

# THE INSIDER'S GUIDE

## TO WRITING YOUR DISSERTATION AT GSE

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# TABLE OF CONTENTS

<b>INTRODUCTION TO THE GSE DISSERTATION GUIDE</b> .....	<b>3</b>
<b>FORMING YOUR COMMITTEE</b> .....	<b>4</b>
THE FORMAL POLICIES AND PROCEDURES .....	4
APPROVAL PROCESS FOR A DISSERTATION COMMITTEE .....	4
<b>WRITING YOUR PROPOSAL</b> .....	<b>5</b>
OVERVIEW .....	5
SECTIONS OF THE PROPOSAL .....	5
PROPOSAL CHECKLIST .....	7
FORMATTING OF THE DISSERTATION PROPOSAL .....	8
COMMUNICATING WITH YOUR CHAIR AND COMMITTEE .....	9
DEVELOPING A TIMELINE .....	10
THE PROPOSAL HEARING .....	10
<b>FROM PROPOSAL TO DEFENSE</b> .....	<b>11</b>
INSTITUTIONAL REVIEW BOARD (IRB) .....	11
TIMELINE FOR THE DISSERTATION .....	12
DATA COLLECTION .....	12
MOVING FROM DATA COLLECTION TO ANALYSIS .....	13
WRITING .....	13
DISSERTATION STANDARDS CHECKLIST .....	14
DRAFTS AND REVISIONS .....	14
<b>FORMATTING THE DISSERTATION</b> .....	<b>14</b>
MICROFILMING AND COPYRIGHT INFORMATION .....	14
FILING THE PH.D. DISSERTATION .....	15
REQUIREMENTS FOR DEPOSITING THE DISSERTATION .....	15
GENERAL PRINTING INSTRUCTIONS .....	16
METHOD FOR PRESENTATION .....	17
DETAILED INSTRUCTIONS FOR INDIVIDUAL PAGES .....	17
BIBLIOGRAPHY .....	19
CHECKLIST FOR AUTHORS .....	19
STATEMENT ON PLAGIARISM .....	20
SAMPLES .....	20
<b>PREPARING FOR THE DEFENSE</b> .....	<b>22</b>
SCHEDULING THE DEFENSE .....	22
PREPARING YOUR PRESENTATION .....	23
A NOTE ABOUT QUANTITATIVE DATA .....	24
PRACTICE, PRACTICE, PRACTICE .....	24
THE BIG DAY .....	25
FINAL PAPERWORK .....	25
<b>DEPOSITING YOUR DISSERTATION</b> .....	<b>26</b>
CHECK THE DETAILS .....	26
GSE ED.D. DISSERTATION FILING CHECKLIST .....	26
GSE PH.D. DISSERTATION FILING CHECKLIST .....	27
<b>CONCLUDING THOUGHTS</b> .....	<b>28</b>

**Congratulations on arriving at the dissertation stage of your doctoral program! Your GSE student colleagues in various stages of dissertation completion and alumni have created this Guide as a compilation of requirements, suggestions, and insider tips coupled with our own experiences. Much is written from the perspective of, “if only I had known then what I know now!”**

The content of the Guide includes information on the proposal, committee, Institutional Review Board (IRB), formatting, defense, and depositing of the final dissertation. Within each content area you will find 3 types of information:

1. Nuts and Bolts (gray box)
2. Pearls of Wisdom (light gray box with lines)
3. Core Content (black text)

“Nuts and Bolts” features the non-negotiable details and minutiae that will make or break your process and product. Think of “Pearls” as friendly advice from your older siblings, which offer insider tips and “off-the-record” suggestions. Finally, “Core Content” is the essence of what should—or possibly should not—be contained within each step.

The student authors of this guide represent each of the four divisions of GSE. However, you should note that each division’s dissertation requirements are distinct and subject to change at any time. Departments or individual committee members may have content or stylistic preferences; for example, some may consider a good proposal to be a concise, 5-page overview of your intended research, while others consider the proposal to be the first three chapters of your dissertation. Your research approach (quantitative, qualitative, or a combination of the two) will also have an effect on how it must be presented. As you begin each new stage, we strongly recommend that you refer to this Guide and then confer with your committee chair to verify if she/he concurs with what is outlined herein.

We hope this Guide provides you with direction and encouragement as you embark on this journey. Please feel free to send any comments or suggestions regarding the Guide to [loism@gse.upenn.edu](mailto:loism@gse.upenn.edu).

Good luck!

Allison, Lois, Rita, Julie, Laura, and Jeanine

NUTS AND BOLTS

PEARLS

CORE CONTENT

## THE FORMAL POLICIES AND PROCEDURES

The Request for Appointment of the Dissertation Committee forms are on the web at [www.gse.upenn.edu/degrees\\_programs/forms.php](http://www.gse.upenn.edu/degrees_programs/forms.php). The committee must be formally approved before you can hold an oral proposal hearing. This form needs to be signed by each member of your committee, and your division chair. The committee formation form requires 6 copies of your dissertation abstract.

To request a change in your dissertation committee, you must complete a Change of Dissertation Committee form, available on the web at [www.gse.upenn.edu/degrees\\_programs/forms.php](http://www.gse.upenn.edu/degrees_programs/forms.php). Changes to the committee must be approved by the Assistant Dean for Academic and Student Affairs.

To include an external member on your dissertation committee, you must have approval from the committee chair and the Assistant Dean for Academic and Student Affairs. Forms are available for this purpose on the web at [http://www.gse.upenn.edu/degrees\\_programs/forms.php](http://www.gse.upenn.edu/degrees_programs/forms.php)

The dissertation committee is responsible for evaluating your proposal for dissertation research, for supervising the preparation of a dissertation on an approved problem, and for evaluating your dissertation.

You must successfully complete the doctoral preliminary examinations before seeking formal approval for a dissertation committee. The chair of a Ph.D. dissertation committee must be both a member of the Graduate Group in Education, and a member of the Standing faculty. Only members of the Standing Faculty, the Associated Faculty and Emeritus Faculty are eligible for membership in Graduate Groups, which are School specific. The chair of an Ed.D. dissertation committee must be a member of the GSE standing faculty or a member of the associated faculty approved to chair dissertation committees. At least two members of the committee must be members of the standing or associated faculty at the University of Pennsylvania. Standing faculty include those people with the titles of professor, associate professor or assistant professor. Associated faculty includes those at the ranks of professor, associate professor or assistant professor whose title is preceded by the modifier Adjunct, Research, Clinical, Visiting, or Practice. The third member may be a scholar external to the University of Pennsylvania with a doctoral degree, including a qualified individual who does not hold faculty rank at a college or university.

The dissertation committee chair becomes your official faculty advisor once your dissertation committee is approved.

The chair of your committee will often be the person who has been your academic advisor since your matriculation. However, this is not a requirement, and it may not be practical or desirable if your topic is unrelated to your advisor's area of research or if you do not work well together. If this is the case, you should think about a professor who would be a good match for your research interests and working style as early as possible and start to develop an exchange of ideas with that person. Once your committee chair is in place, initiate a conversation with him/her about the selection of your other committee members. Your chair will recommend professors he/she is comfortable working with and who will likely be able to offer content or methodology expertise as well. If you have a particular professor in mind, be sure to get your chair's approval before asking that person to serve on your committee.

Keep in mind that according to GSE academic policy,

1. The student, the chair, and majority of the committee are required to be physically present at the oral proposal and final defense hearings;
2. Although all members of a student's dissertation committee are expected to be physically present at the oral proposal and final defense hearings, in extenuating circumstances one member, or a minority of the committee, may be physically absent as long as the absent member(s) participate(s) in the oral proposal and final defense hearings.

NUTS AND BOLTS

PEARLS

CORE CONTENT

## APPROVAL PROCESS FOR A DISSERTATION COMMITTEE

To formalize your committee, submit a completed Request for Appointment of the Dissertation Committee form to the Student Records Office for the Assistant Dean's approval. Allow at least 2 weeks for the request to be reviewed by the Associate Dean's Office. Once you have received a commitment to serve on your committee from each member, you can submit the dissertation committee form to Student Records. All forms are available on the web at [http://www.gse.upenn.edu/degrees\\_programs/forms.php](http://www.gse.upenn.edu/degrees_programs/forms.php).

The committee formation form requires 6 copies of your dissertation abstract, but the abstract may be difficult to write. If you find this is the case, we recommend getting the necessary signatures, holding onto the form and later submitting it with the “Request to Hold Oral Proposal” form as these two forms can be submitted simultaneously.

**OVERVIEW**

Examine past proposals approved by your chair to get an idea of his/her expectations for the format and number of pages. Each faculty member’s expectations may differ. Some professors want the proposal to be the first 3 chapters of the dissertation: 1) the problem statement and statement of purpose; 2) the literature review, and 3) the research questions and methodology. Other professors expect the proposal to be a framework on which to “hang” the proposed research, but expect there will be new developments in the process.

Once you have completed your coursework and passed the doctoral preliminary exams, you are ready to proceed with the dissertation proposal. At this point, it is important to transition mentally from your role as inquiring student to scholar/theorist/practitioner. This means that you must move from solving problems that others identify to finding and solving your own problems.

Please refer to the Dissertation Proposal Roadmap at [http://www.gse.upenn.edu/student\\_life/roadmap.pdf](http://www.gse.upenn.edu/student_life/roadmap.pdf) for a visual illustration of the recursive nature of the dissertation proposal process.

A proposal should argue cogently that your proposed research will make a contribution to the existing body of knowledge in education. Your proposal should also concretely demonstrate how you will conduct your study and that you can complete it within a reasonable period of time. This means your topic needs to be “do-able.” Provide a clear explanation of how and when you will collect and analyze your data. A proposal is not just a summary or description of the proposed research—it must convince the reader that the research is justified, feasible, and has a valid research design.

Depending on your program, you may or may not have a required proposal format. Be sure to check with your adviser. In general, the proposal requires that you state your research questions and show where your questions fit in the context of the literature. You will need to describe your research design, methods of data collection, and the type of analysis you will use to answer your questions. A bibliography of the relevant literature is also required. Write clearly, avoid jargon and define technical terms so that someone outside your area of interest can understand.

**SECTIONS OF THE PROPOSAL**

It may be helpful to keep a list of the sections which you want to cover nearby your desk; that way you can understand just what kind of writing you need to do.

Depending on your topic, the following sections do not necessarily have to appear in this order, nor are they all required. Check with your committee chair.

*Introduction*

What are you writing about, and why? What is the problem in the world—and in the literature—that you will address? What has been the driving force behind the research? Why is it important? What is your relationship to the problem, i.e., your location in the study? This section will set up what you will be working on, and set expectations for the reader of what you will aim to accomplish in your dissertation. This is your opportunity to draw the readers in, to make them care about your topic.

*Problem Statement*

The problem statement explains why you are conducting this particular research project, and why we should care. It should be the one or two sentences which you use when people ask you what you are working on—the essence of your research.

NUTS AND BOLTS

PEARLS

CORE CONTENT

It may be helpful to take time to brainstorm about what this project will be: why are you doing it, what is the impetus, and what do you want to gain from it? Keeping the scope of your research small is also helpful; deep is more manageable than broad. You will want to talk with your chair about what kind of depth and breadth you want to attempt.

Remember that you can continue to add to and revise your literature review throughout the dissertation process. The literature review is a common sticking point because there is probably always more that you can read on the topic. At some point you need to move on to the next stage!

Think divergently, practically and conceptually. Keep thinking!

Don't forget to create a Consent Form for your participants to sign before your interviews! This will give you their permission to record and use the information! Check with other students who have already gone through the proposal and IRB stages. You might be able to use their form as a template to create your own form.

*Research Questions*

What do you want your research to uncover? Establish how you will answer your questions by outlining what topics you will address in each chapter. Configuring your research questions can be tricky. You may want to write down a list of everything you could possibly want to discover from your work—and then go back to prune and refine that list. The more you can pinpoint exactly what you want to learn, the easier it will be to focus on specific research. The object of your dissertation is not necessarily to show the universe of possibilities for the research you are conducting; if this were the case, you would never finish and graduate! It is important to focus your research questions so that you and your committee clearly understand what you are setting out to accomplish. Most dissertations will address several (2-6) related questions. Keep in mind that these questions may also be refined as you conduct your research.

*Literature Review*

In the literature review you will discuss the research to date on your topic, highlighting the big themes and recurring arguments. You will want to show how the relevant literature informs your study. The literature review should show how existing work leads to your study—how there are holes or unanswered questions in the literature that you will address. You may have done some reading throughout your coursework that led you to a series of books and articles you found provocative. Some chairpersons are very specific about the number of sources they expect. There does not seem to be an average number, but you do want to make sure to include the seminal works in your field related to your topic, as well as more recent journal articles. When conducting the literature review it may seem as if you can never read enough, but keep in mind that this is only meant to lay the groundwork for your own research; when you have read and collected a depth and breadth of literature on your topic, you can synthesize how it informs your research, and refer back to these pieces as needed. Your consultations with the reference librarian and discussions with faculty and students about your literature review will keep this stage of the process interactive and engaging.

*Methodology and Method*

You have to show that your choice of methodology is appropriate to your research question. Your description should be specific and give as much detail as possible. This means you need to describe your research setting, participants, sample, criteria for selection, and data collection methods in addition to any other relevant information about the data collection and analysis. For example, it is insufficient to say, “key documents will be analyzed,” without indicating what documents, i.e. “internal and external correspondence, press releases, meeting minutes and archival materials from 1989-1999 will be examined.” Procedures for data analysis and a discussion of study limitations should also be included.

You will likely want to include the following sections in the dissertation, keeping in mind that the proposal will incorporate as many of these sections as is appropriate given your stage in the research and writing (i.e., the conclusion and implications will not yet be articulated):

- Setting: Where will you be conducting the research? What is the entity that you will be researching?
- Interview subjects: Whom will you be talking to? How did you select these people? How do you know them? How will you gain access? You will want to elaborate on any special permission you need to interact with these individuals as well as specific details on the location and duration of the interaction.

NUTS AND BOLTS

PEARLS

CORE CONTENT

**Triangulation is often required for qualitative research. It means using multiple sources of data or methods of data collection to corroborate your facts and interpretation.**

**Make sure you go through all the necessary steps of getting permission to work with your research subjects.**

**Have someone, ideally another doctoral student who is ahead of you in the process, review your proposal before you submit the final draft.**

**Plan for glitches with hardware, software and formatting. It takes time to fix these kinds of problems and you don't need the additional stress of trying to fix them when a deadline is only hours or minutes away.**

**Make sure you are using an up-to-date version of the APA manual; details like comma vs. no-comma can change!**

- **Triangulation:** Will you combine your research with data sources already in existence? For example, if you are using the archives of a certain library to back up what has been said by one of your subjects, you should explain why you think these sources are important to substantiate what you have learned.
- **Interview questions/survey questions:** These questions are different from your research questions. As with the research questions, you will want to have a well-trimmed list of questions, which will allow you to get the information you seek efficiently.
- **Data analysis:** How and when will you interpret what you have learned from your interviews/surveys/ethnographic field notes? You will want to be as specific as possible on this topic; again, although it may seem obvious to you that you are going to listen to interview tapes and then transcribe them, you will want to explain each step of your analysis.
- **Study Limitations:** How do you know the data are sound? Basically, this section is an opportunity for you to indicate that, although you have done the best job possible, there is a chance that other factors, out of your control, may have influenced the data collection. For example, you can state up front that you realize interviewees' memories may have influenced what they have told you. You may want to rely on tools such as thick description or explain that your data may not necessarily have very wide generalizability. You don't want to give the reader the impression that you think your methodology is infallible. Always leave a slight margin for possibilities.
- **Conclusions:** This section includes the major take-away issues which you will be addressing. This section is where you should discuss implications for research, practice and policy.

For a quantitative study, you will probably want to include the following sections:

- **Methodology:** What is the design of this research project and what methods do you plan to use to collect and analyze the data?
- **Data sources:** Is this a primary analysis of data you plan to collect yourself? Describe in detail the data collection and data. Is this a secondary analysis? Provide detailed information on data sources, including sampling.
- **Results:** What do you expect to find?
- **Study Limitations:** What are the limitations of your findings as they pertain to limitations of data, threats to external and internal validity, or scope of the question?
- **Conclusion:** What do you hope to find or learn?

NUTS AND BOLTS

PEARLS

CORE CONTENT

**PROPOSAL CHECKLIST**

You will want to be sure that your committee will agree with the following statements about your proposal:

- The topic is clearly stated;
- Relevant background literature is reviewed and analyzed;
- Research questions are clearly stated;
- The contribution and importance of the research question(s) with respect to relevant literature, theory, policy and/or practice are articulated in a convincing manner;

- The research plan and methods are appropriate and adequate to study the research questions(s), and they are described explicitly.

**FORMATTING OF THE DISSERTATION PROPOSAL**

While there are no formal requirements for formatting the dissertation proposal, it is more efficient to format the proposal according to the formatting requirements for the dissertation. This section is organized in two parts, the first of which has information on formatting such as style, type, font size, and line spacing. The second section contains specifics about the components of the dissertation such as title pages, abstract, acknowledgments, dedication, table of contents, chapters, bibliography and appendices. Prior to your dissertation defense, Betty Deane (bettyd@gse.upenn.edu) will review your dissertation to ensure it meets formatting standards as required by the University Dissertation Manual. (See page 17).

*Style*

While there is no one required format style for the proposal or the dissertation, you should consistently follow an established and accepted format style such as prescribed in the most recent APA Publications Manual. Check with your chair to see if he/she has any style preferences. The proposal should also include a table of contents.

*Word Count*

There is no minimum or maximum word limit for the proposal or the dissertation. However, the abstract is limited to 350 words.

*The Abstract*

The proposal abstract is normally a single paragraph consisting of the problem statement, the procedures and methods used to investigate the problem, and implications for findings. The abstract is published in Dissertation Abstracts, a widely distributed bi-monthly publication that gives readers an opportunity to understand the general content of the dissertation before reading it. Abstracts submitted electronically can be made accessible on the Penn Web site. The abstract header should be formatted as follows:

ABSTRACT  
 (DISSERTATION TITLE)  
 (Author's Name)  
 (Supervisor's Name)

*Type and Font Size*

Type size should be 12 point for legibility, but 10 point is also acceptable. Proportional fonts such as Times New Roman, Palatino, Helvetica, Arial, Garamond and Palatino are acceptable. Monospaced fonts, such as Pica, Elite or Courier, may also be used. If you are using point-sized fonts, the font must be between 10 and 12 point.

*Line Spacing*

Text must be double-spaced. Quotations, appendices, footnotes and bibliography may be single-spaced.

**Ask your chair if the department has a preferred font, just in case.**

NUTS AND BOLTS

PEARLS

CORE CONTENT

Note that the left margin is .5" wider than the rest!

If your chair makes recommendations, LISTEN! The last thing you want is to find that you've formed a committee in which two of the members have completely different ideas about what your research should look like, what is important, etc. Conflicting views among members should be avoided whenever possible!

If you are doing a more interdisciplinary study, you may want to have different members focus on different aspects of the study. Or, if your chair is the content expert, you may prefer other committee members who will be "knowledgeable readers" who offer objective feedback when requested, but not much more.

*Margins*

- Left margin: 1.5 inches
- Right margin: 1 inch
- Top and bottom margins: 1 inch
- All text, including page numbers, must be inside these boundaries. Nothing may appear in the margin area

*Bibliography*

*Page Numbering*

All pages must be numbered except the title page, preferably on the upper right hand corner of each page. Page numbers may also be centered at the bottom of the page. Page numbers must be inside the margin areas specified above.

*Paper*

Paper must be 8.5 by 11 inches and 20 pound weight. See separate paper requirements for Depositing the Dissertation.

*Appendices*

You may include graphs, illustrations, charts, photographs, and tables within the text of your dissertation or within an appendix. The appendix is placed after the last chapter, and before the bibliography. Appendices should be listed individually in the table of contents with a page number for each. Appendices should be designated by letter to avoid confusion with page numbers. Each appendix should have its own header at the top, for example:

Appendix A: Interview Protocols  
(header at top of page)

(Interview questions listed here)

234

(page number at bottom)

When deciding where to place a table, for example, consider whether you will enhance the reader's attention if the table is on a separate page in the back of your dissertation or if it is imbedded within the text itself.

**COMMUNICATING WITH YOUR CHAIR AND COMMITTEE**

Keep your chair and committee members informed of your target dates such as when you expect to submit your first draft and when you expect to hold your proposal and defense hearings. This will create accountability for you and also help them to become vested in your goals.

Ideally, your committee will work to guide your thinking, assisting you with a range of challenges. In some cases your chair will be an extremely active member of your committee, while in others he/she will expect the other committee members to guide your thinking on a regular basis, instead providing final approval on the dissertation. In either instance, it is important to communicate with your chair about every month or two to keep him/her informed and ask questions proactively—especially during the data collection phase. Plan in advance for each meeting with your chair so that you both know what will be discussed. Although every chair has his/her own style of working with dissertation students, it is valuable to run questions and concerns by your chair. Doing so will save you time by preventing you from going down a dead-end or making wrong turns in the dissertation process. After meeting with your chair, write notes as you understand what was said and share them with your chair.

NUTS AND BOLTS

PEARLS

CORE CONTENT

Some departments require a full 30 days, not just two weeks, between formal submission of the proposal and your official hearing. Ask your chair!

Suggestions for how to ask for feedback within a given timeframe: “I would appreciate it if you could send me your feedback by the first week in November given that I’m working toward a February proposal hearing” or “If you could send me your comments by the beginning of November, I would be grateful.”

So your chair has approved the latest draft of your dissertation proposal. What now?

Ask your chair if the draft is ready to go to the rest of your committee members for review. If so, send a copy of the proposal draft to each of them and request their feedback. If they already know that you have a target date for your proposal hearing and are on-board with this, remind them of that date and ask them how much time they will want to review your revisions. If you don’t have a target hearing date, ask them for their feedback in a reasonable timeframe, e.g., 3 weeks, by giving them a concrete time frame and goal. It really helps everyone involved if you have target dates for both your proposal and your defense. This kind of planning will enable you to work backwards and efficiently plan the intermediate steps along the way, while also getting your committee members on-board with your timeline.

**DEVELOPING A TIMELINE**

Having a timeline will give you a sense of structure and accountability. This timeline should be included in your proposal, and it will be useful to gently remind your chair and committee of upcoming deadlines when you submit drafts. Below is sample timeline. Note that the activities of conducting and transcribing interviews overlap.

- Schedule interviews: November–January
- Conduct interviews: February–April
- Transcribe interviews: February–June
- Coding: June–July–August
- Data analysis: August–mid-September;
- First draft of analysis chapter to chair: November 15th
- Revisions to analysis chapter: December–January
- Draft of conclusions chapter to chair: mid-February
- Draft of recommendations chapter to chair: mid-March

NUTS AND BOLTS

PEARLS

CORE CONTENT

**THE PROPOSAL HEARING**

It’s most helpful if you can attend a couple of proposal hearings from your division in advance, so you can get an idea of what occurs.

**NB:** Anyone may attend a hearing, but guests are usually not allowed to speak during the hearing.

Since this is typically a tense time, it’s nice to have someone supportive with you during the hearing.

It’s a good idea to contact your chair about 2–3 weeks in advance and ask what she/he expects of you and what you should expect at your hearing. Some faculty members expect a formal presentation; others are content with an informal discussion that includes a handout of your timeline and abstract.

You are not expected to have ALL the answers at this juncture; you are expected to be coherent about your topic so far, knowledgeable about your research plan and methodology, and open to a discussion of the next steps. To that end, recognize that you have done a good but unfinished job. If your committee has read your proposal, and has notes on it, they will use the time after your short presentation to share those thoughts and suggestions with you.

You can also use this time to ask any questions you have on your mind, and this is a great time to get the record straight. You may want to ask, for example, if the committee wants to see transcriptions of your interviews, or exactly how many research subjects they expect your sample to have. Since your full committee will not be together more than twice in this whole adventure, you should come prepared to ask anything which may be on your mind. Your chair is ALWAYS the final arbiter, but any committee member does have veto power at either hearing.

You can think of your committee as a consulting group during your proposal hearing. Your committee wants to help you construct and conduct the best research on your topic, and they really do want you to write, defend, and graduate. The most important thing to remember is to KEEP AN OPEN MIND and take any criticism as constructive.

For some, just GETTING to this stage is reason to celebrate. So reward yourself!

Either way, be sure to send an e-mail or memo detailing your understanding of the revisions requested by the committee, and ask them to respond so that you know exactly how to proceed with no misunderstandings.

Keep that in mind—if you have questions about advice you heard from your committee members, ask your chair for clarification after your hearing.

You may want to record the hearing so that you don't miss any issue raised by your committee. It's also helpful to ask a colleague to attend and take notes for you. Both a recording and note-taker will help you to relax and focus on making your presentation and answering your committee's questions.

Typically, once the committee arrives, they will ask you and any guests to leave while they confer. Then you and your guests are invited back into the room for your presentation. After your presentation, there are questions from the committee as well as some discussion. At this point, you and your guests are asked to leave the room once again while the committee confers. Then you and your guests are permitted to return to the room so the committee can share its decision. Here are the possibilities.

- You passed! Congratulations. The chair will bring the signed proposal hearing form to Student Records and give you a copy. Proceed with your dissertation as planned.
- You passed with revisions. You have to do something differently or in addition to your original plan such as add observations to the interview portion of your data collection, expand your literature review to include other articles, or amplify your problem statement. If revisions are required, there are two options. You may be required to submit revisions to just your chair, or to the entire committee. Ask whether your chair/committee expects a memo detailing your understanding of what is expected by the committee, or a complete revision of the proposal.
- In the rare instances in which a student does not pass a proposal hearing, it may be because the student has insisted on holding the hearing against the advice of the chair, or did not adequately prepare a presentation. Again, a chair's definition of "ready" will differ depending on their expectations of the proposal itself, so it's important to communicate with your chair so that you understand his/her expectations for the hearing itself and how those expectations may differ from those for the written proposal. Remember that your written proposal and presentation are your opportunity to make a case for why your research should proceed (i.e., Why is your topic important? Why should the committee believe that you are prepared to carry out a productive research study?).

After this decision is made and announced to you, there is a preliminary form, which your chair will have from the department secretary, and the committee members will sign off on it. You will get a copy for your records and the chair will make sure (or ask you) to deliver the other copy to Student Records or to your department secretary.

NUTS AND BOLTS

PEARLS

CORE CONTENT

If your research requires you to work with human beings, you must apply to the University's Institutional Review Board to gain permission. It can be helpful to review a fellow student's IRB application that has passed review, especially if he or she has a similar research methodology. That way you can use it as a model to write your cover letter and complete your forms.

## THE INSTITUTIONAL REVIEW BOARD (IRB)

Institutional Review Boards (IRBs) are independent committees that protect the rights and welfare of human research subjects. The IRB may approve, disapprove, or require modifications in order to approve studies being conducted by the University of Pennsylvania faculty, staff or students. Dissertations that involve human subjects require submission to the IRB for review and approval prior to initiation. The following text is from the IRB website and was current as of March, 2005. To ensure that you are following the most current policy and procedures, go to: <http://www.upenn.edu/regulatoryaffairs/IRB.html>

In addition to following IRB procedures it will be important to gain approval from the agency, school district or company owning the information to use the data for your study, particularly if the data is not publicly available. After permissions are obtained and the data is forwarded to you, anticipate spending at least 1 week (up to a month) cleaning the data, re-formatting it and understanding the rationale for missing information.

For both the IRB processes, (Penn and the organization where you conduct your research), apply for approval as soon as possible since this process may take a while and could cause you unnecessary delays. You have to have passed your oral proposal before you can apply for IRB approval. Because you have to have obtained IRB approval before you can begin collecting your data, you will want to apply for IRB approval as soon after you pass your proposal as possible.

Because different research carries different risks to the human subjects involved, the review board has several options for review. These include an Exempt from Review approval, an Expedited Review, and a Full Review. The standard requirements for informed consent apply regardless of the type of review. When working with children you must obtain both a consent form from the parents and consent from the child if the child is between the ages of 7 and 17. Below are brief explanations of each option.

#### *Exempt from Review*

If your dissertation involves human subjects, you must file an application with the IRB to determine if your study is exempt from review. Go the IRB site and click on “Application Procedures” and then on the link for “Exempt from Review.”

#### *Expedited Review*

Expedited review is a procedure through which certain kinds of research may be reviewed and approved without convening a meeting of the IRB. Examples of research eligible for expedited review: non-invasive recording of data from subjects; voice recordings; and non-stressful research on individual or group behavior. In many cases, social science research that is not exempt from review is eligible for expedited review. Depending on the completeness of your application, it should be considered within 3–4 weeks of submission.

#### *Full Review*

A full review is required if there is more potential for harm to the human subject than that defined in the expedited review. For example, research that may present a greater potential for psychological harm (such as conversations about sexual experiences and work with prisoners) would need to be submitted for full review.

NUTS AND BOLTS

PEARLS

CORE CONTENT

## TIMELINE FOR THE DISSERTATION

**Work Groups: The Cheerleader Effect.** Whether you have committed to collecting your own data, or are obtaining it from another source, these first stages can be difficult. To help you along the way, a work group or partner can be extremely helpful. Building a relationship with a fellow student at a similar stage in the process can help to keep you on track with a positive mindset.

According to University policy, students have a maximum of 5 years after the completion of coursework to complete all remaining degree requirements (i.e., preliminary examination and defense of the dissertation). Therefore, you will need to plan this phase of your doctoral program carefully to ensure that you allow yourself sufficient time to take the exam, pass your proposal hearing, conduct your research, and pass your defense hearing.

Setting a timeline for your progress that is agreed upon by your advisor can help you work at a steady pace, and can set realistic goals for the completion of the dissertation. Generally it can be useful to set a “soft” target date for your defense, and to create your “to do” list by working backward from that date.

You should also review the GSE academic calendar on-line at [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php) when planning your timeline. Required dates for dissertation completion and submission to the various departments are outlined in this calendar. As a general rule of thumb, if you plan to graduate in the Spring, you will need to defend in March.

## DATA COLLECTION

- Data collection constitutes a significant and often under-estimated component of the dissertation.
- Data collection is unique to each project, so it is difficult to prescribe a process for doing it, but you should articulate the process and have a fairly specific timeline set.

- Be sure to note the important distinction between primary and secondary data collection (i.e. collecting your OWN data vs. using data that someone else has already collected, such as data collected by the Department of Education). Because your dissertation will be a unique contribution to the academic literature, you want to be clear that your contribution isn't the data collection but what you've done with the data previously collected.
- You need to understand your window of opportunity to collect data (i.e., if you are doing research in schools, you should understand when are "bad" times to be interviewing teachers or administering surveys—such as summer, or during state test administrations).

## MOVING FROM DATA COLLECTION TO ANALYSIS

**Remember that your dissertation is not meant to be the Great American Novel. It is likely just the beginning of your research portfolio.**

The analysis stage of the dissertation process can be one of the most rewarding, but with rewards come challenges. Data analysis can be enhanced by using software, such as Nudist, ATLAS.ti, SPSS or SAS. You can obtain detailed product information about data analysis software on the web—one site is <http://www.content-analysis.de/>

If you are not familiar with the system you will be using, consider investing in a step-by-step guide book or tutorial.

We also recommend that you examine completed doctoral dissertations on similar topics or with related methodologies. Locating a dissertation or two with similar research questions, particularly those guided by the same chair, can be extremely helpful.

Consider setting a fixed time slot every day for analysis and writing. Whether it's 30 minutes or 4 hours, schedule it the same way you schedule time to exercise or attend a meeting. Sometimes knowing when to stop—even if you're on a roll—is important so burnout doesn't strike. This helps you stay focused and look forward to the next day's portion, rather than feeling exhausted and dreading the idea of looking at it again.

NUTS AND BOLTS

PEARLS

CORE CONTENT

## WRITING

**Minutiae alert! From here on, it's going to get very DETAIL ORIENTED! Don't lose heart; just read it through carefully BEFORE and again DURING the writing process, so there are no surprises down the line!**

Make a reasonable plan for writing your dissertation. For some this may be a chapter every 2 weeks, while for others it might be a chapter a month, or every 2 months. Communicate this plan to your advisor, and work out a timeline for your advisor to review your work.

Your goal is to communicate your findings through your dissertation as clearly and concisely as possible in a reasonable amount of time. This timeframe depends on your questions, your data collection methods, and your work habits.

Some students struggle with the decision to analyze bit-by-bit, writing as they go, or analyzing the data all at once, and then sitting down to write. Both styles are effective; it is important to consider, however, whether or not latter stages of analysis could change the outcome of the study. Clearly in cases where stages of analysis are dependent on one another, it makes more sense to save the writing task until after analysis. You may want to write down thoughts and observations as you go; then you can incorporate them later when you start formally writing, if the observations are still applicable at that time.

**DISSERTATION STANDARDS CHECKLIST**

You will want to be sure that your committee will agree with the following statements about your dissertation:

1. The topic is stated clearly and relevant background literature reviewed and evaluated;
2. The research question(s) are stated clearly;
3. The contribution and importance of the research questions with respect to relevant literature, theory, policy and/or practices are articulated in a convincing manner;
4. The research plan and methods are appropriate and adequate to study the research question(s) posed, and are explicitly described;
5. The research plan and methods are implemented effectively;
6. The research produced trustworthy evidence that bears on the research question(s);
7. The conclusions follow convincingly from the evidence and its interpretation;
8. The dissertation manuscript is coherent, well structured, clearly written and is in accordance with the specifications of a standard style manual;
9. With appropriate revisions, the dissertation is of sufficient quality to be publishable in an academic or practice-oriented journal that is peer-reviewed.

On average, the defense is two hours in duration and you are required to present the dissertation to the committee and any interested persons in attendance. Check with your committee if you plan to provide refreshments at the hearing. Some faculty appreciate the gesture, while others discourage the practice.

**DRAFTS AND REVISIONS**

Before you sit down to write the bulk of your dissertation, it is wise to become familiar with the formatting rules below.

In most cases students should expect several revisions (2 to 3) of core chapters before the dissertation defense. You should forward drafts of chapters or sections of chapters to your chair so that after your chair approves the revisions, you can send the chapters to the rest of your committee for their feedback. Bear in mind, however, that some committee members will read only your completed draft.

In many cases, members require one month to review and comment on a chapter submission. Again, this is something to consider when planning your timeline and is certainly a topic to address with your chair or committee member in advance.

**MICROFILMING AND COPYRIGHT INFORMATION**

Microfilming satisfies the University’s requirement for publication of dissertations. A company called ProQuest in Ann Arbor, Michigan microfilms all dissertations, and makes the dissertations available to interested scholars and researchers. After dissertations have been microfilmed, they are available for circulation. Ed.D’s must deposit a clean copy of your dissertation (i.e. all revisions completed with no handwritten corrections) in the Students Records Office of the Graduate School of Education. If you also decide to publish your dissertation by other methods, you will need a copyright.

**NUTS AND BOLTS**

**PEARLS**

**CORE CONTENT**

The fee for micro-filming (required) is \$80. The fee for copyright (not required, but recommended) is \$45. You will be billed directly by the university for microfilming and also copyright, if you elect a copyright, via your bursar bill. The Microfilming Contract (included in ProQuest’s “Publishing Your Dissertation” brochure) must accompany the dissertation, with an extra copy of the title page and abstract. Follow the instructions given on the contract when preparing this form.

**FILING THE PH.D. DISSERTATION**

The dissertation must be deposited no later than 2 weeks prior to the degree award date.

The Graduate Group reports to the graduate office regarding acceptance of the Ph.D. dissertation and its suitability for immediate publication by the prescribed deadline. Here is how the process works: Once your committee approves your dissertation, all members must sign Form 152 (Acceptance of Dissertation). You should take the completed form to the Student Records Office. When you are ready to file the dissertation with the Graduate Group Chair for signature, pick up Form 152 and Form 153 (Certification of Dissertation) at the Student Records Office. Dissertations must follow the format prescribed in the Dissertation Manual, which describes in detail the requirements for preparing and filing the dissertation. Please allow 3 weeks for Graduate Group Chair approval before filing your dissertation with the Graduate Group in Arts and Sciences.

After successfully completing the final defense and making any required revisions to the dissertation, the dissertation will be filed with Van Pelt Library for microfilming by University Microfilms, Ann Arbor, Michigan. All dissertations will be microfilmed according to the plan provided by University Microfilms. Microfilming does not preclude later publication by other methods. Consult the GSE academic calendar for filing deadlines pertinent to graduation dates.

Before graduation, you must submit the microfilm contract to the Graduate School of Arts and Sciences, pay the microfilming fee, and submit the original and one copy of the final typed version of your dissertation.

**REQUIREMENTS FOR DEPOSITING THE DISSERTATION**

You may submit your dissertation in printed form or as a compound document. (A compound document contains both text on paper and other information only available/accessible through a specific electronic format such as a floppy disk or CD-ROM). If your dissertation is in printed form, the original and a second printed copy (not a photocopy) of the Doctoral Dissertation must be deposited in two separate boxes or two separate envelopes. (See “General Printing Instructions” for appearance and margin requirements.) If the dissertation is a compound document, the original manuscript and the disk/CD-ROM and a second printed copy and disk/CD-ROM must be deposited in two separate boxes or two separate envelopes. ProQuest guidelines must be satisfied for all compound submissions. The option of submitting a compound document at the University of Pennsylvania is limited to Ph.D.s as of Spring, 2005.

If your dissertation is submitted with a CD, you must include the following:

- A Reprint Permission Letter to authorize previously copyrighted materials within the body of the work.
- A description of software or other applications used to create the floppy or CD-ROM, including a list of files and file sizes.
- Copies of licenses for third party software needed to access, display, run, or print dissertation.
- Written permission to reproduce copyrighted images, video, graphics, animation, data and images, of individuals.
- A completed Survey of Earned Doctorate questionnaire must accompany your dissertation. Completion of the “Survey of Ph.D. Recipient’s Opinion” is also requested. (The survey is available online at [www.upenn.edu/grad/sdso/sdso.html](http://www.upenn.edu/grad/sdso/sdso.html); a copy of the form will also be mailed to the degree candidate shortly before the degree award date).

NUTS AND BOLTS

PEARLS

CORE CONTENT

- The Certification of Dissertation (Form 153) with the Graduate Group Chairperson's signature must accompany your dissertation.

*Title page*

Each copy of your dissertation must be accompanied by a paper title page with original signatures.

*Abstract*

Each copy of your dissertation must contain a copy of the abstract, just before the Table of Contents. You must submit an additional copy of the abstract separately so that it can be forwarded to ProQuest for publication in Dissertation Abstracts. (See "Detailed Instructions For Individual Pages" for style requirements for the Abstract.) The Microfilming Contract (included in ProQuest's "Publishing Your Dissertation" brochure) must accompany the dissertation, along with an extra copy of the title page and abstract. Follow the instructions given on the contract when preparing this form.

The abstract is published in Dissertation Abstracts, a widely distributed bi-monthly publication. This enables interested readers to know the general content of the dissertation before reading it.

The abstract is a summary of the dissertation not to exceed 350 words.

**GENERAL PRINTING INSTRUCTIONS**

Verify the paper is 100% Cotton Bond! Regular, "good quality" laser printer paper will not be accepted!

Since a dissertation is microfilmed exactly as received, it is essential that the manuscript be clear and legible, free of errors, and attractive in appearance. Color print and photographs will appear black and white when reproduced. No color should be used in the original (100% cotton paper) used for microfilming. You may use color in the second copy, which will be in circulation in the Penn library. ProQuest distributes compound dissertations as hardbound publications only, with a CD or floppy disk sleeve on the inside of the binding. All submissions must conform to the current ProQuest Guidelines.

Use white paper, 8 1/2 x 11 inches in size. Use only one side of the sheet for all text, illustrations, charts, and other material. Print the original on 100% cotton content or acid-free paper, 20 lb. bond or heavier stock.

*Fonts*

Type size should be 12 point for legibility, but 10 point is also acceptable. Proportional fonts such as Times New Roman, Palatino, Helvetica, Arial, Garamond and Palatino are acceptable. Monospaced fonts, such as Pica, Elite or Courier, may also be used. If you are using point-sized fonts, the font must be between 10 and 12 point.

*Line Spacing*

Text must be double-spaced. Quotations, appendices, footnotes and bibliography may be single-spaced.

*Margins*

- Left-hand margin: 1.5 inches;
- Right-hand margin: 1 inch;
- Top and bottom margins: 1 inch.

All text, including footnotes and page numbers, must be inside these boundaries. Nothing may appear in the margin area. Do not exceed margins.

*Handwritten Insertions*

Symbols and other material entered by hand must be in permanent black ink, clear and accurate. A draftsman's pen may also be used.

Use black permanent ink for all handwritten insertions.

NUTS AND BOLTS

PEARLS

CORE CONTENT

*Sequence of Dissertation Text:*

1. Preliminary Pages, in the following order:
  - Title Page, with two original signatures (Dissertation Supervisor and Graduate Group Chairperson);
  - Copyright Notice, if desired;
  - Dedication(s). Optional;
  - Acknowledgment(s). Optional;
  - Abstract;
  - Table of Contents: A consecutive listing of chapters or major headings with page numbers;
  - List of Tables, with titles and page references;
  - List of Illustrations, with titles and page references;
  - Preface. (Optional)
2. Text, with footnotes or endnotes, as per the “Detailed Instructions” must be properly paginated, with all pages accounted for. See the Pagination section in the “Detailed Instructions” for information on how to paginate.
3. Appendices. (Optional)
4. Bibliography: An alphabetical list of references used. See note below.
5. Index: An alphabetical list of subject matter with page number references.

You may include a bibliography or index with your dissertation even if your Graduate Group does not require one.

NUTS AND BOLTS

PEARLS

CORE CONTENT

**METHOD OF PRESENTATION**

Both Ed.D. and Ph.D. dissertations are presented in two appropriately sized boxes or two appropriately sized manila sealable envelopes. Each envelope or box should contain one copy of your dissertation in paper, electronic, or compound format. All paper submissions must be unbound.

**DETAILED INSTRUCTIONS FOR INDIVIDUAL PAGES**

**Check pagination carefully. All pages must be accounted for.**

*Pagination*

Every page in your dissertation has a number, except for the Title Page and registered copyright notice (if desired).

*For the preliminary pages*

Dedication (optional), acknowledgements (optional), abstract, table of contents, list of tables, graphs, illustrations and preface (optional), use small Roman numerals (i, ii, iii, iv, v,...). These may be placed either at the top or the bottom of the page. The title page is counted as page i, and the copyright page (if there is one) as page ii, but do not print the page numbers on either of these 2 pages (e.g., in a dissertation with a copyright notice, the first numbered page is iii; in a dissertation without a copyright notice, the first numbered page is ii.)

Any third party electronic application used to calculate a problem, present a video clip or sound recording or a combination of sound recording and video, a graph, picture, animation or representation, must be freeware or licensed for commercial distribution. Without written permission, ProQuest will not distribute the document.

Payment of the \$45 copyright fee must be made to the Cashier at the Franklin Building 2 days prior to deposit of the dissertation.

Have a friend (who owes you a favor, perhaps!) go through this list as well, to verify that you have all the pieces you think you do. Better to be safe than sorry!

*For the text*

Use Arabic numbers (1, 2, 3, 4, 5,...) starting with page 1 (the first page of the text itself). These may be placed either at the top or the bottom of the page. Do not print page numbers, footnotes, or anything else in the margins. Every page must be consecutively numbered, including tables, graphs, illustrations, and bibliography/index (if they are included); letter suffixes (such as 10a, 10b,...) are not allowed.

*Title Page*

The Title Page must contain the TITLE (in upper case), the author's name, the graduate group name, the year the degree is being granted, and two signatures: the signature of your dissertation supervisor, and the signature of the Graduate Group Chairperson. Both the original manuscript and the copy of the completed dissertation must have two original signatures on the title pages when presented to the GSE Registrar. Do not print a page number on this page. It is understood to be page "i" for counting purposes.

*Registered Copyright Notice*

If a registered copyright is desired, the Copyright Notice must appear on a separate page immediately following the Title Page. (A request for a Copyright must be indicated on the Microfilm Agreement Form. Payment of Copyright and Microfilm fees must be made in advance to the Cashier at the Franklin Building.)

The copyright page must have the following format:

COPYRIGHT

Author's Full Legal Name

Year of Publication

Do not print a page number on this page. It is understood to be page "ii" for counting purposes.

*Dedication(s) and Acknowledgment(s)*

These are optional pages. Text should be double-spaced.

*Abstract*

This is a condensed summary of the dissertation, not to exceed 350 words. All words count towards the total. The abstract, which is normally a single paragraph, consists of four parts: the statement of the problem; the procedure and methods used to investigate the problem; the results of the investigation; and the conclusions.

The abstract should be printed single-sided, on 100% cotton paper and must be double-spaced like any other text in the dissertation. Use the following format. Below the word "ABSTRACT" (in upper case), list the title of the dissertation (upper case), your name, and your dissertation supervisor's name.

ABSTRACT

TITLE OF DISSERTATION

Author's Name

Supervisor's Name

Handwritten insertions such as mathematical formulae, symbols, and foreign words must be clear and accurate so that they may be interpreted by publisher without questions. This will avoid delays in publication.

NUTS AND BOLTS

PEARLS

CORE CONTENT

*List(s) of Tables, Graphs, Illustrations*

Make a consecutive listing of all tables and a second consecutive listing of all figures (graphs, illustrations, charts, photographs, etc.), with titles and page numbers. For hand-drawn illustrations, charts, and graphs, use opaque, permanent black ink to insure satisfactory reproduction. Also, use cross-hatchings and line symbols, rather than color variations, to give greater contrast for microfilming. Large colored areas, such as those found on maps, will appear as shades of gray on microfilm. Use black and white photographs which do not have much contrast, or use halftone dot screens of photographs. Photos may be dry mounted, although rubber cement and glue mounted methods are acceptable. Copies of pictures, charts, and graphs are acceptable. Avoid the use of illustrative material on pages larger than standard typing paper size (8 1/2 x 11). Such materials may be reduced in size by photocopying and then inserted into the original dissertation. Abide by the regulations governing margins.

*Text*

All text should be double-spaced, except for long quoted passages, which are single-spaced.

*Footnotes/Endnotes*

You have the option of placing footnotes below the text on a page, or placing endnotes at the end of each chapter. If you place notes together at the end of a chapter, the notes should be numbered chapter by chapter. Footnotes that appear at the bottom of a page may be numbered continuously throughout the dissertation. A bottom-of-the-page footnote must begin on the same page as the text to which it refers, but may be continued on a following page if necessary.

NUTS AND BOLTS
PEARLS

**BIBLIOGRAPHY**

This must be an alphabetical listing of all references used. It may be a single alphabetical list by chapter, or an alphabetical list by authors for subject and class of publications. Page numbers in the bibliography section should continue the pagination of the text; do not number the bibliography separately.

*Index*

If an index is required (see your graduate program), it should be consecutively paged after the bibliography.

CORE CONTENT
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**CHECKLIST FOR AUTHORS**

1. Is every page of the dissertation correctly numbered?
2. Are all pages included? (Check pagination.)
3. Is a bibliography and/or index required by your Graduate Group?
4. Is the author's name, in full, on the title page of the dissertation, the abstract, and the contract form? Does the name read the same on all three?
5. Is the title on the abstract and on the Microfilming Agreement Form the same, word for word, as it is on the dissertation?
6. Is the supervisor's name on the abstract? Is the name typed accurately and in the proper place, so that it is clearly indicated that you are the author and not the supervisor?
7. Are all charts, graphs, and other special illustrative materials perfectly legible in both dissertation and abstract? Are they in the order and position in which they are to be photographed? Are they paginated?

8. Is the dissertation to be copyrighted? If so, has a copyright page been included following the title page?
9. Have all significant quoted copyrighted passages been cleared with the copyright owner? If your dissertation is submitted with a CD, have you included: a description of software or other applications used to create the CD-ROM, including a list of files and file sizes on the CD-ROM; copies of licenses for third party software necessary to access, display, run, or print your dissertation; and written permission to reproduce copyrighted images, video, graphics, animation, data and images of individuals?
10. Have you obtained Form 153, which certifies that the dissertation is in suitable form for microfilming, from your Graduate Group? This form must be submitted along with your completed dissertation.
11. Have you received and completed the Survey of Earned Doctorates, the Survey of Doctoral Degree Recipients' Opinion form, and "Publishing Your Dissertation/Microfilming Agreement Form." These forms are mailed from Suite 322A, 3401 Walnut Street to all degree candidates and must be turned in along with the completed dissertation. If you did not receive these forms, call 215-898-7444 as soon as possible.

Note: The Ph.D. dissertation must be deposited in Suite 322A, 3401 Walnut Street; the Ed.D. dissertation must be deposited in the Student Records Office of GSE according to the schedule issued with the "Instructions for Candidates for Degree." This schedule varies with each degree-granting period. See [www.sas.upenn.edu/GAS/degree/](http://www.sas.upenn.edu/GAS/degree/)

**STATEMENT ON PLAGIARISM**

Be sure that you review and understand The University's Code of Academic Integrity, which defines Plagiarism as:

*using the ideas, data, or language of another without specific and proper acknowledgment. Example: copying another person's paper, article, or computer work and submitting it for an assignment, cloning someone else's ideas without attribution, failing to use quotation marks where appropriate, etc.*

Note: The full text of the Code of Academic Integrity may be found in University Policies and Procedures, issued by the Office of the Vice Provost for University Life. It is available on-line at [www.upenn.edu/osl/acadint.html](http://www.upenn.edu/osl/acadint.html)

**SAMPLES**

*Sample Title Page (#1 - for PhD students)*

SCHOOL TECHNOLOGY USE AND ACHIEVEMENT ON  
STATEWIDE

ASSESSMENT: IS THERE A RELATIONSHIP?

Author's Name

A DISSERTATION

in

Education

Presented to the Faculties of the University of Pennsylvania in Partial

NUTS AND BOLTS

PEARLS

CORE CONTENT

Fulfillment of the Requirements for the Degree of Doctor of Philosophy  
2003

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Supervisor of Dissertation

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Graduate Group Chairperson

*Sample Title Page (#2 - for Ed.D. students)*

THE EFFECT OF EMPLOYER SUBSIDIES FOR MASS TRANSIT  
ON LAND USE AND ENVIRONMENTAL QUALITY

Author's Name

A DISSERTATION

in

Area of Specialization

Presented to the Faculties of the University of Pennsylvania in Partial  
Fulfillment of the Requirements for the Degree of Doctor of Education

2003

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Supervisor of Dissertation

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Dean

*Sample Abstract*

ABSTRACT

SCHOOL TECHNOLOGY USE AND ACHIEVEMENT ON  
STATEWIDE

ASSESSMENT: IS THERE A RELATIONSHIP?

Author's Name

Supervisor's Name

As our nation becomes engulfed in the “standards and assessment” movement, school-based technology integration is at a critical juncture. After investing billions of dollars for the incorporation of technology into the classroom, many are interested in understanding the impact of this investment. For some investors, particularly proponents of data-driven decision making, a key indicator for the value of technology integration is student performance on statewide assessments.

The present study investigates the relationship between technology and stan-

NUTS AND BOLTS

PEARLS

CORE CONTENT

standardized achievement at the school level. First, the latent structure of the components of a statewide technology survey is examined using factor analysis. Resultant factors are then used to investigate technology's relationship with student performance on the Maryland State Performance Assessment, controlling for known predictors including class size, school type, and the percentage of students receiving free or reduced-price meals. Dependent variable measures include 3rd, 5th and 8th grade student achievement in mathematics, science, social studies, reading and writing.

Findings from the factor analysis reveal two latent constructs inherent in the school-based technology survey items: student technology use and teacher technology use. Results from the multiple regression analysis using the student and teacher technology use variables in conjunction with the control variables (percentage of students receiving free or reduced meals, pupil teacher ratio, and school location) show that both student technology use in school and teacher technology use in school are positive predictors of achievement for all subject areas and grade levels studied. However, not all of these positive relationships are statistically significant. Variation in the relative importance of student technology or teacher technology use is found across grade level and subject areas.

## PREPARING FOR THE DEFENSE

This varies significantly from department to department. Some EXPECT you to bring refreshments, have a full-on PowerPoint presentation, etc. For others, the entire defense is merely a formality; they wouldn't have let you get there if they still had any questions, so nothing elaborate is needed or expected. Check with your chair well in advance!

You will need to send 6 copies of your dissertation abstract to the Student Records Office at least 2 weeks in advance of the date of the final defense.

The dissertation defense is one of the most important moments in your graduate career—it represents the culmination of your research. The defense hearing provides a formal setting for the presentation and recognition of your work, and provides an opportunity for discussion and formal evaluation of your dissertation. The purpose of the hearing is to verify to the committee's satisfaction that your research adheres to the highest standards of scholarly work. At the defense, you present the study in a formal manner. The presentation should be scholarly; visual aids can be used. The background and significance of the study, the purpose of the study, experimental questions, method, and results should be presented. This presentation is followed by a question and answer period. Dissertation committee members will address their questions to you first. Then others in attendance will be invited to ask questions. After your formal presentation and discussion, the committee will decide whether you have passed this final requirement of the doctoral program.

Your chair and committee members will not permit you to hold the defense hearing if they do not feel that you are ready and likely to pass. It is important to allow your chair to take the lead on this important decision. Remember, you've put a great deal of time and effort into your dissertation, so this is no time to rush the process. Be sure that all members of your committee have had ample time to read your latest draft and to give you their feedback. During the defense, committee members may comment or ask questions at any time.

## SCHEDULING THE DEFENSE

To synchronize your defense with your planned graduation semester, check the GSE academic calendar for exact dates since it varies from year to year. [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php)

After you have submitted a complete version of your dissertation and completed necessary revisions, your advisor will decide that you are ready to schedule your defense. Because your defense will require several people to get together at the same time it can require weeks to find a suitable date, which is typically at

NUTS AND BOLTS

PEARLS

CORE CONTENT

Once you have confirmed the date and time with all of your committee members, it's time to get your chair's signature on the final defense notification form so that you can then submit the form to the Student Records Office

At least 1 term must elapse between passing the preliminary examination and holding the final defense hearing.

If you want to graduate in May, you will need to submit the final draft to your committee at least 1 month prior to the final defense hearing.

least 1 month and perhaps several months from when you are informed of your readiness to defend.

Final defenses are not normally held during the summer. Talk to your advisor if you want to defend in the summer. If you want to have your final defense hearing during the summer, you will need the approval of all committee members and will also have to register and pay for Dissertation Supervision (EDUC995) for the summer session. **Note that assistantships do not always fund dissertation tuition during the summer, even though they may do so during the academic year. Check with your Division Coordinator or GSE Financial Aid.**

You can request your proposal or final defense hearing on-line at [http://www.gse.upenn.edu/student\\_life/login.php](http://www.gse.upenn.edu/student_life/login.php). Simply enter your Penn ID and birth date to access the form that should already contain your name, program and committee members' names. On that form, paste in your title and abstract, indicate the date, time and any AV needs. (The on-line format will eventually enable students to access upcoming or previous proposal and defense hearings, allowing them to search by topic, division or date.)

The Student Records Office schedules the defense meeting room and formally notifies you and your dissertation committee that the meeting has been scheduled. Hearings are also posted on the 2nd floor bulletin board at GSE.

## PREPARING YOUR PRESENTATION

It's helpful to have some time away from your dissertation to give you a fresh perspective as you approach the defense presentation. If possible, allow 3 weeks after you've submitted your final draft to the committee to think about and prepare for your defense. The following two questions may be helpful to consider:

- What does your chair expect from you at the defense hearing?
- What should you expect at the hearing?

This should give you some idea whether your chair prefers a PowerPoint presentation, or paper handouts. If your chair does not express a preference, then use the format you are most comfortable with. Keep in mind however, that you should try to make the presentation as clear and simple as possible.

Begin with the full title of your dissertation. Whether or not you use visual aids, begin by discussing the problem, why it is a problem, the scope of the problem, and why we should care. One way to make your presentation personal and engaging is to feature quotations from researchers, authors or study participants.

After your problem statement, the next logical step is to explain the research questions, methodology and methods. If using visual aids, remember to keep the text to a minimum, and follow a separate script for your dialogue that will flesh out what's on the visual aids.

It's helpful to think about your research approach in a way that can be conveyed visually, for example a diagram or graphic. Show the diagram and then explain what it illustrates. When you discuss your research approach and methodology, spend a brief time explaining why you chose your methodology, what was missing from previous studies on this topic and what your goal was.

Explain how you selected your sample and why. If you used qualitative data, explain how many hours of observation or how many interviews you conducted.

Present your findings in the context of previous research—were your findings consistent? Discuss whether your findings are generalizable to the larger population and, if so, which ones and why.

NUTS AND BOLTS

PEARLS

CORE CONTENT

Conclude your presentation with insightful recommendations. Emphasize what your recommendations are based on (i.e., which research results) and to whom they are directed (i.e., stakeholders, trustees, principals). Talk about how realistic they are, how likely they are to be implemented and whether your findings are consistent with previous research. Spend a few minutes talking about your recommendations for each group of stakeholders in the study. Try to bring closure to your recommendations section with a broad, sweeping statement about why it is important that the recommendations be taken seriously. For example, “Author Z predicts it is only a matter of time before college and universities are required to provide this data for accreditation.” Or, “Research conducted by NSF warns that a failure to address the rising rates of malpractice insurance will result in a 20% decrease of doctors nationwide.”

When you have completed your presentation, be prepared to respond to questions. You can expect the questions and discussion to last about an hour. Try to answer each question as thoroughly as you can. This is a great time to get additional thoughts and insights about your research and even to forge new directions for future work.

**A NOTE ABOUT QUANTITATIVE DATA**

When presenting quantitative data, make every attempt to keep it as simple as possible. Your goal is to demonstrate to the committee that you have:

- identified a significant problem;
- explored the relevant literature;
- examined what has already been done;
- identified where the holes are;
- developed sound research questions and a coherent methodology that will enable you to address the holes;
- and presented your findings in the context of the problem and of existing research.

If your presentation includes tables, charts or graphs, be sure to briefly explain the headings of each. Tell the story behind the data and what it means; talk about what the numbers represent. Avoid using more than 3 tables in sequence whenever possible. Ultimately you want to talk about what your research helped you to understand.

As is true for qualitative data, it is helpful to illustrate your points with a graphic or diagram if possible. Be sure to talk through each point carefully. This is another opportunity to use quotations from researchers or study participants to demonstrate your points. You can introduce a quotation with the phrase, “This quote illustrates the subject’s feelings about...” Identify the characteristics of the subject that are relevant beneath the quote, for example, “Teacher at charter school” or “student with learning disability,” or “retired board member.” Keep the quotes brief: no more than 6 lines on a page or slide.

**PRACTICE, PRACTICE, PRACTICE**

Now that you’ve honed your presentation, it’s time to practice and rehearse. If time and your energy permit, consider rehearsing the presentation for 5-7 different people and ask each of them in advance to give you their suggestions for improving the presentation. It can be helpful to practice your presentation for people with a variety of different backgrounds and viewpoints—in content knowledge as well as methodological expertise.

NUTS AND BOLTS

PEARLS

CORE CONTENT

**THE ROOM:** Plan to go to the room well before the hearing is scheduled to begin. Before everyone else arrives, walk around and get comfortable with the flow of space and light. If you’re doing a PowerPoint presentation, you’ll want to adjust the lights accordingly when the time comes. Get a sense of command and control: test all equipment and run through the slides one more time. Make sure you have drinking water.

At this point you are ready to begin rehearsing the presentation so that you are comfortable and all nervousness disappears. The goal is to get to the point where you feel relaxed and confident enough that you only have to glance at your script and you can maintain eye contact with your committee members. In order to engage your audience you should avoid reading directly to them. Once you're satisfied with your presentation, try to relax. You've done everything conceivable to ensure that your defense hearing goes well.

**THE BIG DAY**

Once you have revised your presentation to the point where you are sure it couldn't possibly get any better, take a break. Give yourself some time and space away from the presentation and the topic. Do something completely different and unrelated for a couple of days. When you return to it, you'll find new things to change or improve.

Students and Education faculty are invited to attend these presentations, so don't be surprised if you have an audience.

Be pithy and brilliant!

This is a significant milestone in your education. Don't go to your hearing alone unless you really prefer to keep this experience private. If you are inclined, invite friends, colleagues and family to attend this momentous occasion. You will be glad they are there to share in your success, and you'll also be glad to have someone to talk to when you're outside the room as the committee confers. They can also help carry any food or materials. After the hearing when you are officially "Dr. Jones," you'll want to celebrate with people who are special to you.

Before you begin, thank everyone for coming. At this point the chair will request that everyone leave the room so the committee can confer. After you're invited back into the room you will proceed with your presentation. After you've finished with the questions and discussion portion of the presentation, thank everyone for attending. At this point the chair will request that everyone leave the room so the committee can confer. You will wait outside the room until invited back by the chair. When you return to the room everyone except you will be seated.

At this point your chair will inform you whether you have passed your defense hearing and whether any revisions will be necessary. If there are no revisions, you will likely be greeted as "Dr. Jones" with a congratulatory handshake. If you have done an outstanding job on your presentation, you may even pass with distinction! Regardless, it is over and you have passed. Time to go out and celebrate. Be sure to reward yourself for this significant accomplishment! Consider inviting your family and friends to join your celebration.

Your committee may ask you to make additional revisions, or may approve the dissertation as it stands. The revisions will need to be reviewed by only the chair or by the entire committee. Your chair will inform you of any additional requirements immediately following your presentation at the defense hearing.

**FINAL PAPERWORK**

To document the approval of your final oral examination, your committee will sign three ballots sent in advance to your chair by the Student Records Office.

Once you've passed your final defense hearing, your chair will give you a signed ballot verifying that fact. After you pass the defense, your committee will sign three ballots. One ballot is for you, one for your chair, and one for the Student Records Office.

Ph.D. students will also receive Form 152 (Acceptance of Dissertation), signed by the entire committee. If you have a committee member who is attending the defense via the phone, you will need to obtain an original signature from this individual.

When all forms are signed, bring completed forms to the Student Records Office. When you are ready to file your dissertation with the Graduate Group Chair for signature, pick up Form 152 and Form 153 (Certification of Dissertation) at the Student Records Office. You should allow 3 weeks for Graduate Group Chair approval before the dissertation is filed with the Graduate Group in Arts and Sciences.

NUTS AND BOLTS

PEARLS

CORE CONTENT

It's over, you've passed and you deserve a break. Kick back and relax for a week-end or so. Revel and bask in your success. Treat yourself to some extra sleep and some seriously un-academic activity.

Remember, however, that you're not going to graduate until you deposit the Dissertation. Depositing your dissertation is the critical last step to earning your doctorate. Prepare yourself for a series of complicated steps.

## DEPOSITING YOUR DISSERTATION: CHECK THE DETAILS!

For the Ph.D., you will need to submit forms 152, 153, and the correct number of signed dissertations on the correct paper. See the section entitled GSE Ph.D. Dissertation Filing Checklist for details.

Don't expect your committee members to have proofread your dissertation. If you haven't already had someone give it a serious editorial review, this is the time to do so. Betty Deane ([bettyd@gse.upenn.edu](mailto:bettyd@gse.upenn.edu)) will review your dissertation to ensure it meets formatting standards as required by the University Dissertation Manual. It is important that your final "product" be impeccable. 1) Once filed, your dissertation will be published for all of posterity. You don't want any errors associated with your finest accomplishment. 2) Ed.D. dissertations will be reviewed by the Associate Dean, and Ph.D. dissertations will be reviewed by the Graduate Group Chair. If there are any errors, the dissertation will be returned to you for correction. This review includes all the grammar and usage rules such as consistency of tense and person, proper use of voice, singular and plural, capitalization, and punctuation as well as correct margins, formatting, page numbers, the table of contents, appendices and index. In other words, you want someone who knows all these things to give you their feedback before you submit it to the Associate Dean.

In addition, it is important that the format of your dissertation is correct. See the section in this document entitled "Requirements for Depositing the Dissertation" and the corresponding "Checklist for Authors" for details.

When it is complete, you must file your dissertation with Van Pelt Library for microfilming by ProQuest, Ann Arbor, Michigan. All dissertations will be microfilmed according to the plan provided by University Microfilms. Microfilming does not preclude later publication by other methods. Consult the GSE academic calendar at [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php) for filing deadlines pertinent to graduation dates.

NUTS AND BOLTS

PEARLS

CORE CONTENT

## GSE ED.D. DISSERTATION FILING CHECKLIST

You must present the final Ed.D. dissertation at the Student Records Office of the Graduate School of Education. You must present the final Ph.D. dissertation at Suite 322A, 3401 Walnut Street/6228.

### *Required Documents*

- (1) copy of your dissertation printed on plain paper;
- (1) copy of your dissertation printed on 100% cotton content paper;
- (2) title pages, each printed on 100% cotton content paper;
- (1) title page not signed;
- (3) copies of your abstract, each printed on 100% cotton content paper;
- Completed UMI Microfilming contract, provided by the Student Records Office;
- Completed Survey of Earned Doctorates, provided by the Student Records Office.

### *Required Procedures*

Be sure you have applied to graduate by the deadline listed on the GSE Academic Calendar! The Calendar is on the web at [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php)

- The deadline is typically late January for May graduation and late

September for December graduation. You may feel hesitant to apply for graduation months before your defense hearing, and be anxious about “putting the cart before the horse.” If for any reason, you don’t actually defend and graduate that semester, you just apply to graduate in the following semester. If you don’t apply to graduate by the deadline and pass your defense hearing, you won’t graduate that semester and will have to apply to graduate the following semester. GSE graduation applications are on-line at [http://www.gse.upenn.edu/degrees\\_programs/forms.php](http://www.gse.upenn.edu/degrees_programs/forms.php)

- Have your dissertation chair sign the 2 copies of your title page
- Make an appointment to have the Associate Dean for Academic Affairs review the plain paper copy of your dissertation. With this copy, you need to include:
  - the 2 signed copies of your title page;
  - the 1 unsigned copy of your title sheet;
  - the 3 copies of your abstract;
- All these materials should be in a sturdy box with lid.
- Allow at least three weeks for this process. Once the Associate Dean for Academic Affairs approves your dissertation, he/she will submit the two signed title sheets to the Dean for his/her signature.
- Submit to the Student Records Office
  - the approved copy of your dissertation;
  - the 2 signed and 1 unsigned copies of your title page;
  - the 3 copies of your abstract;
  - the copy of your dissertation printed on 100% cotton content paper.

Each copy of your dissertation should be in a separate box with lid, and you must submit your dissertation to the Student Records Office by the deadline listed on the GSE Academic Calendar at [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php)

- Complete the Survey of Earned Doctorates, conducted by the National Research Council and required for all doctoral candidates nationwide.

NUTS AND BOLTS

PEARLS

CORE CONTENT

## GSE PH.D. DISSERTATION FILING CHECKLIST

### *Required Documents*

- (1) copy of your dissertation printed on plain paper;
- (1) copy of your dissertation printed on 100% cotton content paper;
- (2) title pages, each printed on 100% cotton content paper. The Title Pages must read: “A Dissertation in Education” and be signed by your dissertation chair and the Graduate Group Chair;
- (1) unsigned copy of your title sheet;
- (3) copies of your abstract, each printed on 100% cotton content paper;
- Forms 152 (Acceptance of the Dissertation) and 153 (Certificate of Dissertation), kept in your file in Student Records;

- UMI microfilm contract, provided by Grad Arts and Sciences;
- Survey of Earned Doctorates, provided by Grad Arts and Sciences.

#### *Required Procedures*

Be sure you have applied to graduate online at <https://fusion.sas.upenn.edu/degree/app-start.php> with the Graduate Division of Arts and Sciences by the deadline listed on the GSE Academic Calendar at [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php)

- The deadline is typically late January for May graduation and late September for December graduation. You may feel hesitant to apply for graduation months before your defense hearing, and be anxious about “putting the cart before the horse.” If for any reason you don’t actually defend and graduate that semester, you must apply to graduate in the following semester. Even if you pass your defense hearing but didn’t apply to graduate by the deadline, you won’t be able to graduate that semester. Instead, you will have to apply to graduate the following semester.
- Make an appointment to have the GSE Graduate Group Chair read the first copy of your dissertation, and sign the title pages and the 152 and 153 forms. Allow at least 3 weeks for this process, and have signatures before your appointment at GAS.

Make an appointment with The Graduate School of Arts and Sciences (GAS) for final approval of your dissertation by calling (215) 898-7444 three weeks from the day you drop off the dissertation to the Graduate Group Chair. You will need to submit one copy on 100% cotton content paper for microfilming, and another copy on plain paper which will be bound at Van Pelt Library. Be sure to allow sufficient time for the GSE Graduate Group Chair’s signature to meet the deadline for submission of dissertations listed on the GSE Academic Calendar at [www.gse.upenn.edu/degrees\\_programs/acadcal.php](http://www.gse.upenn.edu/degrees_programs/acadcal.php)

- Typically late April for May graduation, and mid-November for December graduation.
- Complete and sign the ProQuest microfilm contract, to GAS with your dissertation. You will be billed for microfilming directly by GAS on your bursar bill. The cost for microfilming is \$80 and for copyrighting (optional), is \$45. All costs are subject to change. If you wish to order additional copies of your dissertation, make out a certified check or money order payable to ProQuest in the amount indicated, or charge the amount to your credit card.
- Complete the Survey of Earned Doctorates, conducted by the National Research Council and required for all doctoral candidates nationwide. Return the form with your dissertation to GAS.
- Complete the Survey of Doctoral Students’ Opinions and return it with your dissertation to GAS. The Vice Provost of the University of Pennsylvania requires this questionnaire.

NUTS AND BOLTS

PEARLS

CORE CONTENT

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**There! Now you’re all set to conquer the Doctoral degree. Remember to keep this guide handy, collaborate with students in your division about the necessary steps, and pace yourself every step of the way. See you at graduation!**