

Guide to the Successful Thesis and Dissertation

**A Handbook for
Students and Faculty**

Fifth Edition

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Writing the Manuscript

QUICK REFERENCE TO ANSWERS TO SPECIFIC QUESTIONS

- | | |
|---|---------|
| 1. Is there a recommended table of contents for the T/D? | 239–240 |
| 2. How does one approach the first draft of the T/D? | 240–244 |
| 3. How does one get advice and technical assistance? | 244–246 |
| 4. Is there a checklist recommended for the T/D manuscript? | 249–250 |

Sooner or later, the time comes when the advisor and the student agree that a draft of the entire document should be prepared from title page to appendices and bibliography. From our experience, the earlier that first complete draft is written the better.

THE THESIS/DISSERTATION FORMAT

One of the first things a student wants to know is what a thesis or dissertation looks like. To determine that, both students and faculty members first need to know if there is a distinctive format associated with their kind of study or with their department or school.

In a more general sense, both students and faculty members are recognizing the importance of and the need for some skeletal structure around which to assemble their ideas, the data, and their conclusions. The desirability of a well-planned outline is emphasized by Martin (1980):

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Probably no other aspect of writing so quickly distinguishes between the professional and the amateur writer than the emphasis on structure. The student writer, for example, frequently starts writing at the beginning of Chapter 1 of a dissertation with the hope of working his/her way to the end of the chapter with little more in mind regarding structure than the three or four most important points. Such a neglect of structure is the primary cause of the situation most feared by all writers—sitting for an hour in front of a blank piece of paper trying to compose the first sentence. (p. 38)

The most difficult decisions at the full first draft stage of writing have to do with the internal organization of chapters, the structure that supports the flow of thoughts. Special attention is paid to that in this chapter.

A Table of Contents as a Guide

Over many years, patterns have emerged for the T/D proposal and for the final document. The final document expands and extends the proposal text. Much of the same patterns characterize both thesis and dissertation (G. B. Davis and Parker, 1997).

Usually the T/D proposal (see Chapter 4) becomes the first four chapters of the dissertation. Only tense changes and other minor alterations will be needed if the conduct of the research is as closely tied to the proposal as it should be. This underscores the importance of a clear and carefully thought-out proposal.

The table of contents in Fig. 8-1 incorporates a step-by-step excursion through a widely applicable skeleton structure of a T/D. Note that it is an extension of Fig. 4-1, and that it is a generalized outline. Outlines illustrative of other types of studies are in Appendix B.

Not every student's study will need every heading. For example, some reports may need no tables or appendices. Some students, on the other hand, may need to add headings not mentioned here or subdivide some of these. It may prove useful to combine, omit, or mix features of the outlines in Fig. 8-1 and Appendix B. As stated, there is no standard outline that all research reports are required to follow.



I.	Introduction
II.	The problem
	A. Rationale, significance, or need for the study
	B. Theoretical framework for the proposed study
	C. Statement of the problem to be investigated
	D. Elements, hypotheses, theories, or research questions to be investigated
	E. Delimitations and limitations of the study
	F. Definition of terms
	G. Summary
III.	Review of the literature
	A. Historical overview of the theory and research literature
	B. The theory and research literature specific to the topic
	C. Research in cognate areas relevant to the T/D topic
	D. Critique of the validity of appropriate theory and research literature
	E. Summary of what is known and unknown about the T/D topic
	F. The contribution this study will make to the literature
IV.	Research procedures
	A. Research methodology
	B. Specific procedures
	C. Research population or sample
	D. Instrumentation
	E. Pilot study
	F. Data collection
	G. Treatment of the data
	H. Summary
V.	Findings
	A. The plan of the study
	B. Procedures
	C. Elements, hypotheses, research questions
	D. Evidence found that supports or fails to support each of the elements, hypotheses, or research questions
	E. Unanticipated results (findings)
	F. Summary of what was found
VI.	Conclusions and implications
	A. Conclusions
	1. Conclusions to be drawn based on the findings
	2. Alternative explanations for the findings
	3. Impact of the study in terms of what was learned
	4. Strengths, weaknesses, and limitations of the study

Figure 8-1 Table of contents for theses and dissertations.



B. Implications
1. Implications for professional practice or decision making
2. Implications for a scholarly understanding of the field
3. Implications for theory building
4. Implications for future research studies
C. Recommendations
1. Recommendations for further research or for changing research methodology
2. Recommendations for changes in academic concepts, knowledge, or professional practice
3. Recommended changes or modifications in accepted theoretical constructs
4. Recommendations concerning changes in organization, procedures, practices, behavior
D. Summary
Appendices
Appendix A . . .
Bibliography

Figure 8-1 Continued

AN APPROACH TO THE FIRST DRAFT

Organizing for Writing

Organizing for writing is something only the student can do. Advisors and committee members, though, may offer helpful suggestions. The preferred organizing process starts with establishing a writing schedule (i.e., a certain time each day, with projected objectives to be accomplished by certain times) and sticking to that schedule. Also, organizing for writing means arranging notes, references, and data in systematic and readily accessible form. At this point, an ounce of order is worth a pound of clutter (Lester, 1999).

Finally, organizing for writing calls for arranging for a place to write, preferably one that will not have to be moved and can be left as is when work is interrupted and returned to later. Often, that can



be accomplished at home by staking out just enough out-of-the way area for a computer and other technical equipment, a table, a straight chair, a good light, and storage shelves and boxes for materials and supplies. However it is done, for most people organizing for writing is fundamental if the manuscript preparation is to progress effectively and efficiently.

Using a Model

Editors and experienced writers recommend constructing a “dummy,” a life-size blank model of the finished document. Start with the front cover and tentative title. Insert pages with titles at the top in the order in which material will probably appear, then rearrange, add to, or otherwise change as progress dictates.

We have found the way that works best for us is to create folders in the computer program (e.g., Microsoft Word), with several files in each folder. For example, one folder might be the bibliography, another folder the research topics, a third folder the dummy pages, and a fourth folder might contain the chapters of the thesis or dissertation, numbered from 1 to the last chapter. Label the folders and files clearly so that when you start work each day, you can find your way around the draft in a short time. Also, well-marked folders and files will help you to insert new data or information in the appropriate place without having to search all over the document; the other side of this point is that when you go to find something inserted weeks before, you will be able to go right to it.

The Approved Overview Document

A comprehensive and detailed overview paper pays off first in the project approval stage. Second, it proves of benefit as a guide to conducting the study. Now, in the first full-draft writing stage, the third major value of a sound overview appears. With minor additions and modifications, it becomes the first several T/D chapters.

Style and Other Local Requirements

Costly mistakes can be avoided by an early re-review of the university and school regulations about style, required kind of paper, and other



details. Some requirements that applied to the proposal may differ for the T/D document. Also, consistency in style makes for a smoother and more rapid narrative flow. In the unusual case for which no mandated style or preference is expressed by the advisor, two options should be considered. First, if it is anticipated that the T/D might be published in whole or in part as a book or in a journal, choose the style of that particular publisher or journal. If that is not feasible, select one of the numerous published style manuals and follow it. Abide by one style and pay close attention to it to preclude expensive adjustments later.

Copyrighted Material

The most common location for quotations in the T/D is the chapter in which literature is reviewed, although the words of other writers may be cited elsewhere also. An overarching principle to guide researchers in quoting (or otherwise displaying) anything of someone else's is this: The owner of the copyright has the exclusive right to use, market, or otherwise employ his or her material in any form. It is essential, therefore, to stay with accepted practices for quoting and to obtain permission whenever there might be a use of copyrighted material that goes beyond the standard rules and limits. One's advisor, the graduate office, and the university library are good sources for determining the rules and limits on quotations that apply to T/D writing. The work of Gorman (1987) is an excellent source for both the history and the rationale for protection by copyright.

There are "fair use" guidelines for employing copyrighted material in CD-ROMs and other multimedia settings. Current fair use provisions in U.S. copyright law allow portions of copyrighted material to be used without the owner's permission if done for educational, research, or commentary purposes (C. D. Long, 1997a). The guidelines set limits for what may be construed as "reasonable" for those purposes and give examples, such as the lesser of 10% or 30 seconds of a copyrighted musical work. The guidelines have widespread endorsement and approval from relevant professional and governmental groups. Key documents can currently be found at the Stanford University Libraries Web site (Stanford University, n.d.). It is an excellent



source of information about copyrights and legal concepts, such as fair use. It also links you to related and important information.

Studying Other T/Ds

Useful hints about what to include in the dummy and how to present the final manuscript for maximum effect can be found by examining previously approved T/Ds on closely related topics. Some may have been read earlier as part of the literature review. Their procedures and findings may be summarized and critiqued in that chapter. Now is the time, though, to look at those T/Ds for another purpose. How are they organized? How do they present their material? How can their good qualities (and their mistakes) be helpful in preparing this one? These and similar questions ought to be foremost now as previously completed research reports are reexamined.

Studies Previously Directed by the Committee Members

Every faculty member has favorite student research reports that stand out as especially well written. It is perfectly proper for students to ask their advisors and committee members about these and to use them as illustrations. In fact, some faculty members commend such memorable illustrations to their students as models. Truly superior academic, professional, and scientific writing is not easy to find. Well-regarded and time-tested guides are available, however (Barzun, 1985; Strunk and White, 1979; van Leunen, 1979). Students certainly should take every opportunity to review works that their advisors and committee members judge to be exemplary specimens.

Uniqueness

Advisors emphasize the value of building on the experiences of others and of using guides and models (LaPidus, 1990). This can be very valuable. Yet, it must not be allowed to override the essential specialness, the one-of-a-kind quality, every student investigation should display. Thus, we urge students to strive for balance. On one side are stylistic and organizational patterns adapted from the best that past experience can offer. On the other side are freshly minted forms of



expression, some perhaps newly invented to illuminate the particular contributions of this specific study. Harmoniously weighted, these can blend to foster the simple elegance of writing and illustrating that characterizes printed communication of the highest quality.

“One picture is worth more than ten thousand words” is cited as a Chinese proverb. Turgenev is credited with writing (in *Fathers and Sons*): “A picture shows me at a glance what it takes dozens of pages in a book to expound.” Whatever the source, the principle is both sound and useful for researchers.

Illustrations can help greatly as visual descriptions and explanations for the devices, concepts, ideas, processes, and data in proposals and reports. Informational graphics, both in images and statistics, promote clarity and foster insight for both writer and reader. Particularly useful resources are the example-filled three volumes by Tufte (1990, 1997, 2001). They range from 16th century depictions through computer simulations and computer interface design.

USING ADVICE AND TECHNICAL ASSISTANCE

An old saying has it that advice is the easiest thing in the world to give and the hardest thing in the world to take. As far as we know, there are no old sayings yet about technical assistance, but if we were to coin one, it would probably be to the effect that it too often tends to be heavy on the technical side and light on assistance. We hope to show, however, that both advice and technical assistance can be very useful in this first full-draft writing stage, and that there are ways to stockpile each so they can be drawn on when needed.

There is a real distinction between advice and technical assistance, as the terms are used here. Both, of course, involve communicating useful messages from one person to another. But they differ on these four dimensions:

Advice may be broad and general or pointed and personal; technical assistance is always focused on a scientific, academic, or professional situation.

Advice is frequently unsolicited, offered gratuitously; technical assistance is almost always in response to a request on the part of the person receiving it.



Advice tends to be directive, with the strong implication that it should be heeded; technical assistance is supplied with the understanding that the receiver will consider it, but will feel there is no implicit or explicit requirement to act on it.

Advice is frequently, if not generally, oriented to what to do in a given situation; technical assistance emphasizes how to analyze situations and how and why to evaluate possible solutions.

Thus, while there is considerable overlap in meaning between the two expressions, the way they are used here plays up the differences rather than the similarities. The next several paragraphs offer suggestions about roles certain associates of the student might play in supplying both advice and technical assistance.

Other Students as Resources

Other students most frequently advise, although occasionally they also are sources of excellent technical assistance. The experiences of other students with typists, with individual faculty members, with the staffs of various university offices, with library or computer services, or with style guides are valuable resources that can be mined for profit. Fortunate, indeed, is the writer who finds a student, friend, or acquaintance with skill and interest in academic, scientific, and professional writing in the same or an allied field. The nature and the degree of help that can be expected is, of course, a personal matter to be settled between the two individuals. We consider student-to-student advice and technical assistance to be both appropriate and desirable, and we encourage it. Both parties can learn and practice important skills in the process. Such interaction between and among colleagues is recognized as valuable in the real life of the learned professions.

Two cautions, however, must be observed. First, the manuscript must be the student's own work; advice and technical assistance from others must stop substantially short of their literally writing the T/D. Second, advice and technical assistance that have a significant bearing on the concepts, format, or writing of the document should be explicitly acknowledged, either in the preface or by suitably placed footnotes.



The Chairperson as a Primary Consultant

The *committee chairperson* is usually a primary source, in this as in other parts of the research process, both of technical help and of information about where to get such assistance. Students have the right to expect this. The chairperson, too, has the burden of deciding when to take on technical assistance consultation directly and when to refer the student elsewhere. To make that decision responsibly, chairpersons need to know and acknowledge their own limitations. They also must be aware of the competencies of other committee members and the strengths of other faculty members who may not be on the committee.

A chairperson who cannot openly admit to limited knowledge about something puts the advisee in jeopardy by filibustering, bluffing, or ignoring a real need on the student's part. Equally dangerous are chairpersons so enraptured by their own pursuits that they know very little about their associates' academic and professional interests and capabilities. Such "one-person committees," when they occur, are evidence of inadequate quality-control monitoring of the T/D process by the faculty in general. In any event, students do well to initiate and maintain regular contacts with all committee members. This will be reinforced by thoughtful chairpersons who use opportunities to refer to others when students come to them and request technical assistance. As in all other aspects of the research enterprise, the committee chairperson has the major faculty role, and the way that role is played sets the tone for all the other participants.

Recourse to Other Committee Members

The *committee members*, as mentioned, are chosen with several criteria in mind (i.e., knowledge about the topic, representativeness of departmental and other university involvement, graduate faculty status, experience). It is assumed, too, that they are all willing and able to provide technical assistance of various kinds. If a committee member is expert in statistical analysis, opinion polling, qualitative research, graphic displays, achievement testing, or group dynamics observation, it is reasonable to expect that person also to be knowledgeable about preferred practices in writing about or otherwise presenting informa-



tion on the same topic. Thus, the committee member who renders consultation on procedure might well give technical assistance in how the material might best be presented in the T/D manuscript.

Technical Help from the Typist

The *typist's* experience with manuscripts can be of great importance. There are many who are speedy and accurate, but not many combine these qualities with both knowledge about the special requirements that attach to T/D typing and good judgment in applying their skills and knowledge. That desirable mixture of qualifications can usually be found in two situations. One is the commercial typing, computer, and copying services that have multiplied in recent years near campuses. A number of them advertise T/D typing and printing at established rates. The other is the departmental secretary who does student papers and other contracted typing outside office hours at a per-page rate.

In either instance, two precautions ought to be considered. First, learn from students or from faculty members how satisfactory the work from those specific sources has been in the past. Second, meet and talk with the person who would actually do the typing or word processing and assess his or her understanding of what is needed for a fully acceptable product. The more care taken at this point, the more likely it is that confidence can be placed in the typist's advice as to the combination of style, format, and mechanics that will meet all regulations and present the document in the most favorable light.

THE REVIEW OF THE FIRST DRAFT

As the first draft nears completion, it is increasingly trying for the student to hold to the idea that it is merely a first draft. So much effort has gone into it, so much time and money may be invested in it, that it becomes difficult to think of making even minor alterations to it, much less major changes. Ideally, the first draft should be so complete, so accurate, so well thought through, and so soundly written that it calls for very few modifications. This is a goal well worth the student's and committee's striving. Yet, in reality it is rarely attained. So, it is good if the student maintains a "first draft" attitude, a disci-



plined certainty that variances, some imperative and some only desirable, will be proposed. Adjusting to those proposals and using them to make a good manuscript even better are significant parts of the learning process inherent in this stage of the work.

Critiquing and Revision

Complicated and difficult parts of the draft may be profitably rewritten a number of times. Few persons find deathless prose flowing from their pens or word processors on the first try. Good writing is closely related to clear thinking, and neither comes easily or quickly to most writers. This is especially true of scholarly, technical, and scientific writing. Readable, clear, direct prose is usually the result of polishing, correcting, rephrasing, and rewriting any number of times. It is at this point that composing, editing, and rewriting on the word processor shows its merits most clearly. Changes on the screen are easy, and the new section or sentence can be seen and revised immediately.

Some students wait for their advisor to read and critique each draft of a section or a chapter before rewriting. This is a waste of time. Any intelligent, critically thinking person can read a T/D chapter and ask pointed questions about its meaning. If it is not clear to another person of good intelligence, it is probably not fully clear to the writer nor will it be clear to the committee. At this stage, in fact, it is probably better *not* to have the proposal critiqued solely by another professional who is knowledgeable in the field of the proposal—there may be too much tolerance for the jargon and obfuscation that are the bane of the professional and academic life. It would be good to trust one or more critical readings of the draft to an acerbic veteran of 10 to 20 years teaching composition and expository writing to high school or first-year college students, a person who knows little or nothing about the subject of the proposal.

The advisor's review of the draft is important, of course, but others can suggest improvements to the draft between appointments with the advisor. This will save the advisor's time and also impress on the advisor that the visit is regarded as serious by the student, as evidenced by the grammar, spelling, wording, clarity, and neatness of the draft each time.



This is a good time to look again at Fig. 5-1, a form that is sometimes used by committees to help to evaluate a T/D. To supplement this form, we also suggest using the checklist for theses and dissertations (Fig. 8-2). It need not follow the table of contents exactly. The central point is to ensure that the document answers the checklist questions well.

Obtaining Reactions from Committee Members

The obvious way to learn what the committee members think of the material in its first full-draft form is to ask them. The quality and thoroughness of response, however, are influenced greatly by the manner in which the student makes the request. Committee members

Introduction and Problem Statement

Is the problem stated both in a general and in a specific way?

Is the purpose of the study stated?

Are the questions or hypotheses stated?

Does the reader get a general view of both the rationale for the investigation and its relationship to a supporting theoretical base?

Is there a transition to the next section?

Review of the Literature

Does it show thorough knowledge of the research, theory, concepts, ideology, and opinion related to this topic?

Is the reader made aware that the review has been selective, and are the criteria for selection and relevance explained?

Is there any critical assessment of the reviewed literature?

Does the review reveal the relation between what has previously been done by others and what is proposed in this study?

Are suitable headings used to help the reader sort out the sections of the review?

Is each section summarized?

Are transitions provided from one section to another?

Figure 8-2 Checklist for theses and dissertations.



Is there a final summary that clinches the need to do the study, including gaps in the literature this study fills?

Method or Procedure

Does it explain what was done to gather the information essential to the investigation?

Would it be possible for another person to gather data and analyze it exactly as in this study simply by reading and following the statements in this section?

Is the specific research method used related clearly to a more general design known in the research methodology literature?

If human or animal subjects are used, are they adequately protected?

Are the variables in the study identified and described?

If controls are used, are they explained in sufficient detail?

If materials or apparatus are involved, are they described, illustrated, and their history and usefulness indicated?

Is the setting of the study specified?

If any directions or explanations are given to subjects by the investigator in the course of the study, are they included?

Is debriefing necessary? If so, is it explained?

Results

Does the reader learn how information in raw form was summarized? Descriptive statistics? Content analysis? Other?

Do tables contain all essential information so they can be read without references to the text?

Does each table stand on its own, clear and self-explanatory?

Are results grouped in relation to questions or hypotheses?

Are incidental findings not immediately related to the questions or hypotheses reported? Are there unforeseen results?

Is redundancy eliminated or minimized?

Is this section free of interpretations of results?

Discussion and Conclusions

Are the meaning and importance of the results indicated?

Are conclusions drawn about each question or hypothesis?

Are the limitations on conclusions specified?

Are alternative explanations for the findings identified and discussed?

Does the reader learn how successful the investigation was and what further study might be needed on the topic?

Figure 8-2 Continued



report that they feel they can be most helpful when the student behaves in an orderly, organized way, as in the following illustration.

The student makes an appointment and delivers the document in person. This gives time for the two to update each other on their activities with respect to the project and to talk about any matters that need to be discussed.

Allowing enough time for the committee member to read the draft in its entirety (usually a week or two weeks), an appointment is made to meet again for the student to receive the reactions directly. In preparation for the follow-up appointment, the student does these things, if they are appropriate:

Asks for agreement that the meeting might be taped so it can be reviewed by the student after the meeting.

Raises specific questions about the draft and calls attention to the parts of it in which the committee member might have particular interest.

Indicates that reactions from all committee members are going to be listened to and reviewed with the advisor before final actions are taken on them.

Encourages the committee member to make notes, changes, and comments on the draft itself while reading it.

Asks the committee member what other preparations, if any, should be made for the follow-up appointment.

In ending this meeting with each committee member, the student leaves information about how to be reached (by telephone or other message) prior to the follow-up appointment if a committee member needs to have clarification of something while reading or circumstances require a change in time or place for the meeting.

Not all committee members look for precisely the same approach. There are differences in style, and students need to accommodate them. The paramount point, though, is that the conference is for the benefit of the student. It is the committee member's obligation to be constructive, to guide, and to teach. The probability that the committee member will fulfill that obligation increases if the student takes a hand in setting the stage for productive interaction by behavior similar to that illustrated in the list.



If the initial arrangements proceed satisfactorily, the follow-up session for feedback should start in an easy, yet focused and objective, way. The great bulk of the student's time should be spent in listening and observing. Notable points for the student are as follows:

- Be sure to understand the committee member's statements. If uncertain, ask to discuss them.
- Avoid conflict. This is not the time to argue about whether a change should be made or how something should be presented. Keep in mind that all committee member reactions are to be discussed later with the chairperson before deciding if or how they will be used.
- Stay open, not resistant. The gist and the value of what is being said can escape if one is preoccupied with being defensive.
- At the close of the meeting, make an oral summary of the salient points covered to be certain that nothing the committee member considers important has been overlooked.

Sometimes, more than one meeting, even a series of meetings, is necessary to obtain all the assistance to come from a committee member. Time invested at this point pays dividends and interest by reducing the number of challenges and surprises later when the T/D defense must be made.

Coordinating Committee Reactions with the Chairperson

Under an ideal condition, the student and chairperson would have little to do when reactions to the first draft come back from committee member review. That ideal condition, though, is unusual. Since committee members were seeing the work in its entirety for the first time, they were almost certain to find gaps, data analyses, or research findings that they felt were flawed or inconsistent. Moreover, the student sometimes finds that two or more committee members offer bewilderingly divergent ideas about changes that should be made in the same part of the draft.

The effective chairperson at this stage helps the student in at least three ways. These include the reconciliation of conflicting recommendations of committee members, the restructuring of the manu-



script to include missing components or to make clarifications and corrections, and the preparation of a smooth second draft that embodies the alterations.

In the first of these activities, the chairperson must remember that the student may be very inexperienced in merging different points of view, especially when they are voiced by persons the student regards as superiors. Frequently, the student can be prepared for the work to be done if the advisor points out that it is the values and relationships of the ideas or concepts that are to be thought about, more than the personalities of the differing faculty members. It may then be advisable to liken the task to that faced in writing a paper in which the varying viewpoints of several authorities need to be compared, contrasted, and, if possible, related to a larger and unifying conception.

Alternatively, sometimes the student must be led to examine the conflicting expressions of different committee members and to reject one or more of them in favor of another. In that case, it is the chairperson's place to help ensure that the student is prepared to support the decision. In all of this, the student's growth in competence to handle such situations is the central concern.

The advisor intrudes or supports only to the extent necessary to achieve closure in a reasonable time. The student should feel the primary responsibility for whichever course is chosen or decision made.

If restructuring of the manuscript calls merely for the excision or rewriting of a paragraph or a sentence here and there, it is a minor matter, more an annoyance than a problem. When the recommended shifts are big ones, though, it may signal the need for a thorough redrafting of the document. Prior to embarking on such a comprehensive reformulation, it is usually advisable to arrange a conference to include the student, the chairperson, and the committee member(s) who proposed the alterations. Such a meeting can clarify for the student and the chairperson the expectations that prompted the recommended changes. Sometimes, too, such a meeting reveals that the revisions proposed are not as drastic as the student originally thought. In rare cases, the variances requested by a committee member are substantial and far-reaching, and the committee member is adamant. The committee chairperson, in that case, may need to call a full committee



meeting to attempt to resolve the matter. The overriding consideration must be that the student receives fair treatment. In extreme cases, the student may need to lodge a grievance through the channels provided by the particular college or university.

A truism to which we referred above has it that an ounce of prevention is worth a pound of cure. That certainly is accurate for the writing of the initial complete draft. The more care exercised in putting the first full draft together, the easier it should be to incorporate the changes, deletions, and additions into an even-flowing document. Chairpersons tend to impress that notion on students from the outset.

In addition to the three major kinds of assistance students can expect from chairpersons during this coordinative stage, there are countless other little ways in which a spirit of confidence and support can be conveyed. Some advisors maintain an “open-ear” policy, encouraging the student to telephone to discuss any problem that may be temporarily troublesome. Others describe and explain their own effective work habits, giving students opportunities to test them for themselves. Still others deliberately reinforce productive behavior on the part of students and then discuss with them how and why they did so. Whether they employ these or other procedures, advisors who are remembered as good models are the ones who offer advice and technical assistance in connection with the review of the first draft that help the student over rough spots, who show respect for other committee members, and whose help enhances the quality of the report.

Rewriting the First Draft

Most experienced writers on professional and academic subjects agree that they can improve first drafts by laying them aside for a week or 10 days and then rereading them, editing during the second reading. Our recommendation, therefore, is to rewrite the first draft in a two-step process (if rewriting proves necessary).

First, go through and make all of the corrections and changes that were agreed to in the coordinating session with the chairperson. Then, put the material aside for a week or two. (Most students have plenty of other things they can do in the interim, such as obligations they have postponed while concentrating on the T/D.) During this



time, it is a good practice to arrange a rereading by others, some of whom, as we suggested above, are expert in clear prose composition and who are not specialists in the student's field.

As a second step, after an interlude, begin with the title page and read through the entire document, editing again for clarity and accuracy. Again, we emphasize the enormous help that a good word-processing program can be in such editing. Recheck all references. Delete excess words. Check every compound and every complex sentence to ascertain if it would be more readable if broken into simple sentences. Critically examine each paragraph that takes more than half a page to see if it might better be broken into two or shortened by leaner writing. Look again at transition points from topic to topic and from chapter to chapter. If they are not present, construct short summaries and introductions as route markers to lead the new reader over the trail of reasoning that the writer can easily follow now without landmarks because it is so familiar.

Chapter 10 contains suggestions about writing style adapted from statements by editors of major professional journals. The hints are intended primarily for would-be writers for journals, of course, but they are equally applicable to T/D writing when the focus is on fat-free prose.

Finally, in the rewriting, attention should be paid to the material in the next section of this chapter. While some T/Ds must go through several drafts before presentation for final defense, the student who is alert to committee member advice and technical assistance and who approaches rewriting in an orderly way will face fewer disappointments.

WHEN THE WRITING IS FINISHED

There are really two different final drafts of the T/D. The first is the one that the student defends before the final oral examination committee. The second is the document that is accepted and entered into the school's records as part of the fulfillment of the degree requirements. The difference between the two is a function of the amount and kinds of changes that prove necessary as a consequence of the battering the study takes in the final oral session. Some emerge virtually unscathed.



Others, although ultimately approvable, may need major repairs. More is said about this when the final oral examination itself is discussed. In the meantime, what appears next can be taken as relevant to both final documents.

The Student's Standards

The standards a student shows in writing do not emerge suddenly; earlier work with term papers and the like reveal the patterns of writing behavior the student brings to the task. In some cases, an excellent foundation has been laid in prior work, but for some students, the basics of composition are shaky, to say nothing of skills essential for scholarly writing.

Obviously, it takes even more than ordinary intellectual prowess and determination for a student weak in written expression to attain acceptance for advanced study. More often than not, students with that handicap find that the overview is an almost insurmountable hurdle. It can be questioned, of course, whether sheer ability to communicate well in writing should be a determining criterion. We would want the option to make exceptions if other circumstances appeared to warrant it, but when the ability to master the mechanics and styles of high-quality written communication is demonstrably within the student's range of potential, we would argue for holding it as a requisite for T/D preparation.

Students' standards for language usage and mechanics are, as noted, predictable from earlier samples of written work. A great deal of disappointment can be avoided, therefore, if faculty members will maintain high criteria for quality of writing in all courses and seminars and simply not accept sloppy and inaccurate sentence structure, spelling, punctuation, capitalization, paragraphing, and other recognized elements of correct writing. Both carelessness and ignorance are remediable, and the process should not be deferred until research work starts.

Equally important are the students' standards for the content, the thought processes, and the arguments that should tie the T/D into a coherent, complete report of the study, from inception to conclusions and implications. These standards, too, are not likely to flower in the



context of research proposal and report writing unless they were rooted, nourished, and budding during prior professional and academic study.

The standards that students internalize can be influenced by example. A direct and straightforward way to provide positive influence is to bring students into frequent contact with high-quality original research reports in all of their courses. Discussions with students suggest that a great many of them never see or touch an actual T/D before beginning work on one. Even then, they may review them principally for hints on how to set up a table of contents, chapters, and chapter subheadings.

We urge that students be introduced early to investigative studies and to the rationale for their place in preparation for roles in the learned professions. The use of T/Ds as models for scholarly writing is part of that theme. It is not a panacea, of course. Actual remedial instruction in composition may be essential for certain students before they can be fully admitted to advanced study. However, the early and consistent employment of selected, illustrative T/Ds offers students both a most promising and a readily accessible means to exemplify high standards of quality for mechanics, process, and substance in professional and academic authorship.

The Chairperson's Standards

We queried experienced chairpersons about how they acquired the standards they use in judging the merits of student research. Also, we listened to their views on which criteria ought to be applied in determining whether a document is ready to be presented for the final oral examination session.

Senior professors frequently regarded their own preparation for student research direction and committee work as less than satisfactory. It was too frequently based on incidental, spotty, and haphazard personal experience. What they learned, they said, was picked up, for the most part, from observing what other chairpersons did and by occasionally asking questions. Thus, inconsistency could be expected in standards from one to another chairperson. With recognition of the insecure basis for their views, however, chairpersons did say that they



look for the following characteristics as far as student research writing is concerned:

The problem is clearly stated and well conceptualized.

Ideas are communicated in clear, readable language.

The student demonstrates significant analytical skills.

The writing is succinct, not verbose.

The presentation is well organized.

The thought processes are well defined and internally consistent.

Not every chairperson will consider these six statements to be either an essential or a sufficient list by which to assess the adequacy of T/D writing. Also, they may not be objective or operational enough, in the view of some, to form the basis for a rating scale. Yet, the odds seem to be good that most of those items will be high in the priorities of chairpersons when they judge the quality of writing, and that documents that fall short on them will be returned to the student for more work.

The advisor cannot be expected to teach the fundamentals of composition. There may be occasional basic errors the advisor will detect and correct in the student's writing. But, the ability to write plain prose that is grammatically correct seems to be a reasonable prerequisite, not something to be learned from the advisor.

Another important role for the advisor, though, consists of increasing the student's awareness of the desirability to attain high standards of quality in writing with maximum economy and precision. By economy is meant using only as many words as are necessary. We are all familiar with sentences that ramble, repeat, and trap our thoughts in a tangle of verbiage. Improved mastery of the simple declarative sentence in writing should be one of the outcomes of T/D study for students. It is well within the scope of the advisor's authority and responsibility to keep that goal before the student.

Precision in writing also calls for attention. Students who are otherwise fluent and even creative writers often need more of the discipline that scholarly writing requires. For instance, a student reports that the literature review included "reading everything that Robert Browning wrote." The student may need to be asked if the review did not actually include only "reading all of Robert Browning's known



published works, as listed in [a given reference].” Another student may write that “Americans were the first to make a landing on the moon.” That student may need to be shown that a more precise (an altogether accurate) statement is that “Americans were the first to set foot on the moon.” This form of polishing is a very important kind of instruction the student should expect from the advisor and committee members. It extends from making the title say exactly what is intended, through creating table headings, stating the problem, writing footnotes, and drawing conclusions to the phrasing of the implications of the investigation.

The College or University’s Standards

We were unable to find any statements, as such, that colleges or universities published as standards for satisfactory writing in a T/D. The same is true for professional schools. Many institutions and schools do require compliance with certain style guides. The inference can be drawn that adherence to the style guide, coupled with correct spelling, usage, grammar, and punctuation, would meet the standards for the mechanics of composition.

In a more general sense, several professional schools do exercise a form of quality control. At the University of Michigan’s School of Education, for instance, a sample of T/Ds is drawn from each year’s crop for special review. The selected T/Ds are sent to a jury of acknowledged leaders at other locations for assessment. The letter that accompanies the documents asks for a critical analysis of each and a rating as to its worthiness. The responses are then distributed to all faculty members, with the expectation that the faculty’s future standards and actions will be influenced constructively by the reports of these annual checks. In another professional school, it was reported that one associate dean perused every T/D approved by final oral committees. They numbered over 200 per year. Aside from the almost incredible amount of reading that entailed, there were no indications that systematic feedback occurred. It may have been felt that simply the knowledge that someone in authority would look at all the products would stimulate efforts toward higher quality.

Actually, apart from either recommended or required style guides, most higher education institutions’ standards seem to be no



more and no less than an amalgam of the various views of the faculty members who serve on T/D committees. We found no evidence that the amalgam is analyzed to determine where it constitutes a consensus on anything. In short, the institutional criterion for satisfactory writing appears to be whatever a final oral committee approves. Neither concomitant with nor beyond the committee's positive decision did we find any other check on quality.

School and Departmental Standards

Even a casual examination of T/Ds from different units in a school will reveal some variations in what is acceptable. One expects, of course, differences in topics, and that has been discussed elsewhere in this book. There are also understandable differences in sources, emphasis, terminology, and investigative methodology from one division or department to another. Studies about very early childhood may depend heavily on more or less quantified information supplied by third parties who observe the infants and toddlers. Investigations involving teenaged youths may, in contrast, draw mainly on data generated by or from the adolescents themselves, such as autobiographies or test responses. Research on supervision may use material drawn from interaction analysis. Work in administration and management may employ actuarial information, costs, and other facts. Trend analyses in history or in political science may use library resources, primarily, although all of the above depend heavily on library facilities, too.

But, even though sharp substantive and procedural differences legitimately appear, the quality of student research writing ought not vary significantly from one school or department to another or from one document to another in the same school or department. When it does, the most probable culprit is the faculty, who failed to establish and abide by standards. The immediate losers, in that case, are the students because inferior work will not be discriminated from high-quality work. The distinguished products of excellent students will be diminished through association with the shoddy work of others. The students who offer inadequately written T/Ds will not be informed that they are weak, and the ones who could do better will not be helped to improve. The long-range losers are the school or department



and the higher education institution for them, over the years, come to be judged mainly by the products of their graduates.

Thus, the generators and guardians of T/D writing standards are and should be all of the faculty members of the higher education institution. The graduate faculty, that elect group vested with the power to guide and approve, should spearhead the total thrust for superior writing.

Application of Standards with Objectivity

Ultimately, the decision about whether the T/D is in final form, ready for submission for the final oral examination, is the decision of the student. It is a decision that, ideally, should have the full concurrence of the chairperson, but that is not always the case. If the student insists that the T/D needs no further work, even though the chairperson does not agree, the student's choice should prevail. And, both the advisor and the student may feel that their view is objective.

As noted, high on every priority list of scholarly qualities is an attitude of objectivity. It includes objectivity both about one's own work and about the work of others. It is not divorced from a humane attitude, for that, too, deserves a high priority on the same list. But, objectivity is a distinct quality. It allows one to make clear decisions about the degree of credibility to be assigned to any academic or professional matter. It is behind every reasoned evaluation. Objectivity allows the weighing of variables that can make the difference between sound judgment and sheer guesswork. Objectivity is a chief determinant of the confidence one has that one's present procedures and future projections have substantial foundations. Objectivity is a necessary precondition to believability.

Surely objectivity is emphasized in many ways in the course of collegiate preparation. Many students probably possess highly developed levels of objectivity as part of their entry behavior when they start T/D work. One of the tasks of the research advisor is to determine the degree to which that quality is already present in the student and reinforce and strengthen it as needed until it is firmly established. One of the questions that should be answered in the affirmative by the committee before final approval is given is: "Has the student con-



sistently demonstrated an adequate level of objectivity in professional and academic matters?”

The chairperson is obligated to ascertain that the student is aware of all the objective standards that may legitimately be used to measure the product. Also, the chairperson is responsible for informing the student objectively how and in what ways the proposed T/D does or does not measure up.

The usual outcome of the application of standards is a happy one in which the student moves ahead to the next step with confidence that the chairperson is fully supportive. In such cases, the confidence usually proves to be fully justified.

SUMMARY

This chapter is chiefly about writing, with suggestions about how to accomplish it with dispatch and with superior results. Writing includes attention both to mechanics and to clear exposition of thought. The judicious use of both advice and technical assistance is advocated. The significance of institutional roles, regulations, and standards is emphasized, as are the roles of various persons in providing guidance and interpretations. The meaning of objectivity and its applications are discussed. The preeminent position of the student in decision making is made clear, as is the high stake both student and institution have in the production of excellent student research.

