed to use word-processing software which they were used to writing with.

In fact, the widely-used word processor MS Word has an "Outline mode" and Writer (OpenOffice.org 2.x and StarSuite 8) has a "Navigator." These are both functionality to allow you to visually check the heading levels of the text while writing a text.

Both Word's Outline mode and Writer's Navigator automatically change heading numbers (Chapter x, Section y) when you add or delete a chapter, a section or a subsection. Moreover, they can generate a table of contents using heading titles. This function is also helpful when practicing paragraph writing, which is a standard method of writing in Europe and the United States. You should make full use of this functionality not only to write a structured and logical text, but also to save time and effort.

6.1.3 TeX

TeX is application software allowing typesetting to be performed on a computer. It is open source software which can be used free of charge. Using TeX, users can create complete, high-quality manuscripts which are ready to be handed over to a print shop. This book used TeX ($\LaTeX 2_{\epsilon}$) to create the data (PDF file), which could be used for printing as is.

TeX has a few shortcomings. Unlike common word processors, TeX does not support WYSIWYG (What You See Is What You Get, i.e., "what you see on the screen is what you get when you print it"). Also you need to memorize commands in order to format your text. Moreover, you cannot establish an environment allowing you to use TeX unless you combine multiple software applications³. However, since TeX allows you to manage a text in an integrated fashion, from structural text writing to bibliographic management, as will be discussed later, it is used widely as a paper-writing environment in science and engineering disciplines. Many books about TeX have been published. As a first step, we recommend you " $\LaTeX 2_{\epsilon}$ 美文書作成入門 改訂第4版 (Introduction to Creating a Beautiful $\LaTeX 2_{\epsilon}$ Document, 4th edition)" (Gijitsu-Hyoron, 2007) by Haruhiko Okumura. By the way, this paragraph was actually typed as shown in Figure 6.1.

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通常のワープロとは異なり、WYSIWYG (\underline{W}hat \underline{Y}ou
\underline{S}ee \underline{I}s \underline{W}hat \underline{Y}ou
\underline{G}et、すなわち「画面で見ているのと、印刷結果とが一致する状態」
ウィジウィグと発音します)で作業ができず、また文字修飾などをするためにコマ
ンドを覚える必要がある点、複数のソフトウェアを組み合わせないと環境が
構築できない\footnote{各種インストールパッケージやエディタを含めた統合
環境が開発・提供されており、現在は簡単になっています。}など多少とりつき
にくい点もあるのですが、構造的な文章の作成はもちろんのこと、後述する文
献管理も含め一元管理できますので、理工系の論文作成環境として広く使われ
ています。TeXに関しては多数書籍がでていますが、まずは、奥村氏による
「\LaTeXe 美文書作成入門 改訂第4版」(技術評論社、2007年)をおすすめ
します。ちなみに、この段落は以下のように入力しています。
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Figure 6.1: Paragraph Written in TeX

³ An integrated TeX environment which includes various installation packages and an editor has been developed and made available, making it now easier to use TeX.

6.2 Structure and Style of Paper

An original paper will receive recognition, but this does not mean that paper has an original style. If the format of your paper does not conform to the format specified by the academic field in which you are going to publish it (the format sometimes varies by academic society or by academic journal), your paper will be turned away at the door, however original and good its content may be. Let us take a look at format (style) here.

6.2.1 Example of Paper Structure

In a scientific research paper, for example, “IMRaD” (Introduction, Materials and methods, and Results and Discussion) is the standard logical flow. Adding Abstract, Keyword(s), Acknowledgment(s), References (Bibliography) to IMRaD, a common structure for paper becomes, in order: Abstract, Keyword(s), Introduction, Materials and Methods, Results, Discussion, Acknowledgment(s) and References (Bibliography).

The definition of each of these terms is given below.

“Abstract”: This section is usually placed at the beginning of a paper. You include the outline of the paper and its main conclusions in an abstract, keeping in mind that it provides readers with information for making a decision as to whether they should read your paper or not. Note that the abstract section may be contained in the bibliographic information for a paper.

“Keyword(s)”: This section contains several words which characterize the paper. Since keywords are often used to search for papers, you should avoid using general terms.

“Introduction”: In this section, you briefly describe previous studies and the relationship between them and the paper, and explain the “objective” of the paper as what you are going to show and to what extent.

“Materials and Methods”: In this section, you describe the “materials (subjects) and methods” of an experiment (or observation or a survey) conducted based on a hypothesis, in sufficient detail for a third party to duplicate your work.

“Results”: In this section, you describe only the “objective results” obtained from the experiment, survey, etc.

“Discussion”: In this section, you interpret the obtained results while comparing the results to those of previous studies and “state your conclusions” so as to clearly explain the significance of findings obtained from your paper. This section may be combined with results in the form: “Results and Discussion.”

“Acknowledgment(s)”: In this section, you express your “gratitude” to people or organizations that provided you with research funds such as grant and people or organizations that gave advice to or helped you on conducting the experiment or writing the paper but not credited as co-the authors.

“References (Bibliography)”: This section contains the list of the published works you cited (referenced). The bibliography is often specified precisely with a style sheet, together with the types and format of bibliographic elements to be included in the list of cited references (author’s name, article or book title, year of publication and publisher) and the format of citing references in the text of a paper. These are collectively called the format (of reference lists).

We often come across a report which contains only a “bibliography” list and cites nothing in the text. The writer may want to emphasize that he or she has read (referenced) the books in the list, but the readers of the report have no idea which parts of literature are referenced (cited) how and where in the report. In the Standards for Information of Science and Technology by Japan Science and Technology Agency (JST), SIST02-2007 “Description of Bibliographic References” (to be described in detail in the next section) explains the roles of bibliographic references as below. Follow the rules to create your bibliography.

Roles and Requirements of Bibliographic References

- (1) As for the literature cited and referenced while writing a paper, the authors must clearly specify their sources.
- (2) As for the description of a bibliographic reference, sufficient bibliographic information for readers to find the particular bibliographic reference must be given.
- (3) The clear identification of referenced literature helps both the authors and the readers organize the existing points of the argument together and makes the novelty and originality demonstrated in the paper clear.
- (4) By clearly specifying the referenced literature, the authors impart the existence of related information to the readers and at the same time, the readers become able to learn about and evaluate the trends in the area of study.
- (5) As for the referenced literature, it is advisable to give primary source. Relying on the materials which the authors have not read and presenting them as referenced literature will undermine the credibility of the descriptions in the paper.

In SIST02, cited references and bibliography are combined and called bibliographic references.

6.2.2 Typical Styles

An academic journal’s contribution rules sometimes specify the structure of a paper in detail and the styles may vary among different journals in the same academic field. But each academic field has the standard style and this serves as the “style” of a paper in a broad sense. These include the style of diagrams, the style of wording and format, and are published as books and electronic manuals.

General books on “how to write a paper” spend many pages explaining the difference in the formats in individual styles and their methods of description, but this book will not go into such matters since the objective of this book is for you to automatically generate a style using the bibliographic management software to be discussed later. If necessary, refer to the individual styles discussed below or the style sheet for the academic paper you submit.

APA Style

APA Style is widely used in arts and science fields, mainly in psychology.

American Psychological Association. *APA論文作成マニュアル (APA Paper Writing Manual)*, Igaku-Shoin, 2004.

APA (American Psychological Association) style, <http://apastyle.apa.org/>.

MLT (The Modern Language Association of America) Style

MLT Style is often used in the fields of human sciences and social science.

Joseph Gibaldi. *MLA Handbook for Writers of Research Papers (6th edition)*, The Modern Language Association of America, 2003.

Joseph Gibaldi. *MLA 英語論文の手引き第6版 (MLA Handbook for Writers of Research Papers, 6th edition)*, Edited and translated by Keiichi Harada, The Hokuseido Press, 2005.

Uniform Requirements (Vancouver Style)

Its formal name is the Uniform Requirements for Manuscripts Submitted to Biomedical Journals. It is used in the fields of medicine and biology and has a relatively short history compared with other styles. There are numerous journals in the fields of medicine and biology and at the moment this style is not exactly a uniform requirement. Basically, there is no book version of this style.

Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication, <http://www.icmje.org/>.

toukougitei.net. 生医学雑誌への投稿のための統一規定：医学の発表に関する執筆と編集 2006年2月改訂版 [Translated version], <http://www.toukougitei.net/URM200602.pdf>.

Chicago Manual of Style

The Chicago Manual of Style is a guide created by University of Chicago and is widely used in fields such as economics and law. It was revised in 2003, its first revision in 20 years. The Chicago Manual of Style is a comprehensive manual containing about 1,000 pages. Covering subjects from basics of editing, such as the grammar and wording of American English, to the citation of electronic publications and information, it is an interesting read as well as being useful as a reference book.

University of Chicago, *The Chicago Manual of Style*. 15th ed. Chicago: University of Chicago Press, 2003.

The Chicago Manual of Style Online, <http://www.chicagomanualofstyle.org/home.html>

SIST02-2007

Standards for Information of Science and Technology (SIST) are designed to facilitate the smooth circulation of scientific and technological information. They comprise the following 14 standards.

- SIST 01: Abstracts and Abstracting
- SIST 02: Description of Bibliographic References
- SIST 03: Common Format for Bibliographic Information Interchange on Magnetic Media (Carrier)
- SIST 04: Implementation Format for Bibliographic Information Interchange on Magnetic Media
- SIST 05: Description of Titles of Periodicals
- SIST 06: Description of Name of Corporate Body
- SIST 07: Presentation of Periodicals
- SIST 08: Presentation of Scientific Papers
- SIST 09: Presentation of Scientific and Technical Reports
- SIST 10: Data Description for Bibliographic Information
- SIST 11: Data Assignment on Record Format for Numerical Information
- SIST 12: Presentation of Preprints
- SIST 13: Indexes and Indexing
- SIST 14: Guidelines for Electronic Contribution Rules

For the outline and full text (PDF) of each standard, refer to:

<http://sist-jst.jp/perusal/index.html>.

SIST 02: Description of Bibliographic References shows how bibliographic references (cited references and bibliography) are to be written in the fields of science and technology. SIST 02 is sold with the other SISTs in the form of a handbook and can also be viewed on the Web.

SIST 02: Description of Bibliographic References.

http://sist-jst.jp/handbook/sist02_2007/main.htm. http://sistjst.jp/handbook/sist02_2007/main.htm.

Japan Science and Technology Agency, Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology. *SISTハンドブック2008年版: 科学技術情報流通技術基準 (SIST Handbook 2006 Edition: Standards for Information of Science and Technology)*. Japan Science and Technology Agency, 2007.

6.2.3 Example of a Poorly Written Report

Let us take a look at an example which would be judged poorly written from a viewpoint of style violations. The marks and underlines (a) to (h) have been added subsequently to give commentary.

“Danger of GPS Cell Phones”

1x0900012 Taro Waseda

These days, no cell phone handset is a mere voice-only phone. Cell phones come with cameras, music players, and some phones even can show One-Seg TV. But, what I wish to discuss in this paper is location-based services.

Location-based services are broadly divided into two types. One is “third-party search services” with which people other than the phone owner can find out the location of the cell phone handset, and the other is “self-localization services” with which the phone owner can give notification of his or her current location from his or her cell phone handset.^(a)

Both types of services use the “Global Positioning System (GPS). GPS is a satellite positioning system to find a user’s present location on earth. GPS was originally developed as a military system. It is the successor to Loran C (Long Range Navigation C)”^(b). A cell phone which comes with GPS is called a GPS cell phone.

GPS cell phones can be roughly divided into three types by their positioning methods: MS-Based, MS-Assisted, and Autonomous. Many present-day cell phones are MS-Based^(c).

MS-Based mode is one of the modes of operation of network supported GPS. The MS-Based mode is a semi-autonomous GPS positioning mode. In the MS-Based mode, communication to a GPS support server is carried out only once. After the initial communication, base stations send calculated locations to the handset at regular intervals by broadcasting. It seems that the idea is close to that of DGPS^{(d)(e)}.

MS-Assisted mode is (snip)

Autonomous mode is (snip)

As mentioned above, in MS-Based and MS-Assisted modes, your handset connects with a network in order to find your position. On the KDDI Web page it says: “find the location on the earth by using the radio waves transmitted from the GPS satellite controlled by the U.S. Department of Defense.” Therefore, whenever you use GPS, you are under the control of the U.S. Department of Defense, although you are in Japan^(f). I think that from a peace viewpoint it is not good for the general public to use a system originally developed for military use^(g). I hope that in future you will not use cell phones which include GPS with its dangers.

Cited References

How Cell Phones Work, Nikkei Business Publications^(h)

グローバル・ポジショニング・システム, <http://ja.wikipedia.org/wiki/>

http://www.kddi.com/business/otoiawase_support/yogo/index.html

The example text is a complete patchwork, devoid of stylistic uniformity, and contains excessive problems, and is such is not good enough to grade. Moreover, on the whole, there is no main-supplemental (superior-subordinate) relationship between the writer's work and the quoted work, and that does not conform to "fair practice" in Section 1 of Article 32 of the Copyright Law (Quotations). If we were to comment on the text, we would say something like the following⁴.

First of all, currently academic information is largely circulated in the form of books and scientific journals (including electronic media) and not widely published on the Web. So you should not use any information on the Web as a cited reference unless it is absolutely necessary, such as when the information can be found only on the Web. Even if there is a necessity to cite information from the Web, it needs to be written according to a certain format. Pasting in just the URLs as above is never be acceptable as (a list of) cited references.

Moreover, in the academic world the rule is not to use secondary information as a cited reference of an academic paper, unless there is a necessity to do so. Wikipedia⁵, which is listed as a cited reference in the above report, is an encyclopedia on the Web. An encyclopedia is secondary information, and basically it cannot be cited as an information source for a paper or a report.

(a) and **(h)**: A book is listed as a cited reference in **(h)**, but it does not contain sufficient bibliographic information as a cited reference. Moreover, the part of the book cited is unknown. The underlined part **(a)** seems to be quoted from the book, but first the writer needs to clearly indicate that this part is indeed a quotation by surrounding it by quotation marks (" ") and add a [citation number] immediately following the part. In other words, if the citation number is 1, the writer must write the sentences as follows (since the sentences include quotation marks, use nested quotations).

"Location-based services are (snip) the other type is 'self-localization services' with which" [1]

According to SIST02, which this guide follows as the standard, you should add the bibliography as shown below. To use a book as a cited reference like the above example, it is also necessary to clearly indicate from which part of a book a quotation was taken. The cited section in the referenced book should be included in the bibliography as follows.

Nobuo Nakajima and Takemi Arita. "携帯電話の端末の場所を知る位置情報サービス (Location-based Services for the Locating of Cell Phone Handsets)" in *How Cell Phones Work*. Tokyo: Nikkei Business Publications, 2007, pp. 248-251, 9784822283247.

(Page(s), text, syllable, etc. can be also specified.)

The text inside the quotation marks **(b)** seems to be taken from the "グローバル・ポジショニング・システム (Global Positioning System)" entry in the Japanese language Wikipedia. Although the text has been placed inside the quotation marks to indicate that it is a quotation, the URL is given without any explanation in the list of cited references.

There are academic books which contain the description of general GPS. In general, a paper or a report should use quotations from authoritative academic books or textbooks in the field (in this case the field of GPS). By doing so, the reliability and dignity of the paper or the report in question are assured. If you must quote a Wikipedia article, use the link "Cite this page" on the left of the article text. When you click the link, various citation formats which conform to typical styles, such as APA and MLA, will be displayed. Use this page for your reference.

(c) The claim, "Many present-day cell phones are MS-Based" is not substantiated by any information source. When you make a claim like this, you need to present literature which contains objective data to support your claim. If the referenced literature is a quotation within a quotation (i.e. the referenced literature is actually a quotation from another literature), you need go back to the original source.

(d) The word DGPS is used without comment. Technical terms, industry terminology, and expressions characteristic of a particular group are called jargon. You do not need to explain obvious jargon to avoid interrupting discussion, but otherwise you must write each acronym in full the first time it is used so that people outside the field in question can read and understand your paper.

⁴ However, in an actual class, it is difficult to provide detailed comments like this due to the student-teacher ratio.

⁵ Some people say we should not use Wikipedia because it contains many errors, but it also contains articles which are beyond challenge. The authors believe Wikipedia is a superb information sharing project.

Since the term GPS has already been used, it should be written “Differential GPS (DGPS).” Its definition should be given, too.

(e) The explanation of MS-Based is a quotation from the Web, but it is not clearly specified in the text or included in the list of cited references. This violates Article 48 of the Copyright Law (Indication of sources), and constitutes plagiarism⁶. Describe it in the list of cited references as shown below. Note that, like (a), you need to add a citation number to clearly indicate the correspondence (here the literature number is temporarily set to 2).

[2] *WDIC CREATORS CLUB*, 通信用語の基礎知識 (*Basics of Communications Terminology*), s.v. “MS-Based GPS,” <http://www.wdic.org/w/WDIC/MS-Based%20GPS> (accessed February 15, 2008).

Note that changing text expressions (somewhat) and claiming that the text is not a quotation is not acceptable in light of Article 20 of the Copyright Law (Right of preserving the integrity). You must use the original expressions unchanged except for the uses permitted by Article 43 of the Copyright Law (Exploitation by means of translation, adaptation, etc.).

(f) The part “you are under the control of the U.S. Department of Defense, although you are in Japan” does not logically make sense. It is obvious that the writer does not understand how GPS works. The U.S. Department of Defense manages the satellite which emits radio waves, not the receiving terminals. A receiving terminal communicates with the server of the cell phone company in order to determine positions in the MS-Based and MS-Assisted modes; it is not communicating with the U.S. Department of Defense.

(g) The part “I think that from a peace viewpoint it is not good for the general public to use a system originally developed for military use” does not logically make sense either. There are many military technologies which have been adapted and utilized for general use. For example, the prototype of the Internet is a computer network which was installed for research and investigation by the Advanced Research Projects Agency of the U.S. Department of Defense (ARPA).

This made-up report “Danger of GPS Cell Phones” was created for this guide, but there are many reports like this⁷. The next section 6.3 “Bibliographic Management” (p. 80) will explain the correct citing of references and an efficient way to create a list of cited references.

⁶ Refer to Section 6.5 “Never Do This” (p. 96).

⁷ The reasoning of (f) and (g) is simply ridiculous, but we will not talk about this any further since it is out of the scope of this guide.

6.3 Bibliographic Management

If you create a reference list from scratch every time you write a report, your task will amount to an enormous workload because you will have to rearrange and rewrite various formats of bibliographic information in the imprint of reference books according to styles such as SIST02, APA, and MLA. It is not uncommon for a Bachelor's Thesis to have a reference list containing nearly 100 books and journals.

Moreover, in order to cite a reference, you need to remember which page of which book contains what information. If the book is your own, you may be able to use a sticky note and redline the important parts, but you are not allowed to do that to library books. One way to organize such information is to keep a notebook for books you have referenced and take notes in it. Often when a paper is written, index cards have been used to transcribe bibliographic information together with notes and comments.

The keeping of such records when writing a Bachelor's Thesis or reports is as important as it ever was. However, the digitization of bibliographic information and the emergence of bibliographic management software have facilitated the building of a personal bibliographic information database, and have dramatically simplified citation and creation of a reference list which conform to a required style. It would be a waste not to use this technology.

Basically, you can do the following with bibliographic management software.

1. You can import bibliographic information from library and other databases.
2. You can automatic insert citation numbers in papers.
3. You can output a reference list in any style required.

First of all, by accessing library or other databases via the network, you can import bibliographic information your predecessors have created from the databases into your own database. Since you do not have to enter bibliographic elements manually, you can reduce the number of errors you make.

Second, you need to number in many styles the references you cited in your paper in the order of their appearance. So when you switch, add or delete sentences, you need to change citation numbers⁸. By using bibliographic management software, you can insert citation numbers in one go when you complete your paper. You no longer need to worry about the order of the citation numbers.

Finally, the formats of thousands of major international journals are registered in some bibliographic management software, so you may be able to save yourself the effort of arranging items in the reference list manually or changing expressions slightly.

This section mainly focuses on RefWorks, bibliographic management software installed at Waseda University. Although not covered in this guide, the "Reference" function in MS Word has been enhanced starting from MS Word 2007 and it now basically can deal with the second and third items described above by itself. Those who are interested should refer to **Help** or to <http://office.microsoft.com/ja-jp/default.aspx> (Microsoft Office Online).

⁸ You can number references in author name alphabetical order, but this method also involves a lot of work when an article or a book is added or deleted.

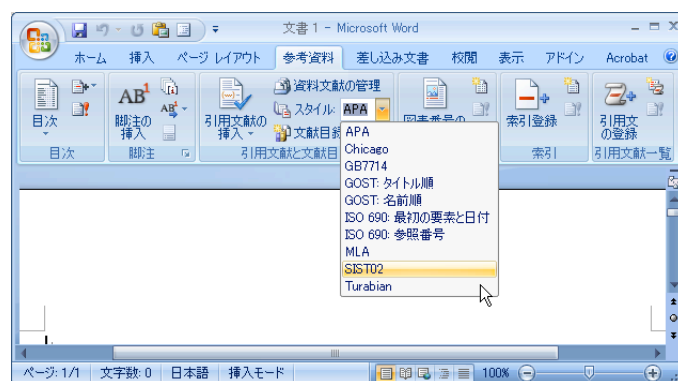


Figure 6.2: MS Word 2007 Reference Tab

Column

Every researcher wants to have his or her paper published in the most prestigious academic journal. However, since each journal can contain only a limited number of articles, even very good papers may not be published in the journal. A paper which has been turned down by one journal will be submitted to another journal a rank below it. If these journals have different style sheets, your paper may lose novelty and hence its value if someone else publishes a similar paper while you are making corrections. Faithfully conforming to a style sheet used to require a large amount of labor; but now style changes can be made almost instantly thanks to bibliographic management software. You now know why the use of bibliographic management software is necessary.

6.3.1 RefWorks

RefWorks is an Application Service Provider (ASP)-type bibliography management system, which is accessed from a Web browser instead of by installing software on a PC.

Since RefWorks is an ASP-type system, you do not need to manage your paper's database file yourself (though you need to back it up⁹). Its disadvantage is that you will not be able to use RefWorks optimally unless you have a broadband Internet connection.

RefWorks is a system developed in the United States. So, while it does not exactly provide flawless support for Japanese data, it works well enough. New functions are added frequently and problems are dealt with via RefWorks' Japanese agent relatively quickly. Our opinion is that RefWorks has a good support system.

Using RefWorks

If a university subscribes to the RefWorks service, its members, including undergraduate and graduate students, full-time faculty and staff, part-time lecturers and researchers, can use the service freely from anywhere via the Internet. Since an institutional subscription to RefWorks is less expensive than purchasing enough site licenses for conventional bibliographic management software for its members¹⁰, this service is often used by medical and pharmaceutical universities which use bibliographic management software regularly. Waseda University has been subscribing to RefWorks since the academic year 2006.

⁹ ASP type systems like RefWorks usually are more reliable in terms of redundancy compared to your PC, but you may still lose data due to a trouble with the ASP. Backing up is very important.

¹⁰ If all Waseda University members use RefWorks, it costs about 40 yen per person a year. An individual subscription costs \$100 per year or more (as of March 2008). Visit the following site for more information (in English). https://www.refworks.com/content/path_learn/purchase.asp

If your university does not subscribe to RefWorks, you can subscribe to it as an individual.

6.3.2 Creating a RefWorks Account

If your university subscribes to RefWorks, you can create an account as follows. To create an account, first access <http://www.refworks.com/refworks> from a PC connected to the on-campus network¹¹. The login page in Figure 6.3 (left) is displayed. Click the “**Sign up for an Individual Account**” link. Figure 6.3 (right) is displayed. Type your name, login name (in single-byte alphanumeric characters), password (single-byte alphanumeric characters), and email address (which may be of a specific type¹²).

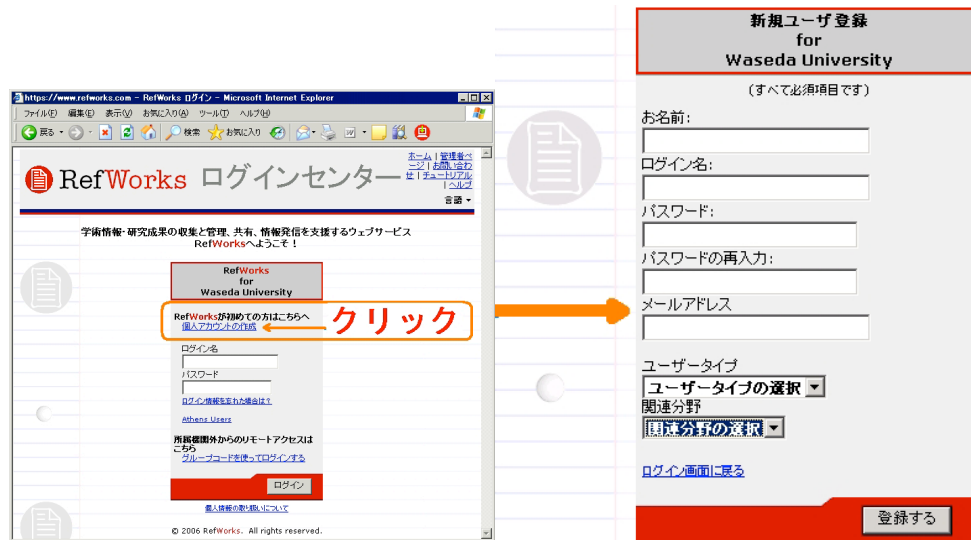


Figure 6.3: Left: RefWorks Web Page, Right: New Registration Page

Select your status for “**Type of User**” (for example, “**Undergraduate Student**”). For “**Area of Focus**,” select an area close to your major (or “**Other**” if you do not know). Click the **Register** button on the lower right. After a while, an email message will arrive at the address you specified. This message contains a Group Code (Each university has a unique code. Be careful not to disclose) for remote access of RefWorks from off campus, and other information. Keep the Group Code safe.

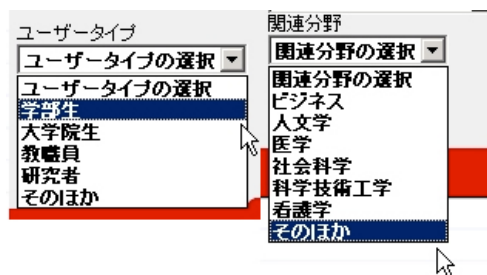


Figure 6.4: Left: **Type of User**, Right: **Area of Focus** Dropdown Combo Boxes

¹¹ Since RefWorks uses a PC’s IP address to check whether or not it belongs to the university, you may be able to use the on-campus services if you access them using a Virtual Private Network (VPN) from your home PC via an Internet service provider.

¹² Waseda University members must use their Waseda-net email address for registration. Your account may be deleted if you register using another address.

Off-campus Access (Waseda University Library)

For Waseda University, by using Off-campus Access (of Waseda University Library), <http://www.wul.waseda.ac.jp/imas/remote/index-e.html> together with the SSL-VPN called FirePass, you can use many of the library services as if you are accessing the services from on campus^a. You do not need to use Off-campus Access to use RefWorks, but you can create an account by using Off-campus Access. Note that you cannot use the same on-campus library services if you access using “Off-Campus Access Using VPN,” a different system provided by the IT Center.

^a However, some services such as commercial databases cannot be used in this way because of contractual agreements.

6.3.3 Entering Bibliographic Information from WINE-OPAC

Since WINE-OPAC of Waseda University is linked to RefWorks, you can import bibliographic information from the “Search Result” window into RefWorks with just one click (this is called Direct Import). Once you get used to it, it takes only about 10 seconds to import the bibliographic information for a book. It is time-consuming to manually enter data into bibliographic management software, but you can easily build your bibliographic database in this way. Some Web-OPACs restrict access by outsiders by requiring an ID and password, but anyone can use WINE-OPAC to search for published materials in the possession of Waseda University Library.

Import

All you need to do is to click the “RefWorks” button on the upper right to use Direct Import from the “Search Result” window of WINE-OPAC. When you click the button, a new window will open (hereinafter called it the pop-up window). The contents of the pop-up window will differ depending on you are accessing the system from on campus or off campus.



Figure 6.5: WINE Search Result Window and RefWorks Import Button

Remote access: When accessing from a network outside of a university (or affiliated organization)

When you are accessing RefWorks from a network outside of your university (or affiliated organization), such as your home, the pop-up window should prompt you to enter the Group Code as shown in Figure 6.6 on page 85 (enlarge the pop-up window if it is too small). The Group Code is included in the email message sent to you when you registered.

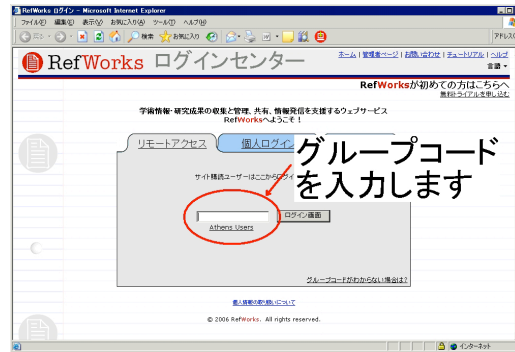


Figure 6.6: Group Login Window

Login Window

When you are accessing RefWorks from the network of your university (or affiliated organization), the pop-up window should show the “Login” window shown below. Type your personal login name and password for RefWorks.

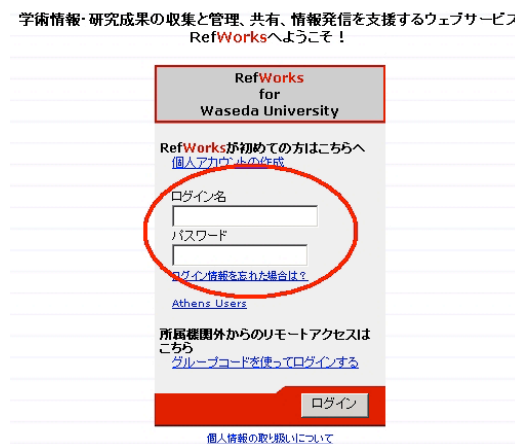


Figure 6.7: Entering Login Name and Password

Import Completed Window

Until you close all your Web browser windows, you will be still logged into RefWorks. The pop-up window for subsequent imports will look like Figure 6.8.

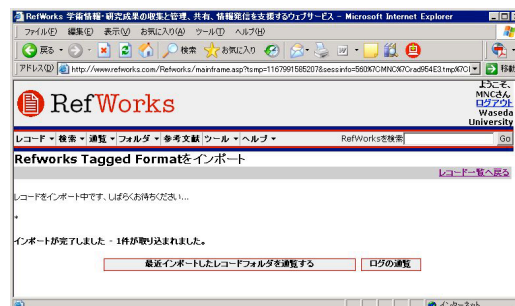


Figure 6.8: Import Completed Pop-up Window

By repeating this process, you can import bibliographic information in WINE-OPAC into RefWorks.

6.3.4 Entering Bibliographic Information from Google Scholar

Google Scholar (<http://scholar.google.com/intl/ja/>) is a Google search engine for academic papers. For more information, refer to the following.

Google Scholar, <http://www.google.co.jp/intl/ja/scholar/about.html>



Figure 6.9: Google Scholar

To import bibliographic information from Google Scholar into RefWorks, click “**Scholar Preferences**” on the Google Scholar top page and select “**Show links to import citations into RefWorks**.”

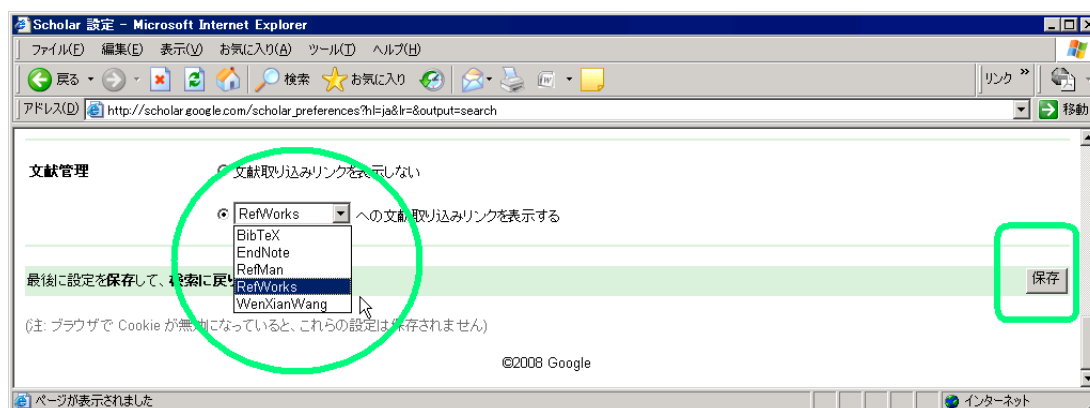


Figure 6.10: Google Scholar Preferences

Search Results

When you search Google Scholar using the keywords “introduction to plant physiology,” a window similar to the one shown below is displayed. You can see the link “**Import into RefWorks**.”

Import (Edit view of the reference) Window

Click “**Import into RefWorks**” to display the “Edit view of the reference,” which unlike WINE-OPAC contains bibliographic information to import.

You need to be careful when you import data from Google Scholar. For example, the Ref Type (Reference Type) of the above search result should be “Book” but the box may show “Journal.” It seems that because Google Scholar data did not include the reference type information in this case, RefWorks chose a default (Journal). Do not import bibliographic elements without thinking, but make sure there is not any missing information.

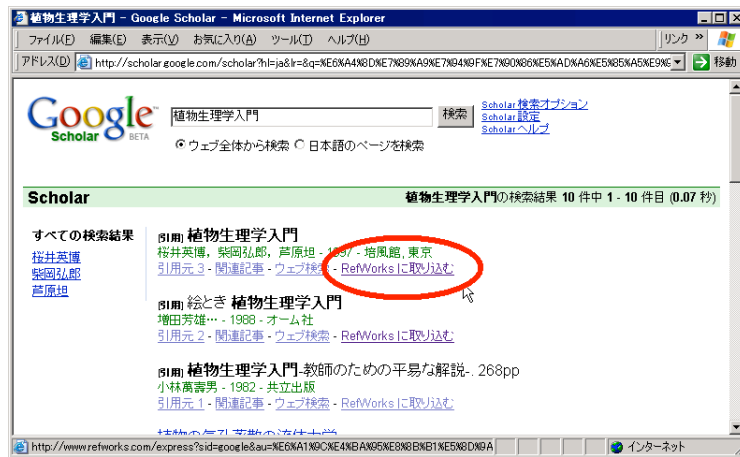


Figure 6.11: Importing from Search Results

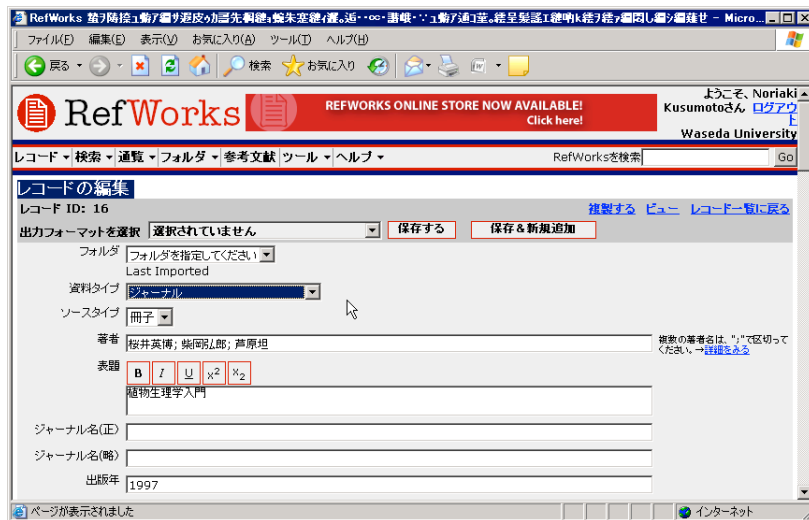


Figure 6.12: RefWorks Edit View of the Reference Window

Note that when you perform your first import from an off-campus network, you enter your group code, user name, and password in the same way as you do with WINE-OPAC.

6.3.5 Inserting Citation in Text

We will show you how to insert a citation in the text and create a list of cited references, assuming that the reference information necessary for writing a paper has already been registered with RefWorks. RefWorks has an MS Word add-in tool called Write-N-Cite, but since this tool turns author names in Japanese into garbled characters, this guide will not cover its use. However, Write-N-Cite is a convenient tool when you write a paper in English using MS Word. If you are interested, refer to the manual mentioned later.

To insert RefWorks' citation placeholders in the text

Log into RefWorks, find a reference you want to cite from the **One Line/Cite View**, and click the link “**Cite.**” If you have many references, do a search and narrow down the list of results in advance.

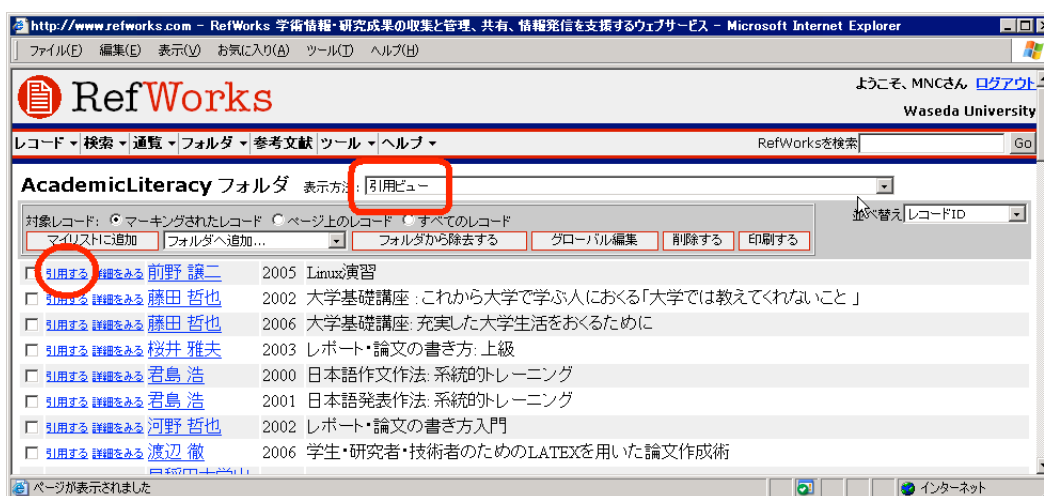


Figure 6.13: One Line/Cite View

The “**Citation Viewer**” opens in a separate window. Click the **Select Citation** button. The entire character string is selected. Copy it by using Ctrl+C (press the C key while holding down the Control key), then move the cursor to the end of the citation in the text and paste it in by using Ctrl+V. The character string {{1 前野謙二2005;}} is inserted into the text. This character string including double braces is a RefWorks' citation placeholder.

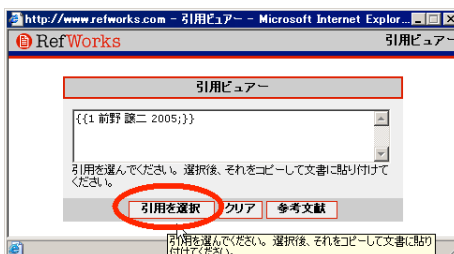


Figure 6.14: Citation Viewer

6.3.6 Creating List of Cited References

Adding Format to Favorites

As mentioned earlier, the types and format of bibliographic elements to be included in the list of cited references specified in the style of the paper (style sheet) and the format of citing references in the text are called the “format” in this guide. RefWorks has over 700 formats¹³. You need to add the formats you frequently use to the “Favorites” list by using the “Output Style Manager.”

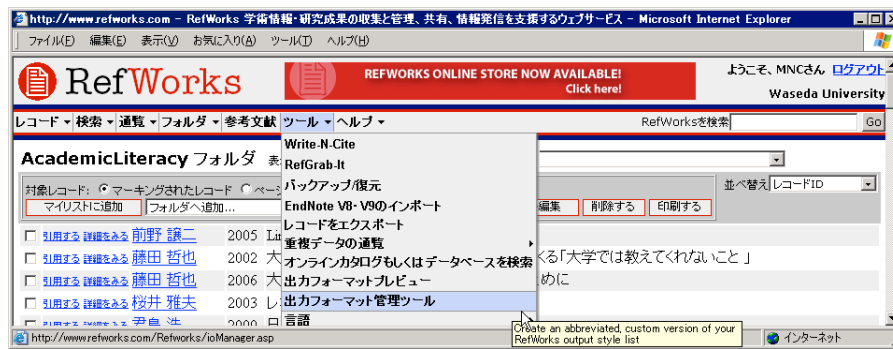


Figure 6.15: Switching to Output Style Manager

Type the name of the format (i.e. the style which specifies the format) you need, search for it, and add it to the Favorites list. In Figure 6.16, APA, MLA, Uniform, and SIST have just been added to the Favorites list.

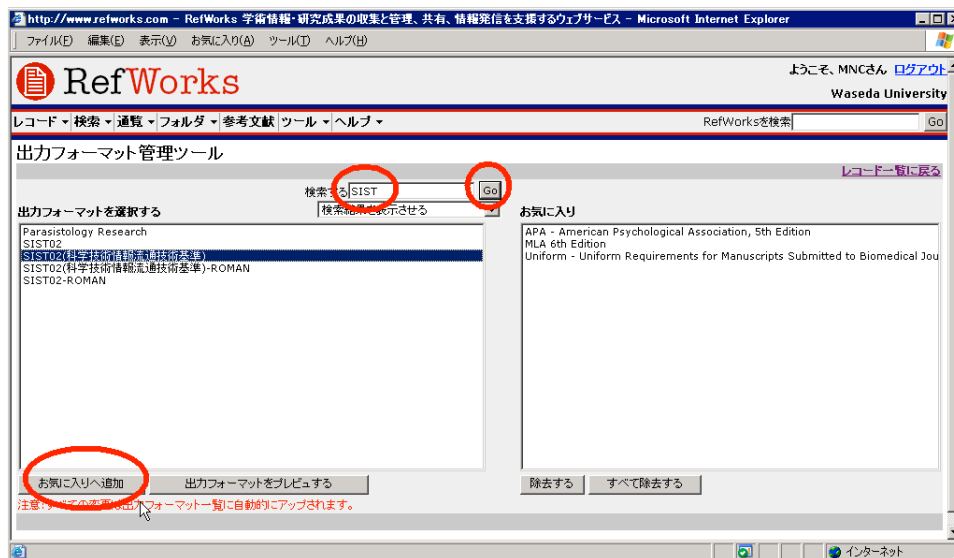


Figure 6.16: Output Style Manager

Generating a List of Cited References

If you upload to RefWorks a document file in which RefWorks’ citation placeholders have been inserted, you can download the document with an automatically generated list of cited references in the specified style’s format added to the end of the document.

¹³ You can also create a format in accordance with the style sheet of the journal you will submit your manuscript to.

At this point, the character formatting, layout, etc. will be as they were when the document was saved. If you want to make revisions, you need to do so on the file for the document before it was converted (it will need to be processed again by RefWorks). So save the document before uploading it.

The file formats which can be uploaded include “.doc” (97-2003 document) of MS Word and “.odt” of OpenOffice.org. Note that “.docx” (MS Word 2007) is not supported at present.

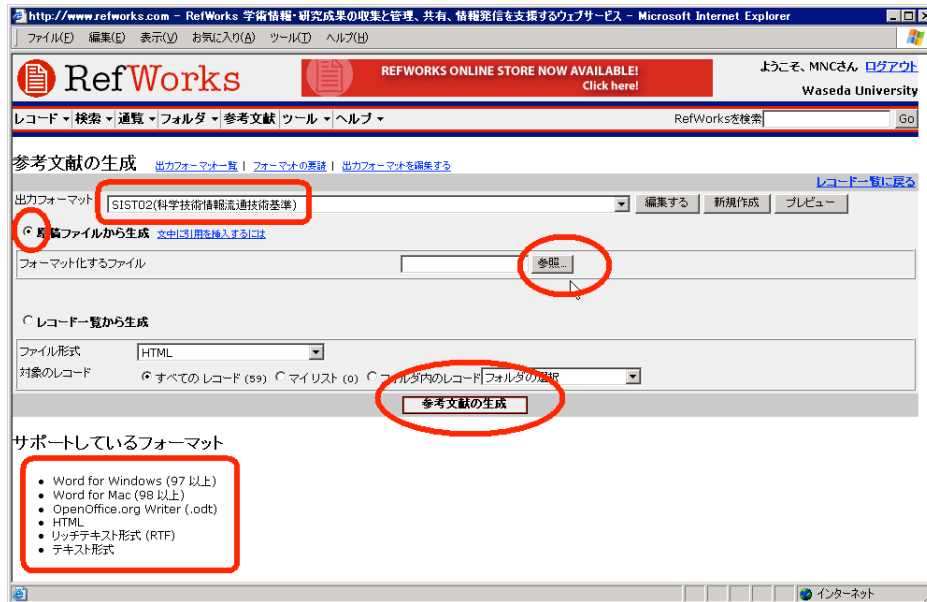


Figure 6.17: Uploading a File

When the conversion is successfully completed, a page similar to the one shown in Figure 6.18 will be displayed. You can download the completed manuscript or email it to yourself.

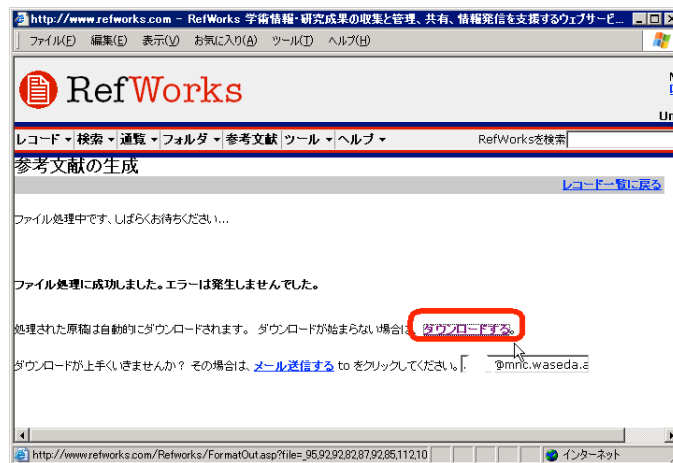


Figure 6.18: Downloading the Converted File

6.3.7 Backing up and Restoring of RefWorks Data

To backup data to your PC

One of the advantages of ASP-type services is that you can use the service as long as you are connected to a network, so you do not need to carry around data. But you should take backups regularly just in case.

When you transfer to another organization because of you have graduated or because you are moving on to higher education, you will no longer be able to use your old account. But, if your new organization subscribe to RefWorks, you can restore the backed-up data and continue using it. Or you can subscribe to RefWorks as an individual. Backing up data is important for this reason, too.

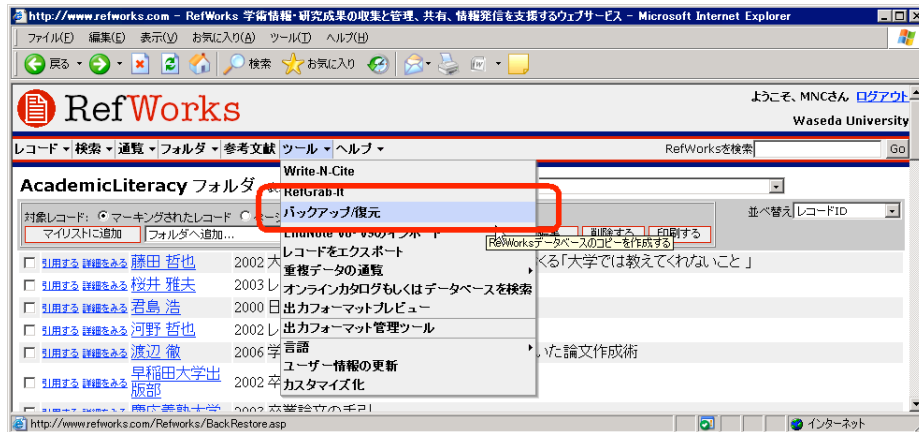


Figure 6.19: Backup

Click the “Perform Backup” button to download a file named “XXXXXXBackup.rwb¹⁴.”

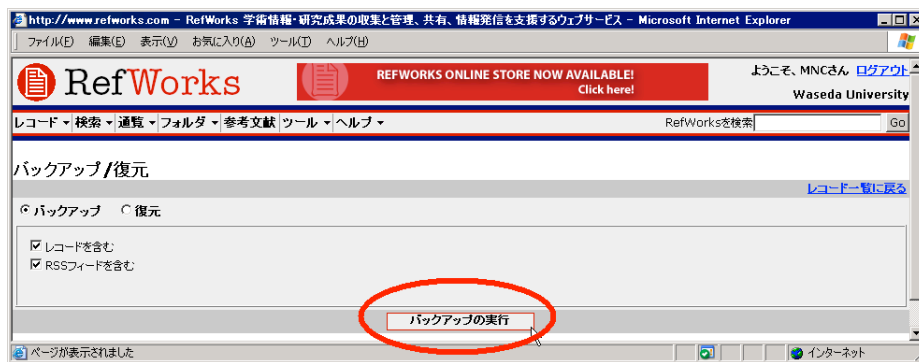


Figure 6.20: Downloading Backup File

To restore data

Select “Restore,” select the file stored on your PC, and upload it. The data will be restored from the backup.

¹⁴ The length and content of the string “XXXXXX” will differ from user to user.

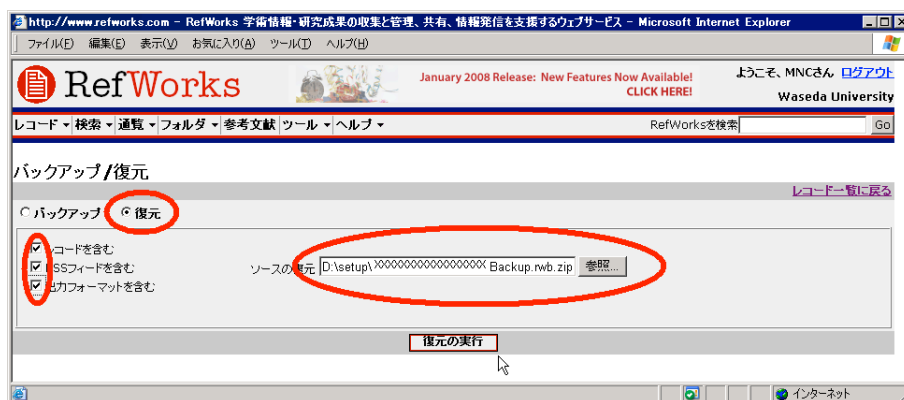


Figure 6.21: Restoring a Backup File

6.3.8 RefWorks Tutorial and Manual

Online tutorial “RefWorks: Getting Started”: This tutorial, which includes video, is available to the general public. There are Japanese and English versions.

<http://www.wul.waseda.ac.jp/imas/guide/tutorial.html>

Online manual (in Japanese): An online manual created by SUNMEDIA (Japanese agents for RefWorks).

<http://www.sunmedia.co.jp/e-port/refworks/manual/index.html>

6.3.9 Other Bibliographic Management Software

EndNote Web

Similarly to RefWorks, EndNote Web is an ASP-type bibliography management system accessed with a Web browser. Academic institutions which subscribe to ISI Web of Knowledge (WoK) provide EndNote Web free of charge. To use EndNote Web, access <http://isiknowledge.com/> from the internal network of a subscribing institution and create an account.

Since Waseda University subscribes to WoK, you can use EndNote Web by following the above steps. You can also use EndNote Web from off campus by using the aforementioned “Off-campus Access (Waseda University library)” <http://www.wul.waseda.ac.jp/imas/remote/index-e.html> (you can also acquire an account). You can share data with EndNote Desktop version X and X1 using the Transfer References functions, and transfer data to EndNote 8-9¹⁵ by using the Import function.

Refer to the following URL for Japanese language support.

“インストール10:EndNoteWebはUnicodeをサポートしますか?”

<http://www.thomsonscientific.jp/support/faq/enw/install/#10>

How to acquire an account

Visit “Access to Academic Information” (Figure 6.22 on page 93) of Waseda University Library (<http://www.wul.waseda.ac.jp/imas/index-e.html>) from the on-campus network, and select “Web of Science (ISI Web of Knowledge).” Select **My Endnote Web** to display the “Web of Knowledge (WoK)” window (Figure 6.23 on page 93).

Click “**Register**” to move to the “User Registration” page.

¹⁵ EndNote version 9 is installed on the PCs of the computer room of the Waseda University Graduate School of Political Science (Room 303, Building 4).

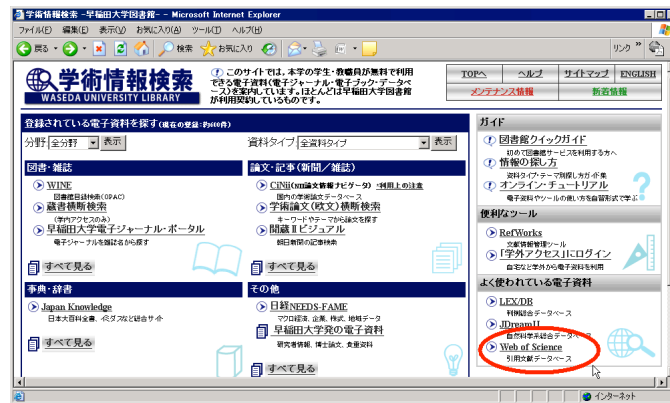


Figure 6.22: Access to Academic Information

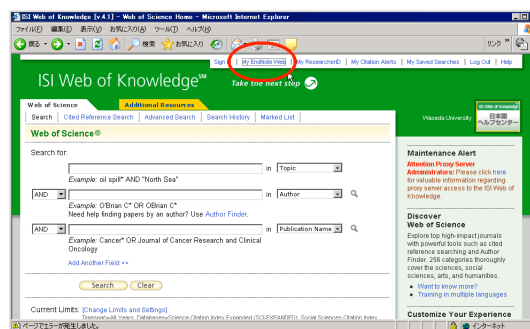


Figure 6.23: Web of Knowledge (WoK)

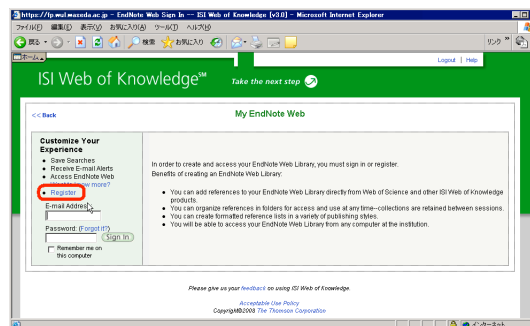


Figure 6.24: Starting Registration

When using a public computer, such as a PC in a university computer classroom, select **“I am using a public computer or do not wish to be signed in automatically.”** under **“Automatic Sign In:”** Since a registration confirmation email will not be sent to you, do not forget the email address and password you registered with.

For more information, refer to:

<http://thomsonscientific.jp/products/enw/index.shtml>.

You can find a quick reference and slide tutorial with audio on the **“Support”** page:

<http://thomsonscientific.jp/products/enw/support/>.

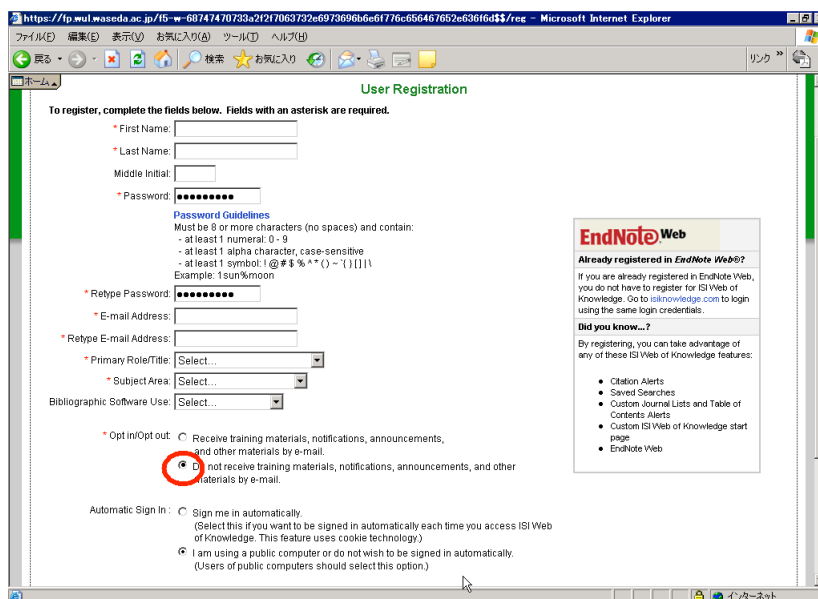


Figure 6.25: User Registration Window

EndNote Desktop

There are Macintosh and Windows versions of EndNote Desktop. The Macintosh version has supported the Japanese language for a long time and has many users. The Windows version also supports Unicode since EndNote 8, and now can handle Japanese. You can find a detailed Japanese manual at on the Web page of the Japanese agent for EndNote, USACO, for registered users only. For more information, refer to the following URL.

http://www.usaco.co.jp/products/isi_rs/en11.html (Japanese Only)

6.4 Before Submitting Reports or Papers

6.4.1 Proofreading

A publishing company makes a printed copy of a writer's manuscript, and the writer or an editor corrects typographical errors and adjusts the document format. This process is called proofreading. In earlier days, printed matter published in large quantities, like books, was typeset manually at a print shop from a handwritten manuscript first and then printed by a rotary press. This method of printing is called letterpress. During this task, “= ” (a reversed type) was used as a temporary character (spacer) when a character in a manuscript was illegible or there was no type available for the character. Even when the characters were chosen correctly, the arrangement of characters might not have been straight, or worn-out (old) types might have been hard to read. Checking these flaws was one of the important tasks of a proofreader.

Nowadays, however, you rarely print your manuscript using typography. First of all, you almost never have someone else typeset your handwritten manuscript (or have them enter it into a PC as data)¹⁶. Instead you ordinarily enter data yourself by writing using word-processing software. Also nowadays, we are frequently asked to submit our lecture outline as a camera-ready copy. Camera-ready originally means to use a printout from word-processing software as is without follow-up proofreading. But lately electronic data such as PDF is sometimes described as “camera-ready PDF” in the sense that there is no proofreading.

For printed matter like books, a manuscript which is ready for printing with completed layout, including composition and diagrams is called the finished artwork. Today, we can create finished artwork ourselves as electronic data on a PC using DeskTop Publishing (DTP) software, such as Adobe's InDesign. This electronic data can be printed and bound as is by a printing company's systems¹⁷.

In proofreading, the writer can retouch his or her manuscript as long as the modification is not major. Repeated proofreading like first proof, second proof (revised proof), and sometimes third proof and proof for confirmation (partial) produces error-free, improved texts. However, since camera-ready or finished artwork cannot be proofread repeatedly, revisions, and detecting misspellings and missing characters before manuscript submission become increasingly important. Larger and higher resolution liquid crystal displays now allow a manuscript to be displayed on screen at its original size, but proofreading using a printed copy is still common practice.

¹⁶ You may dictate to someone.

¹⁷ This guide used TeX to create its finished artwork in the PDF format.

6.4.2 Symbols for Text Correction

The proofreader's marks used for proofreading printed matters are set forth by Japanese Industrial Standards (JIS) and called "symbols for text correction (JIS Z 8208)." You need to conform to the this standard. These symbols, changed appropriately, should also be applied to handwritten manuscripts. By the way, proofreaders must use a red pen.

The "Symbols for text correction" JIS Z 8208:1965 had not been revised for a long time. But, partly because they were no longer suitable for the actual state of affairs, the symbols were revised in 2007 as JIS Z 8208:2007. You need to know the symbols for text correction because these symbols are often used in thesis advising involving hard copies. You can purchase the JIS standards in book form, but this is expensive. Instead you may want to use less expensive handbooks (**** 校正記号の使い方). The following Web site summarizes the frequently used symbols for text correction.

校正舎 (Kouseisya). JIS Z 8208:2007 印刷校正記号一覧 (List of symbols for text correction),

<http://www.kouseisya.jp/mark.htm> (Japanese Only)

The JIS standards can be viewed online. Type a JIS number (letters and numbers without spaces, in this case type "Z8208") in JIS Search (<http://www.jisc.go.jp/eng/index.html>) to view the symbols for text correction in the PDF format. Note that you can neither print nor save the data.

6.4.3 Word Processors Spell-checking

Because kanji conversion can be easily done with a word processor, many of you do not seem to refer to a dictionary any longer. Kanji conversion errors involving the wrong kanji with the same pronunciation as those intended are frequently observed. Also inconsistent Japanese written expression and the misspelling of English words are all too common. In fact, many word processors come with a spell-check tool, and you can prevent most of these errors by using it. Although such spell-checkers are not perfect, use these tools before submitting your report or paper to eliminate simple mistakes, misspellings and missing characters which can be easily overlooked.

6.5 Never Do This

In Waseda University, if any plagiarism in a report (examination by report, given in place of an examination), Bachelor's Thesis, Master's Thesis, or Doctoral Dissertation is discovered, the offender will be penalized in the same way as if they committed misconduct during a regular examination. If any plagiarism is discovered, the offender will lose all the credits for the classes he or she is taking at the point, and due punishment will be imposed by individual Departments (three month suspension is the norm, as agreed at Committee of Undergraduate Deans in December 2005 and confirmed at Committee of Associate Deans in October 2007).

Moreover, if any misconduct is discovered with regard to a Bachelor's Thesis, Master's Thesis, or Doctoral Dissertation after graduation, the degree may be stripped from its recipient. Waseda University has the following regulation regarding this.

Waseda University Degree Rules

(Cancellation of Conferral of a Degree)

Article 23

When the fact has been ascertained that conferral of a degree by the University was received through improper means by an individual on whom a Doctoral, Master's or Professional Degree has been conferred, the President shall cancel the degree that was already conferred and cause the record of degrees to be restored, after consulting with the Graduate School Steering Committee and the Committee of Graduate Deans, and shall publicly announce its actions and reasons.

Of course, this does not just mean that you should not do a dishonest act because you will get punished. Your action may be a result of ignorance or carelessness, but it is very difficult to distinguish such acts from intentional dishonesty. As long as you play by the rules in producing citations and lists of cited references, you will never commit plagiarism unknowingly. You have nothing to fear.

6.6 Appendix: Bachelor's Thesis Style

Even Bachelor's Theses and reports are required to follow the formal style including bibliography, as academic papers are. Individual Departments may have specified their own style sheets for Bachelor's Thesis. If your Department has a style sheet, you must follow it to write your thesis before receiving thesis advising from your faculty adviser.

Since these style sheets may be posted on your Department's forum or published on the Web¹⁸, you should pay attention to posted notices and documents that are distributed.

Methods of selecting a subject of study, methods of research, study and experiment, and methods of carrying out discussions differ greatly from field to field. Since you should receive thesis advising from your faculty adviser after joining a seminar (laboratory), and since there are many "how to write a paper"-type books available for learning about the types of papers or reports and the study method on which paper writing is based, this chapter focused on the handling of bibliographic information in an information environment for producing references (bibliography).

¹⁸ Example: Department of English Language and Literature, School of Education, "卒論執筆の手引き (Guide to Writing a Bachelor's Thesis)" for Academic Year 2007
<http://www.dept.edu.waseda.ac.jp/eng/soturou2007.pdf>
(Since this URL has been updated each academic year, you may no longer be able to view this page from this URL.)