HARVARD UNIVERSITY
DEPARTMENT OF PSYCHOLOGY

UNDERGRADUATE THESIS MANUAL

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I. SO YOU WANT TO WRITE A THESIS?

WHAT IS A THESIS?

In Psychology, a thesis is an original research project that will span your entire senior year (and part of your junior year) at Harvard. Theses should pose a specific research question, demonstrate a solid grasp of the existing theories around the topic, and make a novel contribution toward answering the question.

As with other scientific disciplines, Psychology thesis students analyze data and test hypotheses through empirical means (experimentation, field observation of naturally-occurring behavior, or self-reported questionnaires). To that end, Psychology theses most commonly take the form of…

- **An original study:** where you propose a specific hypothesis and use existing or newly collected data to help answer it. This is the most common form an honors thesis takes.
- **A meta-analysis:** where you use statistical methods to combine results from the literature to resolve uncertainty when studies disagree, or to better understand a phenomenon.
- **A replication:** where you repeat a previous study in a motivated way to shed light on something that remains unclear from the original study and extends our current knowledge. Direct replications are rarely conducted in psychological research unless they answer a specific theoretical question, and thus direct replications are rare as theses as well. Instead, replications typically replicate some components of the original study but also contain some new components that help extend the current knowledge in some way.

While some students come up with a thesis idea on their own, most students develop ideas in collaboration with prospective supervisors. In fact, many thesis students take over an in-progress research idea and become the primary researcher for that line of work.

A thesis is not required in Psychology unless you are in the MBB (Cognitive Science) track. All thesis projects must be approved by both your thesis committee and the Committee on Undergraduate Instruction.

IS A THESIS RIGHT FOR ME?

Whether or not you're considering a career in research psychology, a thesis is an excellent opportunity to pull together everything you've learned so far as a psychology concentrator! If you're undecided, let's discuss some reasons you might consider writing a thesis…

Good Reasons to Do a Thesis

- **You'll get to see an experiment through from start to finish.** Most psychology concentrators work in a lab during their time at Harvard, but this generally allows for only a snapshot of the research process. With a thesis, you'll be tackling a specific research question, formulating a hypothesis, and analyzing data to evaluate your hypothesis in the context of other psychological research – all within the span of your junior and senior years. That's an incredible opportunity!
- **You'll foster relationships with faculty members and labs.** Over the course of your thesis journey, you'll spend over a year immersed in a lab conducting your experiment and writing up the results. You'll take on a more active role in the lab, meet with your faculty supervisor and thesis committee to discuss your project, and get in-depth feedback on your ideas. You will have the chance to develop important relationships with leaders in the field, which might even open the door to future opportunities!
- **You'll develop skills and insights useful in any field.** A thesis will give you hands-on experience programming, analyzing data, and writing, skills that will translate beyond the scope of psychology and into the professional world. The thesis is also a great avenue to see whether a career in research is right for you!
- **You'll learn management and teamwork skills.** As a thesis writer, you'll be in charge of making progress on your project, which will involve regularly checking in with your committee, scheduling meetings, organizing study materials and data, solving problems, collaborating with other students and lab members, and effectively communicating your ideas. Managing a thesis project is a big undertaking, and these skills are sure to serve you in future projects and job positions.
- **You'll be a part of Harvard's contribution to the world of scientific knowledge.** Theses make a novel contribution toward answering an original question in the field of psychology. And with the resources and mentorship available to you, this is one of the best places to pioneer your drive to discover. Your thesis will forever become a part of Harvard's greater contribution to the scientific world.

Bad Reasons to Do a Thesis

- **Because you want honors in psychology**. It's true that doing a thesis can improve your chances of receiving an honors distinction. But not all thesis students are guaranteed departmental honors, and doing a thesis isn't the only way to receive honors. For more information about how writing a thesis relates to honors, see **this page** on the Undergraduate Office website.
- **Because you feel like you should or someone else said you should.** Sometimes students feel pressured by family, peers, or members of the community to write a thesis because it feels like the academically rigorous thing to do. But you shouldn't pursue a thesis solely because it'll look good on your CV/resume. At the end of the day, it's more important that you're excited about your research topic and ready to dive into the process of writing a thesis. If you're not, it's going to be very hard to generate an engaging piece of writing!

We encourage all concentrators to give serious consideration to doing a thesis, and we're here to talk through all potential considerations. If you have questions at any point, just ask your Concentration Advisor, the Thesis Tutorial Instructor, or the Associate Director of Undergraduate Studies. You can also contact the Undergraduate Office at any time at **psychology@wjh.harvard.edu**!

SAMPLE THESIS TIMELINE

Every student's thesis journey is a little bit different, but below is a sample timeline for thesis students in Psychology:

- **Join a lab & start to gain research experience** – Preferably in your first & sophomore years; Ideally by first semester junior year; You must complete a lab course by the end of junior year to complete a thesis (and enrolling in a lab course second semester junior year may be too late to find a supervisor)
- **Determine a research topic & begin discussions with a potential supervisor** – Middle of first semester, junior year
- **Decide to write a thesis & form an agreement with a supervisor** – First semester, junior year (ideally prior to start of second semester)
- **Enroll in PSY 985, Junior Thesis Tutorial *(strongly recommended)*** – By 4 PM, the day before the Course Registration Deadline; second semester, junior year
- **Form committee (reader & co-supervisor, if applicable)** – Early second semester, junior year
- **Submit thesis application to the Department** – By 4 PM on the Friday before Spring Break, junior year
- **Submit Junior Progress Report to the Department** – By 4 PM on the last day of classes, second semester, junior year
- **Submit PSY 985 Grade Form to the Department *(if enrolled)*** – By 4 PM on the last day of classes, second semester, junior year
- **Sort out IRB logistics with lab & submit a proposal if necessary** – Ideally by the end of junior year
- **Work on your thesis!** – Summer
- **Enroll in PSY 991A, Senior Thesis Tutorial** – By the Course Registration Deadline, first semester, senior year
- **Submit final prospectus to the Department** – By 4 PM, two weeks before the Prospectus Evaluation Form Deadline, first semester, senior year
- **Hold prospectus meeting and submit Prospectus Evaluation Form to the Department** – By 4 PM on the Friday before Fifth Monday, first semester, senior year
- **Work on your thesis!** – First semester, senior year
- **Submit Senior Progress Report & 991A Grade Recommendation Form to the Department** – By 4 PM on the last day of classes, first semester, senior year
- **Enroll in PSY 991B, Senior Thesis Tutorial** – By the Course Registration Deadline, second semester, senior year
- **Finish your thesis!** – Winter Recess & early second semester, senior year

- **Submit thesis to the Department via e-mail** – By 4 PM on the Thursday before Spring Break, senior year
- **Present your thesis to the Department at the poster session** – Mid-April, senior year
- **Defend your thesis for your committee** – Mid-April, senior year (at the poster session or within that week)

*For specific dates and deadlines, see the **thesis deadlines by graduation year** on the Undergraduate Office website that correspond to your graduation year. Note that deadlines may be different for off-cycle students, or for students studying abroad - please be in touch with the Undergraduate Office to discuss your plans and timeline.*

If all of this sounds good, then you're ready to jump in!

II. YOUR FIRST STEPS

JOIN A LAB!

The most important precursor for your thesis will be joining a lab. **In order to pursue a thesis, you need to have taken at least one lab course by the end of your junior year**. We recommend joining a lab as early as possible – in your first or sophomore year, ideally – to start honing your knowledge of research methods, narrowing potential areas of interest, and building good working relationships with lab members.

Generally, lab work for undergraduates involves…

- 10-12 hours per week working in the lab
- Attendance and participation in lab meetings
- Involvement in a variety of research tasks (e.g., literature reviews, idea generation, data collection, coding, analysis, writing)
- A final academic project, typically a 10-page research paper or presentation

Some labs may require a commitment for a minimum of two semesters, because it can take a while to get up to speed with the lab's procedures and protocols. Make sure you understand the expectations going in!

When joining a lab, you may want to ask your potential supervisors if they are open to supervising undergraduate theses. Note that you do not have to write a thesis in the very first lab that you join! But given the importance of fostering a relationship with your future supervisor, it's good to know early on if there is a possibility of working with them as a thesis student.

> *** TIP! How do I approach a potential supervisor?**
>
> Directly approaching a faculty member with a request can be intimidating! But don't be nervous – faculty are excited to work with undergraduate researchers, and no potential supervisor will expect you to have a fully developed research question by the time of your interest meeting. Instead, take the time to generate some topic ideas and prepare a list of questions to help guide your meeting.
>
> Here are some good questions to consider during your meeting with a potential supervisor(s)…

- Do they see promise in your potential research topics? How would they recommend refining your ideas to hone in on a specific research question?
- What does their schedule for the upcoming year look like – will they be going on sabbatical anytime soon?
- How regularly do they prefer to meet with thesis students?
- How do they prefer to communicate? E-mail, in-person, through a lab manager or assistant, etc.?
- If they take you on as a student, when would they expect drafts? It's very advisable to discuss and eventually establish a timeline with your committee!

The final thesis will be entirely your own written work, but thesis students who have a lot of support from their labs generally have the most positive experiences.

ADVICE FROM A SENIOR! To prepare for this meeting, start a literature review on your topic of interest! Do some background research (I recommend using **HOLLIS** from the Harvard Library to find peer-reviewed papers) and think about how your thesis could expand on previous research or help fill a gap in the literature. The goal is to hit that sweet spot between a project that is interesting, new, and ambitious but also realistic and doable in one year!

STATISTICS AND RESEARCH METHODS (PSY 1900 & 1901)

You must take the Department's Research Methods course *and* a Statistics course by the end of your junior year in order to do a thesis. These requirements are designed to provide you with skills necessary to conduct psychological research.

Specifically, you'll need to take…

- **Statistics** (PSY 1900 or an approved Department of Statistics course) during your first or sophomore year.
- **Research Methods** (PSY 1901) no later than the first semester of your junior year.

JUNIOR THESIS TUTORIAL (PSY 985)

The Junior Thesis Tutorial, PSY 985, is strongly recommended for all students considering a thesis. Junior Tutorial is taken in **the second semester of junior year** except in some instances of off-cycle thesis students. By enrolling, you'll get credit for the work that you do on your thesis during junior year (if you choose not to enroll in PSY 985, you'll still be expected to make progress on your thesis in addition to tackling the rest of your course load). You may not enroll in a lab course and PSY 985 in the same semester unless you are working on two distinct projects. One way this could happen is that your lab course is with a different faculty member than your thesis faculty supervisor. Another way is to work in the same lab but on two different projects: 1) your thesis project for PSY 985 and 2) a separate project for the lab course. You will be expected to devote 8-12 hours of work per week on each project (16-24 hours total). If this applies to you, when you submit your PSY 985 application, you will need to include a paragraph or two describing how these projects are distinct.

PSY 985 meetings will help keep you on track with every thesis deadline prior to your senior year. You'll discuss your project with other thesis students, workshop your thesis application, get writing and statistics advice, practice presenting your study ideas, and prepare your prospectus draft. Because of this, we encourage every thesis junior to attend PSY 985 meetings even if you don't officially enroll in the course!

PSY 985 can count for one Advanced Course towards the concentration. It does *not* meet the lab course requirement, but it *does* count against the **limit on the number of lab courses** you may count for concentration credit. If you'd like it to count towards your Advanced Courses, please e-mail the Undergraduate Office at **psychology@wjh.harvard.edu**!

Enrolling in PSY 985

Fill out the **PSY 985 Enrollment Form** and have your thesis supervisor and Concentration Advisor sign it. Then, attach a short project description and submit it to the Undergraduate Office by the **designated deadline** (typically the day before the Course Registration Deadline). The form will not be accepted unless it has all the required signatures, so be sure to plan ahead! You can find the Enrollment Form on the **forms page** of the Undergraduate Office website.

Completing PSY 985

To complete the class, you'll need to have your supervisor sign a **PSY 985 Grade Recommendation Form**. It is your responsibility to obtain this signature and submit the form to the Undergraduate Office by 4 PM on the last day of classes. You can find the Grade Recommendation Form on the **forms page** of the Undergraduate Office website.

Note that PSY 985 is graded SAT/UNSAT, and therefore might affect your concentration GPA if it's counting towards your Psychology concentration. See the **website for more on this**!

THE JUNIOR PROGRESS REPORT

All thesis students (regardless of PSY 985 enrollment status) will be asked to submit a **Junior Progress Report (JPR)** at the end of junior year. Check the **thesis deadlines by graduation year** page on the Undergraduate Office website to find the due date for your year!

The Junior Progress Report should be at least 10-15 pages in length, plus references. Your JPR should expand upon your thesis application and lay the groundwork for your prospectus (see Chapter V for more on this). You should incorporate progress and revisions you have made since turning in the thesis application (e.g., what is the current status of your project now that you've had an additional 7 weeks to work on it). You should have a well-defined research question that is motivated by existing psychological literature, clearly specify your hypotheses and variables, and describe your methods. Think of the JPR as a draft of your Introduction and Methods section, expanding on both of these sections from your thesis application. If the Department has asked for revisions on your thesis application, the JPR is one option for addressing this feedback.

Your JPR should be reviewed by your Faculty Supervisor and Co-supervisor (if applicable) before submission, and they may want you to incorporate revisions. Please plan accordingly. This document will continue to undergo additions and revisions to become your prospectus document, so it is ok if some parts are draft-like for now.

The Junior Progress Report should be submitted to the UGO (psychology@wjh.harvard.edu), along with the PSY 985 Grade Recommendation Form for 985-enrollees, by the last day of classes in the second semester of your junior year (typically junior spring and are typically submitted by you, the student.

If you are deciding not to continue with a thesis and **are** enrolled in PSY 985, you will still need to submit a Junior Progress Report. In this case, your JPR should be a 10-15-page research paper summarizing your work over the semester.

If you are deciding not to continue with a thesis and **are not** enrolled in PSY 985, please just send an email to the UGO informing us of your decision.

III. YOUR COMMITTEE

Before writing your thesis application, you'll form your thesis committee! Your committee is responsible for helping you set the goals of your thesis, providing support during the research process, and evaluating the end product.

Every thesis committee needs at least **two members, each from different labs**, at least one of whom is a current Department of Psychology faculty member. All professors in the department may serve on thesis committees, but faculty on leave will usually not agree to serve.

Your thesis committee will consist of…

THE FACULTY SUPERVISOR *(REQUIRED)*

Every thesis committee must include a faculty supervisor. Only current **Departmental Faculty** (assistant, associate, or full professor) and asterisked members of the **Board of Honors Tutors** are eligible to serve as supervisors. In some cases, special approval may be given for departmental lecturers, College Fellows, or, rarely, non-asterisked Board of Honors Tutors members by petition. Please reach out to the Thesis Instructor or Undergraduate Office (**psychology@wjh.harvard.edu**) with questions about faculty supervisor eligibility. Usually, your supervisor will be your primary research advisor, but in some cases, your co-supervisor may do the majority of your advising.

> **What does a supervisor do?** Your faculty supervisor will be your primary research advisor. Supervisors typically provide bigger picture research guidance for your project while your co-supervisor may do the majority of your day-to-day advising, but some faculty are much more hands on. The supervisor meets with the student to supervise their work, reads the prospectus and attends the prospectus meeting, supervises the lab work portion of the Senior Thesis Tutorial and signs the 991A Grade Recommendation Form, reads the thesis, provides comments, attends the thesis defense, and evaluates the thesis. Potentially also supervises the lab work portion of the Junior Thesis Tutorial.

THE CO-SUPERVISOR

Co-supervisors are researchers who provide extra support and day-to-day mentorship on your thesis project. Co-supervisors are typically graduate students or postdoctoral researchers (postdocs) from your supervisor's lab, but some additional researchers can also be co-supervisors. Co-supervisors can be:

- **Departmental graduate students** who have passed their second-year project, have the approval of their graduate advisor, and are involved (at most) in only one other thesis project.
- Non-asterisked members of the **Board of Honors Tutors**. Asterisked BOHT members are eligible to be co-supervisors, but more typically serve as supervisors or readers.
- Other PhD-level researchers or non-departmental graduate students approved by the Department (submit their CV and petition alongside your application).
- Psychology lecturers or College Fellows approved by the Department (by petition).

To petition for a non-departmental graduate student or postdoc, or a departmental lecturer or college fellow as your co-supervisor, please submit their CV and a brief statement explaining their affiliation with your faculty supervisor and why they are an appropriate co-supervisor for your project alongside your thesis application (see Thesis Application section of manual and/or Thesis Application Form).

> **What does a co-supervisor do?** Meets with the student to supervise their work, reads the prospectus and attends the prospectus meeting, supervises the lab work portion of the Senior Thesis Tutorial, signs the 991A Grade Recommendation Form, reads the thesis, provides comments, attends the thesis defense, and evaluates the thesis. Potentially also supervises the lab work portion of the Junior Thesis Tutorial. It's okay if the co-supervisor does the majority of the advising, as long as the supervisor is there to offer guidance and support and is involved in the prospectus meeting and thesis evaluation.

THE READER

A Thesis Reader is a full-time, PhD-level researcher who will evaluate your prospectus and final thesis and help improve the project by providing an outside perspective. Who can be your reader is somewhat dependent on who your faculty supervisor is:

- If your supervisor is a **Departmental Faculty** member, then your reader may be anyone eligible to be a supervisor (see "The Supervisor" section above for these restrictions). This may be a second Departmental Faulty member or an asterisked member of the Board of Honors Tutors. You may also petition to have a department-approved lecturer or college fellow or a non-asterisked member of the Board of Honors Tutors as your reader. To do so, please submit their CV and a brief statement explaining why they are an appropriate reader for your project alongside your thesis application.
- If your supervisor is an asterisked member of the **Board of Honors Tutors**, then your reader *must* be a Departmental Faculty member.
- If you have a supervisor and co-supervisor in two different labs AND your co-supervisor is a department-approved PhD-level researcher, your co-supervisor can act as your reader and you do not need a separate one. This most commonly occurs when the co-supervisor is a second departmental faculty member, a member of the Board of Honors Tutors (asterisked or not), or a department-approved Lecturer, College Fellow, or other PhD-level researcher.

Petitions for readers outside of these three categories (Departmental Faculty, Board of Honors Tutors members, departmental Lecturers and College Fellows) are only occasionally considered. Graduate students and postdoctoral researchers are not eligible to be readers. If you have any questions about eligibility, please ask!

Most students identify their own reader, but if you do not find one yourself, the Department will assign one to you. If this happens, there's no guarantee your Department-assigned reader will be well-versed in your topic of interest, so do your best to scout out your own reader! The Thesis Instructor and UGO are happy to chat with you about who might be a good fit for your reader and how to approach them.

> **What does a reader do?** At a minimum, the reader reads the prospectus and attends the prospectus meeting, reads the thesis, provides comments, attends the thesis defense, and evaluates the final thesis. Some students choose to consult with their readers further during the thesis process, either through meetings or reviewing drafts, but this isn't a responsibility required of a thesis reader and should be arranged ahead of time with your reader.

Once you've set your committee, it's time to prepare your application!

IV. THE THESIS APPLICATION

WHAT DOES MY APPLICATION NEED?

There are several components to the thesis application. Here's a little more about each component...

The Application Form (Required)

The thesis application form can be found on the Undergraduate Office's forms page. Please only submit a completed form with all the requisite signatures! If your application is incomplete, the Department will be unable to review it, and your thesis approval risks being significantly delayed.

You may enter a tentative, working title for the "topic" question. Your committee information must be complete and have at least **your supervisor's signature** in order to be considered. If you don't have an agreed Reader yet, you may list some ideas, but you should continue to try and actively find one on your own. Once you have secured a reader, please let the Undergraduate Office know as soon as possible.

The application form also requires a **signature from your Concentration Advisor**. Don't wait until the last minute to get all your signatures!

The Research Proposal (Required)

All applications must include a research proposal for your project. Since projects evolve over time, this proposal isn't necessarily final, but it should indicate your current plans and be detailed enough to allow the Department to evaluate if your topic is appropriate for a thesis and feasible given the available resources and time. Your proposal should be brief (roughly 2-5 pages) and should clearly state your research question, hypothesis, and general methods. You should submit your proposal to your supervisor(s) to obtain feedback and approval before officially submitting it to the Undergraduate Office!

> **ADVICE FROM A SENIOR!** I send proposal drafts to my co-supervisor first, and once I incorporate their feedback, I send a more refined version to my supervisor. Make sure you give your supervisors enough time - usually a week or two - to get back to you with feedback. If you're on a tight timeline, be honest with them and let them know!

The Thesis Cover Form (Required)

Please complete the Thesis Cover Form, which includes a simplified summary of your research proposal. This may overlap highly with your Research Proposal, but should be clear, concise, and stand on its own.

GPA Exemption Petition *(If Applicable)*

Students with an overall College GPA below 3.5 are generally not eligible to do a thesis in Psychology. But don't let this discourage you! If your GPA does not meet this requirement, you may petition for an exemption by attaching a statement to your application explaining why you feel you are able to successfully complete a thesis and why your GPA is not an accurate reflection of your academic ability (typically around 1 page).

In considering your request, the Department may reach out to your supervisor(s) to discuss your ability to pursue a thesis and their lab's ability to support any extra needs you may have. Special attention will also be given to your research proposal, so if you request a GPA exemption, you should produce an exceptional proposal to demonstrate how well you have thought through your project!

Petition for a Non-Departmental Co-Supervisor *(If Applicable)*

If you're working with someone who is not a researcher in the Department of Psychology or an approved **Board of Honors Tutors** member, you can petition to have them serve as a co-supervisor on your committee. To do this, attach a statement to your application explaining why this person is appropriate to supervise your research. You must note the person's job title(s) and affiliation(s), provide their contact information, and include their current CV or resume. Before petitioning, be sure to review Chapter III of this manual, "Your Committee," for rules on who is eligible to act as a co-supervisor!

Existing Data Supplemental Questions *(If Applicable)*

If your project will use an existing or already collected dataset, complete the supplemental questions on page 3 of the thesis application. If you will be collecting new data as part of your thesis, you do not need to fill out these questions.

If you're requesting any other exemptions to the prerequisites for doing a Psychology thesis, please attach a statement to your application explaining the request. For all the prerequisites, see Chapter II.

⋆ **TIP! How do I submit everything?**

You can submit your materials to the Undergraduate Office **either physically or digitally**! Digital materials should be in either DOC or PDF format.

To bring in a hard copy, visit the Undergraduate Office in **William James Hall 218**. To submit a digital copy, e-mail it to **psychology@wjh.harvard.edu**!

DEADLINES

You'll start developing your thesis application in the second semester of your junior year – by the **primary consideration deadline**. This deadline is always the Friday before Spring Break for on-cycle students, but you can find the exact date on the **thesis deadlines by graduation year page**.

AFTER SUBMISSION

Once you submit your application, it will be reviewed by the Department's Committee on Undergraduate Instruction (CUI). Your application may go through several rounds of revisions before finally getting approved to write a thesis. Please note that **you may continue to work on your research in the meantime**! But be open to edits and be prompt with submitting any requested modifications - the faster your application is approved, the faster you can move on to your prospectus and prospectus meeting.

The Undergraduate Office will notify you via e-mail when your thesis project has been officially approved, and then you are officially a thesis student in Psychology - congratulations! **After the Department has approved your application, any changes to your committee or thesis topic must be re-approved by the Department**. To request a change, please notify the Undergraduate Office by e-mail at **psychology@wjh.harvard.edu**.

V. THE PROSPECTUS & PROSPECTUS MEETING

THE PROSPECTUS

The Prospectus Document

The next step of the thesis process is writing a Prospectus Document, distributing it to your committee, and holding a Prospectus Meeting to discuss and finalize your thesis plans. You may hold your Prospectus Meeting at any point between the approval of your Thesis Application and the final meeting deadline (see **Thesis Deadlines by Graduation Year**).

Your Thesis Prospectus Document is a formal, polished document that generally covers the Introduction & Methods of your thesis. Your Prospectus Document should be at least 15 pages, with most falling between 15-25 pages (and occasionally up to 35 pages). It should introduce your research question and your scientific (not personal) motivation for asking that question, provide relevant background, and clearly state your study aims/hypotheses. You should include as much detail as possible about your (planned) methods, including highlighting where decisions still need to be made (if applicable). You should also include as much detail as possible about your plans for moving forward (e.g., your proposed data analysis approach, predicted or preliminary results, proposed timeline for the rest of the thesis process, etc.). This document will build upon your Thesis Application and Junior Progress Report - you may reuse material you submitted as part of those documents in your Prospectus. However, your Prospectus Document should be significantly more fleshed out, detailed, and polished.

Your committee will evaluate your Prospectus; there are no formal Departmental guidelines for what your prospectus must include or how it should be formatted, but they typically follow APA formatting of a standard research paper. **The Prospectus Document will form the basis of your Prospectus Meeting and will ultimately serve as a guide for your entire project.** As such, it should be very clear and specific about your plans. We cannot exaggerate the importance of a carefully written prospectus. A sloppily written or superficial prospectus makes a poor impression upon a thesis committee and only delays the concrete thinking and planning you will have to engage in to produce a successful thesis.

> ***Main Takeaway: The Prospectus Document is a 15-25-page paper comprehensively describing your study motivation, hypotheses, methods, and analysis plan.***

THE PROSPECTUS MEETING

The Prospectus Meeting must be **a single meeting with all committee members present**. You may not substitute this by holding separate meetings with individual committee members. You are responsible for scheduling this meeting, securing a room with any necessary audio/visual equipment, and bringing the Prospectus Evaluation Form (see the section below for more on this). We recommend reaching out to faculty (with a Doodle poll or When2Meet) at least 4 weeks in advance of when you hope to hold your meeting. Faculty schedules book up quickly, so it can be difficult to find a time that works for everyone.

The Prospectus Meeting is typically 1-1.5 hours and consists of a presentation (~15-25 minutes) followed by a discussion and evaluation of your work. Some committees like the presentation followed by a separate Q&A, whereas other committees like to ask questions along the way. You should talk to your supervisor ahead of time to figure out which format yours is likely to take. The presentation portion of the Prospectus Meeting is typically focused on 1) getting everyone onto the same page about the project (keeping in mind that they have also read the document), and 2) guiding discussion to where you need feedback (e.g., proposed data analysis, etc.). While you may guide the discussion to where you most need advice, you should also expect some additional questions from your committee. The goal of the prospectus is to get feedback to improve your project, as well as get everyone on your committee (including your Reader, who is often seeing the bulk of this for the first time) on the same page as to the current status and future directions of your thesis, as well as what needs to be completed to be considered a successful thesis.

Don't forget to take detailed notes along the way!

> ***Main Takeaway: The Prospectus Meeting is a 1-1.5-hour presentation and discussion of your work to help determine the path forward to a successful thesis project.***

THE PROSPECTUS EVALUATION FORM

After the end of the meeting, you will need to submit a completed **Prospectus Evaluation Form** to the UGO. The form must be filled out in its entirety and immediately submitted to the Undergraduate Office following the meeting. You are responsible for submitting this completed form, but if your supervisor prefers to deliver it directly, you should follow up with the Undergraduate Office to verify that it was received.

If your prospectus is approved without Qualifications, congrats! Once you have turned in the signed evaluation form you are done with your prospectus and may proceed with your thesis.

If your committee provisionally approves your prospectus at the time of your meeting, you'll be asked to submit modifications or changes to address the issues raised. Don't fret - this is quite common! Your committee will indicate this on your form, as well as discuss with you a reasonable deadline to revise your document which will also be indicated on the form. Make sure you take sufficient notes on what needs to be included in the revisions! You should then work with your faculty supervisor to ensure the document has reached sufficient revisions by the new deadline.

Once you have final approval from your faculty supervisor for the revised document, **please submit this final version of the document to the UGO along with an email approval from your faculty supervisor** (a forwarded email is sufficient, and it only needs to be from your faculty supervisor not the full committee).

It's also a good idea to type up your notes from the prospectus meeting and send a summary of the agreed upon changes to your committee afterward - that way, there is a record of what was discussed if there is ever any uncertainty about what your next steps are.

It is understood that most projects will diverge somewhat from the plans laid out in the final prospectus in response to unexpected developments in the research process. If you think that your project is undergoing very significant changes, please consult with your supervisor(s))and the UGO about whether it would be appropriate to update your prospectus.

> ***Main Takeaway: You are in charge of submitting the fully completed Prospectus Evaluation Form to the UGO immediately after your meeting. If revisions are required, please work with your faculty supervisor to address them and resubmit the final approved document to the UGO.***

PROSPECTUS DEADLINES

The submission deadline for the Prospectus Document is the **absolute latest date by which you can submit your prospectus**. This will be early in the first semester of your senior year. Two weeks after this will mark the absolute latest date by which you can hold your Prospectus Meeting (see the sample timeline in Chapter I). However, **the Department strongly encourages you to work on finalizing your prospectus late junior spring through the summer between your junior and senior year**. Remember, you **must have an approved Thesis Application *before* you may hold your Prospectus Meeting**. Typically, students start collecting data after the Prospectus Meeting is held so that any recommended changes can be implemented into the study design, so holding your prospectus earlier will allow for a more relaxed data collection and analysis timeline.

You will likely go through multiple iterations of your Prospectus Document with your supervisor(s), so make sure to start this process early to get your supervisor(s) feedback and approval. Once you and your supervisor(s) agree it is ready, **you will submit this document to your full committee and to the Undergraduate Office (psychology@wjh.harvard.edu)**. You must submit the complete Prospectus Document to your committee **at least two weeks before your Prospectus Meeting, whenever your meeting is scheduled**, to give sufficient time for them to read it before the meeting. This is often the first time your Reader will be seeing most of this information, so giving them enough time is critical for a successful meeting. We strongly recommend that you schedule your meeting first, and then use this date to work backwards to determine the deadline for your document. If you wait until you feel like you have a fully polished document before reaching out to schedule the meeting, it may be very difficult to find overlapping availability in people's schedules. Faculty schedules book up quickly, so you must be proactive about scheduling your meeting well ahead of the deadline, while still allowing for sufficient time to incorporate faculty feedback into the document before submitting to your full committee.

Extensions to the Prospectus are reviewed by the Department and are only rarely granted for extenuating circumstances.

> ***Main Takeaway: You may only hold your Prospectus Meeting after you have an approved Thesis Application. Schedule your meeting in advance and use that to work backwards to the Document due date (document is due two weeks prior to your meeting), but make sure that you leave enough time for your faculty supervisor to provide feedback before you submit your document to your full committee.***

VI. DOING YOUR RESEARCH

Now comes the fun part - carrying out your research! Your lab is the best resource for learning procedures and best practices relevant to your specific data collection plan, but here are some general resources that thesis students have found useful in past years.

*** TIP! How can I plan to finish everything in time?**

Collecting and analyzing your data can take a very long time, and unanticipated setbacks can come up despite your best and most planful intentions. Thus, it will be very important to plan out a **timeline** for completing both major and minor steps along the way. **Working backwards from the thesis due date is a good place to start!**

Be sure to check in regularly with your supervisors and co-supervisors along the way. Keep in mind that this is *your* project - most supervisors will not be independently monitoring or checking in on the status of your project, so it will be up to you to stay on task, keep your project moving, and ask for help when needed.

NAVIGATING THE IRB

If your thesis involves research with human subjects (most do!), your plans must be reviewed and approved by Harvard's **Institutional Review Board (IRB)**, the Committee on the Use of Human Subjects (CUHS) before you can begin collecting data. University regulations require that all research be sponsored by a faculty member. Your supervisor will likely ensure that you understand and follow the rules governing the use of human research subjects; nevertheless, it's your responsibility to become acquainted with these rules. In some cases, thesis students may be added as researchers to an existing IRB protocol in their lab, but in most cases, thesis students submit new protocols for approval based on the specifics of their study. If you have any questions about this, consult with your supervisor!

CUHS recently developed the **Undergraduate Research Training Program (URTP)** to guide student researchers through the IRB submission and approval process. For more information and to sign up for the URTP, visit their website! In addition to the CUHS staff, you should ask members of your lab (especially graduate students, postdocs, and lab managers) for help and advice when developing protocols and study materials.

It can take a long time for IRB protocols and amendments to be reviewed, and oftentimes CUHS will ask for additional information or have follow-up questions before they render a final

decision. So **get a jump on this step early on**, and build some waiting time into your overall timeline A good rule of thumb is to aim to have your IRB approval in hand by the end of your second semester of junior year.

Note that any research conducted with animals is also subject to ethical considerations and requires approval from the Institutional Animal Care and Use Committee (IACUC). Please consult with your lab for guidance on how to proceed with IACUC approval.

FUNDING YOUR RESEARCH

Most research costs money, and it's advisable to figure out your budget early on and identify potential funding opportunities to support your thesis research. A few sources of funding available for thesis writers include...

- **The Undergraduate Thesis Grant.** Thesis students are eligible to apply for this $200 grant from the Department of Psychology to support research expenses related to the thesis project once the thesis application has been approved and IRB approval has been obtained. To apply, fill out the Thesis Grant Application on the Undergraduate Office's **forms page**!
- **The Undergraduate Thesis Poster Grant.** Thesis students are eligible to apply for a $75 grant from the Department of Psychology to cover poster printing costs. You should apply during the semester in which you will submit and defend your thesis (typically the second semester of your senior year). To apply, fill out the Poster Grant Application on the Undergraduate Office's **forms page**!
- **The Harvard College Research Program (HCRP).** HCRP provides funding in support of student-initiated research under the guidance of a Harvard-affiliated faculty mentor. Applications require a research proposal (which can be based on your application proposal) and letter of support from a faculty supervisor. There are three cycles of funding: Fall term, Spring term, and Summer term. For deadlines and additional information, visit the **HCRP website**.
    - Note: Give your supervisor a heads-up at least 2-3 weeks in advance if you plan to apply to ensure time to write your letter of support.

For additional funding, you might want to check in with your supervisor and lab about resources, and look into conferences and psychology organizations that sponsor specific small grants for undergraduate research. Harvard's Office of Undergraduate Research and Funding (**URAF**) also has additional funding resources on their website, such as BLISS and PRISE, two of the summer research programs for scientific work.

PSYCHOLOGY STUDY POOL

The Psychology Study Pool is a volunteer program that provides opportunities for human subjects to participate in psychology research in our Department. Depending on the specifics of your study procedure and participant sample, this could be a very useful way to recruit participants!

If you'd like to use the Study Pool to coordinate your research participants, you should first check out the **Study Pool website**, which has training information for researchers and general information for volunteer participants. Other members of your lab can help you set up an account, post your research study, and schedule volunteer participation on the Study Pool's **Sona Systems website**. Note that your research project must be approved by CUHS in order to go live on Sona.

In many cases, you may be able to use prior postings from your lab as templates for creating your posting. You can also contact your Thesis Tutorial Instructor if you'd like to see a sample posting. Typically, Study Pool participants are compensated by cash, gift card drawing, or Study Pool credit. If you have any questions, the Study Pool Coordinator can be reached at **studypool@wjh.harvard.edu**.

REFERENCE MANAGERS

Did you know that there's specific software to help you organize your references, insert citations, and create a reference list - all in APA format? **This page** on the Harvard Library website compares various reference managers and provides helpful user guides. Note that the library also hosts how-to classes for a few popular managers, including Zotero and EndNote!

*** TIP! Where else can I look for writing help?**

First, the **Academic Resource Center** has some resources for thesis-writing and time management that we've compiled in the appendices of this manual. See Appendix B for their guides on…

- Twenty Tips for Senior Thesis Writers
- Worksheets for Senior Thesis Writers
- Managing Time: Perspectives and Practices
- Writing Things Down Before Writing Things Up
- A Procrastinator's Guide to Writing: Reconsidering Beliefs That Keep Us from Engaging with Our Work

And here are some other Harvard offices and programs you should take advantage of!

- The **Classroom to Table** program allows faculty and undergraduate students to gather over a meal for discussion and academic connection, arranged and paid for by the College. Consider inviting your supervisor out to eat and chat about your project!
- The **Writing Center** offers help with any aspect of writing, from specific assignments to general writing skills.
- The **Institute for Quantitative Social Science (IQSS)** offers consultations on various topics, including statistical analyses, writing code, etc. Note that IQSS has implemented a 3-hour maximum on consultation hours per project.

  ADVICE FROM A SENIOR! The biggest piece of advice I could possibly give is ***there is always something you could be working on.*** Writing can seem daunting because there is so much to write - but think about writing in chunks and different sections rather than writing one big thesis. I recommend getting drafts of your literature review and method sections ASAP (by October or November) so that once your data is collected, you can focus on data analysis and interpreting results. Aim to have your data collection finished by the end of your first semester of senior year!

VII. SENIOR YEAR

SENIOR THESIS TUTORIAL (PSY 991)

Now begins your senior year, and with your application approved and research underway, it's time to enroll in the Senior Thesis Tutorial - PSY 991. **All thesis students must enroll in this course.**

This course is split into two halves: 991A and 991B. You should enroll in the "A" version during your first semester of senior year and enroll in the "B" version in your second semester. After you request enrollment on my.harvard, the Undergraduate Office will grant you permission for the course. Your supervisor cannot grant this permission! Please request enrollment in advance of the Course Registration Deadline.

Because the purpose of the Senior Thesis Tutorial is to offer you credit for your thesis research, **you are not allowed to enroll in a lab course concurrently with the Senior Thesis Tutorial for the same overlapping research.** If you intend to work on a completely different project, one that is separate from your thesis, you should e-mail the Associate Director of Undergraduate Studies to verify that you aren't "double-dipping" on research credit, which would violate Harvard's policy on dual-submission.

What to Expect from Senior Thesis Tutorial

PSY 991 is intended to offer you course credit for time spent working on your thesis throughout your senior year. Thus, the work you do for the course will primarily be on your thesis project, but there are also meetings and some small assignments designed to provide external structure and oversight to your process. The Senior Thesis Tutorial will introduce you to a supportive network of thesis-writing peers, offer you the opportunity to ask questions of the Tutorial Instructor, and connect you to resources and support beyond your lab.

The assignments will vary from year to year to meet the changing needs of thesis students, but you can find the most updated assignments on the PSY 991 course website. Generally, there will be semi-regular group meetings throughout the year and one-on-one meetings with members of the Tutorial team. Attendance at Senior Thesis Tutorial meetings is mandatory.

Both PSY 991A and PSY 991B are graded SAT/UNSAT. If you decide to drop your thesis project at the end of your first semester of senior year, you may elect to have PSY 991A count as an

Advanced Course towards your concentration. Please e-mail the Undergraduate Office to discuss this at psychology@wjh.harvard.edu!

THE SENIOR PROGRESS REPORT

At the end of your first semester of PSY 991, you must submit a **Senior Progress Report** to the Department. This is **due by 4 PM on the last day of classes** the semester that you take PSY 991A. The Senior Progress Report will consist of a 1-2 page description of the thesis work you completed in PSY 991A, plus a timeline for completion of your thesis research, data analysis, and writing before the thesis submission deadline.

Alongside the Senior Progress Report, you'll submit a **PSY 991A Grade Recommendation Form** (which you can find on the forms page of the Undergraduate Office website). Please note that the 991A Grade Recommendation Form requires a **signature and grade recommendation from your supervisor(s)**. They should *only* sign the form after having reviewed all the attached materials. Be sure to provide them with all the materials well in advance of the deadline so they have time to evaluate them and provide feedback as necessary!

You aren't required to obtain a signature from your reader, but many students opt to send their reader a copy of the progress report as a way of checking in.

COMPLETING THE SENIOR THESIS TUTORIAL

Completing the First Half (PSY 991A)

Once you've submitted your Senior Progress Report and 991A Grade Recommendation Form, the Department will report a SAT/UNSAT grade for you for the term based on the following factors…

- Satisfactory progress on your thesis project as evaluated by your supervisor(s)
- Submission of your prospectus, completion of your prospectus meeting, submission of your Prospectus Evaluation Form, and submission of any necessary revisions
- Attendance of Senior Thesis Tutorial meetings and completion of assignments
- Completion and submission of your progress report
- Recommendation from your supervisor, as indicated on the 991A Grade Recommendation Form

Please note that these requirements will differ if you decide to drop your thesis at the end of your first semester of senior year. For more, see Chapter XI of this manual.

Completing the Second Half (PSY 991B)

At the end of your **second semester**, the Department will report a SAT/UNSAT grade based on your performance throughout the year. This grade is different from your thesis grade (you can read more about the thesis grade in Chapter X of this manual). This grade is based on the following factors...

- Submission of your thesis by the stated deadline
- Participation in the thesis poster session
- Completion of a thesis defense
- Attendance of Senior Thesis Tutorial meetings and completion of assignments

With all that in mind, let's move on to the main event: preparing the written thesis!

VIII. FORMATTING & SUBMITTING THE THESIS

Partway through the second semester of your senior year, you'll submit your final thesis to the Undergraduate Office. This will be due the day before Spring Break for on-cycle students (off-cycle students should see the **thesis deadlines by graduation year** page for their respective deadlines).

The Department observes these submission deadlines strictly. The only bases for exceptions are serious, documented emergencies, in which case you should notify the Undergraduate Office as soon as possible. The penalty for an unexcused late submission is detailed in the "Grading Deductions" section in Chapter IX.

You should plan to finish writing and formatting your thesis at least a few weeks before this due date to give your committee time to read and provide feedback, and to give yourself time to incorporate those notes into your final draft. **Edits to your thesis past are not permitted beyond this due date, so plan ahead and revise and edit carefully!**

FREQUENTLY ASKED QUESTIONS ABOUT THE FINAL THESIS

- **How long should my final thesis be?** Most theses are 40-100 pages long (not including appendices), but there is no official minimum or maximum length. A thesis is "too short" if it doesn't cover everything it should, and it is "too long" if it includes a lot of unnecessary, distracting information. The ideal length varies depending on the complexity of your topic!
- **Can I see an example of previous theses?** Yes! Reading past theses is a great way to identify the scope and nature of a successful thesis project. The Undergraduate Office has hard copies of several prize-winning theses from the last few years that you may review in person. The Thesis Tutorial Instructor may also provide you with examples.
- **Should I follow APA guidelines?** While there are certain rules about formatting and front/back matter you must include, there is no departmental rule about the style and organization of the thesis itself. Most theses do adhere to the most current edition of the American Psychological Association's Publication Manual, but you should ask your supervisor if they have other preferences.

To see a full list of rules alongside some visual examples of thesis formatting, see **Appendix A** of this manual!

ADVICE FROM A SENIOR! Just like with the application, it's a great idea to send your full draft to your co-supervisor first, request feedback, and incorporate edits before sending it to your supervisor. That way, you're giving your supervisor a more polished product! Also, it's super helpful to exchange drafts with friends to gain an outside perspective (especially if they are in other departments) - I highly recommend this!

SUBMITTING THE THESIS

Congratulations! You've finished formatting your thesis, and now it's time to submit it! **Please send your thesis to the Undergraduate Office psychology@wjh.harvard.edu rather than sending it directly to your committee.**

Once you submit your thesis, the Undergraduate Office will send it to your committee for **comments**. The Undergraduate Office will collect these comments and e-mail them to you shortly thereafter. You should read and carefully consider the issues raised, as these comments will likely come up during your thesis defense. It is advisable for students to discuss comments with their supervisors and directly incorporate feedback from the committee in their defense presentations.

IX. THESIS SHOWCASE & THESIS DEFENSE

THE THESIS SHOWCASE

To formally cap off the thesis experience, the Department will host a **thesis showcase** in the last few weeks of the semester. This is your chance to present your thesis and celebrate your hard work! You will be given details on the format of the showcase (typically a pre-recorded or live data blitz or poster session) in Senior Tutorial.

Participation at the showcase is mandatory for all thesis students. The penalty for an absence from the showcase is detailed in the "Grading Deductions" section below. If you have a conflicting engagement, please make necessary arrangements in advance to ensure that you can attend the showcase! If needed, the Tutorial Instructor or Undergraduate Office can provide a document explaining your absence from the conflicting obligation.

THE THESIS DEFENSE

Your thesis journey is nearing its end! All students must hold a thesis defense, and like the prospectus meeting, all committee members must be present for one, simultaneous meeting. **This meeting must be held during the Thesis Defense Period, which is mid-April.** You can find the exact dates for the Thesis Defense period on the **thesis deadlines by graduation year** page. Be sure to contact your committee well in advance of this week to schedule your defense!

The defense usually includes a presentation by you followed by a question-and-answer period from your committee. The presentation is often accompanied by a slideshow, but you should check in with your supervisors to see what presentation format they would prefer.

After your defense, your committee will discuss your thesis grade and complete the thesis evaluation form. If they reach a unanimous decision, you may find out your grade that day. If there is a disagreement, your thesis will receive an independent evaluation arranged by the Department, and you may have to wait a little longer for the final grade to be assigned.

THE THESIS GRADE

After the defense, your committee will grade your thesis based on the written work you submitted and your defense presentation. This grade is separate from the SAT/UNSAT grade you'll receive for completing PSY 991A & 991B, and it will not appear on your transcript. It will, however, influence your Departmental Honors, which will influence your College Honors.

Theses grades are in the following Latin levels, from highest to lowest…

- Summa Cum Laude
- Magna Cum Laude Plus
- Magna Cum Laude
- Magna Cum Laude Minus
- Cum Laude Plus
- Cum Laude
- Cum Laude Minus
- Unsatisfactory

GRADING DEDUCTIONS

If you miss the thesis submission deadline without formal permission from the Department, your final thesis grade will be reduced by one-third step immediately and an additional one-third step for for every three days after the deadline (e.g., from summa to magna plus, or from magna to magna minus). The only bases for exceptions are serious, documented emergencies, in which case you should notify the Department as soon as possible.

An absence from the poster session will lower your thesis grade by one full step (e.g., from summa to magna), and you'll still be expected to present your poster to your committee.

DEPARTMENTAL HONORS

Departmental Honors are determined by the Department of Psychology and based solely on course work in the concentration. In Psychology, Honors recommendations are based on a combination of final concentration GPA and thesis grade for thesis students. The Department's Committee on Undergraduate Instruction reviews each student's record and presents its recommendations to the faculty, who vote on the final departmental degree recommendation (no Honors, Honors, High Honors, or Highest Honors).

Students completing a thesis are eligible for a recommendation of Honors, High Honors, or Highest Honors. The recommendation is based on a combination of thesis grade and final concentration GPA - see the chart on the following page!

OVERALL THESIS EVALUATION

CONCENTRATION GPA	None/ UNSAT	Cum Minus	Cum	Cum Plus	Magna Minus	Magna	Magna Plus	Summa
C+ or below	Not eligible.							
B-	None	None	None	None	Honors	Honors	Honors	High Honors
B	None	None	Honors	Honors	Honors	Honors	High Honors	High Honors
B+	None	Honors	Honors	Honors	Honors	High Honors	High Honors	High Honors
A-	Honors	Honors	Honors	Honors	High Honors	High Honors	High Honors	Highest Honors
A	Honors	Honors	High Honors	High Honors	High Honors	Highest Honors	Highest Honors	Highest Honors

Approved at Department Faculty Meeting, 27 October 1981

This is it - your thesis journey is done! Now, go celebrate - you deserve it!

XI. DROPPING YOUR THESIS

If you decide not to pursue your thesis project to completion, you may choose to drop it at any point until the second semester of your senior year. The process for dropping your thesis will vary depending on when you make the official decision to pull out of the process.

If you choose to drop your thesis…

- **While in PSY 985:** You must e-mail your entire committee with your decision to drop the thesis. Please copy the Undergraduate Office on this e-mail. You must also inform the Thesis Tutorial Instructor, who will work with you to produce a research paper that can serve as a final project for the course. Finally, submit the research paper as your Junior Progress Report by the designated due date.
    - PSY 985 will not automatically count as an Advanced Course towards your concentration, but you can elect to have it count! Please e-mail the Undergraduate Office at **psychology@wjh.harvard.edu** to discuss this option.
- **After your application is approved, but before taking PSY 991A:** You must inform the Thesis Tutorial Instructor and e-mail to your entire committee indicating your decision to discontinue working on the thesis. Please copy the Undergraduate Office on this e-mail.
- **During PSY 991A:** You must compose an e-mail to your entire committee with your decision to discontinue working on the thesis. Please copy the Undergraduate Office on this e-mail. You must also inform the Thesis Tutorial Instructor, who will work with you to produce a 10-page research paper that can serve as a final project for the course. Finally, submit the research paper as your Senior Progress Report by the designated due date.
    - If you decide to drop your thesis project after finishing PSY 991A, you may elect to have PSY 991A count as an Advanced Course towards your concentration. Please e-mail the Undergraduate Office at **psychology@wjh.harvard.edu** to discuss this option!

Please check in with your faculty supervisor about how you should notify the IRB, HCRP, and any funding organizations that your thesis project will not be pursued further.

APPENDIX A. THESIS FORMATTING GUIDELINES

Below is a list of the formatting guidelines the Department requires of your final thesis. Here are some visual examples for you to follow!

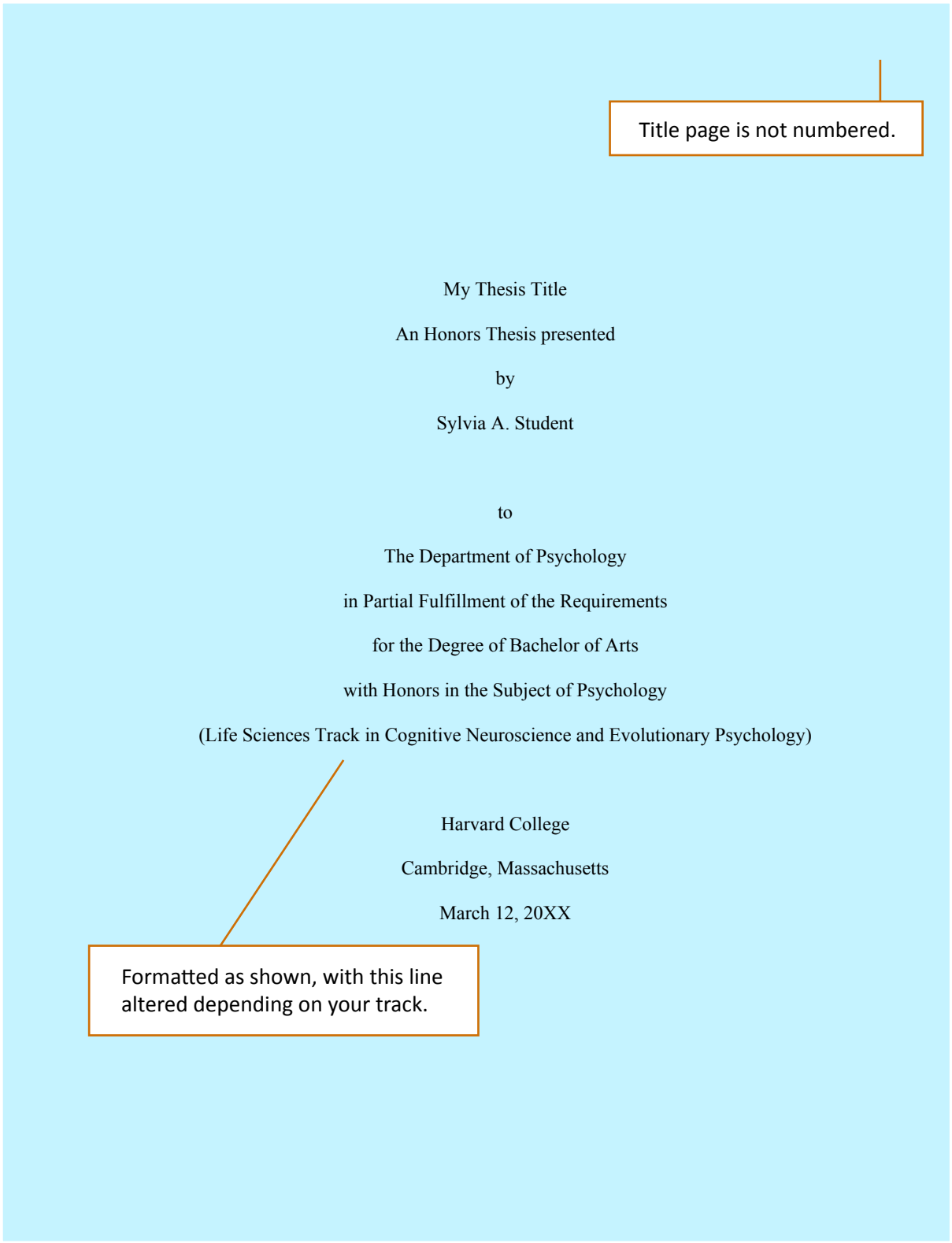
ENTIRE DOCUMENT

- **Margins** should be 1.5 inches on the left-hand side, and 1 inch on all other sides.
    - This is to accommodate binding for if you eventually print your thesis, so make sure that the margin is adjusted on the appropriate side on all pages, including any that are rotated to landscape view to accommodate tables or figures!
- **Formatting style** is up to you - most students follow the American Psychological Association's Publication Manual, but you should check with your supervisor to see which guidelines to follow.
- **Double-spaced**, save for footnotes and quotations, which are single-spaced.
- The **numbering system** is as follows…
    - Front matter is numbered with lowercase Roman numerals, starting after the title page
    - Arabic numbers start on the abstract page and continue until the end.
    - Page numbers should be at least half an inch away from the edge of the page.
    - Page numbers may be located and justified anywhere on the page and should be consistently placed throughout the document.

FRONT MATTER

The first several pages of the thesis document should include, in this order…

Title Page (REQUIRED)



Honor Code Affirmation (REQUIRED)

Lowercase Roman numerals begin on this page with "i" and continue until the last page before the abstract.

Second page of document.

The Harvard College Honor Code

Members of the Harvard College community commit themselves to producing academic work of integrity – that is, work that adheres to the scholarly and intellectual standards of accurate attribution of sources, appropriate collection and use of data, and transparent acknowledgement of the contribution of others to their ideas, discoveries, interpretations, and conclusions. Cheating on exams or problem sets, plagiarizing or misrepresenting the ideas or language of someone else as one's own, falsifying data, or any other instance of academic dishonesty violates the standards of our community, as well as the standards of the wider world of learning and affairs.

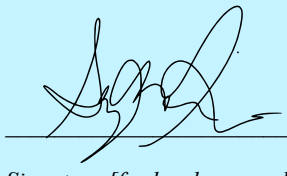
Download the template for the Honor Code on the "Forms" page of the UGO website!

Honor Code Affirmation

Department of Psychology

Honors Thesis

In submitting this thesis to the Department of Psychology I, Sylvia A. Student, affirm my awareness of the standards of the Harvard College Honor Code and that this honors thesis abides by these standards.



3/12/20XX

Signature [for hard copy only]

Date

Signature required for printed copy only.

Copyright Notice (OPTIONAL)

Include to provide statutory copyright protection. This page should immediately follow the Honor Code Affirmation.

Include the copyright symbol, the year in which copyright is established, your legal name, and "All rights reserved."

Acknowledgements (REQUIRED)

Lists resources and support given by your committee members and other researchers (lab members, other faculty who gave you access to unpublished works or data, etc.)

Starts on a new page.

Acknowledgements

First and foremost, I'd like to extend warm thanks to my supervisor, Professor Gina Supervisor, for guiding me on this journey. From my first semester at Harvard, you inspired my love for psychology, and you've always pushed me to question the limits of what I can accomplish. I also want to thank my co-supervisor, Ricky Researcher, for answering my last-minute questions about fMRI and reminding me to take breaks and sleep. I truly could not have completed this project without the two of you.

Thank you also to Dr. Kyoko Reader, who taught one of my favorite courses and graciously accepted a request to be on my committee despite only knowing me for a semester. I feel so proud to have had you as my reader. I also want to extend my thanks to the Harvard Office of Undergraduate Research and Fellowships for awarding me with a grant to pursue my research over the summer, and to the Department of Psychology for the same – your support goes a long way!

Finally, I want to thank the Psychology Undergraduate Office for having an endless stock of candy to get me through some long writing sessions in William James Hall. Never underestimate the power of a little sugar rush!

Lists financial support from any source that was used toward your thesis - grants, funds contributed by your supervisor from other sources, etc. List the foundation or agency and, if applicable, the contract number.

You may also thank friends or family who provided general support throughout the process.

Other Front Matter (OPTIONAL)

If you wish, you may choose to include any of the following after the Acknowledgements page. Each would start on a new page, including…

- A dedication.
- A list of illustrations and tables.
- A glossary of terms.
- One or more epigraphs.

Table of Contents (REQUIRED)

List sections and major headings with page numbers.

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ABSTRACT

Arabic numerals begin on this page with “1” and continue through the end of the document.

Abstract

Background: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis pellentesque a leo in finibus. Etiam ornare a quam sit amet rhoncus. Praesent ut neque dapibus, imperdiet sapien at, vehicula risus. Sed quis nunc nec eros venenatis congue id quis arcu. Etiam convallis consectetur quam. Fusce sollicitudin, turpis nec feugiat tempor, sapien velit scelerisque quam, eget auctor odio eros sit amet lorem. Curabitur eros eros, luctus ac nisi eu, commodo pretium libero. Nulla viverra metus at ipsum auctor euismod posuere non quam. Etiam eget quam tortor.

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Usually does not exceed 350 words.

Main text is double-spaced.

My Thesis Title

Subheader #1

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Footnotes and long quotations are single-spaced, but double-spaced between entries.

BACK MATTER

After the body of the thesis, include these pages, in this order...

References (REQUIRED)

ALL theses must include a reference section/bibliography.

References

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References may be single-spaced, but must be double-spaced between entries.

Figures and Tables

Include only if figures and tables are not in the body of the thesis. Consult with your supervisor about whether to include these in the body or the back matter!

Figures and Tables

Figure 1: *Figure Title*

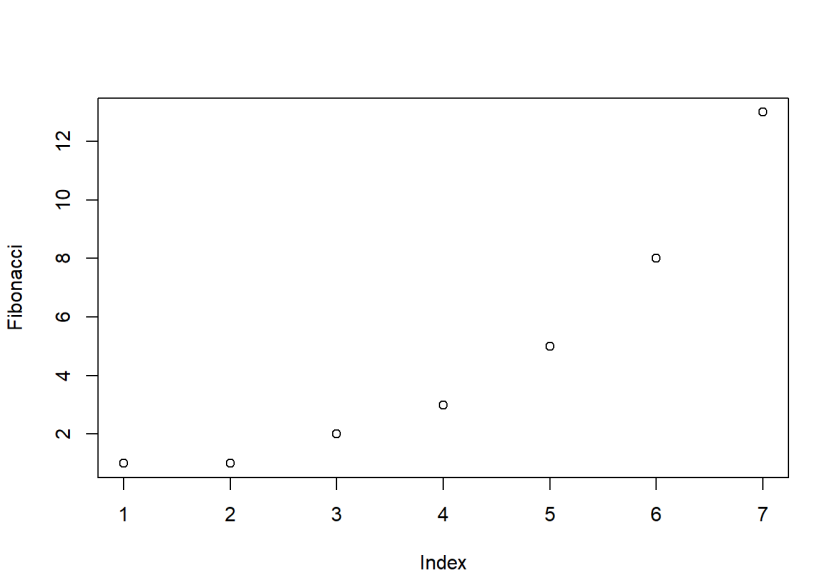
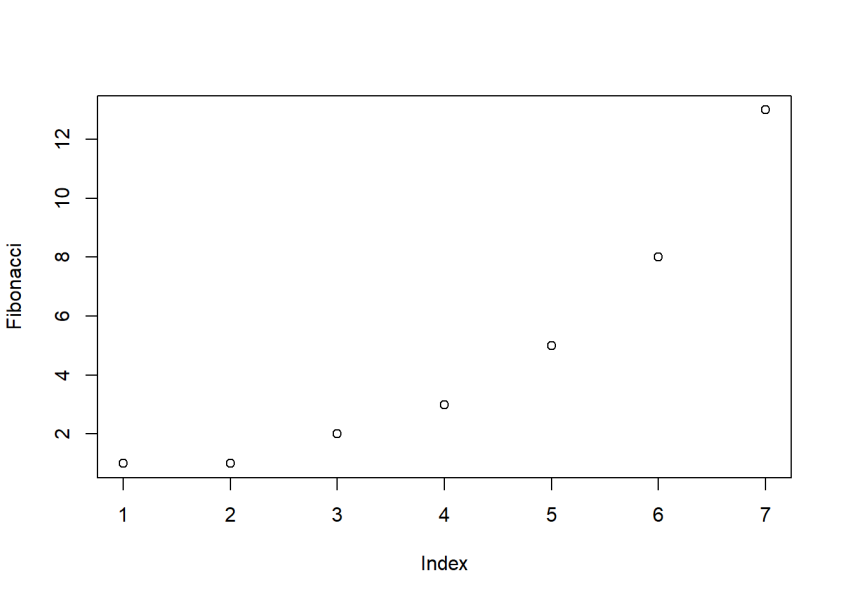
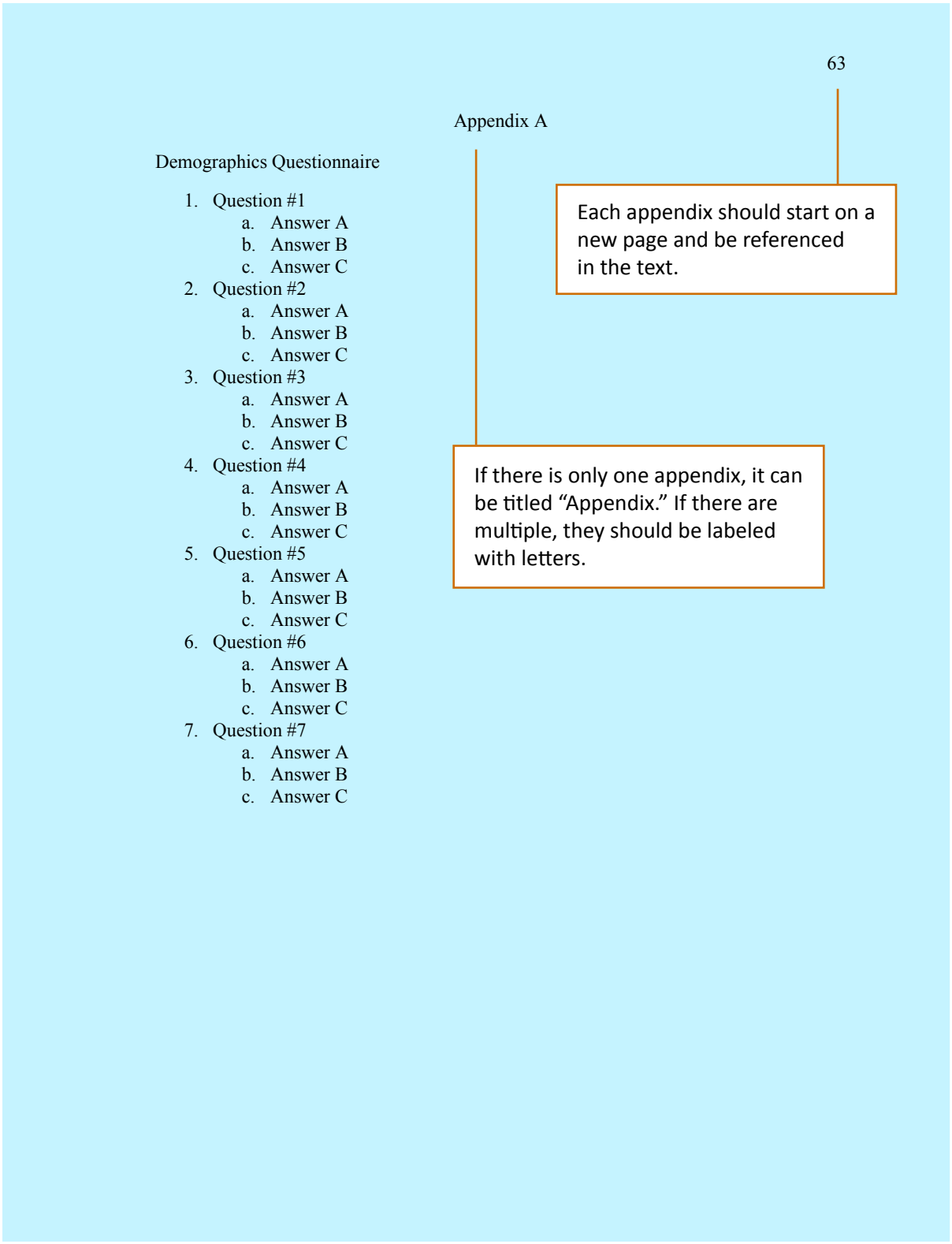


Figure 2: *Figure Title*



Appendices (OPTIONAL)

Appendices are for detailed information that was not included or not fully included in the text (your complete set of stimuli, additional data analyses, etc).



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Appendix A

Each appendix should start on a new page and be referenced in the text.

If there is only one appendix, it can be titled "Appendix." If there are multiple, they should be labeled with letters.

Demographics Questionnaire

1. Question #1
    a. Answer A
    b. Answer B
    c. Answer C
2. Question #2
    a. Answer A
    b. Answer B
    c. Answer C
3. Question #3
    a. Answer A
    b. Answer B
    c. Answer C
4. Question #4
    a. Answer A
    b. Answer B
    c. Answer C
5. Question #5
    a. Answer A
    b. Answer B
    c. Answer C
6. Question #6
    a. Answer A
    b. Answer B
    c. Answer C
7. Question #7
    a. Answer A
    b. Answer B
    c. Answer C

APPENDIX B. RESOURCES FROM THE ACADEMIC WRITING CENTER

The following guides are all taken from Harvard's **Academic Resource Center** (ARC), formerly known as the Bureau of Study Counsel. They're filled with helpful tips for thesis writers!

In the following pages, you'll find guides titled…

- Twenty Tips for Senior Thesis Writers
- Worksheets for Senior Thesis Writers
- Managing Time: Perspectives and Practices
- Writing Things Down Before Writing Things Up
- A Procrastinator's Guide to Writing

Please scroll to the next page to consult them.

Twenty Tips for Senior Thesis Writers
(and other writers, too)

by Sheila M. Reindl, Ed.D., who grants permission for use of this handout to
the Bureau of Study Counsel, Harvard University

1. Begin with something unresolved, some question about which you are truly curious. In a course she once taught at the Harvard Graduate School of Education, Carol Gilligan talked about the imperative to orient your inquiry toward "a real question," which she defines as a question to which you don't already know the answer and to which it matters to you to know the answer.

Although it is important to "begin" your focused exploration with a governing question and to make that question clear early on in your thesis, you need not – in fact, probably can not – begin the entire research and writing process with a question. It takes a lot of work – reading, talking with people, thinking, freewriting – to generate and focus your governing question.

Your question derives from your noticing something counterintuitive or surprising or confusing. You make observations that appear to be in tension with one another and to point to some apparent contradiction, mystery, conflict, surprise, discrepancy, problem, oversight, or puzzle – something that makes you stop and say, "Huh. What's the story here?" We could call these observations **competing observations** in that both are compelling yet neither prevails over or negates the other. These might be observations you make about an organism or ecosystem, about a character in a piece of literature, about two (or more) approaches to understanding and addressing some problem, about two (or more) interpretations or arguments, etc.

Your job is to formulate a question(s) that derives from these competing observations. For instance, you might think, "In looking at the perpetuation of poverty… or at how epigenetic phenomena lead to heritable traits … or at how we understand what leads to the development of empathy in people … we have tended to focus on x. And yet evidence (or experience) indicates that y might also play an important role. How can we better understand the role of y?" Or, "We used to talk about this issue in terms of the metaphor of x, but over time, the metaphor has shifted. What is the metaphor implicitly or explicitly in use now? How do we understand that shift? What are the implications of that shift?"

2. Let questions guide your inquiry and the structure of your piece. Make clear to yourself and your readers the unresolved question that you set out to resolve. This is your **governing question**, the question that governs your inquiry and ultimately guides and governs the structure of your piece. Show your readers what leads you to pose your question in the first place, what competing observations gave rise to the question.

Keep your eye on your governing question. You might want to put that question somewhere where you will see it every time you sit down to work – e.g., on a note you attach to your computer, on your bulletin board, or on the wall in front of your workspace. This will serve as your lighthouse, your beacon on the horizon that helps guide you home. You need not be bound to the original form of this question. You might need to revise it or supersede it several times as you move along. When it changes, your destination changes, and you will take a different tack or chart a different course. Make note of how your governing question evolves. The narrative of your inquiry is itself an interesting story.

Identify your **subordinate questions**. Just as the thesis as a whole is a response to a governing question, each chapter, each section, and each paragraph of the thesis is a response to a subordinate question – subordinate in the

sense of being in the service of the governing question. Subordinate questions are the questions you will need to address or resolve on the way to addressing your governing question.

Make clear to yourself and your readers the subordinate questions to which each chapter is a response. When you are having difficulty developing an idea or structuring your piece, make a **question outline**, i.e., an outline in the form of questions. Write out the questions to which each paragraph is a response; questions tend to beget more questions and to form a natural pecking order (order of priority) and nesting order (like Russian dolls, smaller ones being nested within larger ones).

3. Freewrite. In brief stints of time, write without censoring yourself at all. Freewrite to loosen your mind (analogous to stretching before running) and to let yourself follow the playful, associative, non-linear logic of your mind. Often we don't follow that associative logic very far because we dismiss it early on as entirely illogical and useless. While it is true that in our **final product** ideas need to be in the form of **linear logic** so that others can follow our thinking, we need to draw upon our **associative logic** in the **creative process**. Associative logic is the logic of dreams. It is also the logic at work when our mind makes a creative connection or leap, often seemingly out of the blue. This typically happens just before we fall asleep or just as we wake up, while we're in the shower, while we're driving, while we're walking, or when we're having a generative, free-flowing conversation that lead us seemingly – yet not entirely – far afield from where we started. When our mind is free enough to follow its wanderings and associations far enough, they often lead to something creative and useful. Freewriting – without stopping and without thinking about whether what we are saying is elegant or grammatical or concise or logical – promotes the generation of ideas and of creative connections between ideas. Think of freewriting as **soil, not seed**. Soil is the muck that nurtures a germinating idea rather than the perfect seeds that become the actual sentences and paragraphs of the final product. ((For more thoughts about freewriting, creativity, and associative logic, see *Writing without Teachers*, by Peter Elbow, and the handout "Writing Things Down Before Writing Things Up," written by Sheila M. Reindl and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu.)

4. Do focused, or prompted, freewriting. Sometimes freewriting works better with a focus and/or a running start. Consider using the following sentence stems as prompts for your freewriting. Complete the sentence and continue writing from there.

1. When I started this project, the thing that really interested me was . . .
2. The questions I find myself thinking about these days are questions like . . .
3. What I really want to know is . . .
4. I want to figure out how . . .
5. I have a hunch that . . .
6. I am confused by . . .
7. I feel angered or annoyed by . . .
8. What stands out to me about all the stuff I've been reading is this idea that . . .
9. What I've been reading makes me wonder . . .
10. Dialogue between me and the experts (this exercise comes from writing teacher Eileen Farrell):

    This author/professor/theorist/expert says . . .
    And/but I say . . .

    He or she also says . . .
    And/but I say . . .
11. If I had to put my project/paper so far into the form of a single question, it would be . . .
12. The observations I make that lead me to pose that question are . . .
13. What makes my question hard to reckon with or difficult to resolve is that . . .

14. One way in which I could attempt to reckon with that difficulty of how to resolve my question is . . .
15. If things were as neat and tidy as I'd like them to be, I would be able to make the argument that . . .
16. One way in which things aren't so neat and tidy is that . . .
17. One way in which I might address that messiness is . . .
18. I'm stuck. I'm stuck because I can't figure out . . .
19. I can see that my method of approaching my question has some real problems, or at least challenges, including . . .
20. One way I could possibly address that methodological/approach/design issue is . . .
21. I realize I need to define some terms. If I were to try to define the term _____, what occurs to me is that . . .
22. [A letter to a friend or to your reader] Dear ____, I'm trying to write this paragraph/section/chapter about _____. And do you know what? . . .
23. Let me state what I think I know so far, even if it seems obvious or self-evident (in the belief that sometimes it's actually easy to overlook the obvious and that sometimes the seemingly obvious deserves another look):
24. Of all these seemingly obvious, self-evident things, the one that keeps catching my attention is . . .
25. If I think of "theory" as simply another word for "explanation," I would say that one of the explanations that people have offered for the thing I'm researching is that . . .
26. But that theory or explanation doesn't seem to account for . . .
27. If I could say what I really want to say, . . .
28. If I could approach this project in the way I really want to, . . .
29. If I could write about the question that really interests me, . . .
30. What I wish I could convey to my audience is . . .

5. Work in fifteen-minute to twenty-minute stretches. We tend to approach big jobs by thinking we need big amounts of time. We say to ourselves, "I need to write this paper. It's 1 o'clock now. I'm free until dinner at 6 o'clock. That's five hours. I should get a lot done." But in fact, we barely make a dent. We brush our teeth, do our laundry, check our email, pay a few bills, straighten our room, make a list of errands, hang out with our friends, go on Facebook. But we spend very little time on task (the task of writing). That's because few of us can work for five solid hours on one thing, especially something as difficult and anxiety-provoking as writing.

Especially if you are having difficulty getting started or staying with writing, try to work for very small stretches of time. Most of us can do anything for fifteen to twenty minutes. Work for fifteen to twenty, break for five to ten is not a bad guideline. You might be surprised at how much you can get done in fifteen to twenty focused minutes. It is much better to work for fifteen to twenty minutes and get something done, however small, than to keep thinking for five hours that you should be working and be so daunted that you get nothing done and then feel discouraged, demoralized, and guilty.

6. Employ the S-O-S strategy: specific, observable steps. (*****The notion of specific, observable steps is drawn from Jane Burka and Lenore Yuen, authors of *Procrastination: Why You Do It, What to Do About It*. The "S-O-S strategy" is a term I coined.) Think in terms of specific, fifteen- to twenty-minute tasks that you can picture yourself doing and completing. "I am going to take fifteen to twenty minutes to write down a list of a questions that my thesis will need to address"; "I am going to take an inventory of all the things I can say, all the things I wish I could say but don't know if I have the evidence to support, and all of the hunches I have"; "I am going to skim this article to see if its methods section is relevant to how I'm approaching my research"; and "I am going to write a memo to myself about what makes my question a hard one to answer" are examples of such tasks. "I'm going to work on my thesis for five hours between lunch and dinner" and "I'm going to work on my literature review this weekend" are examples of plans that are neither specific nor observable: with such a vague intention or general goal, there is nothing specific you can picture yourself starting, doing, and finishing.

7. Take the "So/And Even So" Approach. Whenever you find yourself saying "I have only fifteen minutes, ***so*** I can't do anything productive," try saying, "I have only fifteen minutes, ***and even so*** . . . I could jot a few notes about what questions I might address in this paper/skim the beginning and end of this chapter to identify the question the writer's addressing/make a list of some of the challenges or criticism someone might make of my project/brainstorm how I might address those challenges or criticisms."

The "So/And Even So" Approach can also work when you are feeling tired, sad, lonely, scared, discouraged, overwhelmed. It is my version of an approach that comes from a friend who used to coach beginning adult runners. He told them they didn't need to run every scheduled running day but that on those days they just needed to suit up – put on their running clothes and running shoes. If they said to themselves, "I'm tired/busy/sad/lonely/, ***so*** I can't run today," he asked them to say, "I'm tired/busy/sad/lonely, ***and even so***, I could suit up." The runners found that once they were all suited up, they felt that they were already on their way, and taking a run was not as daunting a prospect. Similarly, if you put yourself in a position to do your work and take even a small step in that direction, you might find that you can, and even want, to keep on going.

When you find yourself saying things such as "I'm sleepy, so I can't work on this"; "I haven't called my best friend in a week, so I can't work on this"; "I have rehearsal in half an hour, so I can't work on this"; "I really want to see a movie, so I can't work on this"; "I'm scared I'm going to fail, so I can't work on this," try replacing the "so" with "and even so": "and even so, I could work for fifteen minutes on tracing the line of thinking that leads me to pose my questions"; "and even so, I could brainstorm for fifteen minutes about questions I might want to address in my paper"; "and even so, I could skim this chapter to see if I can get the governing question that the writer sets out to address"; "and even so, I could read for fifteen minutes to see how this author defines this tricky term"; "and even so, I could write about my fear and how I might proceed in the face of it." (Writing can be a way of keeping yourself company in your fear, discovering what that fear is about, letting the fear be there without letting it stop you. When you can **have** your fear rather than **be** your fear, you are not overwhelmed by it.)

8. Keep track of your ideas and thoughts as they develop. Just as you need to save often when you're working on a computer, you need to **save often** (in your brain) when you're reading and studying. The way to save your thoughts is to jot them down. Otherwise your ideas might get deleted, especially if you have a power surge (get caught up in another idea) or a crash (fall asleep). (Interestingly, the *Macintosh Users' Guide* of my old PowerBook 160 made this save-frequently analogy in the other direction. A section called "Save Your Work," read, "Since work that exists only in memory is lost when you shut down the computer, you need to save your work so you can come back to it later. If you don't save your work, it disappears – like thoughts that are lost unless you write them down.")

Write notes to yourself. One way of saving often is to keep a thesis **journal or memos folder** on your computer. Use your thesis journal or memos folder for freewriting (prompted or unprompted) (see tips #4 and #5 above). Also use your journal or folder to write your notes in the form of brief memos to yourself about your latest **response** to, or **further questions** about, or **musings** on a particular question. Keep a memo document open whenever you are writing at your computer (no matter what you're working on). This **open-window approach** allows you to catch those fleeting thoughts that fly through your mind in the middle of whatever else your doing.

Create two thesis journals or folders: one on your computer (i.e., a folder for memos – see above) as well as one for hand-written entries (i.e., a notebook, big envelope, manila folder, or big piece of paper on the wall) to record thesis thoughts that come to you in moments when you're not at the computer. Great ideas often come at unexpected times. You might end up jotting some of your best ideas on dinner napkins, the backs of old envelopes, scraps of paper, and receipts. Just make sure you have one place or "bin" where you keep them all together. Some people keep one such bin for the introduction, another for the conclusion, one for each chapter, and one miscellaneous file for what writing teacher Larry Weinstein calls "gems without a setting." (For more on gems without a setting, see "Worksheets for Senior Thesis Writers (and other writers, too)," written by Sheila M. Reindl and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu.)

Believe that some notes are better than no notes. As you read or listen, **jot down even brief notes** about what is standing out to you, puzzling you, or bothering you. These need not be extensive or grammatically correct or stylistically elegant notes. They can be just a couple of words – enough to help you register and recall an idea. Their purpose is two-fold: to help you do something active with the material to make it your own and to leave you with enough of a record of your reading and thinking that you can recall it later.

9. Keep track of others' ideas. In your notes (and in the final product), make clear which words and ideas and lines of reasoning are yours and which need to be attributed to someone else. When you are noting someone else's words or thinking, write down the information you will need to accurately cite the source of the material in the future or to return to it again down the road. Keep that information firmly attached to the material even as you go through different drafts.

Remember that, as Abigail Lipson and Sheila Reindl point out in "The Responsible Plagiarist: Understanding Students Who Misuse Sources," acknowledging others' work is about being responsible not only to academic rules but to a set of relationships: "As scholars, we have a responsibility to our sources (to acknowledge our indebtedness to them), to our readers (to let them know what our sources were and how they informed us), and to ourselves (to declare our own contributions). Proper documentation traces a family tree of intellectual kinship, in which we place our own ideas and text in context" (p. 12). They observe that attributing and citing others' work is part of our responsibility as members of the community of the mind.

10. Let your reader in on your reasoning, your thinking, your understanding. Let your reader know what you want him or her to take away from or learn from a chapter and from your thesis as a whole. Don't just present data. **Show** your reader how you want him or her to make sense of the data, what you want him or her to see as meaningful about all that data. Show your reader the **inferences** you make, the things you see as you read between the lines. Think of your thesis as a museum: you are the museum guide giving your audience a guided tour. Don't just let them wander around, trying to make whatever sense they might of what's in there. Point their attention to what you'd like them to see and to the connections you'd like them to make between things. Help them to see and understand what you have come to see and understand.

Use chapter titles and subheads as important signposts for your reader and as ways of challenging yourself to clarify and summarize your thoughts and the connections between your thoughts. To name is to know.

Make sure your reader can tell which ideas, which words, and which lines of reasoning are yours and which are someone else's. Both by attribution within the text and by formal citation, **let your reader know where you are making your own contribution and where (and how) you are drawing upon the contributions of others**. Different disciplines have different conventions about attribution and citation. If you have questions about how to handle issues of attribution and citation, consult with your adviser or others in your field; find a manual that speaks to the conventions of your field; and look to model writings in your field in the form of professional publications, dissertations, and honors-level senior theses.

11. Make a point. Many senior thesis writers tend to rely on summarizing, describing, narrating, and categorizing and never get around to making a point. While an elegant and clarifying summary, or a careful and sensitive description, or a well-chosen and illustrative narrative, or a new and intriguing categorization might be a contribution to your field, chances are you will be expected to develop some sort of argument or point, that is, to use your summary, description, narrative, or categorization in the service of an analytic response to some unresolved question or problem. If you find yourself relying on summaries, descriptions, narratives, and categorization, ask yourself, "What larger question is this in the service of?"

Show the subtleties of your thinking. Many students rely on variations of "and" to connect their ideas: "and"; "in addition"; "also"; "next"; "another example"; "later"; "plus"; "besides"; "yet another thing." It is as though they knit one very long piece with a basic knit-one-purl-one stitch and then decide after it is long enough that they will cast off, add a few tassels or a bit of fringe, and call it a scarf. That is fine when we are just learning to knit or to write, but to construct complex garments and arguments, we need to make more complex connections between things.

Don't say "and" when you mean to form a more precise connection: "even though"; "seems like, but"; "is insignificant unless we consider"; "is based on the problematic assumption that"; "does not adequately address the question of"; "goes even farther and demonstrates that"' "despite its problems is nonetheless useful for"; "but this definition differs in one critical respect"; "addresses that question but does not address the matter of." An analogy or metaphor can also help you clarify a connection between ideas.

12. Reckon with the complexity of your question. You don't necessarily need to resolve your question completely. Sometimes it is enough to talk clearly about **how and why things remain complex** rather than to clear up the complexity.

13. Let readers of your draft know the questions *you* have about the draft. While you might sometimes want to give your adviser and friends carte blanche to respond to whatever strikes them in your drafts, sometimes specifying some of the questions you have helps you feel less vulnerable to getting feedback. As a rule, it's helpful to you and your readers to append a memo to a draft. You can take the first shots at your work so that you keep your dignity, saying, in effect, "I know this draft has its problems." And you help your readers by guiding their attention to what is most important to you. You can ask people to tell you what they see as your governing question, or to name three things they learned in reading your chapter, or to tell you what they liked most and what they had the most trouble with, or to tell you where your argument is weakest and where it is strongest, how the tone works in a particular place, etc.

14. Overview and read other senior theses. Read senior theses from previous years. Ask your senior thesis adviser if your department keeps some senior theses available for students' use. Check with the library to find out whether and where senior theses from all departments are kept. (At Harvard, the Harvard University Archives (in Pusey Library in Harvard Yard) houses theses that have received a grade of *magna cum laude* or higher; Lamont Library keeps on Level 1 the most recent two years of theses which were awarded the Hoopes prize.) While it might be useful to read a thesis that is similar to yours in content area or topic, it can be especially helpful to read one that is similar in method or approach (e.g., a thesis that relies upon interview data, or quantitative data, or government documents, or ethnographic data, or a portrait of a community).

15. Accept that anxiety and anxiety-management are part of the writing process. Upon the completion of his doctorate, a former graduate student commented that 80% of the time and energy involved in writing a dissertation goes to anxiety management. You can't wait until you are not afraid or not anxious to begin writing. You need to find ways to write even when you are feeling anxious. Writing in your thesis journal about your fear or anxiety can be a way of keeping yourself company in your fear, discovering what your fear is about, letting the fear be there without letting it stop you from doing what you need to do. Consider using the freewriting prompt, "I fear that…." And then try, "I want to find a way to go forward in the face of that fear. One first step I could take is to …." You might also try, "I am stuck. I am stuck because…." In addition to writing about your fear or stuckness, working in fifteen- to twenty- minute stretches, taking frequent breaks, getting regular exercise, meditating, using the S-O-S strategy, using the "So/And Even So" Approach, and talking with people are all ways of managing your anxiety.

16. Take frequent breaks. To sustain your focus and concentration, you need to pace yourself. Pacing requires **timely and attuned breaks** – timely in that you take a break before you reach your breaking point (i.e., the point at which you are so exhausted that you collapse or are so frustrated that you avoid getting back to the task) and attuned in that it hits the spot of what you need to recharge or restore yourself at that particular point in time.

Many people say, "But my 'little' breaks inevitably last for hours." You can avoid the potential for dangerously long breaks if you **a)** develop a **repertoire of refreshing activities; b)** experiment with **breaks of different sizes**; and **c)** develop a sensitivity to **when** you need a break and to **what kind** and **what length** of break you need at any given point. Your repertoire of breaks might include talking with a friend, meditating, dancing in your room to a favorite song, reading your email, making a phone call, getting something to eat or drink, taking a walk, taking a brief nap (notice how long of a nap is "just right" for you), reading a novel or a newspaper, doing the dishes, getting fresh air, doing some artwork, starting a letter to a friend, getting exercise, or running an errand. **When you take a break, ask yourself what exactly you need right now.** Do you need a change of activity (e.g., to do something physical rather than something sedentary or to work on an art project rather than a problem set)? Do you need a change of environment (e.g., to get some fresh air or to work in a friend's room)? A change of

perspective (e.g., to talk with a friend or to watch a movie)? Sleep? Company? Nourishment? Distraction? The taste of chocolate? Entertainment? Notice which sorts and sizes of breaks are most responsive to particular needs. Sometimes only a long break will do. **But frequent, brief breaks can be surprisingly restorative.**

If you take an unattuned break – a break that is not attuned to what you need at that moment – the break will not hit the spot. If what would restore you is a breath of fresh air, no amount of watching television will hit that spot. If what you need is to distract yourself with a television show, no amount of chocolate will hit that spot. If what you need is the taste and richness of good chocolate, no amount of running will hit the spot. If you what you need is a run, no amount of talking with a friend will hit that spot. If what you need is the company of a friend, no amount of fresh air will hit that spot.

17. Attend to your senses. The enterprise of studying and writing can sometimes be one of the most depriving experiences known to humankind. It's sensorily depriving – we are not seeing something that's visually interesting, smelling something wonderful, tasting something delicious, feeling a soothing or stimulating touch, or hearing beautiful sound. Studying is socially depriving: we are typically alone. And it is kinesthetically depriving: we are just sitting. We're effectively in a deprivation chamber.

Try to attend to your senses not only when you take a break but when you create a context for studying. Sit where you can see something appealing. Make a cup of hot, fragrant tea or hot chocolate to smell and taste. Wrap yourself in something warm and cozy. If you can study with music playing, listen to music that will hit the spot in this moment of studying. Study with a study buddy, simply keeping each other company in the process. And get up and move from time to time.

18. Think of your work in terms of a relationship, a process of continually connecting and re-connecting. Things get out of perspective when they fall out of relationship: we cannot tell how big or small things are unless we see them in relation to something else. To keep your work in perspective, or to bring your thesis back to scale once you've lost perspective, try to stay in relationship with, i.e., connected with

> **your curiosity and your caring** (also known as your interest, your passion, your desire to understand or to know) – by remembering what drew you to your question in the first place.
>
> **your question** – by freewriting, being playful with ideas (see tips #4 and #5 above).
>
> **your coaches (i.e., teachers), colleagues (i.e., fellow students), and loyal fans (i.e., friends)** by talking with them about your ideas and about your experience of trying to write.

You might find the following three metaphors of connecting and reconnecting helpful:

> **Engaging, disengaging, and reengaging gears.** Imagine your mind and your project as two gears. To turn, they need to engage, to mesh. Questions are the cogs of the gears, the means by which your mind engages with your project. You prepare to write (or read) by remembering the questions your piece is addressing (or discovering the questions an author is addressing) and by generating questions of your own. Meshing the cogs on one gear (the questions of the piece you are writing or reading) with the cogs on another gear (the questions on your mind) engages the gears and sets them in motion. Whenever your mind disengages (i.e., you lose your concentration) use these sets of questions to help you reengage.
>
> **Relating** (to your project). Relationships, whether with your studies or with people, share common phases and themes: Someone or some topic catching your interest from afar. Flirting. Getting acquainted. Courtship. Falling in and out of love. Disillusionment. Getting real. Voicing your concerns, needs, preferences, and limits. Working through conflict and disappointment. Fighting fairly. Creating deeper intimacy through conflict. Reaching out with a peace offering. Taking a break. Getting reacquainted. Remembering what about the other initially attracted you, appealed to you. Remaining curious about and kind to the other. Finding common ground. Negotiating new terms.
>
> One senior thesis writer referred to his thesis as "Taylor" and would say, "Taylor and I are spending the weekend together," "Taylor and I haven't been doing so well, so we decided we needed a date night." "Even when we're having a hard time, I try to remember what drew me to Taylor in the first place."

Practicing Zen Mindfulness (an approach to everything in life, including one's writing, reading and studying). A Zen approach to life involves mindfulness (*vs.* mindlessness); being present (*vs.* being absent); and cultivating an abiding awareness of your relation to all you do and encounter in your life.

When your attention wanders, as it inevitably will, just notice that it has, and bring it back to your task. Don't judge yourself or your behavior – berating yourself by saying, for instance, "There I go again being such a poor writer (or reader). I never keep my focus. I have such a short attention span. I bet I have the poorest concentration of anyone. I can't believe I am so distractible. I must be doing something wrong. Everyone else in this class (or this library, or the world) knows how to keep their focus. I'm just not a good reader. . . ." Such judgments waste your precious time and energy. When you lose your concentration, just notice what you are doing, and then bring your attention back to your focus.

19. Negotiate with yourself. When you seem to be sabotaging your own efforts to do what you intend, listen for internal voices that express your **competing needs, desires, and fears**. Part of you might be saying, "Me, I really do want to do well on this project. I want to get down to work." But another part might be saying, "Me, I'm going to make sure I get some time to hang out with friends no matter what." And yet another part might be saying, "Me, I'm afraid I'm really not competent to do this project. I'm afraid that if I work on it now, I'll just discover that I really don't know what I'm doing or that I can't do as good a job as I want to."

At times like this, it is as if our behavior is being guided by an internal committee whose members each have a vested interest in their own particular preferred activity. The committee as a whole has trouble either accomplishing a task or enjoying itself wholeheartedly because its members keep quibbling over which activity should have priority. Worktime tends to be compromised by the desire to rest or play, and playtime tends to be contaminated by guilt and anxiety over not working.

To work and play with less internal conflict, you need to form alliances among various parts of yourself – for example, among the part of you that aspires to do your best; the part that values other things in life besides achievement; and the part that is afraid of failure, compulsive working, loneliness, or other potential risks of engaging with your work. To form such an alliance requires that all of the separate, uncooperative, **"me/I" voices** join to create a generative **"we/let's" voice** (e.g., "Okay, we have several different things that matter to us. Let's figure out how can we get going on this project and also help manage our fear about not being good enough and also guarantee that we can have time to play"). In creating a "we/let's" voice, you bring together all of your energies in the effort to live **a life that feels whole and true to the complexity of who you are.**

20. Let yourself be surprised in the process of writing your thesis. True learning involves a transformation of sorts, and we all know how disorienting transformations can be.

Sources and Resources

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Worksheets for Senior Thesis Writers

(and other writers, too)

This packet of exercises was prepared by Sheila M. Reindl, Ed.D.

These worksheets provide prompts for freewriting, i.e., questions and sentence stems that give you a running start when you sit down to do some focused freewriting. Focused or prompted freewriting is uncensored writing that is done in the service of creativity, of generating ideas and potential links between ideas. For more information on freewriting, see "Twenty Tips for Senior Thesis Writers (and other writers, too)" and "Writing Things Down Before Writing Things Up (for senior thesis writers and other writers, too)," both by Sheila M. Reindl; both handouts are available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu.

- **Connecting with Your Curiosity,** p. 1
- **Putting Vague Thoughts into the Form of Questions,** p. 2
- **Identifying Your Governing Question,** p. 3
- **Questions and Prompts toward an Introduction,** p. 4
- **Questions and Prompts toward a Literature Review,** p. 5
- **Questions and Prompts toward a Methods Section,** p. 6
- **Questions and Prompts toward a Chapter,** p. 7
- **Questions and Prompts toward a Conclusion,** p. 8
- **Reckoning with Complexity,** p. 9
- **Narrowing the Scope,** p. 10
- **Gems without a Setting,*** p. 11

Connecting with Your Curiosity

What really interests me is . . .

(OR, alternatively, When I started this project, the thing that really interested me was . . .)

(OR, alternatively, What really drew me to this topic in the first place was . . .)

Putting Vague Thoughts into the Form of Questions

Here is a list of questions – large and small, near and far, grand and modest, and in no particular order – that I might want to consider in my thesis:

Identifying Your Governing Question

If I had to put my topic into the form of a single question, that question would be . . .
(OR, alternatively, What I really want to know is . . .)

Questions and Prompts toward an Introduction

or

So What and Why Bother?:
Identifying What Makes Your Question a Question at All and What Makes It a Question Worth Addressing

My governing question derives from competing observations*, i.e., observations that appear to me to be in tension with one another and to indicate an apparent puzzle, problem, discrepancy, oversight, mystery, contradiction, or surprise. The competing observations that give rise to my governing question are . . .

. . . on the one hand . . .

. . . but on the other hand/and yet . . .

The tension between these competing observations points to an apparent contradiction, mystery, conflict, surprise, discrepancy, problem, oversight, or puzzle, namely . . .

The question that follows from that apparent contradiction, mystery, conflict, surprise, discrepancy, problem, oversight, or puzzle is . . .

The question I pose is of interest to other scholars/researchers because . . .

*****Any given paper might be a response to more than two competing observations.

Questions and Prompts toward a Literature Review

Who else (or what other body or bodies of literature) has attempted to address my governing question (or related questions)?

The question they asked was . . .

The way they approached their question was to . . .

What they ended up saying in response to the question they posed is . . .

What remains unasked/unresolved/overlooked/unexplored/unaddressed/misunderstood is . . .

My project addresses that gap by . . .

Questions and Prompts toward a Methods Section

I can think of my methods as being, in part, the actual tasks (e.g., library research, interviews, viewing of videos or film, field observations) I will need to undertake to approach the question I am posing. Those tasks are (and I will try to be as specific as I can) . . .

Other methods I could potentially use (i.e., other tasks I could potentially undertake) to approach the question I'm posing are . . .

My reasons for choosing to use some of the methods I list above and not others are . . .

Terms I will need to define to do this research include . . .

Some of the methodological issues/problems/challenges with which I will need to contend are (these include both questions others might ask about how I am approaching my question as well as questions I myself have about how I am approaching my question) . . .

I might respond to or deal with those methodological issues/problems/challenges by . . .

Questions and Prompts toward a Chapter

If I had to put this chapter into the form of a single question, that question would be . . .

Here is a list of other questions I need to address in this chapter:

Questions and Prompts toward a Conclusion

The headway I've made toward resolution of my governing question is . . .

What remains unresolved is . . .

It remains unresolved because . . .

My research has implications for . . .

For instance, my research has methodological implications for future research, that is, implications for *how we frame the questions* in this field and implications for the *methods we use to address those questions*. Those implications include . . .

Other implications include (e.g., implications for specific practices or policies, implications for how we interpret results of previous research) . . .

Reckoning with Complexity

What makes my question a particularly complex* one with which to reckon is that . . .

I will attempt to reckon with those complexities by . . .

*Remember: You do not necessarily need to clear up all of the complexity, but you at least need to be clear about how and why things are (and remain) complex.

Narrowing the Scope

It is beyond the scope of my paper to . . .

Therefore, I won't consider/explore/analyze that issue in depth in this piece. For the purposes of this paper, I will . . . (e.g., assume . . . /work on the premise that . . . /summarize others' thinking on this matter . . . /refer the reader to . . .)

I make that *particular* assumption/work on that *particular* premise/summarize that *particular* person's thinking/refer the reader to that *particular* literature because . . .

Gems without a Setting*

Here are some of the ideas that I might not be able to include in this thesis or paper but that deserve safekeeping because they are brilliant and precious thoughts – or at least interesting thoughts – that might come in handy for some other project:

* I borrow this term from writing instructor Larry Weinstein. He encouraged me to write down the ideas and questions that I found interesting but that did not seem to have a place in my current paper.

Managing Time: Perspectives and Practices

by Sheila M. Reindl, Ed.D.

1. Take the "So/And Even So" Approach.

Whenever you find yourself saying "I have only fifteen minutes, ***so*** I can't do anything productive," try saying, "I have only fifteen minutes, ***and even so*** . . . I could jot a few notes about what questions I might address in this paper/skim the beginning and end of this chapter to identify the question the writer's addressing/make a list of some of the challenges or criticism someone might make of my project/brainstorm how I might address those challenges or criticisms."

The "So/And Even So" Approach can also work when you are feeling tired, sad, lonely, scared, discouraged, overwhelmed. A similar strategy was used by a coach to help beginning runners meet their training goals. He told them they didn't need to run every scheduled running day but that on those days they just needed to suit up – put on their running clothes and running shoes. If they said to themselves, "I'm tired/busy/sad/lonely/, ***so*** I can't run today," he asked them to say, "I'm tired/busy/sad/lonely, ***and even so***, I could suit up." The runners found that once they were all suited up, they felt that they were already on their way, and taking a run was not as daunting a prospect. Similarly, if you put yourself in a position to do your work and take even a small step in that direction, you might find that you can, and even want, to keep on going.

The word "succeed" comes from a root meaning "to follow." People who succeed follow an experience of difficulty or disappointment with a willingness to take a next step. They don't let any one experience be the end of the story. Rather than saying "I didn't do as well as I'd hoped, ***so*** I must be a failure," they say "I didn't do as well as I'd hoped, ***and even so***, let me see what I can learn from this experience." They greet disappointment, challenge, and unfavorable conditions with a willingness to learn.

Disappointment and discouragement are not the only challenges to our taking next steps. Progress and promotion can also challenge us. When we get an A on an exam, or get onto the team, or make the comp, we might then fear that we need to keep upping the ante by doing even more and doing it better and faster. We find ourselves wondering if we can ever step off the treadmill of endless drive and achievement. The So/And Even So Approach can be helpful here, too. Instead of saying to ourselves "I did well the last time, ***so*** I have to stick with this and do at least as well this time," we might say "I did well the last time***, and even so***, this is a new moment with new realities and new challenges. Rather than assume I have to outdo my last performance, let me see what I have to learn here and choose where I want to put my energies now, all things considered."

2. Take frequent breaks.

To sustain your focus and concentration, you need to pace yourself. Pacing requires **timely and attuned breaks** – timely in that you take a break before you reach your breaking point (i.e., the point at which you are so exhausted that you collapse or find the task so aversive or frustrating that you avoid getting back on task) and attuned in that it hits the spot of what you need to recharge or restore yourself at that particular point in time.

Many people say, "But my 'little' breaks inevitably last for hours." You can avoid the potential for dangerously long breaks if you **a)** develop a **repertoire of refreshing activities; b)** experiment with **breaks of different sizes**; and **c)** develop a sensitivity to **when** you need a break and to **what kind** and **what length** of break you need at any given point. Your repertoire of breaks might include talking with a friend, meditating, dancing in your room to a favorite song, reading your email, making a phone call, getting something to eat or drink, taking a walk, taking a brief nap (notice how long of a nap is "just right" for you), reading a novel or a newspaper, doing the dishes, getting fresh air, doing some artwork, starting a letter to a friend, getting exercise, or running an errand. **When**

* The author grants permission for use of this handout to the Bureau of Study Counsel, Harvard University. Note: Parts of this handout are taken directly from "Twenty Tips for Senior Thesis Writers (and other writers, too)," written by Sheila M. Reindl and available at the Bureau of Study Counsel and at bsc.harvard.edu, and from a previous Bureau handout called "Six Strategies for Academic Success."

you take a break, ask yourself what exactly you need right now. Do you need a change of activity (e.g., to do something physical rather than something sedentary or to work on an art project rather than a problem set)? Do you need a change of environment (e.g., to get some fresh air or to work in a friend's room)? A change of perspective (e.g., to talk with a friend or to watch a movie)? Sleep? Company? Nourishment? Distraction? The taste of chocolate? Entertainment? Notice which sorts and sizes of breaks are most responsive to particular needs. Sometimes only a long break will do. **But frequent, brief breaks can be surprisingly restorative.**

If you take an unattuned break – a break that is not attuned to what you need at that moment – the break will not hit the spot. If what would restore you is a breath of fresh air, no amount of watching television will hit that spot. If what you need is to distract yourself with a television show, no amount of chocolate will hit that spot. If what you need is the taste and richness of good chocolate, no amount of running will hit the spot. If you what you need is a run, no amount of talking with a friend will hit that spot. If what you need is the company of a friend, no amount of fresh air will hit that spot.

3. Negotiate with yourself.

When you seem to be sabotaging your own efforts to do what you intend, listen for internal voices that express your **competing needs, desires and fears.** Part of you might be saying, "Me, I really do want to do well in this course. I want to get down to work." But another part might be saying, "Me, I'm going to make sure I get some time to hang out with friends no matter what." And yet another part might be saying, "Me, I'm afraid I'm really not competent to do this project. I'm afraid that if I work on it now, I'll just discover that I really don't know what I'm doing or that I can't do as good as job as I want to."

At times like this, it is as if our behavior is being guided by an internal committee whose members each have a vested interest in their own particular preferred activity. The committee as a whole has trouble either accomplishing a task or enjoying itself wholeheartedly, because its members keep quibbling over which activity should have priority. Worktime tends to be compromised by the desire to rest or play, and playtime tends to be compromised by guilt and anxiety over not working.

To work and play with less internal conflict, you need to form alliances among the various parts of yourself – for example, among the part of you that aspires to do your best, the part that values other things in life besides achievement, and the part that is afraid of failure, compulsive working, loneliness, or other potential risks of engaging with your work. To form an alliance requires that all of the separate, uncooperative, **"me/I" voices** join to create a generative **"we/let's" voice** (e.g., "Okay, we have a lot of different things that matter to us. Let's figure out how can we get going on this project and also help manage our fear about not being good enough and also guarantee that we can have time to play."). In creating a "we/let's" voice, you bring together all of your energies in the effort to **live a life that feels whole and true to the complexity of who you are.**

4. Distinguish between what is *important* and what is *urgent*.

One definition of destructive stress is that it is the result of not living in accord with our deepest values. We might end up in such a state because we confuse urgency with importance (a distinction made popular by Stephen Covey in his book *The 7 Habits of Highly Effective People* (New York: Free Press, 2004). Not everything that is urgent is important, in the sense of being personally meaningful. Not everything that is important is urgent, in the sense of calling for our immediate attention. If we are chronically responding to urgent demands on our time and attention, we are apt to be living reactively rather than proactively. As a result, we might be very busy, but we might not be devoting our attention and energy to what ultimately matters to us.

Most of us cannot live a life without some urgency. Some of us might even enjoy the exhilaration that comes from bursts of urgency. But chronically responding to urgent demands will burn us out. To cultivate our creativity and promote our productivity, we need to punctuate our lives with time to reflect on what matters to us and with experiences that help us restore a sense of perspective and purpose.

5. Accept that anxiety and anxiety management are part of time management.

At the completion of his doctorate, a former graduate student commented that 80% of the time and energy involved in writing a dissertation goes to anxiety management. **You can't wait until you are not afraid or not anxious to begin working. You need to find ways to keep yourself company in your fear, to let the fear be there without letting it stop you from doing what you need to do.** Writing about your fear or stuckness, working in fifteen-to twenty-minute stretches, taking frequent breaks, getting regular exercise, meditating, using the So/And Even So Approach, and talking with people are all good ways of managing your anxiety.

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Writing Things Down Before Writing Things Up*

by Sheila M. Reindl, Ed.D., who grants permission for use of this handout to
the Bureau of Study Counsel, Harvard University

Parts of this handout are taken directly from "Twenty Tips for Senior Thesis Writers (and other writers, too)," a handout written by Sheila M. Reindl, Ed.D., and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu

Writers of research papers, senior theses, and dissertations often focus on writing up their research. But before we can write things up, we need to write things down. We need to write down the bits of observations, scraps of logic, and traces of associations that are all part of – and promoting of – a creative intellectual process.

Associative logic and linear logic: you need both.

While our **final product** needs to convey our ideas via **linear logic** so that others can follow our line of thinking, we need to draw upon another kind of logic – our **associative logic –** to foster our **creative process**. Associative logic is the logic of dreams; our dream center pulls together seemingly disparate elements and associates them, or links them in some creative fashion. It is the logic that leads us to moments of insight, clarity, creativity that seem to come out of the blue – those flashes of creative connection or problem-solving that occur just before we fall asleep, just as we wake up, while we're in the shower, while we're driving, while we're walking to class. Associative logic is the logic at work in those generative, free-flowing conversations with a friend or colleague that lead us seemingly – yet not entirely – far afield from where we started. If we follow our mind's wanderings and associations far enough, they often lead to something creative and useful.

Neuroscience is teaching us that the mind literally works by association, by forming links between neurons. The neural circuits and networks that form are the biological basis of learning, of making new connections.

You can foster the creative process by **freewriting**, that is, by writing brief (five- to ten-minute), uncensored pieces aimed at letting you follow the playful, associative, non-linear logic of your mind. Often we don't follow that associative logic very far because we dismiss it early on as entirely illogical and useless. Freewriting serves to loosen your mind (like stretches before running).

Writing freely – without thinking about whether what we are saying is elegant or grammatical or concise or logical – promotes the generation of ideas and of creative connections between ideas. Think of freewriting as **soil, not seed**. Soil is the muck that nurtures a germinating idea rather than the perfect seeds that become the actual sentences and paragraphs of the final product.

Do focused, or prompted, freewriting to get your associative processes rolling.

Sometimes freewriting works better with a focus and/or a running start. Consider using the following sentence stems as prompts for your freewriting. Complete the sentence and continue writing from there:

1. When I started this project, the thing that really interested me was . . .
2. The questions I find myself thinking about these days are questions like . . .

* This notion of writing things up versus writing things down comes from Abigail Lipson, Ph.D.

3. What I really want to know is . . .
4. I want to figure out how . . .
5. I have a hunch that . . .
6. I am confused by . . .
7. I feel angered or annoyed by . . .
8. What stands out to me about all the stuff I've been reading is this idea that . . .
9. What I've been reading makes me wonder . . .
10. Dialogue between me and the experts (this exercise comes from writing teacher Eileen Farrell):

    This author/professor/theorist/expert says . . .
    And/but I say . . .

    He or she also says . . .
    And/but I say . . .
11. If I had to put my project/paper so far into the form of a single question, it would be . . .
12. The observations I make that lead me to pose that question are . . .
13. What makes my question hard to reckon with or difficult to resolve is that . . .
14. One way in which I could attempt to reckon with that difficulty of how to resolve my question is . . .
15. If things were as neat and tidy as I'd like them to be, I would be able to make the argument that . . .
16. One way in which things aren't so neat and tidy is that . . .
17. One way in which I might address that messiness is . . .
18. I'm stuck. I'm stuck because I can't figure out . . .
19. I can see that my way of approaching my question has some real problems, or at least challenges, including . . .
20. One way I could possibly address that methodological/approach/design issue is . . .
21. I realize I need to define some terms. If I were to try to define the term _____, what occurs to me is that . . .
22. [A letter to a friend or to your reader] Dear ____, I'm trying to write this paragraph/section/chapter about _____. And do you know what? . . .
23. Let me state what I think I know so far, even if it seems obvious or self-evident (in the belief that sometimes it's actually easy to overlook the obvious and that sometimes the seemingly obvious deserves another look):
24. Of all these seemingly obvious, self-evident things, the one that keeps catching my attention is . . .
25. If I think of "theory" as simply another word for "explanation," I would say that one of the explanations that people have offered for the thing I'm researching is that . . .
26. But that theory or explanation doesn't seem to account for . . .
27. If I could say what I really want to say, . . .
28. If I could approach this project in the way I really want to, . . .
29. If I could write about the question that really interests me, . . .
30. What I wish I could convey to my audience is . . .

Write for just five to ten minutes, either at the computer or with pen and paper. The only "rules" are 1) **Do not stop writing** for those five to ten minutes and 2) **Do not censor or edit** as you freewrite. Editing a task distinct from generating, a task that comes later in the writing process.

Priming the pump, promoting the process.

Associative logic has a short half-life. Associations are ethereal, evaporating quickly if we don't do something with them. We know this from everyday life. We wake up and recall a dream. "That was incredible," we say. "Surely I won't forget that." But if we don't do something with that dream – if we don't write it in a journal, or mention it to someone at breakfast, or review it in our mind – we forget much of it by lunch.

So it is with other associations. To promote your creative process, create two project journals, or intellectual journals, for the purpose of capturing and cultivating your associations: one on your computer (i.e., a folder for memos you write to yourself) as well as a hard-copy journal of some sort for hand-written entries (i.e., a notebook, manila folder, or big piece of paper on the wall). Use these to record thoughts about your project that come to you in moments when you're not at the computer. Great ideas don't always come at designated or convenient times, so you have to log them in as they arrive. You might do some of your most creative thinking in the spaces in between your official work sessions and end up jotting some of your best ideas on dinner napkins, the backs of old envelopes, scraps of paper, and receipts. Just make sure you have some place where you keep them all together. Some people simply staple these bits of paper with hand-scribbled notes into their hard-copy journal. Some people keep separate folders (virtual or manila or both) for each chapter and a catch-all folder for what writing instructor Larry Weinstein has called "gems without a setting," those ideas that sparkle but don't yet have a place of their own in our work.

What you might find is that the act of capturing and cultivating your associations actually helps your mind continue to make creative connections ***even when you are not on task***. Freewriting not only primes the pump in the moment of writing; it promotes the mind's neural networking process even as we're busy doing other things. That is the process that explains why, after trying and trying and trying without success to solve some problem (e.g., how to best link two ideas in a paper, how to get from *a* to *b* in a math problem, what metaphor is most useful in a presentation, where to put the couch), we often come up with the answer when we are no longer directly focused on the problem. Our mind has been considering possibilities even when we were doing other things.

Why bother freewriting – i.e., generating words and sentences that might not even end up in the final product?

It might seem as if freewriting is a supreme waste of effort. Why bother to write stuff that might not make it into the final product when it's hard enough just to get any decent sentences on paper?

Part of what makes it so hard for many of us to write is that we are perfectionists. While we might not produce perfect products, we aim for perfection. We believe that we should be able to write powerful, articulate, coherent – even brilliant – prose from the get-go. No doubt there are some writers in the world who can readily produce such impressive writing as a first – or even only – draft. But most of us can't. For most of us, our initial efforts at writing a piece are halting, uneven, inelegant, and humbling.

If we try to produce "perfect" prose from the get-go, we involve ourselves in a painstakingly slow and torturous process. And we might not even get our best work this way. Our sentences end up labored, stilted. Our paragraphs, while logical enough, seem dull. Our argument is uninspired.

Freewriting might take more time than the get-it-right-from-the-start approach. But then again, it might not. When we try to "write it right" from the start, we spend a good deal of time staring at a blank screen, agonizing, and avoiding our writing altogether because the process is so painful. But even if freewriting ultimately does involve more time on task, it allows the time we spend to be less painful and more playful.

We take it as a given that most performances – and writing is a performance – require a good deal of practice. Ice skaters take time and practice to choreograph and perform a new routine. One means by which they master a routine is to pick out some small piece of it and practice just that part. They practice their turns and transitions over and over and over. In practicing, they inevitably fall. Practice doesn't look perfect.

Pianists, too, learn a new piece by breaking it down into parts. As they practice, they inevitably mess up their fingering. Painters make sketches before they create their actual painting. They crumple up a lot of paper in the process. Even improvisational actors practice together in the service of an improving performance. Freewriting is a writer's way of practicing, generating. Freewriting cultivates the creativity that helps one get to the heart of a soulful performance. Freewriting is one of the means by which a writer produces his or her best work.

A Procrastinator's Guide to Writing

Reconsidering Beliefs That Keep Us from Engaging with Our Work

by Sheila M. Reindl, Ed.D.

Below are twelve beliefs that can limit our ability to engage in the process of writing and creating:

#1. "I don't know what I want to say, so I can't start writing."

#2 "I have to read more before I can start writing."

#3 "I should be able to write a paper in one draft."

#4."I don't know how to write a good paper."

#5."I have to come up with some magnificently original idea and then prove it beyond a shadow of a doubt."

#6. "Stuckness is bad. If I'm stuck, I'm doomed."

#7. "Writing is a long, slow, lonely, painful activity."

#8. "I'm sad/lonely/upset/tired/bored/busy/confused, so I can't work."

#9."Nothing can help me start working. I am just lazy."

#10. "I have to do the assignment I was given. I can't do what interests me."

#11. "I have to start by making an outline."

#12. "I am more focused/creative/productive when I work at the last minute."

What follows is a consideration of each of those beliefs in the form of alternative beliefs or assumptions and new approaches that follow from those alternative assumptions.

❖ LIMITING BELIEF #1: *"I don't know what I want to say, so I can't start writing."*

Alternative Assumptions:

1. We never feel we know enough to start writing, and it is precisely because we don't know that we need to write. We can write to discover what we know, what we don't know, what we want to understand more fully.

[1] The author grants permission for use of this handout to the Bureau of Study Counsel, Harvard University. Note: Parts of this handout are taken directly from "Twenty Tips for Senior Thesis Writers (and other writers, too)," written by Sheila M. Reindl and available at the Bureau of Study Counsel and at bsc.harvard.edu.

2. Writing is not just a process of encoding something we've already figured out. If that were the case, it wouldn't be so hard or scary.

3. We know more than we think we know.

New Approaches:

1. Trust that beginning with what you don't know, with something that is unresolved for you, is exactly the right starting place for a writing project. In a course she once taught at the Harvard Graduate School of Education, Carol Gilligan talked about the imperative to orient your inquiry toward "a real question," which she defines as a question to which you don't already know the answer and to which it matters to you to know the answer.

2. Freewrite. Simply follow a thought for as long as you can; let it take you as far as it will. Just write. Don't censor for sense or grammar or spelling or anything. Just keep writing. (If you can't think of what to write next, repeat the last words you just wrote, or write, "I don't know what to say next.")

Our minds work by an associative process, by letting one thought lead to another. Freewriting respects the meandering, associative nature of creative thinking. Think of this uncensored writing as playing around in the muck that will nurture an idea rather than as putting down the sentences and paragraphs that will actually comprise the final product – that is, as soil, not seed (this idea comes from writer David Wright, who was a peer consultant at the Harvard Writing Center in the early 1980s). (For more thoughts about how freewriting works, see *Writing without Teachers*, by Peter Elbow, and the handout "Writing Things Down Before Writing Things Up," written by Sheila M. Reindl and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu.)

3. Do some prompted freewriting in which you are given the first part of a sentence as a prompt and you freewrite from there (see the last two pages of this handout for a list of prompts; or, generate your own). Prompted freewriting is based on the assumption that the mind works associatively – give it a prompt, and it generates its own associations and then associations to those associations and so on. Creative and generative thinking is messy. As I have said, it is the soil that nurtures an idea rather than the perfectly formed seed that sprouts a perfectly whole seedling of thought. Let your mind wander. Make note of whatever comes to mind, however far-fetched and weird it might seem. Use arrows, circles, whatever best helps you follow a thought.

4. Trust that freewriting is not a waste of time. If you're thinking, "But I'm already behind. Why would I want to waste my time writing stuff that won't even go in the paper?" consider this: while freewriting probably won't mean less time-on-task for the project overall, it will mean that the time you do spend is more fun and more productive. It is agonizing to spend a lot of time feeling you should engage, knowing that sooner or later you have to engage, and yet not being able to engage. Rather than spending your time procrastinating and worrying and battling with yourself in your struggle to write one good draft, why not spend your time letting your mind play with ideas, even if that effort takes several drafts and is messy? Engagement feels better than non-engagement. As Peter Elbow says about freewriting, "Much or most of it will be far inferior to what you can produce through care and rewriting. But the *good* bits will be much better than anything else you can produce by any other method" (*Writing without Teachers,* p. 9).

5. Keep track of **what you already know,** what you can already say, by any means that suits you. Make an inventory or list of your thoughts; freewrite; trace the line of thinking that led you to your topic, or trace the development of the interest that led you to take the course. Jot down your hunches, prejudices, biases, inklings, and gripes. One person I know writes brief memos to herself that start out "Today, one of the things that stands out to me about this whole topic is _____."

6. Keep track of **what you don't know**. Write down the questions you have, the things you wish you knew. Write down what you hope to learn. Taking an inventory of the things you don't know is every bit as valuable as acknowledging the things you already do know.

7. You can also write down **things you can't say.** Peter Elbow, in *Writing with Power,* encourages writers to record even outlandish lies and fantasies:

> The French Revolution wasn't started by the Wobblies in Seattle, or by Lenin, or by Marx, or by the Marx

> Brothers. It wasn't part of the women's movement. It didn't last forty days and nights, it isn't in the Bible, they didn't get the enemy drunk and slide them into the sea. (p. 72)

He goes on to say how writing fantasies and lies helps:

> If you let the nonsense roll effortlessly for ten or fifteen minutes – spelling out some of the fantasies at more length, too – you can discover some ideas that will help your thinking even if they are not true. (And they might be true. Could the French Revolution have been part of the women's movement?)
>
> Writing down as many lies as you can as quickly as you can gives you glimpses of your unconscious mind. . . . [E]ven if you cannot draw any conclusions from reading back over the nonsense you have written, the process of writing it all down serves to clear some of the fog in your mind that was confusing or slowing down your thinking. You often end up with renewed energy. (pp. 72-73)

9. Keep track of what you think readers of your piece **will be curious to know**. Jot down a list of questions you think a reader would want your piece to address.

8. Write down what you would say if things were as **neat and tidy** as you'd like them to be.

10. Remember, as writing instructor Ann Berthoff says in *The Making of Meaning: Metaphors, Maxims and Models for Writing Teachers,* "Meanings don't come out of the air; we make them out of a chaos of images, half-truths, remembrances, syntactic fragments, from the mysterious and the informed" (pp. 69-70). Honor that chaos by writing it down. You might even want to keep a **journal or logbook (on your computer or in hard copy or both)**, some place to record what you think, do, read, wonder about, have insight into, or question or any given day. Refer back to your journal when you need something to get you started with your writing.

11. **As you take notes** in lecture and from your reading, record not only what is being said but what you yourself think about what is being said. You might even draw a line down your notebook page to designate a separate space for you to record thoughts such as "Doesn't this sound like what she said in class last time?" or "But Chapter Two contradicts this idea" or "Downright confusing. Is it really as confusing as he's making it seem?" or "Ah ha. Maybe this relates to those experiments that show that _____."

11. **Keep track of others' ideas**. In your notes (and in the final product), make clear which words and ideas and lines of reasoning are yours and which need to be attributed to someone else. When you are noting someone else's words or thinking, write down the information you will need to accurately cite the source in the future or to return to it again down the road.

12. **Have someone interview you**, ask you questions aimed at helping you discover what you know and how you yourself are connecting the various things you know. You could even have this person take notes as you talk, or you could record the conversation, so that you are free to think without having to note your thoughts. Experience tells me that the interviewee doesn't always hear his or her thoughts as clearly as the interviewer and that the interviewee might overlook and lose a potentially useful idea if no one takes note of his or her words.

❖ LIMITING BELIEF #2: *"I have to read more before I can start writing."*

Alternative Assumptions:

1. Sometimes we use reading as a way of procrastinating on writing. It is harder to generate our own words and ideas than to read and assimilate others' words and ideas.

2. Our reading and writing are best woven together, not kept as two separate and sequential steps. We need to try to put what we are learning **in our own words**. Only then do we truly know what we know and what we still want to learn.

New Approaches:

1. See New Approaches under Limiting Beliefs #1 and #6.

2. Just as you need to save often when you're working on a computer, you need to save often (in your brain) when you're reading and thinking about your paper. The way to save your thoughts is to jot them down. Otherwise, your ideas might get deleted or diffused and lost forever. Jot down notes about what is standing out to you, puzzling you today/this week as you read. Complete the sentence "What stands out to me about my topic this week is this matter of . . . " and freewrite from there.

❖ LIMITING BELIEF #3: *"I should be able to write a paper – a* good *paper, or even a perfect paper – in one draft."*

Alternative Assumptions:

1. No doubt there are some gifted few who manage to produce beautiful writing in one shot – at least some of the time. Most of us mortals, however, must resort to drafts and revisions. We need to give ourselves permission to be imperfect, especially at the beginning when we don't yet know what we want to say or how we want to say it or even how exactly we want to pose the question or problem.

2. We must write from abundance and assume that much of what we write will not, need not, find its way into the final product.

3. The process itself is much messier than the product.

4. With other kinds of performances – on a piano or on ice or on a balance beam or on the stage – we take for granted the necessity of practice and rehearsal. A performer must rehearse not only in some regular, on-going way but in particular for each new performance. But somehow we don't allow ourselves, as writers, ample and quality practice and rehearsal time – replete with falls, flubs, and false starts.

5. We have within us both a creator and a critic. The creator works with wild abandon, clutter and chaos; the critic insists on perfection and neatness. If the creator is going to get anything much accomplished, we're going to need to keep the critic out of the creator's way, at least for a time. If we let them work at the same time with the same intensity, the creator will probably give up and retreat to some corner of our mind and sulk in shame and silence.

6. We don't need to write the parts of a paper in the same order in which they will appear in the final form.

New Approaches:

1. Freewrite. Let the creator do the messy work of generating ideas without worrying about whether they are well-stated, clear, or even good. The selecting, shaping, and refining can be left until later – for the critic. Let the critic know that its critical expertise will be important later but that it needs to let the creator work independently, without intrusion, for awhile. Abigail Lipson distinguishes between writing things down (the work of the creator) and writing them up (the work of the critic) (see "Writing Things Down Before Writing Things Up," written by Sheila M. Reindl and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu). Of course, in real life, you will never do all of the creative work as Step One and then all of the critical work as Step Two. Your creator and your critic will typically show up at the same time, each convinced that it has a right to its agenda without the other's interference. Your job is to help each make its best contributions given their different talents. This will require that you acknowledge the value of each one's role and that you ask them to take turns (over and over) so that the critic does not quash the creator's willing and vulnerable generative state of mind and so that the creator does not leave ideas in a state in which no one else can understand or follow them.

2. Allow yourself to have wild and crazy ideas. Write playfully, with abandon, out of order, without logic, about things the way you want them to be rather than the way they are. The mind works associatively, so let it associate freely.

3. Let yourself work on the part of a project that interests or engages you in the particular moment. Go with the part for which you have energy, even if you think you should work on other parts first. Managing our time

well is ultimately about managing our energy well (see *The Power of Full Engagement: Managing Energy, Not Time, Is the Key to High Performance and Personal Renewal*, by Jim Loehr and Tony Schwartz). Managing your energy well sometimes means working "out of order," i.e., working on a part of the piece that leaves you particularly engaged and energized even if that part is not "next" in your work plan or in the final product.

The benefits of working out of order rather than strictly sequentially are akin to the benefits of having an electrical circuit wired in parallel rather than one wired in series. If you have a string of lights wired in series, when one light goes out (i.e., you stall on one part of a piece of writing), the whole string of lights goes out (i.e., you grind to a halt on your whole project). If you have a string of lights wired in parallel, when one light goes out, the others stay lit (i.e., the electricity still flows, and you can continue to work on another part of the project for which you have some energy and/or clarity).

4. If writing on a blank screen or blank page is daunting, write on scratch paper or a post-it note or the back of a used envelope or a dinner napkin or anything that will help you believe that words are abundant and expendable – not limited and sacred. Try to believe that you have a vast reservoir of words and that you needn't worry about using up some fixed number of words that are budgeted for this project.

5. Aim for the **"good enough paper."** Not the perfect paper. Just good enough. One student I know considers every paper a work-in-progress, even at the point when she hands it in. She knows that, given more time, she would reflect more and refine her thinking and her writing. But she also knows that given the constraints and demands in her life, she takes her thinking as far as she can in the time she has. She hands in a work-in-progress, one she might actually return to some day if she stays interested in the topic, but one that is good enough for now.

6. When you turn in your paper, or even a draft, append a memo in which you let your instructor know the questions and concerns you yourself have about the piece. That allows your critic to show your instructor that it has high standards even if the creator was not able to produce a product that met those standards. The memo also invites comments that can help you learn how to revise and reshape the piece.

❖ LIMITING BELIEF #4: *"I don't know how to write a good paper."*

Alternative Assumptions:

1. It's okay not to know something. That is a legitimate place to be. Granted, in college, it's not adaptive to not know how to write a paper. But not knowing is nonetheless a legitimate place to be. After all, college is a place to learn; the paper we are trying to write is an occasion to learn more about writing.

2. Even when we've written a piece that doesn't meet our standards, we can recognize and build on the best parts of that piece.

3. Even if we feel we don't write well, we might have a few gems we are proud of – even a paragraph or sentence or phrase. Those gems are worth our recognizing.

New Approaches:

1. Accept your not knowing. Begin there. That's where you are, so there's no place else to begin anyway. In some ways, not knowing is a perfect place to be. Then you can really learn something. The point of being in school is to learn, and to truly learn something, we have to begin by not knowing. It's okay not to know.

2. Keep writing, keep getting feedback on your work, and keep reading good writing. Just as with other things you've learned – to drive a car, ski, play tennis – you need to practice, get feedback, observe good models, and come to trust yourself.

3. If you need encouragement, ask someone to read your piece and tell you what most caught his or her interest, what left him or her wanting to learn more, what he or she learned in reading it.

4. Reread your personal greatest hits. You might be surprised. You might find yourself reassured that you have a good mind and worthwhile thoughts that you can communicate effectively to others.

5. See New Approaches #5 and #6 under Limiting Belief #3.

❖ LIMITING BELIEF #5 *"I have to come up with some magnificently original point and then prove it beyond a shadow of a doubt."*

Alternative Assumptions:

1. "Original" need not mean "something entirely new in the history of human thought." "Original" can mean "from the source – or **origin** – that is **you**" (this idea comes from Ilana Fortgang, who was a peer consultant at the Harvard Writing Center in the early 1980s).

2. Our job is not to be a lawyer and prove our point beyond a shadow of a doubt. Our job is to show how we witness things, what we **see** as we look at some question or problem.

New Approaches:

1. Remember that there has never been and never will be another you on this planet: someone with your genes, who has inhabited the environments you have inhabited and had the particular experiences you have had. You are the only one with your particular perception, gifts, sensibilities, and experience who has lived in this day and age. Your job is to show how you, given your particular perspective, think about some unresolved question or problem.

2. Write in response to some **unresolved question** you have (or your instructor has posed) and think of your paper – and the process of writing it – as an effort to make headway toward resolution of that question. You might trade in the legalistic "I will show that ____" kind of thesis statement for a more explorative "I want to figure out how ____" approach.

3. Your unresolved question itself could be considered an original contribution. Discerning which question to ask is a creative act. Your unresolved and governing question – governing in that it governs your inquiry and guides the structure of your piece – derives from observations you have made that appear to be in tension with one another and to point to some apparent contradiction, mystery, conflict, surprise, discrepancy, problem, oversight, or puzzle – something that makes you stop and say, "Huh. What's the story here?" Writer and English professor Lowry Pei has said that just as in a short story we meet the protagonist at a point where his/her customary ways of making sense of the world fail him/ her and we learn about that person's efforts to make some new sense of his/her world, so in an essay a writer meets herself at the point where his/her old or usual ways of making sense of something fail him/her and the writer must attempt to make some new or revised sense of things.

The observations you make and the questions those observations lead you to ask are born of your particular interests, experiences, perspectives, knowledge, curiosity, and sensibilities and so they themselves are original contributions. (For more thoughts about how to come up with an unresolved and governing question and about the competing observations that give rise to that question, see "Twenty Tips for Senior Thesis Writers (and other writers, too)," written by Sheila M. Reindl and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu.)

4. Know that many professors and teaching fellows value your ideas, your response to what you've read or heard, your point of view. I have a name for this point of view or perspective your teachers want to know about: your **voice**. Voice, in the sense I mean it, is the **set of connections** you make – connections between one observation and another, between observation and experience, between one or more texts, ideas, or thinkers, between writing and knitting (see below). The web of connections you create is your voice, your way of witnessing the world. It is the conviction of your connections – the trust that the way you witness the world is valid – that enables you to use your voice, that is, to speak with authority.

5. Remember that you do not need to completely resolve the question your paper sets out to address. Sometimes it is enough to talk clearly about how and why things are complex rather than to clear up the complexity.

6. Let your reader in on your reasoning, your thinking, your understanding. Let your reader know what you want him or her to take away from or learn from a chapter and from your thesis as a whole. Don't just present

data. **Show** your reader how you want him or her to make sense of the data, what you want him or her to see as meaningful about all that data. Show your reader the **inferences** you make, the things you see as you read between the lines. If your thesis is a museum, you are the museum guide giving your audience a guided tour. Don't just let them wander around, trying to make whatever sense they might of what's in there. Point their attention to what you'd like them to see and to the connections you'd like them to make between things. Help them to see and understand what you have come to see and understand.

Use chapter titles and subheads as important signposts for your reader and as ways of challenging yourself to summarize your thoughts. To name is to know.

7. Show the **subtleties** of your thinking. Many students rely on variations of "and" to connect their ideas: "and," "in addition," "also," "next," "another example," "later," "plus," "besides," "yet another reason." It is as though they knit one very long piece with a basic knit-one-purl-one stitch and then decide after it is long enough that they will cast off, add a few tassels or fringe and call it a scarf. That is fine when we are just learning to knit or write. But eventually, that is just not very interesting. We need to move onto sweater patterns and papers whose stitches and paragraphs are in the service of creating an overall design.

Don't say "and" when you mean to form a more precise connection: "even though," "seems like _____, but," "is insignificant until we consider," "is based on the problematic assumption that," "does not adequately address the question of," "goes even farther and demonstrates that," "despite its problems is nevertheless useful for." Use analogy or metaphor if that helps make your connection between ideas clear. Show your reader the inferences you make, the things you see as you read between the lines.'

8. Make sure your reader can tell which ideas, which words, and which lines of reasoning are yours and which are someone else's. Both by attribution within the text and by formal citation, **let your reader know where you are making your own contribution and where (and how) you are drawing upon the contributions of others**. Different disciplines have different conventions about attribution and citation. If you have questions about how to handle issues of attribution and citation, consult with your adviser or others in your field; find a manual that speaks to the conventions of your field; and look to model writings in your field in the form of professional publications, dissertations, and honors-level senior theses.

❖ LIMITING BELIEF #6: *"Stuckness is bad. If I'm stuck, I'm doomed."*

Alternative Assumptions:

1. Stuckness is a natural, even inevitable, part of the writing process – the nature of the beast, so to speak.

2. The stuckness itself can be valuable. It can point to where we need to clarify our thinking or find the courage to say something risky.

New Approaches:

1. Let the stuckness tell you where you can do some important thinking – making clearer distinctions between things that are worth distinguishing; making more precise connections between things that need to be connected; questioning your assumptions, reconfirming and disconfirming your biases. Freewrite about the stuckness: "I am stuck because I can't figure out . . . ."

2. Ease the stuckness by writing down your gripes with the author or the instructor of the course. You might discover in your griping that you have a point to make.

3. Give your procrastinating self your pen or keyboard, or at least your voice. Ask it to write down (or speak out loud) its hopes, fears, questions, wonderings. You might be treating your procrastinating self like an outlaw, trying to run it out of town, string it up, sentence it to a semester's hard labor, lock it up in its room and chain it to a desk chair, or reform it. In my experience, such efforts rarely, if ever, help a person write. Your procrastinating self might be a very creative and energetic part of you that puts great energy and creativity into finding ways not to work. If you try to get rid of it, you might be depriving yourself of its energy, not to mention its wisdom.

4. Trust that the procrastinating self is worth getting to know. Invite it to talk to you over coffee. Sit it down and get to know it. That the procrastinating self puts so much effort into not doing the work suggests there is something even more important to it than getting the work done. Why not introduce yourself to the procrastinating self and find out what it cares about, what it's scared of, what it hopes for, what it needs, what keeps it from engaging in your work? If it feels heard and acknowledged, it might find a way to join the rest of you in your work. And you might discover – and claim – a new and wise part of yourself.

5. Negotiate with yourself. To work and play with less internal conflict, you need to form alliances among various parts of yourself – for example, among the part of you that aspires to do your best; the part that values other things in life besides achievement; and the part that is afraid of failure, compulsive working, loneliness, or other potential risks of engaging with your work. To form such an alliance requires that all of the separate, uncooperative, **"me/I" voices** join to create a generative **"we/let's" voice** (e.g., "Okay, we have several different things that matter to us. Let's figure out how can we get going on this project and also help manage our fear about not being good enough and also guarantee that we can have time to play"). In creating a "we/let's" voice, you bring together all of your energies in the effort to live **a life that feels whole and true to the complexity of who you are.** (For more thoughts about negotiating with yourself, see "Twenty Tips for Senior Thesis Writers (and other writers, too)," written by Sheila M. Reindl and available at the Bureau of Study Counsel of Harvard University and at bsc.harvard.edu.)

6. Procrastinate productively. When you are feeling daunted by a challenging part of a writing project, another task that would normally seem undesirable – e.g., cleaning a closet, paying bills, running an errand, organizing your room – can seem quite appealing by comparison. Rather than regarding that other task as a form of escape, see it as part of your writing process – a way of warming up, stalking the project (so you can pounce later), going with where there is energy in the moment. If you regard productive procrastination as part of your writing process – in particular when you procrastinate by doing tasks that you need to complete eventually anyway – you can 1) get a lot done; 2) spare yourself the energy wasted in chastising yourself; and 3) draw upon the energy and confidence you get from a sense of task completion to help you build energy and confidence for the writing task.

❖ LIMITING BELIEF #7: *"Writing is a long, slow, lonely, painful activity."*

Alternative Assumptions:

1. Sometimes we do need to sit down alone and work. But learning need not always be solitary and lonely. Learning can be a relational activity. We can have company in the process. Students often say, "I just have to do this on my own." That's true. But we needn't do it alone. Just as we have to climb a mountain on our own two feet, we do, ultimately, need to do our own work. But just as it helps to have company while we're climbing, it helps to have company in the writing process.

2. It helps to keep in mind our audience and our purpose in writing to that audience. Especially when we are writing, we need to be in dialogue with people, even if only imagined people. How can something we write be meaningful, how can it matter at all, unless it is written **to or for someone**?

3. Sometimes, writing is lonely. And painful. Much of the time it is a long, slow process. But loneliness and pain are bearable. And even a long, slow process comes to an end (and in the meantime, it can be broken down into bearable tasks and punctuated with rest and play). Just because we feel lonely and in pain, just because writing goes slowly and takes a long time, doesn't mean that something is wrong with us or with our writing process.

4. Because writing can be an experience of sensory, social, and kinesthetic deprivation, it is important to attend to our senses, to find company, and to move. And it is essential to take breaks.

New Approaches:

1. Write in the company of another person, someone who won't mind when you look up from your work and say, "Can you listen to this and see if it makes any sense?"

2. Ask someone to read what you've written (or listen to what you've written or to your ideas) and give you a

response **on your terms**. "Tell me one positive thing and one negative thing." "Tell me what makes you want to hear more." "Tell me where you first lose me." "Tell me three questions that come to your mind."

3. Talk out your ideas with someone.

4. Write your first thoughts – or your whole first draft – in the form of a letter to a parent, friend, instructor, former instructor, anyone to whom you can say, "Dear _____, I have to write this piece about _____. I'm not sure what I want to say, but I've been thinking that one thing that stands out for me is this idea that _____." You might try to write to a particular person who is a representative of the audience for whom you are writing your paper. Some people find it helpful to write these sorts of drafts as if they were an email because it frees them up to not be so perfectionistic.

5. Ask yourself who your audience is. You might imagine a real person you know who is representative of that audience. Ask yourself what that person will want – or need – to know from your piece. What are the questions that will be on that person's mind?

6. Ask yourself what you would like people to understand after they've finished reading your piece. What do you want them to "get"? Be as specific as possible. Don't just say, "I want people to know something about how violence on television affects children." **Name the particular understanding you want readers to take away from your piece.** E.g., "I want them to realize that people doing research in this field have failed to address adequately the question of _____, with the result that _____. They seem to work with the faulty assumption that _____ when in fact a more logical and appropriate assumption might be _____. The evidence (and/or the reasoning) leading me to think this way is/are _____.

7. Let yourself be lonely. Let yourself have a miserable time of it. It's not shameful to feel bad. Know that you will not always feel so miserable. Loneliness and pain will pass. If you fight the pain, it will only hurt more.

8. Treat yourself to something when you take a break or when the project is done. When you take a break, really take a break! Don't contaminate your playtime and relaxation time with thoughts of work.

9. Because writing can be an experience of sensory deprivation (and social and kinesthetic deprivation) – you are alone and focused on a computer screen, book, or blank piece of paper – it is essential to attend to your senses. Drink fragrant tea. Light a scented candle. Work in a space that is visually pleasing to you. Listen to music (or other background sound) that supports helps you attend to your work. Study in the same room with someone who is also studying, or who is simply present. Let your body move.

10. Take frequent breaks. To sustain your focus and concentration, you need to pace yourself. Pacing requires **timely and attuned breaks** – timely in that you take a break before you reach your breaking point (i.e., the point at which you are so exhausted that you collapse or are so frustrated that you avoid getting back to the task) and attuned in that it hits the spot of what you need to recharge or restore yourself at that particular point in time.

Many people say, "But my 'little' breaks inevitably last for hours." You can avoid the potential for dangerously long breaks if you **a)** develop a **repertoire of refreshing activities; b)** experiment with **breaks of different sizes**; and **c)** develop a sensitivity to **when** you need a break and to **what kind** and **what length** of break you need at any given point. Your repertoire of breaks might include talking with a friend, meditating, dancing in your room to a favorite song, reading your email, making a phone call, taking a shower, getting something to eat or drink, taking a walk, taking a brief nap (notice how long of a nap is "just right" for you), reading a novel or a newspaper, doing the dishes, getting fresh air, doing some artwork, starting a letter to a friend, getting exercise, or running an errand. **When you take a break, ask yourself what exactly you need right now.** Do you need a change of activity (e.g., to do something physical rather than something sedentary or to work on an art project rather than a problem set)? Do you need a change of environment (e.g., to get some fresh air or to work in a friend's room or in a coffee shop)? A change of perspective (e.g., to talk with a friend or to watch a movie)? Sleep? Company? Nourishment? Distraction? The taste of chocolate? Entertainment? Notice which sorts and sizes of breaks are most responsive to particular needs. Sometimes only a long break will do. **But frequent, brief breaks can be surprisingly restorative.**

If you take an unattuned break – a break that is not attuned to what you need at that moment – the break will not hit the spot. If what would restore you is a breath of fresh air, no amount of watching television will hit that spot. If what you need is to distract yourself with a television show, no amount of chocolate will hit that spot. If what you need is the taste and richness of good chocolate no amount of running will hit the spot. If you what you

need is a run, no amount of talking with a friend will hit that spot. If what you need is the company of a friend, no amount of fresh air will hit that spot.

❖ LIMITING BELIEF #8: *"I'm sad/lonely/upset/tired/bored/busy/confused, so I can't work."*

Alternative Assumption:

We always have other things on our minds, other things to think about and do besides our writing. Our inner and outer lives don't come to a halt so that we can write. We need to find ways to write in the midst of and in the face of thoughts and feelings and activities and responsibilities that pull us away from our writing.

New Approaches:

1. Try an approach called **"So/And Even So."** Whenever you find yourself saying "I have only fifteen minutes, ***so*** I can't do anything productive," try saying, "I have only fifteen minutes, ***and even so*** . . . I could jot a few notes about what questions I might address in this paper/skim the beginning and end of this chapter to identify the question the writer's addressing/make a list of some of the challenges or criticism someone might make of my project/brainstorm how I might address those challenges or criticisms."

The "So/And Even So" Approach can also work when you are feeling tired, sad, lonely, scared, discouraged, overwhelmed. It is my version of an approach used by a friend who used to coach beginning adult runners. He told them they didn't need to run every scheduled running day but that on those days they just needed to suit up – put on their running clothes and running shoes. If they said to themselves, "I'm tired/busy/sad/lonely/, ***so*** I can't run today," he asked them to say, "I'm tired/busy/sad/lonely, ***and even so***, I could suit up." The runners found that once they were all suited up, they felt that they were already on their way, and taking a run was not as daunting a prospect. Similarly, if you put yourself in a position to do your work and take even a small step in that direction, you might find that you can, and even want, to keep on going.

When you find yourself saying things such as "I'm sleepy, so I can't work on this"; "I haven't called my best friend in a week, so I can't work on this"; "I have rehearsal in half an hour, so I can't work on this"; "I really want to see a movie, so I can't work on this"; "I'm scared I'm going to fail, so I can't work on this," try replacing the "so" with "and even so": "and even so, I could work for fifteen minutes on tracing the line of thinking that leads me to pose my questions"; "and even so, I could brainstorm for fifteen minutes about questions I might want to address in my paper"; "and even so, I could skim this chapter to see if I can get the governing question that the writer sets out to address"; "and even so, I could read for fifteen minutes to see how this author defines this tricky term"; "and even so, I could write about my fear and how I might proceed in the face of it." (Writing can be a way of keeping yourself company in your fear, discovering what that fear is about, letting the fear be there without letting it stop you. When you can **have** your fear rather than **be** your fear, you are not overwhelmed by it.)

2. Reserve time for you and your concerns, even if it's only a little time on any particular day. For instance, tell yourself that between 4:00 and 4:30 p.m. you are going to do something that will make you happy – take a bath, start a journal entry, run an errand, sip tea and read a novel, email or call a friend. That way you can tell the part of you that's saying, "Hey, what about me?" that you are busy *and* that you care about it and that the best you can work out today is to give it that half hour all to itself.

3. Talk to someone. Sometimes we can work better if we talk about all the stuff that's banging around inside and creating commotion and put it outside of us, in the space between us and a good listener.

4. Write down all the worries and concerns that keep coming into your head. Once they're written down, you don't need to keep going over them in the same way (by the way, that going over and over things takes real clock time). Once those concerns are logged in, you feel less agitated; your mind and soul are less cluttered.

5. If taking forty-five minutes will let you make headway on a whole list of little tasks – pay bills, buy toothpaste and soap, balance your checkbook, fold laundry – by all means, take the forty-five minutes. Otherwise you're likely to spend at least that much time worrying (again, worrying does take real clock time and real energy), and then you'll still have the tasks left to do.

6. Remember the good ol' fifteen- to thirty-minute room clean-up. It's surprising what you can do in fifteen to thirty minutes if you go into high gear. Pretend your mother has just called to tell you that, surprise, she's in town and about to stop by your room for a visit.

7. To clear out some time for your soul, ask yourself if there's something in your list of things to do that you can **leave undone** ("I really don't need to bake homemade cookies for the party. I can just bring some from the bakery"); or **abbreviate** ("I can talk with Lani on the phone for 20 minutes instead of having what I know will be and hour-and-a-half-long dinner with her"; "I can wash out a couple pairs of underwear to last the next few days instead of doing all three loads of laundry"); or **postpone** ("we can have dinner together next week, after this paper's done"); or **delegate** ("I can ask Roger if he would be able to make sure the flier gets distributed").

❖ LIMITING BELIEF #9: *"Nothing can help me start working. I am just lazy."*

Alternative Assumptions:

1. Habits and tools can help.

2. The right frame of mind can help.

3. Company can help.

4. But if the biggest part of us really doesn't want to start working, nothing and no one can make us. William G. Perry, who founded Harvard's Bureau of Study Counsel in the 1940's, used to say something to the effect that "When you've got smart people who know what to do and they're not doing it, you know you are in the presence of forces more powerful than intelligence or knowledge, and it's time to get curious about those." We can call such a force laziness, but laziness is typically an alias for something more complex and interesting.

New Approaches:

1. Work in fifteen- to twenty-minute stretches. We tend to approach big jobs by thinking we need big amounts of time. We say to ourselves, "Hmm, I need to write these cover letters. It's 1 o'clock now. I'm free until dinner at 6 o'clock. That's five hours. I should get a lot done." But in fact, we barely make a dent. We brush our teeth, do our laundry, check our email, pay a few bills, straighten our room, make a list of errands, hang out with our friends, chat on the phone. But we spend very little **time on task** (the task of writing). That's because few of us can work for five solid hours on one thing.

Especially if you are having difficulty getting started or keeping with something try to **work for very small stretches of time.** Most of us can do most anything for fifteen to twenty minutes. Work for fifteen to twenty, break for five to ten is not a bad guideline. You might be surprised how much you can get done in fifteen to twenty focused minutes and how much easier it is to focus for fifteen to twenty minutes when you know you will soon get to take a break. **It is much better to work for fifteen to twenty minutes and get something done than to keep thinking for five hours that you should be working and be so daunted or scared that you get nothing done.**

2. Use the **S-O-S** strategy: **Specific, Observable Steps**.* Think in terms of specific tasks that you can **picture yourself doing and completing**. Examples of such tasks are "I am going to take fifteen to twenty minutes to write down a list of questions that my paper will need to address"; "I am going to take an inventory of all the things I can say, all the things I wish I could say but can't, and all of the hunches I have"; "I am going to write a memo to myself about what makes my question a hard one to resolve." **Note:** "I'm going to work on my paper for five hours between lunch and dinner" is neither specific nor observable.

3. Find a pen that makes writing irresistibly fun.

4. Find a notebook that makes writing irresistibly fun.

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* *****The notion of specific, observable steps is drawn from Jane Burka and Lenore Yuen, authors of *Procrastination: Why You Do It, What to Do About It*. The term "S-O-S strategy" is attributable to Sheila M. Reindl of the Bureau of Study Counsel of Harvard University.

5. If you usually compose on paper, try composing at the computer – and vice versa. Many people find that they write more fluidly at a keyboard. Many people find that pen and paper work better for some parts of their writing process and that composing at the keyboard works better for other parts of their writing process. Experiment to learn your own preferred mode(s) of composing.

6. Find a writing partner. Set up a schedule of regular meeting times (much as you would with a running partner). When you write alongside someone else, you might find you can work for longer, or with more focus than you would on your own. When you can't get together, email one another about your work-in-progress.

7. Write in a comfortable, quiet place reserved only for that purpose at a time reserved only for that purpose.

8. Write at a table or desk, not on a bed or couch or in an easy chair. When your body is reclining, your mind tends to do the same.

9. When you do things – even small things such as freewriting for ten to fifteen minutes or having a conversation with an instructor or friend about an idea for a paper – keep some record of what you learned or what you were thinking about. One person we know even jots himself little notes about his reading (e.g., a sentence or two about what he "got" from reading a chapter; a note to himself to remember to freewrite on a question that occurred to him as he was reading or doing the dishes). This is called giving yourself credit for things done and for thoughts about things yet to be done; it can go a long way toward helping you feel that you are making headway on writing your paper.

10. When all the good work strategies in the world do you no good, it's important to ask what purpose procrastination is serving in your life. Assume for a moment that procrastination is a very good and creative solution to some problem or concern you have. What is the problem or concern to which procrastination is a good answer? How is procrastination actually working for you? Assume that you are, on some level, choosing to procrastinate. How might that be a good choice? And what is at stake for you – in other words, what would you risk or lose if you were to engage and get things done in a timely way? If you are curious to understand how procrastination might serve you and to consider whether and how you want to change the way you approach your writing, you might want to talk with a counselor.

For instance, sometimes we avoid starting early because we believe that if we do, we will write a better-than-usual paper, and that then we will be expected to keep doing such exceptional work, which will mean we will always have to start early, which will mean that we will never play or rest again. We fear that we will be stuck on a hamster wheel of constant work and no play.

Or we fear that if we start early, we will do no better on the paper than we usually do. While we have been saying to ourselves all along that we could do better if we just put in the time, we are afraid to put that claim to the test. We fear that that if we don't write a better-than-usual paper when we give it more time, that will prove that we are an intellectual lightweight and that no amount of work can redeem us.

Or, in our heart of hearts, we might have decided just how much of our time a paper is worth. We might feel guilty if we started early and still gave the paper only that much time. We would feel beholden to keep working on it up until the due date lest we feel guilty for deciding it was worth only so much of our time. Working last minute ensures that we will not give the paper more time than we privately feel it is worth to us and spares us the guilt of proactively making our own judgment of what a piece is worth.

For some of us, our procrastination is rooted in our experience of our family – tied to our sense of loyalty and betrayal, belonging and separateness, self-determination and disappointment. We might be conflicted about giving something our all, or taking pride in our creative efforts. For some of us, procrastination can be a symptom of a mental health condition such as depression, an anxiety disorder, or Attention Deficit Disorder. In any event, it can be helpful to talk with a counselor about your experience of procrastination.

❖ LIMITING BELIEF #10: *"I have to do the assignment I was given. I can't do what interests me."*

Alternative Assumption:

Assignments can be negotiated. Our instructor has a right to design the assignment as he or she wishes. But we have a right to ask whether there is room to negotiate an assignment that would feel particularly useful and meaningful to us given what we want to learn, what we want to know.

New Approach:

Talk with your instructor. You might be surprised to discover that he or she would be delighted to negotiate a new topic with you. If you can point to specific questions and issues that interest you from your reading or from lecture, your professor or section leader might be happy to help you pursue your interest.

❖ LIMITING BELIEF #11: "*I have to start by making an outline."*

Alternative Assumptions:

1. We don't necessarily need to make an outline. Outlines can be useful. But not everyone works with an outline, and even those who do make outlines use them in different ways and at different points in the writing process. Some people use them near the beginning as a way to organize (group) and structure (sequence) their ideas. Others use outlines later in the process to consider and create the organization and structure of their ideas.

2. Regardless of whether and when we use an outline, we will want to find our own way of being able to see the design and trace the movement of our essay. We need to experiment to see what works for us.

New Approaches:

1. Think in terms of **one big question** to which your paper is a response. (See New Approaches #2 and #3 under Limiting Belief #5.) Once you have your big question, you can think of the subordinate questions you will need to address in the service of addressing the big question.

2. Consider the following kinds of in-the-middle-of-the-writing-process outlines:

a. Significance/meaning outline: This is a sentence outline in which you ask yourself what in each paragraph is significant: What do I want the reader to "get" from this paragraph? How do I want the reader to connect this idea to the larger point? This is particularly helpful for those times when you find yourself including lots of information or background but not really helping your reader see what to make of all that information or background.

b. Function outline: A paragraph can function in a number of ways: as an assertion, an explanation, a description, an elaboration, an anecdote, evidence, a concession, an amplification, an example, a connection to a larger point, a setting out of the problem, a clarification, a definition. With this outline, you state what a paragraph does (what function it serves) and, in as few words as possible, what the paragraph means. This outline helps you see what function a paragraph is trying to serve, whether it's serving it, whether it's needed at all, and where it fits best.

c. Question outline: We can look at each paragraph or chunk of paragraphs as a response to an implicit (sometimes explicit) question. With this outline, you attempt to phrase that question. What question is this paragraph a response to? Because questions tend to establish a pecking order or nesting order (i.e. like Russian dolls), they can help you see the sequence and hierarchy of your ideas. Because questions tend to generate more questions, this outline can suggest new paths of exploration. You might ask the following sorts of questions: Does this idea hold in all cases? What are the exceptions? Are there assumptions or implications I need to consider? What questions does this paragraph raise that I've not considered?

❖ LIMITING BELIEF #12: *"I am more focused/creative/productive when I work at the last minute."*

Alternative Assumptions:

1. When we say we claim that we work better at the last minute, we might in fact be right. It could well be true that we are more focused/creative/productive when we work with the intensity of last-minute pressure. If we work best under pressure, we could consider letting ourselves off the hook. Rather than feel guilty for procrastinating, we might let ourselves do what works for us.

2. We might acknowledge that even though the last-minute method has its advantages for us – in terms of focus and productivity and in terms of limiting the sheer number of hours of our life that we devote to a project – it is too costly for us emotionally and physically because we end up pumping adrenaline all night and being exhausted for days afterward. We might also hold in mind that one of the potential costs of working last minute is an increased risk of misusing sources, whether intentionally or unintentionally. (Most of us are aware that plagiarism is considered a serious academic matter and is typically met with serious consequences.) Students who have plagiarized others' work commonly report that their misuse of sources occurred in the context of a last-minute rush; either knowingly, out of desperation, or inadvertently, out of sloppiness, they ended up misrepresenting others' work as their own.

New Approaches:

1. You might try some of the approaches in this handout to see if you can prime the pump earlier. If you start earlier, you might not be as efficient a writer in the short run, but you might work better in the long run. You might find that in the long run you are more actively engaged in your intellectual and creative work because an extended creative process is less painful than a last-minute sprint; you are therefore less likely to avoid writing and so less likely to find your energies sapped by anxiety, guilt, and regret. You might even discover that you enjoy aspects of a more extended writing process – being more playful with your creative process; giving good ideas a chance to mull, "age," and "breathe"; reckoning with more complex arguments; incorporating others' feedback; being more precise in your thinking.

2. If you do start earlier, you might in fact miss some of the rush, drama, intense focus, and high efficiency of your last-minute process. It's okay to miss what you miss.

Prompted Freewriting

Sometimes freewriting works better with a focus or a running start. Consider using the following questions and sentence stems as prompts for your freewriting. Complete the sentence and continue writing from there.

1. When I started this project, the thing that really interested me was . . .
2. The questions I find myself thinking about these days are questions like . . .
3. What I really want to know is . . .
4. I want to figure out how . . .
5. I have a hunch that . . .
6. I am confused by . . .
7. I feel angered or annoyed by . . .
8. What stands out to me about all the stuff I've been reading is this idea that . . .
9. What I've been reading makes me wonder . . .
10. Dialogue between me and the experts (this exercise comes from writing teacher Eileen Farrell):

    This author/professor/theorist/expert says . . .
    And/but I say . . .

    He or she also says . . .
    And/but I say . . .

11. If I had to put my project/paper so far into the form of a single question, it would be . . .
12. The observations I make that lead me to pose that question are . . .
13. What makes my question hard to reckon with or difficult to resolve is that . . .
14. One way in which I could attempt to reckon with that difficulty of how to resolve my question is . . .
15. If things were as neat and tidy as I'd like them to be, I would be able to make the argument that . . .
16. One way in which things aren't so neat and tidy is that . . .
17. One way in which I might address that messiness is . . .
18. I'm stuck. I'm stuck because I can't figure out . . .
19. I can see that my way of approaching my question has some real problems, or at least challenges, including . . .
20. One way I could possibly address that methodological/approach/design issue is . . .
21. I realize I need to define some terms. If I were to try to define the term _____, what occurs to me is that . . .
22. [A letter to a friend or to your reader] Dear ____, I'm trying to write this paragraph/section/chapter about _____. And do you know what? . . .
23. Let me state what I think I know so far, even if it seems obvious or self-evident (in the belief that sometimes it's actually easy to overlook the obvious and that sometimes the seemingly obvious deserves another look):
24. Of all these seemingly obvious, self-evident things, the one that keeps catching my attention is . . .
25. If I think of "theory" as simply another word for "explanation," I would say that one of the explanations that people have offered for the thing I'm researching is that . . .
26. But that theory or explanation doesn't seem to account for . . .
27. If I could say what I really want to say, . . .
28. If I could approach this project in the way I really want to, . . .
29. If I could write about the question that really interests me, . . .
30. What I wish I could convey to my audience is . . .

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