

**THESIS MANUAL**  
**DEPARTMENT OF PSYCHOLOGY**  
**DEPAUL UNIVERSITY**

**A Guide to the Preparation of  
Proposals, Theses, and Dissertations**

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## TABLE OF CONTENTS

### **PART I. INTRODUCTION**

PURPOSE AND USE OF THIS MANUAL .....	1
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### **PART II. NATURE AND DEVELOPMENT OF THESIS**

NATURE OF THE THESIS AND DISSERTATION .....	1
DEVELOPMENT OF A RESEARCH IDEA .....	2

### **PART III. COMPOSITION OF THE COMMITTEE**

COMMITTEE MEMBERSHIP AND SELECTION .....	3
UNDERGRADUATE HONORS THESIS .....	3
MASTER'S THESIS .....	3
DOCTORAL DISSERTATION .....	3

### **PART IV. TIMELINE AND PROCEDURE**

DEVELOPMENT OF THE PROPOSAL .....	4
SCHEDULING PROPOSAL DEFENSE AND SUBMITTING FINAL PROPOSAL TO COMMITTEE .....	5
DEFENDING THE PROPOSAL .....	5
Use of PowerPoint Slides .....	5
Oral Presentation Strategies .....	5
POSSIBLE OUTCOMES OF THE PROPOSAL DEFENSE .....	6
Getting IRB Approval .....	7
PREPARING THE FINAL THESIS .....	7
FINAL ORAL EXAMINATION (i.e., Defense) .....	8
Use of PowerPoint in the Final Thesis Defense .....	8
POSSIBLE OUTCOMES OF THE FINAL ORAL EXAMINATION .....	9
SUBMITTING THE THESIS TO THE GRADUATE SCHOOL .....	10

### **PART V. ORGANIZATION AND WRITING THE THESIS**

DEVELOPMENT AND FORMAT OF THE THESIS PROPOSAL .....	10
WRITING THE ABSTRACT (Formerly the Overview) .....	10
WRITING SECTION ONE: INTRODUCTION .....	10
Writing the Rationale .....	12
Writing the Statement of Hypotheses and/or Research Questions .....	12
WRITING SECTION TWO: METHOD .....	13
Research Participants .....	13
Procedure .....	13

Materials .....	14
Apparatus .....	14
<b>WRITING SECTION THREE: RESULTS AND ANALYSIS .....</b>	<b>15</b>
Reporting of multiple studies .....	15
Writing the references section .....	15
Preparing the appendices .....	15
<b>REQUIRED SECTIONS OF THE PROPOSAL .....</b>	<b>16</b>
<b>PREPARATION OF PREFATORY PAGES .....</b>	<b>17</b>
Title Page .....	17
Table of Contents .....	17
<b>THE FINAL THESIS: INCORPORATION OF PROPOSAL SECTIONS.....</b>	<b>17</b>
The Results Section.....	18
Tables, Figures, and Graphs.....	19
<b>WRITING THE DISCUSSION SECTIONS .....</b>	<b>19</b>
The General Discussion Section .....	20
<b>REVISING THE ABSTRACT .....</b>	<b>20</b>
<b>LISTING OF REFERENCES.....</b>	<b>21</b>
<b>PART VI. ASSEMBLY OF THE FINAL THESIS.....</b>	<b>21</b>
<b>EXTRA PAGES IN THESIS (NOT IN PROPOSAL).....</b>	<b>22</b>
Thesis Committee .....	22
Acknowledgements .....	22
Biography.....	23
List of Tables .....	23
List of Figures.....	23
<b>WORD PROCESSING AND STYLE REQUIREMENTS .....</b>	<b>24</b>
Paper and Font .....	24
Margins and Paragraphs.....	24
Numbering .....	24
Capitalization .....	24
Writing Heading and Subheadings.....	24
<b>PART VII. DEGREE CONFERRAL PROCESS</b>	
<b>APPLICATION FOR DEGREE CONFERRAL .....</b>	<b>24</b>
<b>REGISTRATION AND FINANCIAL AID .....</b>	<b>25</b>
<b>DEGREE AUDIT .....</b>	<b>25</b>
<b>PAPERWORK AND THESIS/DISSERTATION SUBMISSION .....</b>	<b>25</b>
<b>DEFERMENT OF DEGREE CONFERRAL .....</b>	<b>26</b>

**PART VIII. COMMENCEMENT CEREMONY .....26**

**PART IX. APPENDICES**

Appendix A: Title, table of contents and abstract for single study thesis proposal..... i  
Appendix B: Title, prefatory pages, and table of Contents for a multi-study final dissertation..... viii  
Appendix C: Sample screen shots of pathways taken to apply for degree conferral via CampusConnect .....xv

## PART I. INTRODUCTION

This manual has been developed by the Department of Psychology of DePaul University as an aid to undergraduate and graduate students in planning and reporting thesis and dissertation research. In most cases, the thesis — honors or master's — is the first public demonstration of a student's scholarly abilities; the doctoral dissertation is intended to demonstrate the student's abilities at the highest level of professional competence. Since the thesis and the dissertation are public communications of scientific efforts and results, it is important that these reports be presented in a clear and consistent manner.

### Purpose and Use of This Manual

A thesis or dissertation is a research report. In many respects it is similar to a research article from a scholarly journal in content, style, and format. It differs in that the thesis, and particularly a dissertation, generally deals with the selected problem area in greater breadth and depth than does a single journal article. For this reason there are some important differences between a research article and thesis or dissertation. The purpose of this manual is the detailing of these differences.

This manual should be studied carefully during the earliest stages of planning a thesis or dissertation, preferably in conjunction with specific proposal examples and journal articles recommended by one or more faculty members. Pertinent sections of the manual should subsequently be reviewed at the appropriate stages of planning and drafting the proposal.

## PART II. NATURE AND DEVELOPMENT OF THESIS

### Nature of the Thesis and Dissertation

Articles published in the various psychological journals are essentially of two types: the review article (as found in *Psychological Bulletin* or *Psychological Review*), and the research report (as found in *Journal of Experimental Psychology*, or other empirically-based journals in the student's chosen discipline). The review article is basically a review of a number of research reports and an attempt to synthesize results, evaluate them in terms of current theories or concepts, or to propose new theoretical perspectives. The research report is much more limited in scope: it reports the results of one or more empirical studies. The thesis and dissertation are to some extent combinations of these two types, but they more closely resemble the research report. A narrative literature review and critique alone are not considered adequate as an undergraduate honor's or a graduate master's thesis or doctoral dissertation project. However, a meta-analysis may be acceptable in some programs. Since the procedures involved in proposing and writing the thesis or dissertation are virtually identical, this manual will attempt no further distinction. The term "thesis" will be used to refer all such projects, except where noted.

The finished thesis should reflect, in a formal way, the various stages experienced by the student in selecting and exploring the chosen problem. These stages usually include: identifying a problem, reviewing literature to find theoretical perspectives and research findings relevant to the problem, developing specific and testable hypotheses, developing methodology for the investigation, conducting the investigation, analyzing results of the investigation, and discussing the implications and limitations of these results. Each of these stages will subsequently be discussed in detail.

The thesis is, however, supervised research. While the student is expected to exhibit considerable independence at this stage of his or her career, thesis research may not be undertaken without appropriate, formal approval.

The student is required to submit a formal thesis proposal that must be approved by the thesis committee before conducting any part of the research related to the thesis. The project is not officially completed until the finished thesis has been approved by all members of the thesis committee and is submitted to and accepted by the college office. A more detailed sequence of steps will be discussed below.

While in some respects the thesis project can rightfully be considered an assessment of the student's competence, of equal importance is its function as a learning experience for the student. To a great extent, modern psychology remains a research discipline. Whereas independence is strongly encouraged, students should seek the experience and special competence of their faculty mentors and committee members.

Basically the thesis project involves only two formal stages: approval of the thesis project proposal and acceptance of the final thesis. However, typically there are a number of informal stages consisting of consultations and discussions with the thesis chair and with the committee as needed. The following sections of this manual will discuss both formal and informal stages.

### **Development of a Research Idea**

There is no specific or standard way in which the general nature of the research problem is determined. Through course work, reading the scientific literature, and/or through working with a faculty member, the student may become interested in a particular line of research. *The student should not ask for or expect to be assigned a research problem.* On occasion, however, a student may learn about existing data sets from talking to a faculty member or other professional in the field, and analysis of that data may be appropriate for an honor's or master's thesis project.

Once a general problem has been chosen, the student should begin a preliminary search of the literature. Recent textbooks, chapters, and review articles may be consulted as an aid in defining related areas or problems. The student should attempt to categorize the problem in a way that will facilitate the preliminary literature search. One way of doing this is to review the index listings in online psychological or research databases (e.g., PsychInfo), noting those topics that appear to be relevant to the problem area. Another way is to locate a few recent articles dealing with the problem area. A comprehensive literature review is premature at this stage; however, the student should take notes on the ideas, methods and results of research papers that might be relevant to their thesis. The objective is to develop a fairly general understanding of the nature of theory and research in the problem area.

Having accomplished this, the student may attempt a more specific statement of the problem of interest, formulate specific hypotheses or research questions, and begin to consider methodological approaches. Due consideration should be given to needs for special equipment, availability of subjects, time limitations, and cost requirements. Research is always limited by considerations of practicality; *ideas that are not practical should be reconsidered or modified.*

If the student remains convinced of the feasibility of investigating the problem area, he or she should consult informally with a faculty member likely to be experienced in the same general area. Early consultation with a faculty member familiar with the topic is encouraged. Here again practicality must be considered: if the problem lies outside the competence of any faculty member, the project may not be adequately supervised, and so the idea should not be pursued.

After identifying the research topic, the student identifies a faculty member with related research interests to request him or her to serve as the committee chair. Requirements for the use of possible facilities may need to

be specified at this time. In general, advice should be sought with respect to (1) basic acceptability of the idea, (2) practicality of the proposed research, and (3) recommendations for further literature search and refinements of hypotheses and methodology. A number of such consultations may be required to accomplish that purpose.

Note: Expression of interest, encouragement, or approval at this point in no way constitutes acceptance of the student's ideas, nor of acceptance to serve as thesis chair. Students should keep in mind that faculty are not obligated to supervise a particular thesis or dissertation. There are a number of reasons a faculty member might not be available to serve as chair of a thesis committee, including excessive workload, existing commitments with other advisees, planned research leaves, personal obligations, divergent interests and so on. Students should not be discouraged if a potential advisor is not available. However, if the student continues to have trouble finding an advisor, the student may need to change his/her topic.

### **PART III. COMPOSITION OF THE COMMITTEE**

#### **Committee Membership & Selection**

Once a faculty member has agreed to serve as chair, other committee member(s) may need to be considered and secured (depending on the type of project). Students need to consult with their chair regarding the membership selection of their committee.

#### **Undergraduate Honors Thesis**

The undergraduate honors student need only secure approval from his or her faculty advisor for a proposed topic area and research design before proceeding with the thesis project. No other committee members are required.

#### **Master's Thesis**

The master's thesis committee includes 2 faculty members, both of whom must be full-time department members. A departmental faculty member with affiliated or emeritus status, or a faculty member outside the department or university, may serve as a third (optional) member of the master's thesis committee. Any deviations from the above should be approved by both the thesis chair and the student's program director (unless the program director is the thesis chair, then approval will need to be obtained from the department chair as well).

#### **Doctoral Dissertation**

The dissertation committee must consist of 3 "core" members at the proposal stage and 2 additional outside readers at the final stage. For the dissertation proposal committee, the chair and at least 1 more member of the core committee (for a total of 2 out of 3 members) must be tenured/tenure-track faculty within the Psychology Department. The 3<sup>rd</sup> member of the core committee can be an affiliated or emeritus Psychology faculty member as long as he/she has a Ph.D. in Psychology. The 2 outside readers must be DePaul University faculty members or staff with doctoral degrees (Ph.D., Ed.D., etc.). Their primary affiliation must be outside the Psychology Department but they may be affiliated Psychology faculty or staff members. Any deviations from the above should be approved by both the thesis chair and the student's program director (unless the program director is the thesis chair, then approval will need to be obtained from the department chair as well).

Only the 3 core faculty members need to approve the dissertation proposal. However, students may include all 5 committee members at the proposal stage if this makes sense for their projects, or is encouraged by the committee chair or within their program. All 5 committee members must participate in the oral defense of the completed dissertation and must approve the final dissertation document.

Selection of the additional committee members for the master's thesis and dissertation should be done with care and with the topic of the thesis and its scientific and analytic methods in mind. Selection of committee members should be based on their expertise and ability to carefully advise the project to ensure its success. Students should avoid asking faculty to be on their committee based on familiarity alone. The committee's primary purpose is to ensure that the ideas are sound, that they have the potential to make a meaningful contribution, and that the research and methods employed are appropriate for the project. Experts should be considered. If the student is employing an unfamiliar or complex data-collection or analytic method, s/he should consider asking someone familiar with the method to serve as one of the committee members. The same strategy should apply for soliciting outside readers for the dissertation.

## **PART IV. TIMELINE & PROCEDURE**

### **Development of the Proposal**

A proposal is a useful preliminary step in any research program. Although the student may find the preparation of the proposal difficult, this process establishes the "rules of the game"—the limits of what will and must be done, and what will not or may not be done. The proposal also protects the student from needing to make major revisions to the project due to changes in an advisor's view or to other events. Many of the problems students experience in their thesis projects can be traced to lack of specification in proposals. The proposal accepted by the committee details the minimum requirements for the completion of the project, but it is the student's ultimate responsibility to ensure that the proposal leads to an acceptable thesis. Therefore, a meticulously planned and prepared proposal will save the student and his or her committee later time and effort.

*It is highly recommended that the student first develop an annotated outline of the proposal and get feedback from the thesis advisor before writing the full document. This will ensure that the student includes appropriate literature and that research support leading up to the hypotheses are logically sound, well supported, and clearly organized.*

Students should expect to write several drafts of the proposal and make appropriate changes and edits based on the thesis chair's feedback. Students often underestimate the number of drafts required and the amount of time necessary for this process. Chairpersons typically expect to be given at least two weeks before returning a draft to the student with their comments. Students should discuss their specific timelines with their chair.

There are usually several rounds of edits before the document is ready for distribution to the rest of the committee, so the student should budget time for this process. It is recommended that students discuss committee members' roles and preferences with regard to reading and approving the thesis proposal document. In some programs or for some committees, the additional committee members provide their first round of feedback at the oral proposal defense; however, it is not uncommon for committee members to be involved earlier for particular reasons (e.g., special knowledge of a content area, method, or analysis). Some programs or committees may seek to have the written document in its virtually final form before the oral defense takes place while others may permit the oral defense to be followed by subsequent revisions of the document that may be more substantial.

## Scheduling Proposal Defense and Submitting Final Proposal to Committee

The student will work with the chair and other committee member(s) if necessary/appropriate to reach a consensus regarding when the proposal is ready to defend. With the thesis chair's approval, the student will distribute the final pre-defense proposal document to each member of the committee at least two weeks prior to the scheduled oral defense. Students should expect to distribute *electronic* and *hard copies* to all committee members. In an effort to be environmentally conscious, students may check with each faculty member as to whether or not they would like to receive a hard copy.

The student should confirm that each committee member received the document, and should establish and notify the committee of the date and room location of the proposal defense. Scheduling a mutually agreeable time and location for a defense can be tricky (especially for dissertations), so schedule well in advance and try to have back-up dates available.

## Defending the Proposal

Each committee will establish its own working rules and procedures, but in all cases, the student is required to defend and discuss the proposal before the committee. It is the student's responsibility to bring to the defense the appropriate Proposal Approval form, available in the psychology department.

**Use of PowerPoint Slides.** Students should consult with their committee chair regarding use of electronic slides during oral defense of the proposal. Some programs or committees may discourage use of such electronic supports. In other programs, students are required to prepare an electronic presentation to supplement their thesis proposal (e.g., PowerPoint slides). The number of slides should be kept to a bare minimum (no more than 12-15 is recommended for a single-study research project, multi-study projects might be longer but still should be kept succinct (exceptions can be discussed with the chair). It should be kept in mind that unlike a classroom in which PowerPoint slides serve a “note taking” function for students, in a thesis proposal or final defense, already knowledgeable and prepared committee members are more interested in seeing how well a student can orally present his or her ideas -- not the detail in the slides. Thus, bullet points are recommended to briefly identify theories, hypotheses, proposed methods, and analyses. Full sentences lifted from the thesis document should never be used in covering relevant past studies or basic steps in a proposed procedure. PowerPoint slides are most useful when displaying graphs, tables, or visually oriented stimulus materials. Finally, it is recommended that the slides be made using a dark background with light or white colored fonts, as this makes for easier viewing in partially lit rooms.

**Oral Presentation Strategies.** In the thesis proposal stage, the primary goal of the committee is to ensure that the student has sound ideas, clear hypotheses that reflect the conceptual goals of the project, and perhaps most important, sound methods that are likely to achieve the goals of the project. The proposal defense should be seen as a “working meeting” where the committee can go over methods and measures in detail to ensure that the project is ready for data collection. Because the committee will have already read the document, less time should be spent on the introduction and more time should be spent on hypotheses and methods. Therefore, more time should be spent (and more slides presented if applicable) on the methodology than the introduction and proposed analyses. Oral presentations by the student should range from 15-20 minutes, and the remainder of the defense will consist of questions/answers and discussion. The student will be asked to step out of the room while the committee discusses the outcomes of the defense, and then will be invited back into the room to be informed of the outcomes.

## Possible Outcomes of the Proposal Defense

At the scheduled proposal defense, there are three possible outcomes: (1) the proposal may be approved without substantive change; (2) the proposal may require some revision; (3) the proposal may be rejected.

In the first case, approval may be granted despite the need for minor changes or corrections. The need for such changes will be noted on the Proposal Approval form, and the student will be held strictly accountable for them.

In the second case, the changes required by the committee are significant enough to require substantial revision and resubmission of portions of the proposal. Although it is ultimately the student's responsibility to make note of such revisions, the committee chair should also take notes to enable the student to focus on the presentation and ensure that it stays on track. The student will be expected to take prompt action on revising the proposal. Until required changes have been made, the proposal is to be regarded as suspended - that is, neither approved nor disapproved. The student will make the required changes and resubmit the proposal with tracked changes until it is approved. The chairperson and other member of the committee will have made notations on their own copies, or electronically using track changes, of the original proposal, and it will be the student's responsibility to ensure that resubmitted proposals comply with the changes noted by each member of the committee. Failure by the student to ensure such compliance may necessitate still further resubmissions. All major changes should be detailed in a separate document (along with page numbers corresponding to the changes) and submitted along with the revised thesis manuscript. The committee will determine whether the chair alone can approve the changes or whether the committee should also review the changes.

If major changes are requested regarding methodology, it might be necessary to receive final approval from all committee members present at the proposal stage. The committee members may be able to review the document and give approval in writing (electronically or by letter) or they may request a new proposal defense to examine changes and ensure that everyone is satisfied with the changes.

In the third case, disapproval, the student shall be notified in writing by the chairperson of the committee setting forth in brief the reasons for disapproval. Copies will be distributed to the other committee member(s) and placed in the student's departmental file. *Disapproval will require a rethinking of the thesis document or methodology. This should be done in careful consultation with the committee chair. A new proposal document will be written and a new oral defense will take place. A disapproval outcome can be avoided if the student consults early and regularly with the committee chair, and distributes rough drafts of the thesis document to the committee chair and makes any suggested changes before setting up a defense date.*

Assuming the committee approves the proposal, the committee chair and member(s) will sign the Proposal Approval form and submit it to the department of psychology. This form will not be submitted until all requested changes have been made. Receipt by the student of the Proposal Approval form signed by all committee members constitutes formal and official approval to undertake the project described in the proposal. In cases of minor revisions that can be overseen by the chairperson, committee members may sign the form at the time of the defense under the agreement that the chairperson will hold onto the form until all suggested changes have been made. Once the chairperson approves the changes, the signed form will then be released to the student who can file it with the department.

Note: Once the proposal has been approved, the student may not institute methodological changes other than those noted on the approval form without the written permission of all committee members. Failure to obtain such permission will invalidate the official approval of the committee. Similarly, while the committee may subsequently require data analyses not described in the proposal, they cannot require the student to perform data

collections other than those established in the approved proposal. These restrictions are necessitated by the nature of research: even the most carefully designed study may lead to unforeseeable difficulties, requiring deviations from the original plan. Such deviations must be acknowledged and accepted by all involved parties.

### **Getting IRB Approval**

Following approval of the proposal, students who are using human participants in their research must obtain approval from the university's Institutional Review Board (IRB). The IRB is charged with ensuring that research conducted by university members meets ethical standards with respect to the treatment of participants. Students must adhere to the current requirements and procedures posted on the university's IRB website (<http://research.depaul.edu>). Obtaining IRB approval can be a lengthy process and students should budget sufficient time for this when planning their thesis project. Students should consult the "Deadlines and Meetings" page on the IRB website to aid in their planning.

IRB approval must be obtained even if students are working at sites or with agencies outside the university who have already approved the research. IRB approval also must be obtained for research involving publically-available data (i.e., the IRB must certify that the research is "Exempt"). Students may be required to submit a new application form or merely to have their name added to an existing approved project (by submitting an amendment). If a new application is required, it typically must first be submitted to the psychology department's Local Review Board (LRB). However, the LRB typically does not review protocols during winter and summer break, so students may proceed directly to the IRB during these time periods.

Upon reviewing an application, the IRB may require changes in the research methods and/or procedures. Students should review these in consultation with their committee chair to determine how to incorporate these into the research and communicate the changes to other committee members and get their approval. Typically, re-writing the proposal document and undergoing another oral defense will not be required (e.g., often safeguards can be integrated into the procedures in a way that does not dramatically affect the main methodology). The methods and procedures sections will be updated to include these changes in the final thesis document. In the event that major methodological changes are required, the student must consult with the members of the thesis committee regarding these changes and obtain the committee members' approval.

DePaul University requires that all individuals engaged in research on humans complete an on-line training course in the protection of human participants. Completion of the CITI training is required before IRB approval is obtained. Note that training certificates also need to be renewed every three years. To access the training, go to <http://offices.depaul.edu/ors/research-protections/irb/training/Pages/default.aspx>. When you complete your training, your certification will be on file automatically with the IRB. If you completed CITI training at another institution, it is your responsibility to update your profile to include DePaul University. If you have questions about this, contact the Director of Human Subjects Research Protections.

### **Preparing the Final Thesis**

After gathering and analyzing the data, the student is ready to begin the first draft of the final thesis document. The existence of a well-planned and well executed proposal greatly facilitates writing. The final product differs from the proposal only in the inclusion of data, details of data analysis, a section discussing the results of the study/studies, a section summarizing the overall results, and several miscellaneous pages not included in the proposal. The requirements of form and format discussed in relation to the proposal are very similar to those of the thesis; exceptions will be made clear in the Writing section of this manual.

## **Final Oral Examination (i.e., Defense)**

The date for the student's final oral defense is set by the student in consultation with the committee chairperson and other members. All members of the committee must attend this meeting in person. In special circumstances (e.g., research leave, moved out of state), a committee member may be brought into the defense electronically.

Other faculty members, students, and others may also attend the final oral defense if they wish. However, these outside observers do not participate in the proceedings and they will be asked to leave during the deliberations of the committee.

The student should send electronic and hard copies (unless the committee members request electronic only) of the final draft of the thesis to committee members at least two weeks before the scheduled oral defense. In cases where the student is up against a deadline, permission must be obtained (from each committee member) for any time less than two weeks. Such deadlines may be associated with taking the Comprehensive Exam or applying for graduation. Check with the department for the most recently established requirements and dates. Again, students may check with committee members regarding receipt and need for hard copies.

Committee members are expected to return their reviewed copies of the thesis to the student at or prior to the defense. Committee members may provide either hand-written comments or tracked changes in the electronic document. As is true for the proposal, some programs or committees may seek to have the written document in its virtually final form before the oral defense takes place while others may permit the oral defense to be followed by subsequent revisions of the document that may be more substantial. However, if possible, all committee members should provide feedback before the defense takes place.

The student is responsible for making certain that each member of the committee has a copy of the most recent version of the thesis to serve as a guide in conducting the oral defense. The student should also bring to the examination a copy of the Report on the Final Oral Examination, and the Thesis or Dissertation Report Form (which can be obtained from the Graduate Student Coordinator). The student's name and the title should be printed on the form prior to the oral examination. Students are not permitted to offer refreshments to the committee during the examination or engage in any other activity that detracts from the purpose of the examination. Procedures for approving the final document are similar to those described above for approving the thesis proposal.

**Use of PowerPoint in the Final Thesis Defense.** As with the proposal defense, electronic (e.g., PowerPoint) slides in a final defense are often required. This may vary by program or committee chair. If mandated, electronic slides should be kept to minimum. Students should plan on developing a 12-25 minute presentation for a single-study thesis and a 25-30 minute presentation for a multi-study thesis. Slides should be simple and informative (not cluttered). Remember that the committee has already read the document, so slides serve only to remind the committee of key points. Bullet points can be used to briefly summarize major theoretical issues, main hypotheses, key methods, and of course, the study's main findings. Every analysis, especially those that are not significant or directly relevant to the "story of your study" need not be posted on a PowerPoint slide. Graphs and tables are particularly effective for summarizing findings on PowerPoint slides. The Discussion section can be characterized by a few brief bullet headings, such as 1) Theoretical Relevance of Findings, 2) Limitations, 3) Implications, and 4) Future Directions. The committee's primary interest and reason for being there is to hear a student discuss his or her project in an informed way, and ensure that the student understands their project, its findings, and its implications for the larger literature.

In the final defense, the committee has already approved the conceptual framework and methods, so more attention will be paid to the results—their analysis and interpretation—and synthesis of results with the conceptual framework, discussion of limitations and ideas for future research. Therefore, in the final defense, few slides (and less time) should be devoted to the introduction and methods (about 5 minutes each—just to refresh memory and contextualize results), and the majority of slides and time will be devoted to results, graphs, and interpretation. Students should be honest about what worked out and what did not. The student's ability to pass the defense will not be related to the successful confirmation of the student's hypotheses and will relate to his/her ability to accurately and thoughtfully conduct sound research and understand and interpret the findings.

The student is expected to fully answer any question dealing with the thesis project, but the committee may also ask questions dealing with other areas (e.g., implications of the research for other issues or disciplines). The committee chair should refrain from answering the committee's questions unless it is to elaborate on the students' response or pose follow-up questions. This is the student's opportunity to demonstrate expertise.

### **Possible Outcomes of the Final Oral Examination**

At the end of the examination period -- generally about 1-1.5 hours -- the student is asked to leave the room while the committee discusses his or her performance on the thesis project and of the oral examination. After private consultation with the committee, the committee will invite the student back in to discuss their comments and any additional changes.

At the scheduled oral examination meeting, there are three possible outcomes: (1) the thesis may be approved without substantive change; (2) the thesis may require some revision; (3) the thesis may be rejected. Actions to be taken subsequent to each decision are similar to those described above for the thesis proposal and as briefly reiterated and elaborated below.

If the committee has approved the student's performance, the chairperson proceeds immediately to complete the Report on Final Oral Examinations and Thesis Report Form. These are signed by all members of the committee and delivered to the Psychology Department office. If the committee has approved the thesis contingent on some further revisions of the manuscript, the committee members may withhold their signatures until final revisions are completed, or they may sign and leave the forms in the hands of the thesis chair until revisions are completed and approved by the chair. The method of handling final changes depends on individual committee members' discretion and extent of changes to be made.

The thesis is considered completed when the signed forms are delivered to the Psychology Department office and the thesis is submitted to the college office for binding. The office staff will see that both forms are subsequently delivered to the college office. At this time, the student's grade for thesis-related courses should be changed from "R" to an actual grade. The student should work with the department's Graduate Student Coordinator to identify the faculty member assigned to make this change for each program.

At the time of Master's degree conferral, the department will designate an evaluation of the student's performance in our program. This designation is based on cumulative GPA. Student's performance can be evaluated as "With Distinction" if their overall GPA is 3.75 or higher. At the doctoral level, the University assumes that all students are operating at the highest level of distinction and do not provide this designation.

## **Submitting the Thesis to the Graduate School**

The last step of the thesis project involved preparing the final version of the thesis and submitting the required copies to the College. Having received permission from the thesis committee to proceed with preparation of the final version, consult with the Graduate Student Coordinator for the latest submission guidelines. After binding, two copies are for the library and one copy each goes to the Department of Psychology, the chairperson of the committee, and the student. The student may request and pay for extra copies.

## **PART V. ORGANIZATION AND WRITING THE THESIS**

### **Development and Format of the Thesis Proposal**

The proposal is a detailed statement of the concepts and aims of the research and of the methodology to be employed. The organizational plan of the proposal is very similar to that of the thesis itself, and, indeed, large sections of the proposal will subsequently be incorporated virtually verbatim into the thesis. Like the thesis, the proposal is to be divided into sections. The first section of the proposal is a brief summary of the proposal, formally identified as the "Abstract." The abstract needs to be revised after the thesis proposal to include the results and discussion sections.

### **Writing the Abstract (Formerly the Overview)**

It should look like this:

#### **Abstract**

The abstract begins on a new page, immediately preceding the introduction. The Abstract, in effect, is a summary of the proposal. Its purpose is to permit any reader to gain a brief, if incomplete, understanding of the nature and objectives of the proposed project. Similar to a Dissertation Abstract, your final abstract should be no more than 600 words.

The Abstract does not consist of formally identified sections, but does systematically summarize the major contents of each section of the proposal. It should begin with a very brief statement of the general problem and continue with a short summary of relevant previous research findings. Specific studies are rarely mentioned by researchers' names or discussed in any great detail, but an important theoretical model or perspective might be. For example, the following type of summary statement is permissible: "Brewster's (2013) theory of socialization suggests that gender may be a critical variable in responses to humor." The rationale, hypotheses, proposed methodology, and design of the study or studies should be stated as succinctly as possible in the Abstract section, along with the general nature of expected results and their possible implications.

### **Writing Section One: Introduction**

The first section of the proposal will typically be the lengthiest. Usually the introduction section begins with a somewhat general statement of the research problem area, its relevance to scientific theories or applications, and a brief summary of where the proposal is heading. This broad introductory summary typically takes up to one to three pages, but there is no rule. Next comes a review of the literature, organized into sections according to some specific plan. From the literature review a statement of rationale leads into the specific hypotheses to be tested, or problem to be explored.

Students are frequently in doubt about the extent of the literature review. As a general rule, the review should be thorough but focused. Although one aim of the literature review is to master the literature surrounding the problem of interest, the literature review should also logically lead the reader to the hypotheses. Therefore, extraneous literature that is not relevant to the topic should not be included. It is clearly necessary to cite all references dealing specifically with the problem as it is to be researched. Peripheral aspects of the problem area should only be mentioned if relevant to the research question broadly or hypotheses or methods specifically. If the problem is the subject of extensive *current* research, the older literature may be briefly summarized and referenced by a review article, and a more detailed review should focus on the current literature. Research most relevant to the proposed research question, theory, and/or hypotheses should be discussed individually and in detail.

Advisors differ somewhat with respect to preferences for detailed discussion of individual articles. Some faculty members may require that considerable detail be cited for each article, including such specifics as number and type of participants, procedures, measurement parameters, and statistical significance of results (particularly, for key studies). Other faculty members may feel that less detail is required. The student should determine such preferences before actually writing the proposal.

The literature review must be organized according to a specific expository plan, which is generally explicitly stated at the beginning of the review. Past research upon which the thesis is based may be reviewed chronologically (reflecting the history of research on the topic) and/or thematically (describing current states of knowledge regarding components to be integrated in the proposed study or studies). Of course, it is also incumbent on the student to cite and represent the research accurately. Students should always refer to original studies and not rely on the summations of secondary sources (such as review articles or textbooks), as these can sometimes misrepresent original work. Citations should follow current APA requirements in terms of order and formatting. As requirements are quite complex, the student should consult the most current APA Manual carefully.

Students should avoid listing of any kind in the introductory section. Instead, when identifying, for example, the various levels of moral development, the levels should be summarized in the student's own words in paragraph form.

Finally, students should make sparse use of excerpts or quotes. The only reason to quote someone else is when what that person said or wrote was so precisely or perfectly worded that including his or her statement word-for-word significantly aids in understanding some theoretical point or research finding. Check the latest edition of the APA Publication Manual for how to properly set up and cite quotes, as well as use abbreviations. Also, when abbreviating the names of scales or inventories after their first full citation (e.g., According to Bem (1971) in her Bem Sex Role Inventory (BSRI), men and women . . . ), note that in each subsequent section (e.g., Methods), the full name of the scale or inventory will need to be re-introduced as if it was being cited the first time. Each section, including the Abstract, stands on its own in that regard.

Students should pay careful attention to quality of writing. When reviewing the literature, students should not just summarize research; they should clarify why this research is important and how it plays a role in the conceptual argument the student is trying to make. Students should maintain logical transitions between sentences to ensure that each sentence follows logically and appropriately from the preceding one. It is also helpful to include summary sentences at the end of a paragraph, coherent transitions between paragraphs, and summaries between sections. In addition, excessive redundancy across sentences and paragraphs should be avoided. Logical cohesiveness and flow are common problems found in students' writing even at the graduate

level. Students should carefully review their document drafts and reorganize their exposition appropriately before submitting it to be read by their thesis chair or other faculty members.

Apart from section headings, the student may wish to use various headings and subheadings in order to clarify the organization of the proposal; indeed, subheadings are required in the Methods section. Headings should be used to signal only major changes in content. They must not be used to replace transitional sentences between paragraphs. Headings and subheadings may be derived directly from a preliminary outline, and they do, in fact, constitute an outline. The primary requirement of a heading is to be informative. A good heading serves as an index to the content of the section. While the nature of section headings is fixed according to APA style, the number and kind of other headings and subheadings are highly variable. A short proposal may have little need of headings and subheadings; a fairly long proposal will, however, benefit from both forms of headings.

**Writing the Rationale.** The rationale of the proposed research must be identified as such, with a level one heading. A page break is not necessary (see the current APA manual).

The literature review is to be followed by a discussion of the implications of the literature cited, as well as by a statement regarding how the proposed research will make a unique contribution to the field and/or aid in further understanding of some phenomenon. This discussion actually constitutes the rationale of the proposed research. It is fine, and even encouraged, for the student's own reasoning to now be expressed regarding how or why proposed variables from the literature may relate.

The rationale of a research proposal is usually stated in somewhat general or universal terms. The critical sentence of such a rationale might be, for example: "Research evidence appears to implicate epinephrine as at least one substance involved in the expression of anxiety." It should be clear that this is not a statement of a theorized natural law. It is a logical hypothesis that can be tested through the formulation of one or more hypotheses or research questions. Having stated the rationale, the student's next task is to very generally describe the proposed methodology. If the research involves an intervention, its key elements should be discussed here. However, an appendix may be used for specific information. Immediately following the rationale section are the hypotheses and/or research questions.

**Writing the Statement of Hypotheses and/or Research Questions.** The *statement of hypotheses or research questions* section is also identified by a level one heading (see APA style), or it can be a sequential combination of the two.

Explicitly stated hypotheses, or research questions stated in testable form, are crucial in that they provide the transition between the literature review and the methodology. When a study involves more than one hypothesis or research question, each is numbered with a Roman numeral and written as a separate paragraph. Although this may not conform to APA style, it is helpful for members of the thesis committee to have clear and delineated statements of hypotheses or research questions in order to evaluate the soundness of the proposed research.

Ideally, any independent/predictor variables and any dependent variables are operationalized by the wording of the hypotheses. The following hypotheses serve as examples. Note all research groups or experimental conditions, and the relationships between them, need to be included in the hypotheses or research questions:

Hypothesis I. There will be a main effect for praise such that the children receiving praise will engage in more continuous activity on a task compared to children who did not receive praise. Praise will be operationalized as

saying good for a mean of once a minute. Those who do not receive praise will not be given any verbal feedback.

Hypothesis II. There will be an interaction between praise and gender, such that when praise is given, girls will work longer than boys, but when no praise is given, girls and boys will work equally long.

Hypotheses are always phrased as true-false statements. The hypothesis should be as precise as possible and make no reference to variables that are not actually measured. In the case of Hypothesis II in the preceding example, it would be inappropriate to attribute the differences between males and females to locus of control, unless the locus of control were actually measured in some way.

Where appropriate, each hypothesis may be followed by elaboration or explanation. In such cases, the hypothesis should be framed as a single, first sentence of the paragraph to permit differentiation of the hypothesis from discussion of the hypothesis.

Students may also pose research questions along with, or instead, of hypotheses. Research questions should be stated in a single sentence and make reference to specific concepts or variables defined in the proposal. A research question differs from a hypothesis in that no prediction is made. For example: Research Question I: What elements of the family environment predict externalizing behaviors in adolescents? The "elements" of interest and the method for determining "frequency" should be clearly described in the proposal.

## **Writing Section Two: Method**

The purpose of the Method section of the proposal is to describe very precisely the procedures to be followed in testing the experimental hypothesis or research questions. The Method section of the proposal, as is true of all sections of the proposal and of the thesis, follows APA style and do not begin on a new page. Usually the Methods section will be divided into two or more sections that conform to standard elements of a Method section according to APA style. Headings frequently employed in the Methods section typically include Research Participants, Procedure, Apparatus (if using special equipment in data collection) and/or Materials. However, other headings may be used when appropriate (e.g., Setting, Measures, Experimental Conditions, etc.).

**Research Participants.** The nature of the population from which samples are to be drawn should be specified. In the proposal document, relevant characteristics of the population that will be measured, such as age, sex, race, educational level, socioeconomic level, religion, political affiliation, etc., should be identified and the data for these should be described in detail in the final document. Number of research participants and method of selection from the population should be indicated. If research participants are to be divided into groups prior to any treatment, method of assignment to each group should be described. If some preliminary measure is to be used as the basis for assignment to groups--test scores, for example--this procedure should be described in the following section.

**Procedure.** A very detailed description of the procedure to be employed in the study is included under this heading. Normally, the procedures are to be described in the sequence in which they will occur in the study (e.g., pretesting, assignment of research participants to groups, experimental manipulation). Procedures could include (but are not limited to) selection of researchers (e.g., if certain types of people or qualifications are required), any necessary pre-testing, set-up of the research study (including location), important instructions, descriptions of study procedures including sequential use of any materials, equipment or deception, behavioral scripts for confederates (if applicable) methods for collecting and recording data, and debriefing.

If instructions to the research participants are significant to the research design, these instructions should be cited in full and put in an appendix. Within the text, instructions should be summarized so that the reader understands the instructions. Important elements of the instructions (for example, experimental manipulations) should be included word for word in the procedures section as well. Similarly, debriefing instructions, if such are to be used, should be included in an appendix.

If research materials are intertwined with procedures, or are important for understanding research procedures (e.g., with survey research), materials and procedures can be combined into a single section (“Materials and Procedures”) or can be re-ordered so that Materials are described before Procedures. This section should remain in sequential order but will explain materials, as they are relevant in the sequence of procedures.

**Materials.** Special attention should be given to any materials used as part of the research study. Measures to be obtained as a result of the study should be described explicitly and in detail. If a standardized, published scale or test is to be used, a copy need not be included, but the method of test scoring should be noted, and references should be cited and any relevant information about the standardization of the instrument and its reliability and validity should also be included. On the other hand, if a non-standardized or unpublished test or questionnaire is to be used, a copy of the instrument should be included as an appendix to the proposal if possible (depending on copyright or proprietary issues), along with as full a description as possible and one or two sample items per scale or subscale. Scoring methods should be explained and the range of possible scores for each measure should be specified. In addition, each type of score or scale should be identified with a name (e.g., the *emotion identification accuracy score*) that can be referenced when presenting the data analyses or in the discussion section. Lastly, reliability and validity statistics pertaining to research measures (such as scale alphas) should be presented for previous studies or standardization studies (if available) and also for the current study. Every sample yields different statistics.

Relevant facilities and equipment should be described in as much detail as appears relevant to the purposes of the study. If such facilities or equipment are unusual or particularly critical to the procedure, they may merely be mentioned in this section and described in detail in the section called Apparatus (see below).

**Apparatus.** This heading will not often be used. It should be reserved for the detailed description of unusual types of facilities or equipment. Commercially available equipment, such as EEG or eye-tracking devices or psychogalvanometers, may be identified by manufacturer and model number; modifications of such items, and relevant calibrations should be described fully. Equipment designed and/or constructed by the student or for the student should be described as completely as possible; such descriptions may be supplemented by drawings or plans where appropriate, but photographs of equipment will not normally be included.

Input-output parameters of equipment should be specified--for example, intensity of shock--and the appropriate measurement units should be specified (milliamperes, volts, pounds, inches, centimeters, etc.). Where the parameter is critically relevant to the study, manufacturer's specifications should be verified or corrected through preliminary testing. The accuracy of recording devices should be specifically confirmed, and a statement to this effect should be included in the proposal.

**Note.** The student should bear in mind that replicability is an essential characteristic of any study and that reproducibility of results is essential to the progress of science. Descriptions of research participants, procedures, materials and apparatus, therefore, must be sufficiently detailed to permit replication of the study.

### **Writing Section Three: Results and Analysis**

In the third section of the thesis proposal, the student is to describe the nature of anticipated results and the way in which these results are to be analyzed in order to test each hypothesis. The Results and Analysis section of the proposal, as is true of all sections of the proposal and of the thesis, follow APA style and do not begin on a new page. Output variables should be specified in the appropriate units of measurement and categorized according to the source, group and/or treatment condition.

The statistical analyses appropriate to test each hypothesis should be separately specified. The statistical technique should be identified by name and if exceptionally complex techniques are employed, a descriptive phrase should also be included. A reference to the technique should be cited--usually a statistics text or a computer manual--unless it is simple t, F, or Chi Square. Formulas should not be cited unless the technique is unusual. The student should not cite the critical value of the statistic for the test of each hypothesis. The chosen alpha level should be cited only when it differs from the standard of .05.

Students conducting qualitative research should describe how data will be analyzed at the end of the methods section. Given that data collection and analysis typically take place simultaneously, how data are analyzed is described in the methods section. The analytic approach (e.g., grounded theory) and the steps to code the data should be described. Further, any techniques for enhancing the credibility of data (e.g., member checking) and/or inter-reliability of codes is discussed in the analysis section as well.

**Reporting of Multiple Studies.** It might be the case for master's and doctoral theses (less so for honors theses) that multiple research studies are needed to adequately explore the research question or phenomenon of interest. Deciding whether one or more studies are warranted should be done in consultation with the thesis advisor (and perhaps the entire committee). Because all elements of the thesis design and procedure must be approved by the committee, all studies that will be part of the thesis must be included in the thesis proposal. When proposing multiple studies, each study will have a level-one heading, such as this:

#### **Study 1**

This will be followed by a brief overview of the goals and specific hypotheses related to this study. In this case, the prior Rationale section should describe how the goals of the project will be achieved with these studies, and hypotheses are more general and conceptual. Specific hypotheses pertaining to specific research procedures and measures will be reserved for the overview of each individual study.

Following the overview and hypothesis, the Methods and Results and Analyses sections should conform to the standards stated above. Headings and formatting should follow the most current version of the APA publication manual.

**Writing the References Section.** The final section of the thesis proposal is an alphabetical list of references cited within the body of the proposal. The list begins on an appropriately headed new page (see APA style). The precise format of the list of references is that specified in the most recent edition of the APA Publication Manual. All items in the reference list must have been cited in the text and all items cited in the text must be included in the reference list.

**Preparing the Appendices.** Appendices, if there are any, should be positioned immediately following the final page of references. Several types of material may be included in appendices: (1) unpublished tests or

scales, complete with scoring instructions; (2) the complete text of lengthy instructions; (3) extended descriptions of stimuli to be used in the proposed research; (4) detailed intervention materials such as curricula; auxiliary analyses and possibly raw data; (5) informed consent forms; (6) letters to participants; and (7) debriefing scripts or letters. Published versions of tests or scales should not be included in the appendix (unless permission has been granted from the publisher); however, committee members may ask to see a full copy of these documents as part of their review.

Each appendix begins on a new page with an appropriate identification centered as a heading and centered in the middle of the page. Appendices are identified by capital letters (for example, Appendix A, Appendix B, etc.), and there should always be a corresponding reference to their identification within the body of the proposal. Appendices should be ordered in the sequence they are first cited in the proposal.

Appendices should follow the most recent version of APA style.

### **Required Sections of the Proposal**

The essential sections of the proposal -- not including title page, table of contents, etc., which will subsequently be described -- are the following:

#### **For Single Study Papers.**

Abstract  
 Introduction (including the rationale and statement of hypotheses sections)  
 Method  
 Results and analysis  
 References  
 Appendix A (optional)

#### **For Multi-Study Papers.**

Abstract  
 Introduction (including the rationale and general statement of hypotheses)  
 Study 1:  
     Overview and hypotheses  
     Method  
     Results and analysis  
 Study 2:  
     Overview and hypotheses  
     Method  
     Results and analysis  
 (Repeat above for additional studies)  
 References  
 Appendix A (optional)

All of the sections listed above are mandatory except for the Appendices. Within each section, considerable latitude of internal format is permissible to meet the specific requirements of adequate communication of the student's ideas. The student should, of course, prepare a working draft of the proposal within the framework of the above outline and within the guidelines set forth in this manual and the most recent version of the APA Publication Manual.

## Preparation of Prefatory Pages

In addition to the divisions of the proposal already described, the formal draft of the proposal contains two additional pages: A title page, and a table of contents.

**Title Page.** The title page will generally conform to APA style, but has some key differences. The format for the title page of the proposal is included as Appendix A of this manual; deviations from that format are not permitted. In the case of a doctoral dissertation, the word “Dissertation” is substituted for “Thesis.” In all other respects, the title page of the dissertation proposal is identical to that of the thesis proposal. Note that, unlike APA style, the student's name is generally given in full - first name, middle or maiden name (not initial), and surname. The title page is not numbered, but the following page (Table of Contents) is numbered in the lower-case Roman numeral ii.

The Abstract begins on the page following the Table of Contents. Like with APA style, the Abstract begins on pg. 1. Arabic enumeration continues throughout the remainder of the proposal, including appendices.

A number of prefatory pages, some of which are optional, precede the Abstract and Introduction of the thesis. While the first page of the Abstract is always numbered "1," a variable number of pages precede that page, as described below.

**Table of Contents.** This prefatory page is mandatory in both the proposal and the thesis, although their content will vary because of the additional sections and results in the final thesis. The correct formats for both are illustrated in Appendix A.

Each heading and appendix in the thesis is listed in the Table of Contents with its appropriate title and page location. Section headings, prefatory pages, references, and appendices are typed to begin at the left margin (i.e. they are not indented), with the first letter of each word capitalized (except prepositions and articles).

A string of periods extend from listings to page identifications.

If more than one page is required for the Table of Contents, the first page occupies the entire usual typing space of the first page, and the second and subsequent pages simply continue. The format for the Table of Contents of the proposal is illustrated in Appendix B of this manual.

## The Final Thesis: Incorporation of Proposal Sections

Ideally, the Introduction of the proposal will remain the Introduction of the final thesis, although it may be necessary to make some verb tense changes. Please note that hypotheses remain in the future tense. In rare cases, for example as a consequence of unexpected findings, the student may find it necessary to go back and expand the literature review.

Similarly, the methods section (or “study sections” if incorporating multiple studies) of the thesis proposal can usually be incorporated into the thesis with minor changes in verb tense (the Methods section/s of the proposal is/are written in the future tense while the corresponding section/s of the final thesis is/are written in the past tense.) The student should consult with the thesis committee chairperson concerning the need for inclusion of all methodological details contained in the proposal. While detailed descriptions of research participants, procedures, and apparatus are appropriate for the proposal, such detail may be unnecessary in the thesis itself.

Any deviations from the procedure described in the proposal should be reflected in the thesis. As a general rule, the level of detail should be at least as stringent as what is found in a typical APA journal.

**The Results Section.** The results section/s will change the most, but should be based upon the corresponding section/s of the proposal. As with the proposal, if multiple studies will be undertaken, the student should include a separate Results section for each study. In most cases, the results will be reported in the same order as the hypotheses. In some cases, the student may include additional data techniques or newer techniques not anticipated at the time of the proposal that enable the student to better test their hypotheses.

The Results section should include data summaries, but there is rarely any reason for including raw data. If raw data are pertinent, they may be included as an appendix. The summary statistics reported in the results section/s will largely depend upon the nature of the data and the statistical techniques employed. Means and standard deviations (or variances) for each group must be reported (where appropriate); the final number of research participants in each group must also be reported. Such statistics as range and median are only included if pertinent to the nature of the research or hypotheses/research questions.

The Results section serves the purpose of reporting data summaries and results of analyses using current APA style. Discussion of results within the results section should be limited to references to the source of data, method of analysis (again citing only unusual formulas), outcome of the statistical test and its significance, and reason for performing the analysis (generally by reference to a specific hypothesis). *Implications of the results and their significance for theory are not appropriate topics for this section.* For very complex or lengthy results, some discussion or summary may be integrated for ease of reading, but this should be discussed with the committee chair. Of course, some discussion of the reason for performing supplemental analysis is necessary, but this should be brief and specific.

It should be noted that while this section of the proposal is titled RESULTS AND ANALYSIS, the corresponding section of the final thesis is simply titled RESULTS. Also note that if abbreviations were introduced earlier and are to be used again, the abbreviations should be redefined when first used in this section.

As is true of all sections of the thesis, the results section/s may be divided into subsections, using the various types of headings and subheadings. If there are several categories of results - each, perhaps, relating to a single hypothesis - subsections may facilitate the reader's understanding. In this case, the introduction to each subsection should include a restatement of the particular hypothesis or research question with which it is concerned. If the study deals with a single hypothesis and there are no subsections, that single hypothesis should be restated at the beginning of the results section.

Data developed in the course of a thesis frequently require analyses supplemental to those anticipated in the proposal. Such analyses may be undertaken on the student's initiative (but with the committee chairperson's consent), or may be specifically required by the thesis committee. Supplemental analyses may or may not directly relate to one of the study's hypotheses, but may be used to explore ideas suggested by the data. Results of supplemental analyses are to be reported in the same manner as results of primary analyses (following APA style); supplementary analyses must clearly be denoted as such, usually in a separate subsection called "Additional Analyses."

In qualitative research involving text data (e.g., interview transcripts), it is essential to use participants' quotes strategically as a way to illuminate themes or statistical findings. Be sure to properly set up the quote, for example by identifying the demographics (e.g. sex, race, age, etc.) of the individual whose words are being used and the overall context of any wording extracted from a larger context.

**Tables, Figures and Graphs.** Tables, figures, and graphs are included in the body of the manuscript and may use less than the full typing width of the paper. Explanatory comments, such as significance levels, meaning of abbreviations, etc. may appear under a figure or a table (see the latest version of the APA Manual for examples).

The "three-fourths rule" is recommended in the construction of graphs. One axis should closely approximate 75% of the length of the other axis. Further details on graph construction will be found in the most recent edition of the APA Publication Manual.

Tables and figures are a convenient means of summarizing results and should be integrated into the text of the results rather than at the end of the document. Note: this differs from APA submission guidelines, which usually requires tables and graphs to be at the end of the document. Including these in text is actually consistent with publishing guidelines, as publishers integrate the tables and figures into the text, and theses are published documents. When the tables, figures and graphs take the entire page, they should be included on the page that immediately follows the first reference to that table. When tables do not take the entire page, they should be integrated immediately following the paragraph in which they are referenced and should be left justified.

### **Writing the Discussion Section/s**

A critical part of any thesis is the Discussion section (or sections for multiple studies), which discusses the significance of the results of each study. As with the results, in the case of multiple studies, each study should include a separate discussion section following the results section of that study. A "General Discussion" section will serve as the overall discussion of the entire project (see The General Discussion" Section below).

This section may be divided into subsections, and its organization often follows that of the hypotheses and results. The discussion considers how the results bear upon the concepts presented and discussed in the Introduction (or separate study overviews).

The common problems with Discussion sections usually fall in one of two categories: Discussions that are too brief and in essence just restate findings or provide cursory analysis; or discussions that are too lengthy and include unnecessary or irrelevant commentary. Both of these extremes should be avoided by providing thorough consideration of the implications of the results, as they are relevant to the study's hypotheses and to underlying theory. Students should follow APA guidelines for how to write a discussion section and the type of information that should be included.

For single-study theses, the following subsection might be included but are not required (some of these will be more appropriate for the "General Discussion" section of a multi-study paper): Major Findings, Implications (sometimes there are implications sections for research, theory, and practice), Strengths and Limitations, and Future Directions. Some students also put a short summary as part of the last section of the Discussion section (often called "Summary" or "Conclusions").

In theory, scientific hypotheses in experimental research are so precisely constructed and methodology is so perfectly planned and executed that the results of a scientific study are unequivocal; hypotheses are clearly confirmed or not confirmed. These ideals are rarely met. Frequently hypotheses or research questions are only partially confirmed or disconfirmed. In other instances, results are equivocal, or unanticipated events in the field changed the research plan. A major purpose of the Discussion section is to consider factors that may have

been responsible for such inconclusive or unanticipated results. Speculation about possible confounding or intervening variables is permissible, but it should be restrained, and, where possible, such speculation should be supported by data and/or literature citations. The Discussion section must not be used to excuse failures in planning or executing the study; but any failures or shortcomings should be noted. Nonetheless, it is important to discuss limitations of the research, and confounding factors in field or naturalistic research that could be helpful to future investigators.

Another important function of the discussion is to relate the results of the study to other research literatures. If similar studies have obtained different results, the student should attempt to account for the difference (which can include, if justified, the possibility that prior research may have been limited or flawed). The student may also wish to discuss the possible implications or applications of the results to real-life settings, or other types of field settings. This discussion should include suggestions for further research, and a brief explanation of how this future research might add to or address issues raised or unaddressed in the study being discussed.

Many citations will be derived from the literature review in the Introduction, but additional references may be introduced in the discussion. These references may deal with areas not directly related to the area of the thesis problem; they may be used, for example, to account for divergent results or unanticipated methodological problems, or to discuss a study published between the time the proposal was approved and the writing of the thesis.

**The General Discussion Section.** Some students will include multiple studies in their thesis. If so, it is important to discuss the overall findings and implications of all of the studies together in light of the conceptual framework, general hypotheses, specific study hypotheses, and current literatures. This should be undertaken in a section called “General Discussion” that immediately follows the discussion section of the last study of the thesis. This section should be called “General Discussion” and should be delineated with a major level heading (see APA style). Note: Single study theses will only have one Discussion section and should not include a General Discussion section.

The subsections of the General Discussion might include (but are not required nor limited to): Review of the major findings of all of the studies (summarized, not repeated); Implications (sometimes “Theoretical Implications”) and should include both implications for the present theory as well as for other perspectives in the extant literature; Limitations of Research; and Future Directions. Some students also put a short summary as part of the last section of the Discussion section (often called “Summary” or “Conclusions”).

### **Revising the Abstract**

After writing the thesis, including the results and discussion sections, the student will revise the Abstract written for the proposal. The abstract should be written similar to a Dissertation Abstract and should not contain more than 600 words.

The purpose of the abstract is to provide the reader with enough information to understand the purpose, procedures, and results of the study. Allusions to the literature reviewed in the introduction section are not necessary, with the possible exception of a single study from which the thesis study was derived. Hypotheses need not formally be stated, but their essential concepts should be mentioned, and procedures can very simply be noted. (For example: "Half of the children in each group received praise while working on a jigsaw puzzle.") Results are briefly summarized in relation to the hypotheses; statistical values and levels of significance are not stated. The summary may conclude with a brief reference to underlying theory or implications.

## **Listing of References**

The final mandatory section of the thesis is the list of references. The format required here is identical to that of the proposal, and all additional references cited in the Results or Discussion must be included. Students should engage in a 1:1 check to insure that every citation in the thesis has a reference, and that every reference in the reference section is cited in the thesis. Reference style should conform to the most recent version of the APA Publication Manual.

## **PART VI. ASSEMBLY OF THE FINAL THESIS**

The following is a list of the official and unofficial parts of the thesis in the order in which they are to occur. The list also shows the official title of each section.

### **Single Study Thesis**

Title page  
 Thesis committee  
 Acknowledgments (optional)  
 Biography  
 Table of contents  
 List of tables  
 List of figures  
 Abstract  
 Introduction (with rationale and statement of hypotheses or research questions)  
 Method  
 Results  
 Discussion  
 References  
 Appendix A. Title  
 Appendix B. Title

### **Multi-Study Thesis**

Title page  
 Thesis committee  
 Acknowledgments (optional)  
 Biography  
 Table of contents  
 List of tables  
 List of figures  
 Abstract  
 Introduction (with Rationale and Statement of Hypotheses or Research Questions)  
 Study 1  
     Overview  
     Method  
     Results  
     Discussion

## Study 2

Overview  
 Method  
 Results  
 Discussion

(Continue in the above format for each additional study)

General discussion  
 References  
 Appendix A. Title  
 Appendix B. Title

Unjustified deviations from the order and procedures implied by this listing will not be accepted. If a student feels excessively restricted by this organization, he or she should consult with the chair of the thesis committee for permission to deviate.

### Extra Pages in Thesis (Not in Proposal)

There are several pages that appear on in the final thesis. They include the following:

**Thesis Committee.** The second page of the thesis, which is also mandatory, simply lists the members of the thesis committee. The correct format is illustrated in Appendix B. This page is numbered "i".

**Acknowledgements.** NOTE: This optional page is only included in the final thesis.

A page of acknowledgements is optional (see Appendix B). If such a page is to be included, it immediately follows the list of committee members and is numbered "ii." The title on the page is to be centered and the text should be left justified (within the correct margin requirements). Note that this is usually the only part of the thesis in which the first person pronoun ("I") is used.

### Acknowledgments

I would like to express my sincere appreciation to my thesis chair Andrea T. Smith and committee member Justin Sinclair for their support and encouragement throughout this project. I would also like to thank Catherine Rockefeller, the principal of Oscar Meyer Elementary School, for providing me with the opportunity to do field observations.

Note: Acknowledgments are typically brief and relatively formal. However, this section is for the student to express gratitude in whatever manner that s/he sees appropriate. It has no formal structure other than that it cannot exceed one page and must be written in a professional manner (it is not an opportunity to level criticism). The encouragement, support, and/or patience of spouse, friends, children, or others can be included but should be done with discretion.

If the thesis research was wholly or partially supported by funds provided by an individual, institution, or agency, recognition of that support in the form required by the grantor is appropriately made on the Acknowledgements page. Use of facilities outside the University should be acknowledged. This statement of recognition takes precedence over other acknowledgements and should be included when appropriate.

**Biography.** NOTE: This page is required only in the final thesis.

The page following Acknowledgements (or Thesis Committee) is reserved for a short biographical statement about the researcher. This page is mandatory and should be numbered accordingly. The following example is acceptable:

### **Biography**

The author was born in Chicago, Illinois, January 1, 1988. He graduated from Cumberbund High School, in Chicago. He received his Bachelor of Arts degree from Loyola University in 2010, and his Master of Arts degree in Psychology from DePaul University in 2012.

If the student has changed his or her name (e.g. as a result of marriage or other events), the student's given name should be cited. For example, "Connie Adams Smith (formerly Connie Jane Adams) was born . . .", etc. Other personal information is not to be included in the biography.

The title on the page is to be centered and the text should be left justified. The biography should not exceed one page. A sample biography is included as Appendix B. How this page is numbered depends on whether there is an acknowledgement section and how long it is. If there is an acknowledgement section of one page or less, the biography will likely start on page iii.

**List of Tables.** Following the Table of Contents is a page similar to the Table of Contents, except that it is headed:

### **List of Tables**

The List of Tables is precisely what its name suggests: a listing of tables as they occur within the body of the thesis. A typical entry for the List of Tables would be:

Table 6. Effects of left versus right hemispheric processing on speed of recognition of concrete and abstract words . . . . . 42

Note that the entire caption of the table is given, exactly as it appears in the text. Note also that the caption is single-spaced. However, between listings double-spacing is maintained.

The title on the page is to be centered and the text should be left justified.

**List of Figures.** The next page following the List of Tables is reserved for a page headed:

### **List of Figures**

This page is very similar to the List of Tables page, except that its contents are a listing of figures that appear within the body of the thesis. Typically such figures will be graphs, but they may also include the drawings or reproductions of various kinds; the critical factor is that the caption begins with the word "Figure". These are listed in the order in which they occur within the text, and the caption is cited in full. The format is the same as that required for the List of Tables.

## Word Processing and Style Requirements

The student is urged to use Microsoft Word, in either its PC or MAC version. Pictures or symbols must be scanned and reproduced in the most professional manner possible.

**Paper and Font.** The thesis is printed on 8 ½ by 11 inch white paper with black font only. Times New Roman, font 12 is recommended as a standard.

**Margins and Paragraphs.** Top, bottom, and right margins of at least one inch are to be maintained throughout. A left margin of two inches is to be maintained throughout, to allow for binding of the thesis.

**Numbering.** All pages are to be numbered in the upper right corner and should conform to the most recent version of APA style with the following exceptions: Roman numerals are used as lower-case page numbers for pages preceding the first page of the Introduction section. Roman numerals are also used to number hypotheses when more than a single hypothesis is involved.

**Capitalization.** Some parts of the thesis may be typed in all uppercase letters while other parts use a combination of uppercase and lowercase letters (i.e., capitalizing initial letters of important words in a heading). For the format of the thesis title page, see Appendix A. For guidelines on headings, see the most recent APA Publication Manual.

**Writing Headings and Subheadings.** Headings and subheadings should conform to the most recent version of APA style.

The overall writing style in the thesis should conform to the most recent version of the APA publication manual. Students should consult this manual for grammar and guidelines for eliminating bias in language usage (e.g. gender and race based biases, etc.). There are places where the thesis requirements differ from those of APA and they will be noted below.

## Part VII: Degree Conferral Process

In order for students to officially receive their graduate degree, they must apply for degree conferral (in addition to completing the academic requirements for the degree). Each quarter, the College of Science and Health processes degree conferral audits and submits the applications from eligible candidates to the Office of Student Records (SR) to post degrees to students' transcripts and university records. There are several steps to this process detailed below.

### Application for Degree Conferral

Students must apply for degree conferral when they are finalizing the degree currently in progress—MA, MS, or Ph.D. This also includes the MA portion of the Psychology Department's combined MA/PhD program, as the MA must post to the student's transcript prior to matriculation to the Ph.D. portion of the degree. The optimal time to begin the degree conferral process is right before or immediately after the final defense. All requirements for the degree must be completed by the deadline (see deadlines below), so students need to time their degree conferral to allow for their final defense, any additional edits that must be made to their thesis, and filing their thesis. This usually takes at least a few weeks, so students should factor in that time when deciding when to apply for degree conferral (and when to schedule the final defense).

The deadlines for applying are as follows:

- Autumn Quarter – October 1<sup>st</sup>
- Winter Quarter – January 15<sup>th</sup>
- Spring Quarter – February 1<sup>st</sup>
- Summer Sessions – July 15<sup>th</sup>.

The application for degree conferral is currently processed through Campus Connect (see Appendix \*). If a student applies for degree conferral but is not able to complete all of her/his requirements by the degree conferral deadline, s/he will need to postpone degree conferral to the next quarter (or whichever quarter s/he is able to finish her/his requirements) (see Deferment of Degree Conferral below).

Ph.D. candidates that entered the program with advanced standing (with masters' degrees) may only see the option of MA conferral in Campus Connect given that Campus Connect may not have a record of the student's MA degree from an outside institution. In this instance, the individual candidate will need to work with the Graduate Program Coordinator and college level advising department to switch to the Ph.D. conferral pool. The final transcript from the individual's university must be turned in to the Graduate Admissions Department to allow for this switch.

### **Registration and Financial Aid**

After a student applies for degree conferral, registration and financial aid will become locked for the duration of the degree-processing period. Unfortunately, this includes students conferring the MA portion of a combined degree. This can cause complications with course registration and loan repayment. If a student has a lock on his/her records and needs to register for classes or access financial aid, s/he will need to contact the Graduate Program Coordinator as soon as possible to remove these locks.

### **Degree Audit**

The Graduate Program Coordinator preforms a pre-audit of degree progress for each individual that has applied for conferral. This audit is to ensure that all course requirements have either been met or have been officially waived and that all grades have been posted. Courses that have not received a grade (e.g., required courses, courses with an incomplete or R grade) will prevent the degree from being processed by Student Records. After the pre-audit, the college level advising office will perform an additional audit to ensure accuracy and record course waivers. The advising office may reach out to individuals for grade changes and information regarding course waivers that remain unresolved.

### **Paperwork and Thesis/Dissertation Submission**

In addition to the application and degree audit, students must also complete five forms: 1) an Author Submission Agreement, 2) Abstract and Keyword form, 3) Approval of Proposal for Final Project form, and 4) Final Requirements Report (found on the [CSH advising website](#) or Appendix \*). These forms, along with a PDF of the final version of the thesis/dissertation should be submitted to the college level advising office (CSHAdvising@depaul.edu). The Approval of Proposal for Final Project and Final Requirements report should also be submitted to the Graduate Program Coordinator for placement in the student's files after the proposal defense meeting and thesis/dissertation defense meeting and will be forwarded to the college level advising office on the student's behalf upon request. It is recommended that students retain a copy of these documents

for their personal records. *All of these documents must be submitted to the college level advising office before the last day of the quarter in which an individual wishes to confer a degree.*

### **Deferment of Degree Conferral**

Should the student be unable to complete the above steps, does not pass the degree audit, or is unable to defend the thesis/dissertation prior to the final day of the quarter in which s/he wishes to confer her/his degree, the student will have to defer degree conferral to a later quarter. If an individual is aware that he or she will need to defer to a later quarter than what was originally planned, the student must inform the Graduate Program Coordinator in a timely manner.

If a student needs to defer, the degree conferral application must be submitted again when they are ready for degree conferral, as the pool of applicants is cleared each quarter. This new application for degree conferral must be submitted through Campus Connect when the individual is capable of completing the above steps in their entirety.

### **Part VIII: COMMENCEMENT CEREMONY**

The commencement ceremony is held each June at the end of spring quarter for both undergraduate and graduate students. Students that have conferred a degree at any point during the academic year are eligible to participate in the ceremony, but must apply to participate. After an individual's conferral application is accepted, Campus Connect will give a prompt to apply for the commencement ceremony as well as to order the cap and gown.

Students who intend to confer during the summer session are allowed to participate in the commencement ceremony, but will not receive a diploma from the university until all requirements have been met. If this is the case, please contact the Graduate Program Coordinator and College advising to inform them of your desire to participate in the ceremony.

Note: If you do not apply for commencement, you will not be called to the stage to receive your degree or undergo the Ph.D. "hooding" ceremony during commencement, so please remember to complete this step if you would like to participate in the graduation ceremony.

## **PART IX. APPENDICES**

### **Appendix A**

Sample of a Single Study Master's Thesis Proposal with Title Page, Table of Contents, Lists of Tables, and Figures, and Abstract

Stereotypes as Attributions for  
Women's Performance in STEM domains

Proposal for a Thesis

Presented to

The Department of Psychology

DePaul University

By

Jane Roberta Jones

September 21, 2013

## Table of Contents

List of Tables .....	ii
List of Figures .....	iii
Abstract .....	1
Introduction .....	2
Attributional Research .....	4
Gender Differences .....	10
Rationale .....	18
Statement of Hypotheses .....	21
Method .....	29
Research participants .....	29
Materials .....	30
Procedure .....	31
Results and Analysis .....	36
Hypothesis I .....	37
Hypothesis II .....	43
References .....	60
Appendix A. Instructions to the Control Group .....	65
Appendix B. Pre-treatment Attitude Scale .....	69
Appendix C. Self-scoring Instructions .....	71

**List of Tables**

Table 1. Results from the Manipulation Check.....	37
Table 2. Means and Standard Errors for the Gender Prime Task.....	38
Table 3. Means and Standard Errors for the Academic Task .....	40

## List of Figures

Figure 1. Interaction between Gender Prime and Academic Task on Performance.....	38
Figure 2. Interaction between Gender Prime and Academic Task on Attitudes toward STEM disciplines .....	48

## **Abstract**

This thesis examines the role that stereotypes play in imposing obstacles to success for women and girls inside and outside of the classroom. Stereotypes convey explanatory information about groups—such as "girls are illogical" or "girls are bad at math"—that may be used as attributions for performance in achievement-oriented domains such as the classroom or the workplace. This dissertation presents a model that brings to light the underlying attributional structures of all stereotypes. Each of these attributional signatures has specific effects on judgments of responsibility and deservingness, help giving or punishment, inside and outside of the classroom. Two approaches were used to investigate these issues. First, participants were exposed to stereotypes to determine if these latter altered attributions made for a stigmatized target's outcomes in stereotype-consistent ways. Second, participants were again exposed to stereotypes to ascertain whether or not the latter increased biased or discriminatory judgments of, and intended behavior toward, a stigmatized target. These processes, tested in two domains—school and the workplace—, focused on the stereotypes of women, and how these stereotypes pose barriers to success for women in STEM fields—both in the classroom and at work. Throughout these studies, thinking of gender stereotypes at times affected the way men's and women's achievement outcomes were interpreted in stereotype-consistent ways. The first study demonstrated that thinking about stereotypes of women increased stereotype-consistent attributions. The second study did not replicate the findings from the first study. However, it did reveal that thinking about stereotypes of men could also influence attributions in a manner

consistent with beliefs about men. The third study demonstrated that stereotypes have different attributional meaning depending upon the context of the judgment (traditionally male or female occupations). However, the model was primarily supported for judgments of female, but not of male, targets. This study also showed that the stereotype-attribution link could be a powerful determinant of the way stigmatized people are evaluated and treated in the workplace. The final study revealed that even very specific stereotypes of subgroups carry with them attributional meaning that can influence the way members of these groups are evaluated and treated.

## **Appendix B**

Sample of a the Title Page, Prefatory Pages (Committee members, Biography, and Acknowledgements), and Table of Contents for a Final Multi-Study Dissertation

Effects of Situational Distractors  
On Perceptual Performance of Men and Women

A Dissertation \*

Presented in

Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Philosophy \*\*

By

John Robert Jones

June, 2013 \*\*\*

Department of Psychology  
College of Science and Health  
DePaul University  
Chicago, Illinois

\* Substitute Thesis

\*\* Substitute Master of Arts

\*\*\* This must be your anticipated graduation date

**Dissertation Committee**

Anne T. Smith, Ph.D., Chairperson

Howard L. Schmidt, Ph.D.

Catherine Peterson, Ph.D.

Darnell Santiago, Ph.D.

Margaret Choi, Ph.D.

## **Acknowledgments**

I would like to express my sincere appreciation to my thesis chair Anne T. Smith and committee member Helen Ann Schmidt for their support and encouragement throughout this project. I would also like to thank Catherine Rockefeller, the principal of Oscar Meyer Elementary School, for providing me with the opportunity to do field observations. My deepest gratitude goes to my partner who has supported me unconditionally throughout this process.

## **Biography**

The author was born in Chicago, Illinois, January 1, 1985. He graduated from Cumberbund High School, received his Bachelor of Arts degree from DePaul University in 2007, and a Master of Arts degree in Psychology from the same university in 2009. In the same year she was awarded the Humperdinck Foundation Fellowship for Predoctoral Study in Psychology.

## Table of Contents

Dissertation Committee . . . . .	i
Acknowledgments . . . . .	ii
Biography . . . . .	iii
List of Tables . . . . .	iv
List of Figures . . . . .	v
Abstract . . . . .	1
Introduction . . . . .	2
Attributional Research . . . . .	4
Gender Differences . . . . .	10
Rationale . . . . .	18
Statement of Hypotheses . . . . .	21
Study 1.22	
Overview of Study 1 . . . . .	22
Study 1 Hypotheses . . . . .	28
Study 1 Method . . . . .	29
Research participants . . . . .	29
Materials . . . . .	30
Procedure . . . . .	31
Study 1 Results . . . . .	36
Major Hypotheses . . . . .	38
Supplemental Analyses . . . . .	43
Study 1 Discussion . . . . .	46
Study 2 . . . . .	49
Overview of Study 2 . . . . .	49

Study 2 Hypotheses.....	51
Study 2 Method . . . . .	51
Research participants . . . . .	51
Materials . . . . .	52
Procedure . . . . .	54
Study 2 Results . . . . .	57
Major Hypotheses.....	57
Supplemental Analyses... 61	
Study 2 Discussion . . . . .	63
General Discussion . . . . .	67
References . . . . .	72
Appendix A. Instructions to the Control Group . . . . .	80
Appendix B. Pre-treatment Attitude Scale. . . . .	81
Appendix C. Self-scoring Instructions . . . . .	82

# Appendix C

Sample screen shots of pathways taken to apply for degree conferral via CampusConnect

