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## The Doctoral Dissertation and MA Thesis: Managing the Process, Your Life, and Your Data

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### Introduction

The master's thesis and doctoral dissertation commonly serve as the final step in the process of the respective graduate degrees in political science. These written works of original research serve as evidence that degree candidates can think like political scientists, exhibit expertise in the field, and illustrate their capacity to produce independent, novel intellectual work that contributes to existing knowledge in the discipline. Here we outline the general process for both, as they share many similar steps. We also touch upon some work-life balance considerations and discuss additional responsibilities outside of the dissertation/thesis, awareness of which will equip you to successfully manage what is expected of graduate students during that stage of their degree. Then we discuss some key points specific to the master's thesis and end with a section of data management advice that we think applies to all types of research projects.

### Managing the Process

Typically, the start of the dissertation and thesis work marks a critical juncture in graduate student training in political science—the transition from coursework to producing *original scholarship*. PhD students will commonly embark on that research journey following the successful completion of comprehensive (or field) examinations as well. The subsequent sections outline the pathway through the dissertation and thesis process, from topic conception through defense and publication.

### Choosing a Topic

The dissertation process commences with the choice of a topic. Ideally, students begin to think about potential dissertation topics during their coursework. As students work through courses, have conversations with faculty regarding areas of interest, present early research at conferences, and form advisory committees, they will need to closely consider the niche areas of research within their chosen subfields that excite them (or at least pique their interest). As the time comes to begin work on the prospectus, students should have settled upon a topic. It is important to note that, in most departments, the choice of topic is not etched in stone. There will be flexibility needed on the student's part to adapt to feedback given by the committee; this will inevitably involve the focus of the dissertation shifting to some degree. For example, it may become apparent to the student and committee during the prospectus phase that the agreed-upon data collection plan is either too ambitious given time and resource constraints or

simply not feasible. Students should be aware that shifts in project design can happen, even if their specifics are not always foreseeable. While such changes can and do occur, students should strive to settle on and commit to a topic they are truly invested in as soon as possible. This serves a strategic purpose, as committees in many departments would like students to move through the dissertation as quickly as possible. This also serves to benefit the students' well-being, as working on a dissertation that one is passionate about will be a better experience than trudging through a project one does not enjoy or feel engaged with.

A challenging scenario that students sometimes find themselves in is when they feel the need to change their topic completely. While most (if not all) students working on a thesis or dissertation experience fatigue and become less excited about their topic at various points (or feel they suddenly dislike it!), only a small portion of these scenarios merit a wholesale change in topic. In cases where students have become worn out and need a break (but still have interest in their project), they should unplug and step away from dissertation work for a week or two if possible (see the section on "Health and Wellbeing in Graduate School" in this volume for more advice). Ideally, they come back refreshed and invigorated, ready to tackle their project again. On the other hand, sometimes students have truly lost interest in the topic or realize their research focus has moved in a different direction entirely. In this case, a topic change may be warranted. Conditional upon the approval of the committee (an adviser change may be prudent in some of these cases; see the next section), a new plan can be developed to either "start from scratch" or begin a new project that incorporates pieces of the existing project. In all likelihood, the timing of the change will be one of the (if not the most) important aspects of whether the topic change is the best decision. Due to funding and job market considerations, moving from a dissertation in its advanced stages to a new topic may not be worth the cost. In this case, there may also be ramifications for the coherence of the student's research agenda. Thus, our general advice would be to consider the potential negative consequences associated with a topic change, which exist along a spectrum—the closer (in time) one is to the *prospectus defense* and the fewer number of dissertation chapters completed, the less risky a topic change will be.

## Choosing Advisers

While the decisions relating to selecting a topic have a direct impact on the shape of the project, the choice of advisers (and specifically the committee chair) also has a significant influence on the nature of the document that will be written (for advice on choosing advisory committees, see chapters 10 and 13 in this volume). A number of variables need to be considered when choosing an adviser, including both their personal and professional characteristics. One should consider personality. Does a potential adviser have a personality that will mesh well with one's own? This is an oft overlooked aspect of the process for students. The personal and professional relationship that develops between a student and formal advisers needs to be one that works for both parties. Central to this relationship are factors such as communication style, expectations and how they are communicated, delivery of feedback, networking and advocacy approaches, among others. Further, does the potential adviser have a reputation for truly mentoring students, or for serving in a more limited role? Having a mentor is a vital component of the dissertation or thesis process, so seeking mentorship from a chair not comfortable or accustomed to that role can lead to a student needing to find mentorship elsewhere (for a discussion of advisers vs. mentors, see chapter 13 in this volume). From a research perspective, choosing an adviser (and particularly a chair) who is well-versed (if not expert) in your topic of interest is critical. As mentioned above, students can (and do) change topics over time, whether it be minor project tweaks or wholesale shifts to new topics. As such, you will need advisers who have expertise in your broader areas of interest.

There are also cases in which students feel the need to change their main adviser. This is a big decision that can have substantial and wide-ranging effects on one's dissertation and academic future, so it should not be taken lightly. First, we recommend that you identify an alternative adviser before making a change, speak to this person, and get their assent to the idea of becoming your new chair. Additionally, it would be very beneficial to speak to other members of your committee or other trusted faculty to gain perspective on the dynamics and effects of a potential change. Making an adviser change at the prospectus or dissertation stage will entail bringing in a faculty member that may have different ideas

about the direction of your dissertation. You should ask yourself if this is a good thing or not. If you are only looking to make a small change to some aspect of your research agenda that your current adviser is not on board with, the wholesale changes involved with a new adviser may not be worth the change. Of course, if you are wishing to make a change due to irreconcilable differences with the existing adviser (personality, advising relationship, disagreements over content or direction of dissertation), then a move to a more like-minded faculty member will likely be necessary and the decision may be clear. However, in scenarios not involving incompatibility or conflict (i.e., topic change), the costs and benefits should be weighed closely. You must consider differences between the potential advisers' contributions in a variety of roles: mentors, conduits for networking in your area of research, co-authors, letter-writers for the job market, or general advocates for you throughout your career (particularly the early stage). This is not intended to be an exhaustive list of the pros and cons of switching advisers, but to give a general sense of what may be gained and lost when making this critical decision.

## The Prospectus and Proposal

The next step in the process is the prospectus/proposal. The size and format of this document varies widely across departments, but the general purpose of the proposal is to produce a plan for the goals and structure of the research work to follow. In most cases, the proposal is reviewed by an adviser or a committee; on the doctoral level it is also typically then subjected to a formal defense, after which the student moves forward with writing the dissertation itself.

In its simplest form, the proposal serves as a general outline of what the broader research work will accomplish and how the student will execute the project. The document should outline the structure of the dissertation project—will it take the form of a book project, or an article-based framework? The book format involves structuring the dissertation as one cohesive project, with each individual chapter providing a component piece of an overarching theory and empirical testing of the hypotheses. An article-based dissertation entails writing several standalone, though related, chapters that can be (relatively) easily modified to submit to journals for individual publication. This decision is likely to be determined by departmental or advisers' preferences, but should also take into account the size and scope of the proposed project. The proposal should include many of the basic elements of any research project in political science—a review of existing literature, identification of how the work contributes to that literature, a discussion of the theoretical contribution, and a proposed research design for how analyses (quantitative, qualitative, mixed-method) will be conducted. See chapter 14 in this volume for additional details on writing a prospectus/proposal.

Across departments and both types of graduate degrees, a fundamental expectation of all advisers is for students to justify the relevance and contribution of the proposed project. After all, any given department: (1) may be investing funding in the graduate student for several years (at least), and (2) stands to benefit from a job placement perspective with more competitive candidates who have exceptional research projects. Thus, the onus is on the student—whether a master's or PhD candidate—to make a convincing case in the proposal as to why the project is innovative or contributes to the extant literature in a meaningful way.

This brings us to the prospectus defense, which will typically involve a presentation of the prospectus to the students' committee followed by a question-and-answer period. This is almost always a formal requirement in doctoral programs and only sometimes (and might be less formal) for others. Typically, the entire committee has already reviewed the final prospectus draft, ideally with feedback given on prior iterations of the document. However, there are instances in which the dissertation chair is the only individual to have seen the draft in advance of the defense. In either case, the student should expect a critical and forthright examination of the project by the committee, with feedback given on how the project design should be modified to facilitate the best possible dissertation project. Contingent upon a satisfactory level of effort and quality, the committee decides upon a successful defense and the student moves on to the dissertation work itself.

## Data Collection

An important aspect of the early phases of the dissertation concerns data. Given the assumption that empirical analyses will be conducted for most dissertations, you will need to gather data for theory building and/or hypothesis testing. Regardless of whether the data are qualitative or quantitative, you must decide whether your project requires the generation of original data. Based upon this choice, you must then decide if fieldwork is necessary to gather the requisite data (for advice on fieldwork, see chapter 20 in this volume). If fieldwork is necessary, but not feasible due to time or funding constraints, you will need to adjust and find alternative existing data sources. In cases where fieldwork is not necessary, but original data will be coded, the student must create a codebook to guide the process and a plan for gathering primary, secondary, or internet-based sources. Generally, students will forgo completing fieldwork for data collection purposes if limitations on time and/or funding prohibit doing so or sufficient data can be collected via desk research, using existing and accessible data sources. In all instances, making a clear plan for handling the various types of data you might need in ways that keep them well-organized, safe, secure, and easily findable is something that should come early in the process. (For further recommendations on data management planning and implementation, see the separate section later in this chapter.)

## Dissertation Defense

Though we discussed the prospectus defense above, we will make several additional points regarding the final project defense here. First and foremost, students need to determine what is required for a committee in their department to schedule a defense date. This is the point at which the committee or chair has determined that the work has been completed to a sufficient extent to warrant a defense. This may vary across committees, as some may need to see the dissertation completed in its entirety, while others may schedule the defense well in advance with the expectation of a final chapter or sections being completed. The defense day is a significant moment in the life of an academic, as it is the culmination of the long and difficult process of earning a PhD. However, in many instances, the defense process itself can be fairly straightforward, even a formality in cases where a committee has found the progress of the work to be exceptional. The quality of the draft and the general tone of committee feedback across its previous iterations (individually reviewed chapters or sections) are likely to be significant determinants of the level of criticism faced by the student during the actual defense. To this point, it is important to have conversations with fellow students as well as your advisers well in advance about the general conventions and procedures for defenses in your department. For example, you should be aware of whether (or how often) others have failed their dissertation defenses—is this a common occurrence, or will committees generally not schedule defenses if a successful defense is unlikely? While much of this information can ideally be gleaned from conversations with your committee chair (or adviser), it is beneficial to have a general understanding of the department culture regarding the faculty's approaches to dissertation defenses.

## Final Steps

Upon successfully defending your project, several final steps remain. First, it is possible that your committee will request revisions to be made to the manuscript as a condition of passing the defense. The requested revisions may be substantial or minor in scope, conditional upon the state of the work prior to the defense. Once the revisions have been completed, you must confront the process of formatting the final document per university or intra-university college/school division guidelines. While most students are elated to be so near the finish line, the formatting process can be extremely time-consuming and frustrating for many, particularly if they have only become aware of the formatting expectations post-defense. Formatting guidelines typically range from broad instructions regarding how the overall document is structured, to extremely narrow guidelines concerning the font, capitalization, and spacing of the table of contents. The best approach you can take would be to become familiar with formatting expectations as you begin to write your thesis or dissertation. In this case, you can format the document as required from day one, thus leaving little to no work to be done in this regard before final submission.

And finally, the dissertation must be formally submitted to your school, after which it will be placed in the university's institutional repository for theses and dissertations. At this point, the document has been "published" online and made publicly available.

## **Managing Your Life**

### **Setting Goals**

Writing a master's thesis or, even more so, a dissertation, requires many hours, including ones filled with frustration and stress, as you face the uphill battle of producing (often) a book-length manuscript of original scholarship for the first time in your academic life. Taken from this macro-level perspective, the task is daunting. Thus, when it comes to sitting down in front of a computer and actually writing, it is advisable to establish bite-size goals that can facilitate progress and minimize the potential for the paralysis students feel when unable to make significant leaps forward. The process of goal setting is closely connected to the degree of structure that is a part of the student's workflow. Students able to initiate by themselves a structure or guidelines for meeting daily, weekly, or monthly writing goals are well-positioned to make incremental, but consistent, progress on the thesis or dissertation. In many cases, structure is externally imposed by the one's main adviser, particularly those that manage students at a relatively micro-level. For those students that benefit from structure (as well as those with less hands-on advisers), it becomes imperative to self-impose a work schedule that creates manageable goals at the daily and weekly level. Students can generally use the prospectus (and any guidance received during incremental review meetings or at the prospectus defense) as a starting point for a work plan.

As you move forward toward the final draft, you will need to implement other goal-setting techniques. These can include targets for daily or weekly written word counts or uninterrupted hours worked each day. While larger targets such as chapter deadlines will largely be determined by the chair, the small and intermediate goals often have to be independently determined and have the most meaningful impact on your progress. Seeking additional feedback from the chair and your committee on smaller portions of the work is an additional way of implementing completion goals and providing for more detailed revision. In sum, incremental progress is quite often the best progress, and consistent incremental progress will lead to a finished dissertation. For more on time management during the dissertation process, see chapter 17 in this volume.

### **Protecting Your Mental Health**

One aspect of the graduate school experience that has received a much-needed increase in attention concerns student mental health. While this topic is addressed further in the "Health and Well-being in Graduate School" section of this volume, we wish to briefly address this notion in the context of completing your graduate project here. As dissertations and master's theses are, by definition, solo projects, you will spend countless hours working alone. Thus, the experience can become very difficult, lonely, and isolating. As such, we recommend that you seek out support networks and self-care in whatever form you are comfortable with—you do not have to do it alone. Chapter 63 in this volume has advice on finding one's collective, which can help you feel less isolated and build camaraderie into the writing process, as well as facilitate the incremental work schedule we advocate. Other examples of support networks include university-sponsored dissertation/thesis boot camps, department cohort-based groups, family and friends, and mentors beyond your designated advisers for the project. If you feel the need, seeking professional counseling or therapy can be very beneficial in providing temporary or ongoing support throughout the process.

### **Balancing Other Demands**

An important facet of the intense writing process you should consider is what other responsibilities are expected of you as part of your program during this time. For master's students, it might be the case that they are working on their terminal research project during semesters of regular coursework.

At the departmental or university level, all graduate students may be responsible for teaching courses or working as teaching or research assistants. This dynamic is tied to the structure and availability of funding for graduate students, but often these assignments are also needed by students from a personal financial perspective. Those who have the opportunity to pursue dissertation fellowships from either within or outside of the university should definitely do so, as the time commitment is much smaller relative to teaching or research assignments. See chapter 3 in this volume for more advice on funding. In the case of doctoral students, you should be clear on whether your main adviser expects you to be producing additional research—e.g., working on projects outside of the dissertation, presenting research at conferences, or submitting this work for publication. In such cases, these additional expectations can be extremely burdensome and difficult. The time and effort involved to teach or produce other research often comes at the expense of dissertation progress, and creates more pressure for students, particularly those expected to complete the dissertation quickly.

Having a publication record has become necessary for many PhD candidates to be competitive on the academic job market. Furthermore, the expectations regarding the quality and quantity of candidates' peer-reviewed publications continue to rise. In many cases, students can devote time to presenting their work at conferences and workshops and submitting dissertation chapters to journals while working on their dissertation. These pursuits are made much easier in cases where students' dissertation project is built upon work they started prior to comprehensive exams. Clearly, this period of a PhD candidate's life can be very demanding and stressful, so having a clear understanding in advance of what academic life will look like during this stage can help you to be prepared to best manage the workload that will come. Adapting to dissertation-caliber work is a challenging transition for many students, so having an awareness of what one's broader academic life during the dissertation phase will look like can make for a smoother adjustment.

## Differences Between a PhD Dissertation and a Master's Thesis

In many respects, a dissertation and a master's thesis are very similar. Both use the foundation of knowledge obtained via coursework, selecting a committee and a chair, and result in the production of high-level scholarship that is subjected to a defense in front of faculty. The primary differences between the two projects are defined by time, size, scope and function. First, the dissertation—like the doctoral program as a whole—involves a much greater time investment. Not only do PhD students typically spend more time in coursework than master's students (two to three years rather than one year), but PhD students also complete comprehensive exams in a number of subfields prior to beginning the dissertation. Note that some master's programs offer the thesis as optional, with a form of a comprehensive exam as an alternative. In that case, students will need to consider the added value of completing a thesis for their career goals versus the time it will take to complete. In terms of time spent on writing the two manuscripts, most programs will expect master's students to complete the thesis in their second and final year of the program. As mentioned above, in most cases, master's students may not have a dedicated period of time in which to write the thesis, but work on it alongside coursework. Dissertation time to completion varies widely, but most PhD students will spend at least two years on their dissertation, including research design, data collection, data analysis, and writing.

Second, a dissertation will be a substantially larger project. A book-format dissertation will often include two to three theoretical chapters, each having an accompanying chapter with empirical analyses, as well as introduction and conclusion chapters. On the other hand, the master's thesis will likely consist of only one theoretical and empirical chapter. In terms of the expectations for scope and depth, a master's thesis generally focuses on a narrower topic within an existing body of research and does not require the collection of original data (although some master's students might choose to do that). A dissertation is expected to break new ground in terms of theory, data or methodology, while the main goal of a master's thesis is to show command of previous knowledge. Given that, in the social sciences, significantly more PhDs than those with master's degrees continue on with careers in academia, the dissertation plays a much more prominent role post-graduation than does the thesis, hence the focus

on originality.

## Managing Your Data

As is clear from our prior discussion, in the context of your dissertation or master's project, data loom large. Data take a wide variety of forms and here we use the term in the broadest possible sense: the record of empirical observations which undergird any knowledge claim. Whether you need to access data already collected by others or generate your own (or a combination of both), you will benefit from early data management planning for the whole project lifecycle, from collection and subsequent cleaning and analysis to publication and potential data sharing, which allows others to engage the same data for new research.

The concept of Research Data Management (RDM) describes the “caring for, facilitating access to and adding value to research data throughout its lifecycle.” (Edinburgh University Information Services n.d.). Due to space constraints, here we only flag key RDM conventions (Briney, Coates and Goben 2020) to consider as you embark on your first large independent scholarly project, and then provide resources for further self-guided learning. Once aware of the core concepts, you can consider the unique aspects of your own project and record explicit choices in a Data Management Plan (DMP) to serve as a personal reminder of your procedures, as well as a reference for team members (including your chair or other advisers) who might also need to process or make sense of your data. Your DMP is also an important document that accompanies and contextualizes the data, should you choose to share them to enhance the transparency of your research for independent secondary use or methodological training.<sup>1</sup>

The key RDM activities are: (1) storing and keeping your data safe, (2) organizing your data, and (3) documenting the research and data handling process, including the connection among the forms of data which might be produced (e.g., by digitizing, translating, re-formatting, deriving new variables).

To prevent data loss, you should follow the “3-2-1 rule”: keep three copies of each digital file (a main one you use and two backups), saved in two different media (or for most purposes, devices), with one copy off-site (or on a remote server) for disaster recovery. Additionally, you should set up backups that are regular, incremental, and ideally automated, and you should periodically check that your backups are working as intended. Over the long-term, data files need to be copied to new media every three to five years—something that can be handled by professionals if you archive your data with a digital repository after the end of your project.

How you organize your files will depend on your research design and personal preferences, but using a combination of meaningful folder structures (e.g., top-level folders for the different geographic sites you study) and comprehensive file naming conventions (e.g., which embed the date on which a given survey response was produced or a suffix that distinguishes recorded interview audio file from its transcript, from a de-identified version of the same) are key strategies.

Documenting all these choices, as well as project-level (contextual, methodological and procedural) and file-level details (e.g., name of interviewer and speaker tags, or variable attributes) in real time will allow you to retain information that makes the data more easily accessible and understandable when you return to them for analysis and writing. Furthermore, the documentation record accompanying a shared data collection will make the data and the research based on them reusable and verifiable by others. The guiding question you should try to address in your documentation effort is “If using these data for the first time, what would someone new need to know to make sense of them?”

Researchers must develop, enhance and professionalize their research data management skills in order to solve the various data-related challenges they will encounter during their master's level, doctoral dissertation or other projects. This subject matter is rarely taught in graduate programs, but you can find expertise and advice from a variety of research-related sources. Your university library data services can be a great first stop for general RDM guidance and one-on-one consultations. The IT department supporting your school can provide configuration assistance for back-ups and advice on services authorized or provided by the university. If you are contemplating data sharing in any form (whether to meet funder and journal requirements or because you want to be a cutting-edge science practitioner), reaching out to the personnel of relevant repositories—ICPSR and QDR are a good fit for curated so-

cial science data<sup>2</sup>—as early as possible will also allow you to adapt your ethics board application and informed consent script if you will engage with human participants in ways that address issues of access controls and confidentiality (ICPSR, *Guide to Social Science Data Preparation*, Sixth ed.; QDR, “Human Participants”). A few self-study options also exist online, such as the comprehensive MANTRA course out of the United Kingdom (EDINA n.d.) and the SSRC-supported course (SSRC and QDR n.d.) that specializes in qualitative social science data.

Data underpin all the scholarly claims and conclusions you make in your dissertation or master’s thesis. Creating or gathering data is likely to be expensive, both in terms of money and your time. Spending a bit of time and effort at the very beginning of your work to detail relevant RDM steps, can save you time, frustration and in some cases even the data themselves. You will end up with better quality data that are more useful and usable—to you and others—which will enhance the quality and rigor of your published research.

## Conclusion

For many students in graduate programs, the master’s thesis or PhD dissertation is the first large-scale independent research project they undertake. The process of designing, conducting, writing, and defending the research is long and might seem daunting. Knowing what to expect, how to plan for the different expectations, and how to pace your work so that you are making steady progress should reduce the stress that otherwise can result. In all aspects of your preparations for this important phase of the MA or PhD, the mantra “make a plan, document it, seek expertise and support from others while following your plan” should help guide you in doing the best possible work you can do.

## Endnotes

- 1 Understanding the importance of early data management planning, many social science funders—prominently the National Science Foundation—have started requiring a formal DMP as part of funding proposals. Whether you need to write a formal DMP or not, creating one would benefit you first and foremost. While you can start drafting one as casually as a set of hand-written notes, you can also take advantage of existing institutional templates by visiting the online DMPTool wizard (<https://dmptool.org/>).
- 2 Other self-deposit venues used by political scientists for sharing and finding data are Dataverse (<https://dataverse.org/researchers>) and the OSF Platform (<https://osf.io/>), although these are not professionally curated.

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