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ABSTRACT

The manual is intended to help students with language learning disabilities master the academic task of research paper writing. A seven-step procedure is advocated for students and their tutors: (1) select a workable topic, then limit and focus it; (2) use library references to identify sources from which to prepare a working bibliography; (3) prepare a rough outline; (4) write and edit a first draft; (5) rework and revise the draft, including an introduction and conclusion; (6) prepare the final draft, adding references and/or footnotes; and (7) type and proofread. (CL)

Postsecondary Intervention Model for Learning Disabilities
The Barkley Memorial Center
University of Nebraska-Lincoln

WRITING: THE RESEARCH PAPER

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Study Manual #3
August, 1985

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WRITING: THE RESEARCH PAPER

Introduction

The ability to compose an effective research paper combines two basic skills that are necessary for success in college: the skill of investigative research and the skill of concise writing. Neither of these skills is known for being easy; but, fortunately, the preparation and writing of a research paper tends to follow a predictable process. Even though individual professors and/or situations might cause modifications, the steps are fairly uniform for all research papers. The process of writing a research paper generally requires that the student:

1. Select a general "workable" topic. Limit and focus that topic.
2. Use the library's card catalog, peridoical indices, professional journals, and computer search facilities to identify sources from which to prepare a working bibliography.
3. Prepare a rough outline or plan of the paper. Take and categorize all notes to conform to that outline.
4. Write and edit a first draft.
5. Rework and revise that draft, including an introduction and a conclusion.
6. Prepare the final draft, adding a list of references and, if required, footnotes or "end notes."
7. Type and carefully proofread.

Note: Always make and keep an extra copy of any paper. Always allow enough time to perform all seven steps with relative ease. "Count backwards" from the due date to know when to begin researching.

PS IM LD has prepared this manual to help students master this key academic task of research paper writing. The manual will discuss each of the above topics in some depth and will suggest appropriate resources at the end for further study. The project strongly recommends that LLD students follow these procedures routinely with their project tutors - whether they are

composing a one to two page paper or a large "opus" of 20 or more pages. The process is essentially the same.

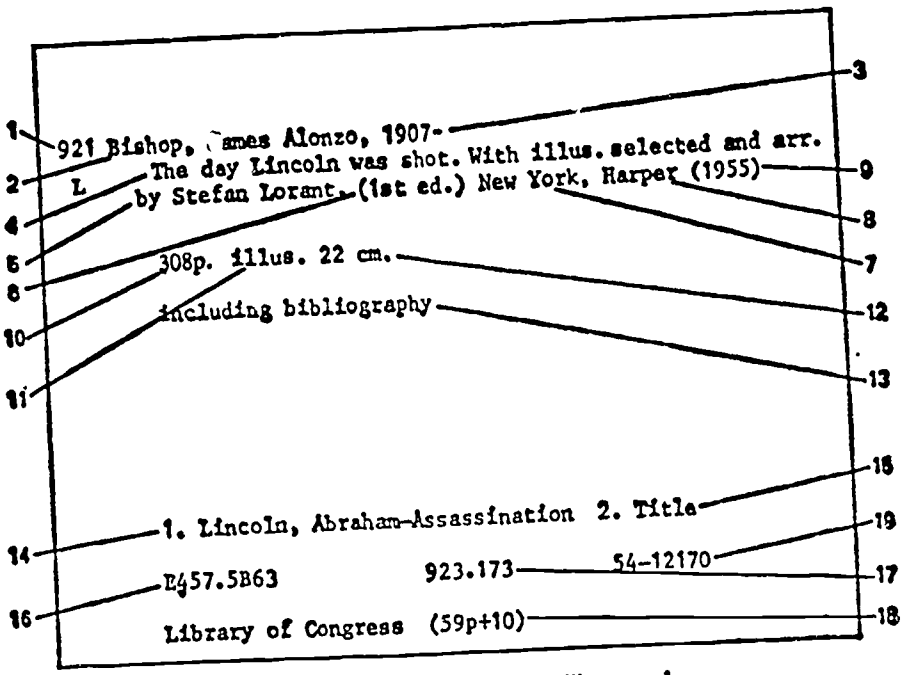
1. SELECT A GENERAL, "WORKABLE" TOPIC. LIMIT AND FOCUS THAT TOPIC.

Unless a specific topic has been assigned or defined by the instructor, the student will need to select a topic that is of general interest to him/her. Of course, that subject should be one that is generated by the general subject matter of that particular course. Meeting with the professors, discussing the topic with friends, reviewing headings and sub-headings in the text, and "brain-storming" privately - all can serve to suggest appropriate research topics to the student. Limiting that topic is more difficult. This implies narrowing the focus of the chosen subject so that the student is able to deal effectively with the limited subject in the space and time allotted for the project.

For example, if the general topic is "Music," the first narrowing might be the "Instruments of the Orchestra." The second narrowing might be "Woodwinds," with the third possibly the "Oboe," and the final focus possibly "The Development and Use of the Oboe in Modern Times." A topic that has not been focused will generally prove to be too large and, thus, too difficult for the student to handle. A suitably-focused subject ought to yield enough data to adequately "cover" that subject and not so much that it overwhelms the reader. In other words, the object is to provide enough information and supporting details so that the topic is thoroughly explored, but not so much that the reader "drowns" in irrelevant phrases. At this point, the student is ready to pose a thesis statement or question regarding his focused topic and begin the collection of data. NOTE: The student should practice doing all of the preceding and succeeding steps frequently with the project tutor.

2. WITH THE AID OF THE LIBRARY'S CARD CATALOG, PERIODOCIAL INDICES, PROFESSIONAL JOURNALS, AND COMPUTER SEARCH FACILITIES, PREPARE A WORKING BIBLIOGRAPHY TO CHOOSE AND EXTRACT (RELEVANT) MATERIAL FROM THESE SOURCES.

SAMPLE CARD FROM CARD CATALOG



1 Call or Classification No.
2 Author
3 Date of birth of author
4 Title of book
5 Name of illustrator
6 Edition
7 Place of publication
8 Publisher
9 Copyright date
10 No. of pages in book
11 Book is illustrated
12 Size of type
13 Book has bibliography
14 Information for librarian
15 Information for librarian
16 Library of Congress Catalog no.
17 Dewey Decimal Classification no.
18 Library of Congress information
19 Card order no.

All college students should be "on friendly terms" with their own college libraries and should be comfortable with both the card catalog and the floor plan of books. (Please see Part C of PS IM LD Student Handbook.) The student should identify key terms for his research check before beginning the search. Most card catalogs are organized (see sample above) so that books are listed under both the author's name and under the subject. Sometimes they are listed under the title, too. This is called cross-referencing. Note these features in the sample card and key pictured above. For example, to look up sources regarding "The Development and Use of the Oboe in Modern Times," the student might be well-advised to check the following subject headings: musical instruments, orchestras, woodwinds, oboes, and maybe even instrumentalists. Hopefully, the books and articles resulting from this search will yield relevant data. Often, bibliographies found in texts or in assigned readings will suggest suitable sources. A computer search using an information retrieval system such as ERIC or MEDLARS is generally helpful and worth the small expense involved (Mulkerne and Mulkerne, 1983). The list of sources that the student actually selects from the card catalog, oral sources, indices of periodicals, professional journals, text references, and computer searches comprise the student's preliminary, or working bibliography. In other words, these represent all the sources that the student will check. Many of these, but likely not all of them, will prove to be useful. The exact name of each reference should be recorded on a separate 3x5 or 4x6 card, along with the library's call number, complete information for the paper's bibliography (more on this later), and your brief opinion of the usefulness of this particular source.

For example, a fictitious working bibliography card for the "oboe paper" might look something like this (Pauk, 1984):

		2
College library	Instruments - Oboe	
Ow 16 G35	Owen, N. A. Instrument of the Orchestra Holt, Rinehart, Co., NY 1982.	
Good information pertaining to the physical construction and sd. mechanism of the oboe. Not much on history.		

Notice that although no detailed notes are taken directly on this working bibliography card, the student might choose to use a reference "code" number in a corner of the card for quick identification of reference sources when s/he does begin the note-taking process. That is what the small number "2" designates in the upper right-hand corner of this card. This is a handy technique for quick reference. Often, the author's last name will suffice for this purpose, too - if the student does not have numerous references by the same author in the working bibliograpahy.

3. PREPARE A ROUGH OUTLINE (PLAN) OF YOUR PAPER. TAKE AND CATEGORIZE ALL NOTES TO CONFORM TO THAT OUTLINE.

These two items are grouped together because they are "mutually dependent" on one another. Both the material of the course and the nature of the working bibliography will suggest and restrict the preliminary outline or plan that the student creates. The actual data that the student extracts from his/her sources will cause that outline to be modified even further. For example, if the student writing "the oboe paper" finds good sources only on the clarinet, s/he might very well decide to write about that instrument instead. Or s/he might find far more interesting material on the ancient history of the oboe

(clarinet, etc.), which would cause more extensive revision! In other words, the process, ideally, is somewhat fluid - with the notes "taking shape" from the initial outline and with the final outline taking its form from the nature and quality of these notes. Most importantly, though, the ultimate paper will need to have resulted from a careful and cohesive plan, in which all the sections of the paper both grow from the title and relate back to it, too.

Sample Outline for Oboe Paper
The Development and Use of the Oboe in Modern Times

I. Introduction

II. Historical Overview

III. Construction and Sound Production

IV. Orchestral Use

V. Conclusion

Of course, in an actual writing situation, the student would need to delineate the appropriate topics and sub-topics under these general headings. While these may be left to the individual interpretation of the paper's author, the student needs to remember that sub-topics must always be related back to the heading directly above.

With that in mind, how should college students go about taking notes? Notes should be taken on separate cards of uniform size and with a code number or author's last name noted in a corner of that card. Notes take the form of quotes, paraphrasings, or interpretation (Walker, 1983). To quote is to reproduce exactly someone else's words, and credit must always be given for that privilege either in the footnotes or in the references listing of the research paper. For example, to quote from Lincoln's Gettsburg Address is to use his exact words in quotation marks. When a student paraphrases or

summarizes, s/he is attempting to reproduce the sense of a written passage - or oral statement - in his/her own words. The use of paraphrasing is a reasonable study and research tool. It enables the student to use a form of expression that s/he finds comfortable. If a student were to paraphrase or summarize Lincoln's Gettysburg Address, s/he would describe it, but in his/her own language. S/he would first study Lincoln's words and would then proceed to explain these him/herself. Interpreting what has been studied is also a legitimate outcome of library research. The student must make certain to use language which actively and accurately supports that interpretation. To interpret Lincoln's Gettysburg's Address, the student would probably note Lincoln's words and then explain the implications of those words. Interpreting something generally implies discussing meaning or making value judgments. In general, the student will need to make certain that his/her notes clearly indicate not only the exact source of the material on each card, but also, whether or not that material is the student's own opinion or is the product of someone else's thought. Notes resulting from a library computer search, an oral interview, or any other form of research are taken in the same manner.

After s/he has collected all of the necessary research data, the student will need to categorize the note cards to conform to the outline or modify that outline so that it relates to the actual data produced! In order to categorize effectively, a student must be able to make connections and discover relationships (Walker, 1984). At this point, it is not as important to have a formal outline as it is to have a plan that the student finds workable and that is compatible with the findings of his/her research. Remember: If researching the oboe presents a problem, the student can always write about the violin or clarinet instead!

4. WRITE AND EDIT A FIRST DRAFT.

Assuming that the student has assembled and categorized an adequate and appropriate amount of data, then generating a cohesive and readable research paper from this material should be a manageable task. The student should use the outline and the categorized groups of notes to form the basis of the paper and write to elaborate on and interpret this material. To develop the paper clearly, the student will need to keep in mind the following proven suggestions in writing the first draft (Pauk, 1984):

1. State all points clearly, making sure that each paragraph opens with a topic sentence.

2. Develop each point beyond a brief statement, with numerous supporting statements.

3. Support with statistics and quotes from authorities. These may be included in supporting statements or as the main point in a topic sentence.

4. Illustrate with frequent examples

5. Interrelate all main points with appropriate transitions.

Transitions help the reader to move comfortably from one topic to the next rather than causing him/her to make that change abruptly. The appropriate use of transition words and phrases serves as a cue to the reader that the writer is guiding him/her to the next point in a planned, logical sequence. Common transitional words include the following:

conversely	besides	rather than
in other words	consequently	whereas
for example	subsequently	accordingly
furthermore	meanwhile	to repeat
however	for this reason	otherwise
nevertheless	instead of	to illustrate
although	since	other than
likewise	more importantly	next
		similarly

Grammar, punctuation, and spelling are secondary considerations at this point in the writing of the paper. These will be "cleaned up" during revision and are not as important in the first draft as are matters of style and content. This first draft may be typed or written in longhand. The student, particularly the LLD student, may also prefer to work on a word processor. These can make easy work of revisions and editing.

5. REWORK AND REVISE THAT DRAFT, INCLUDING AN INTRODUCTION AND CONCLUSION.

Always allow enough time for at least three revisions, if necessary. When an author revises, s/he edits and adds in order to produce a written product that "flows," has rhythm, meaning, and an over-riding sense of "cohesion" (Mohr, 1984). The goals are to use an economy of well-chosen words to say what needs to be said and to say it in a well-structured and grammatical form. To do this, the student writes, re-arranges, adds, deletes, and even re-constructs in an effort to clarify meaning and to create a unique "style."

Study, for example, this excerpt and its revision from the writings of a "typical" college student (Walker, 1984):

Original: According to Kreidl, it was Leonard Rosenman, the musical director of Rebel, who suggested the thirty-one-year old Stewart Stern as a replacement for Shulman. At last, Ray had found a collaborator with thom he could work until the film was finished.

Revision: Leonard Rosenman, the musical director of Rebel, suggested the thirty-one-year old Stewart Stern, who worked with Ray until the film was finished.

The revised version contributes essentially the same information as the original does, but does so with an economy of words and a clarity of meaning. At the time of revision, elements of faulty grammar, punctuation, and/or spelling should also be corrected. Transitions should be re-worked and word choice(s) refined. The student may be well-advised to "pass through" each revision many times, having specific goals for each "sweep," such as:

- Reading only the topic sentences in each paragraph to check for both tight cohesion and smooth transition.

- Reading from the end of the paper to the beginning to check for spelling and punctuation errors.

- Substituting nouns for pronouns in order to check the accuracy of all referents.

- Checking tense, and number agreement of all verbs.

- Checking the revised paper against the original outline to make sure that they coorelate!

The idea of a writer making many "sweeps" through a paper to target specific writing goals is a sound one, that promotes careful editing and prudent revision. It is not unusual for the process of revision to necessitate two or three drafts. The student may want to consult some of this manual's suggested resources, along with the aid of the project tutor, to further refine and develop his/her own capacity to revise written materials effectively.

6. PREPARE THE FINAL DRAFT, ADDING A LIST OF RESOURCES AND, IF NECESSARY, FOOTNOTES OR "ENDNOTES."

If the student has composed his/her paper in the format prescribed here and has gone through the process of successive and careful revision, then the final draft of the completed paper will be merely the last step on a continuum. As each successive draft is suggested from the one directly preceding it, the final one should also "flow" quite smoothly from its predecessor. Elements of writing mechanics and style should have been thoroughly checked prior to the final copy, so that the writer may be certain that his/her work is mechanically accurate and stylistically correct. The organization of the final paper, too, should correlate reciprocally with the original outline, with its main points and sub-topics, with supporting details and relevant quotes, with distinct topic sentences and appropriate explanations. The last step before proofreading and typing is to add an accurate listing of references actually

narrative body of the paper. While a list of references is always provided for the reader, the inclusion of footnotes (endnotes) is not always required. Students should always know and follow the expectations of their professors in this regard. Students should also follow the precise style directives for Resource and Footnotes citations required by each professor and/or department. These citation directives generally follow either the American Psychological Association, the Modern Language Association, or the Strunk and White standards and are carefully explained in the appropriate handbooks. With the aid of the appropriate handbook and the student's own working bibliography, a list of actual resources used is not difficult to prepare.

7. TYPE AND CAREFULLY PROOFREAD.

The topic has been focused, the sources selected, the data extracted, and the planned paper written and revised according to the instructor's expectations. All that remains for the student to do is to proofread the final draft carefully one last time before typing, type it according to stylistic expectations, add an appropriate title page, and proofread again. If a paid typist is employed, the student should be certain that the typist follows standard style and citation procedures. Again, these are not always uniform between university departments. Also, the student must remember to allow time for typing and proofreading when s/he first begins to make plans for the paper. Finally, the student should remember to proofread the entire final typed copy - even if it has been professionally typed - and always, to make and save a copy of each research paper.

Conclusion

PS IM LD has presented the research and writing process prescribed above with the expectation that LLD students and their tutors will find that the process described facilitates academic writing. Again, the recommended

procedure is essentially a routine one and should serve all students effectively whether they are engaged in beginning or advanced research.

References

Kirby, D. and Liner, T. (1981). Inside Out: Developmental Strategies for Writing. Boynton-Cook Co., NY.

Mohr, M. M. (1981). Revision: The Rhythm of Meaning. Boynton-Cook, NJ.

Mulkerne, D. (1983). The Term Paper Step-by-Step. Anchor Press, NY.

Pauk, Walter. (1984). How to Study in College. Houghton-Mifflin, Boston.

Walker, M. (1984). Writing Research Papers. Norton Press, NY.

Recommended Student Resources

American Psychological Associaton. (1984). Publication Manual, Third edition, APA, Washington, D.C.

Gibaldi, J. and Achtert, W. S. (1984). MLA Handbook for Writers of Research Papers, MLA, New York.

Kirby, D. and Liner, T. (1981). Inside Out: Developmental Strategies for Writing. Boynton-Cook Co., NY.

Kirzner, L. G. and Mandell, S. R. (1983). Patterns for College Writing, St. Martin's Press, NY.

Mohr, M. M. (1981). Revision: The Rhythm of Meaning. Boynton-Cook, NJ.

Mulkerne, D. (1983). The Term Paper Step-by-Step. Anchor Press, NY.

Pauk, Walter. (1984). How to Study in College. Houghton-Mifflin, Boston.

Strunk, W. and White, E. B. (1979). The Elements of Style, Third edition. NY.

Walker, M. (1984). Writing Research Papers, Norton Press, NY.

Applicable PS IM LD Software (BMC 250a)

From Broderbund Software
- The Bank Street Writer
- The Bank Street Speller

From Hartley Co.
- E-Z Pilot Authoring Program

From Micro Power and Light Co.
- Challenging Analogies
- Outling Skills
- Word Prep Advanced

From Microsoft Co.
- Typing Tutor II

From Sierra Co.
- Homeword Personal Word Processor