

Master's Thesis Guidelines

Department of Speech-Language-Hearing Sciences

Loyola University Maryland
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**I. OVERVIEW FOR MASTER'S DEGREE THESIS IN SLP
(Abbreviated Timeline)**

- A. Develop a research topic or idea of interest to you based on current literature.
- B. Approach a full-time faculty member whose area of interest is the same or similar to yours, and inquire about his/her interest in acting as your major reader/thesis advisor. **Contact the Graduate Program Director (GPD) and/or potential thesis advisor regarding course enrollment (e.g., Independent Study and/or Thesis Seminar).**
- C. Search the literature (including methodology) and develop a hypothesis. Present to Major Reader.
- D. Secure a thesis committee. **Major reader submits the *Thesis Committee Form* to the Director of Program Operations (DPO).**
- E. Develop a research proposal to include: (a) the introduction, (b) a review of the literature (may be in outline form, up to the discretion of the Major Reader), and (c) a detailed proposed methodology.
- F. Obtain approval of proposal by the thesis committee. **Submit the *Approval of Proposal by Thesis Committee* form to the DPO.**
- G. Submit proposal to Loyola University MD's Human Subjects Committee (if applicable, submit proposal prior to this to the LCC Research Committee).
- H. Upon Human Subjects Committee and LCC approval, begin collecting data.
- I. After data are collected, analyze using the appropriate method and begin rewriting your methodology, results, and discussion.
- J. Be sure your entire thesis and references are written correctly in APA style.
- K. Defend your thesis to a committee consisting of your major reader (advisor) and two other readers. **Major reader submits completed thesis and the signed *Final Approval of Thesis* form first to the Department Chair and then to the Dean of Loyola College.** Upon Dean approval, the requirement is fulfilled. (DPO will file information with Records Office.)
- L. Submit thesis to Loyola/Notre Dame Library with *Dissertation/Thesis Digitalization Permission* form.

Suggested Timeline:

- A & B: Fall or spring first year
- C, D, & E: Spring first year (optimally, in SP 625)
- F, G: Late spring, summer first year (may enroll in SP 616, Independent Study in SP, for summer if working closely with major reader at that time)
- H: Summer, fall second year (must enroll in SP 657 Thesis Seminar)
- I, J: Late fall, early spring, second year (must enroll in SP 657 Thesis Seminar [again])
- K: Late April, early May of spring semester, second year (must be in time to obtain all approvals and paperwork for graduation; see DPO for specifics)
- L: Before May 15 for spring graduation

II. SLHS DEPARTMENT THESIS REQUIREMENTS AND EXPECTATIONS

Overview

At Loyola University Maryland, a Master's thesis is a scientific investigation which demonstrates the scholarship, logical consistency, creativity, and comprehensiveness which are associated with genuine research. The following information outlines the requirements and expectations of each step, consistent with University Thesis Requirements (see Appendix A).

Course Enrollment, Waiver, and Completion

All students pursuing a thesis must enroll in *SP 657 Thesis Seminar* (can be repeated for credit) for the fall and spring semesters of the student's second year. If a student is enrolled in *SP 657 Thesis Seminar* in the spring AND actively pursuing the thesis, s/he may opt to NOT enroll in 3 credits of elective courses offered at the end of the spring semester. The student is permitted to enroll in any/all elective courses, but may opt out to allow for more time to complete the thesis. If a student enrolls in the elective courses, s/he is bound by the same requirements as all other students (e.g., withdrawal; satisfying course requirements; attendance).

In order for a student to enroll in *SP 657 Thesis Seminar* the initial thesis proposal must be approved and permission granted by the Graduate Program Director. Prior to enrollment in the course, the student works with the major reader to develop an idea for a thesis project, begins to prepare the literature review, and develop a method for investigating the chosen question. The student then receives feedback from his or her other two committee members and further revises the proposal. If a student is working closely with the major reader at this time (i.e., summer), it is an option to enroll in *SP 616 Independent Study in Speech Pathology* for 1-3 credits. This enrollment (SP 616) must be approved by the Graduate Program Director and/or the Department Chairperson.

Following a thesis committee meeting, the major reader assists the student in planning for data collection, preparing the results and discussion section following data collection, and preparing the final thesis document. This typically entails two semesters, therefore the student will **re-enroll in *SP 657 Thesis Seminar*** for the spring semester during which time student continues to work with the major advisor and committee with the intention of completion (defended and approved) by early May of the graduating year.

It is expected that students pursuing the thesis will be finished by the end of the second year of the program. Any student who has not completed his or her thesis by the end of the spring semester of the second year of the program must register for SP 657 for each subsequent summer, fall, and spring semester until the thesis is completed. A fee will be charged each semester AFTER the expected graduation date.

Choosing a Major Reader and Committee

Each graduate student working toward a thesis must choose an area of interest to be developed into a thesis topic. The student is required to locate a SLHS faculty member who might be interested in that particular area of research to serve as major reader. Per University requirements, the major reader must be a tenured or tenure-track member of the Loyola University MD faculty.

Students are encouraged to meet with between two to three faculty members to discuss with them the potential of being a major reader. For these meetings students should be prepared to discuss potential topic(s) and what style of advising they are seeking (e.g., more independent vs. closely monitored, etc.).

The choice of a major reader should not be taken lightly. A student may spend many hours interacting with his/her major reader; therefore, it will be in the best interest of all parties involved to make sure a good match has been made. The student should consider a faculty member's other time commitments, interests, and personality. Students are also encouraged to ask faculty about their existing or ongoing research that may offer opportunities for thesis data. Many faculty members would welcome students to join their research teams or labs and to build their thesis around their current research project.

If a student is working closely with a potential major reader during the summer, it is an option to enroll in *SP 616 Independent Study in Speech Pathology* for 1-3 credits. Enrollment in SP 616 must be approved by the Graduate Program Director and/or the Department Chairperson.

Once a cursory proposal is developed, the student should present his or her topic to two additional faculty members and request that they serve as readers. As noted in the University requirements, the second member of the thesis committee must be a full time member of the Loyola faculty (may be academic and/or clinical), the third may be a member of the Loyola faculty or may be an outside reader who holds the minimum of a Master's degree and be judged by the department chair or dean to have expertise in the area. All members of the thesis committee must be approved by the major reader prior to the request.

At this time, **the *Thesis Committee Form* must be submitted by the major reader to the DPO (see Appendix B).**

Thesis Proposal

Once two additional faculty members have agreed to serve on a student's committee, and the proposal has been approved by the major reader, thesis proposal approval must occur (per University guidelines). This may consist of an in-person meeting OR be conducted via electronic communication, dependent on the requirements of the major reader. Regardless of the format, *the student* either (a) makes arrangements for a meeting of the committee to present the proposal, or (b) alerts the committee of the timeline of the proposal. Each reader should be provided with a copy (electronic; paper if requested) of the final proposal a week before the meeting due date (i.e., the date on which the student needs the feedback). The purpose of the proposal is to provide adequate information regarding the overview of his/her study, with concentration on the methodology (see section IV of this manual for specific guidelines for the contents of the proposal). After reviewing the proposal, committee members may raise old or new questions, challenges, suggestions, and so forth, and it is incumbent upon the student to either defend the position in the proposal or incorporate the suggested revisions. Following the oral or electronic review, the committee will (a) fully approve, (b) provisionally approve, or (c) fail to approve the proposal. If the committee cannot reach a consensus, a committee member may withdraw from service on the committee, and the student must recruit a replacement from the remaining faculty.

If the committee approves the proposal, each member will sign the *Approval of*

Proposal by Thesis Committee form (see Appendix C). Once approved, the student may enroll in *SP 657 Thesis Seminar*. If extensive revisions are necessary, the student will rewrite the proposal, incorporating recommendations, and will take the revised proposal (along with the previous draft) individually to committee members for signatures.

The student and the committee are held to the proposal as filed. However, there are occasions when problems encountered in research necessitate a revision of the original proposal. If such an occasion should arise, the student must submit a written request detailing the proposed changes and the rationale for these changes. Each committee member must sign the request which will then be filed with the original proposal.

In the field of speech-language pathology, there are often differences of opinion concerning what constitutes valid and meaningful research. In keeping with this tradition of scholarly debate and peer review, differences of opinion as to what constitutes an acceptable Master's thesis at Loyola also exist (e.g., correlational vs. experimental designs; group vs. single subject designs; quantitative vs. qualitative approaches, etc.). These differences are typically resolved in an ongoing process among the three faculty members and the principal investigator (i.e., student). Therefore, it is to be expected that committee members will disagree at times, and it is the student's responsibility to effectively resolve these disagreements to the satisfaction of the **entire** committee. Each student's experience may be different based upon the topic researched and the makeup of the student's committee. It is important to note that although the major reader carries the greatest responsibility in overseeing the research, each committee member has equal status concerning expectations and approval at any stage of the thesis work.

Preparation of the Final Thesis

The major reader assumes the responsibility for overseeing the student's data collection, computer programming, data analysis, etc. The student gives the first draft of the completed thesis to the major reader who makes recommendations and reminds the student of proper format. It is recommended that each student obtain a copy of the *Publication Manual of the American Psychological Association* (2010, 6th ed.) for proper format for references cited in the text, reference list, writing style, margins, etc.

The first draft of the thesis should be grammatically and stylistically correct. A major reader may refuse to continue reading that draft if more than a few mistakes are noted.

When the major reader's comments have been incorporated, the student gives a revised draft to the major reader and thesis committee for their comments. If the readers have additional suggestions at this stage, these are submitted to the major reader and the student.

Students should allow **at least two weeks** for the major reader to evaluate the first draft, and **at least one week** for the major reader and readers to evaluate the revised draft. All approvals must be received verbally before final preparation. After they have given feedback, the student is responsible to make necessary revisions and schedule Thesis Defense.

Following the Defense (see next section), there are often major to minor revisions required. It is up to the committee to determine if these need to be reviewed by the committee or can be evaluated by the major reader alone. Regardless, once all edits have been satisfactorily completed and the thesis is in final form following *University Dissertation and Thesis*

Standards (separate document available on [Department website](#)) the committee and Department Chair sign the approval sheet (see Appendix D, *Thesis Final Approval* signature page).

After committee and Chair approval, the major reader submits the thesis and the signed *Thesis Final Approval* signature page to the Dean of Loyola College of Arts and Sciences. Typically, the Dean requires one week for review and final approval.

PLEASE NOTE: For May graduation, the thesis must be submitted to the Director of Program Operations in Speech-Language Pathology in final form including (a) the signed approval page (see above and Appendix D, *Thesis Final Approval* signature page) and (b) an electronic copy of the thesis in final form by May 1. (For September graduation, submit by September 1; and for January graduation, submit by December 15). These dates may change depending on graduation deadlines.

Once given approval from your Major reader, submit the thesis electronically to the library (See Appendix E, *Library Digitization form*). The Department keeps one copy (electronic and paper) on file (with the Graduate Program Director), the major reader receives one copy (either electronic or paper), and the student keeps one copy. If the student would like his or her copy bound, please contact the library about this process; there is a cost per copy. The student may request that his or her copy be returned by mail, although it is advisable to retrieve this copy personally. Students may also request additional bound copies with signed approval forms if desired.

From the point of formal presentation of a proposal to a major reader, to submission of final copies of the thesis, the typical student takes 12 to 14 months. The following presents an example of how this time is broken down:

- Proposal finalized and approved: 5 months
- Data collection: 1-2 months
- Data analysis: 1-2 months
- Thesis writing and revisions: 5 months

Thesis Defense

An Oral Defense of the Master's Thesis is required in order for the student to defend the **completed work**. As there are typically major to minor revisions of the thesis following the defense, please be sure to allocate enough time in order to secure final committee approval (including the Dean) and meet the graduation deadline.

The Major reader will determine when the student is ready, and will schedule (or instruct the student to schedule) the defense with the committee. It is up to the discretion of the Major reader if other faculty and/or students are invited. Typically family and friends outside of Loyola University Maryland do not attend.

The defense usually lasts 60 to 75 minutes, depending on the level of questioning, and consists of (a) student presentation, (b) questions and comments from the committee, (c) committee discussion (student leaves the room), and (d) review of decision and possible next steps. The committee decides if the thesis is accepted as is, accepted with minor revisions, accepted contingent on major revisions, or not accepted.

There are no strict guidelines for the defense, however, here are some suggestions that may be helpful:

1. Create a professional PowerPoint with clear information to support but not duplicate your presentation. Typically, slides include:
 - a. Thesis title and student name
 - b. How you developed an interest in your research topic
 - c. The problem
 - d. The purpose of the study
 - e. The participants
 - f. Research questions and/or hypotheses
 - g. Design and procedures
 - h. The findings/results
 - i. Conclusions and implications
2. Expect to be interrupted with probing questions.
3. Be clear on the time allotted for the defense (the Major Reader usually decides.)
4. Limit your planned presentation to about one-third of the total time of the defense.
5. Remain calm, speak clearly and slowly, and be prepared.
6. Be clear on who is responsible to record the suggested changes (typically it is the Major Reader.)

III. PROPOSED STEPS AND TIMELINE IN PREPARING THE THESIS

Optimally, the process of developing a thesis is begun as soon as the student enters the Graduate Program; however, most students do not fully decide on pursuing a thesis until the spring of their first year during SP 625: *Research Methods in SP*.

The following are suggested guidelines to assist the student in planning a schedule for the thesis. Please note, not all of these steps are required, however, many are. Refer to the previous sections of the manual for the requirements.

First Year Fall/Spring

1. Select a topic: Specify general areas within speech-language pathology that are of interest to you; for example, aphasia, autism, literacy, voice disorders.
2. Contact the library to arrange an orientation to using the library resources (including RefWorks) and conducting literature reviews.
3. Identify possible major readers (tenured/tenure-track faculty member only) for your topic (see Graduate Program Director for guidance if needed). You will be best served by a major reader who is familiar with your general area of interest. Verify interest, availability, and explore ideas and directions for your project.
4. Start a systematic literature review to (a) narrow down your topic toward the goal of developing a specific research question; (b) develop a rationale for your proposal, built upon previous theory and research.
5. Begin writing the rationale for your proposal and specifying your research questions and hypotheses. Obtain feedback from your major reader on your rationale, research question, and hypotheses.

First Year Spring (SP 625: Research Methods)

1. Continue to develop your review of literature and your methods in the Research Methods course.
2. Meet with your major reader to discuss your ideas regarding the method to test your hypotheses. Ideally, this should be completed as a pilot study during the Research Methods course.
3. Meet with your major reader to discuss the possible avenues for obtaining participants for your study. Obtaining participants is more difficult and complicated than students often perceive so be sure not to overlook this critical issue.
4. Identify instruments necessary to measure each of your variables. Possible methods of identifying these instruments include (a) published articles to determine how your variables were measured in previous research; (b) consultation with your major reader; and (c) the *Mental Measurements Yearbook* and other reference works available in the library which list published tests and instruments.
5. Generate very specific procedural guidelines for collecting your data and, if necessary, determine the reliability and validity of any relevant procedures.

6. Determine what type of research design or designs you are using to test your hypotheses, noting the limitations any design may place on internal or external validity.
7. Determine the statistical methods that will be used to test each hypothesis. If you have not already done so, complete the tutorial for SPSS and familiarize yourself with the process and procedures for this analysis (as well as the conditions for non-parametric statistics).

First Year Spring/Early Summer: After Research Methods

1. Integrate all feedback from Research Methods and your major reader into your proposal. (See *Writing the Proposal* in Section IV). Identify, in consultation with your major reader, the need to enroll in SP 616 Independent Study for summer.
2. Meet with your major reader to (a) identify additional revisions that need to be made to your proposal and (b) outline how you will incorporate a thorough review of the literature in Chapter I.
3. Identify two additional faculty members who are willing to serve as members of your committee (This should be done as early as possible). These readers must be approved by the major reader. As noted in the University requirements, the second member of the thesis committee must be a full time member of the Loyola faculty (may be academic and/or clinical), the third may be a member of the Loyola faculty or may be an outside reader who holds the minimum of a Master's degree and be judged by the department chair or dean to have expertise in the area.
4. After confirming with potential readers that they are willing to serve on your committee, complete the *Thesis Committee Form* (included in Appendix B) and return it to the DPO.
5. Make all revisions suggested by your major reader; return the revised draft to your major reader to repeat the process as many times as necessary to meet your major reader's approval.

Summer/Second Year Early Fall: After Major Reader Approval

1. After your major reader has indicated that your proposal is sufficiently complete to be given to your readers, give a copy of the most recent version of your proposal to all your committee members.
2. Depending on the committee's availability, and the discretion of the Major Reader, you will either have (a) a Thesis Committee meeting, (b) individual meetings with committee members, or (c) electronic "meeting." The meeting must be at least 7 days after you give the proposal to your committee members. (Please note: All faculty are not available during the summer months, so meetings may commence in the fall semester The following are guidelines for the Thesis Committee Approval meeting:
 - a. The student is responsible to schedule this meeting with the Major Reader and Thesis Committee (see above for meeting options).
 - b. During your meeting (typically 1 hour) present an overview of your

- rationale, questions, hypotheses, and method. You will then be asked questions by your committee members regarding any methodological or theoretical issues pertaining to your thesis.
- c. There are three possible outcomes to your thesis committee meeting: (a) the proposal is approved with either no changes or only minor changes; (b) the proposal is provisionally approved pending substantial changes which must be approved by one or all of your committee members prior to final approval; or (c) the proposal is not approved, and the committee recommends either significant changes followed by another meeting or a complete revision of the proposal or topic.
 - d. Complete the *Approval of Proposal by Thesis Committee* form (included in Appendix C), signed by each member of the committee, and attach to the final copy of the proposal. Submit this form to the Director of Program Operations in SP. **This is required by the University.**
3. Loyola Clinical Centers Research Committee Approval (if applicable): There are numerous opportunities to collect data through the Clinical Centers, and students are encouraged to discuss these possibilities with their advisor. Students wishing to collect data at the Clinical Centers must first receive approval from both the Clinical Centers Research Committee, and the University's Institutional Review Board (see below). Please refer to Appendix F for information and the *Research Committee Submission Form*; contact Dr. Lena Caesar (lgcaesar@loyola.edu) for more information.
4. Institutional Review Board proposal:
- a. After the proposal is approved by your committee, you must submit an Institutional Review Board application for approval. Please go to <http://www.loyola.edu/department/orsp/irb/policies> for complete information on Human Subjects Policies, Procedures, and Forms. Allow a minimum of two weeks for Human Subjects approval and be aware that approval may take significantly longer during school breaks or the summer. You may not begin data collection (or data analysis of archival data) until your proposal has been approved by the Institutional Review Board.
 - b. Human Subjects Education: Any faculty member or other Loyola employee conducting independent research or overseeing student-conducted research and any student working on independent research, a dissertation or thesis that involves research with human subjects is required to complete a free, online education program prior to the review of his or her Application for Approval of Investigation Involving Human Subjects. This requirement pertains to all investigators, as listed above, including those in departments that do not typically conduct research involving human subjects.

The education program is the National Institutes of Health's (NIH) *Protecting Human Research Participants*. Each of the seven sections (*Introduction, History, Codes and Regulations, Respect for Persons, Beneficence, Justice and Conclusion*) of the training consists of 3-20+ slides, with quizzes at the end of four of the sections. To receive certification, all of the quizzes must be successfully completed. It takes approximately 1-2 hours to complete and upon successful completion of the course a certificate is awarded electronically (as a saveable PDF file.)

A copy of this certificate will need to be submitted either directly to the Office of Research and Sponsored Programs (ORSP) or with the next submitted Institutional Review Board application. At that point, ORSP will maintain a database indicating investigators who have received certificates. Further submission of a copy of the certificate with subsequent applications will not be required unless updated information is released through NIH's education program.

For questions concerning required human subjects education, please view the [Frequently Asked Questions](#) page or contact Office of Research and Sponsored Programs (ORSP) (410) 617-2188.

Second Year Fall: After Thesis Proposal and Human Subjects Review Board Approval

1. Enroll in SP 657 Thesis Seminar.
2. Prepare all materials for data collection; train any assistants you may need to collect data; arrange for data collection schedule, location, and dates/times.
3. Collect and analyze data.
4. Prepare draft of results section and submit copy of results section and data analysis printouts to your major reader for feedback.
5. Revise results section to the satisfaction of your major reader.

Second Year Spring: After Data Collection and Analysis

1. Enroll in SP 657 Thesis Seminar.
2. Prepare draft of discussion section (you may want to meet with your major reader to develop an outline prior to doing this) and submit to major reader. Make necessary revisions.
3. Prepare draft of abstract and conclusions section. Submit to major reader and make necessary revisions.
4. Check all formatting for consistency with *University Dissertation and Thesis Standards* (separate document available on [Department website](#)).
5. After final approval by major reader, submit completed thesis to committee members. After they have given feedback, make necessary revisions and schedule Thesis Defense.
6. Defend your Master's Thesis. Make revisions as indicated by the Committee.
7. Present a copy of entire thesis according to guidelines and submit *Thesis Final Approval* signature page to committee to sign for final approval (included in

Appendix D). **After all committee members have signed, the Department Chair and the Dean of Loyola College of Arts and Sciences must sign approval sheet.**

8. Once given approval from your Major reader, submit the thesis electronically to the library (See Appendix E).
9. Congratulations, you are finished! (Remind your advisor to submit your grade!)

IV. WRITING THE PROPOSAL

Parts of a Proposal

The proposal will consist of an Introduction (Chapter 1) and Method (Chapter 2) as well as title and reference pages. As noted previously, the purpose of the proposal is to provide adequate information regarding the overview of his/her study, with concentration on the methodology.

Creating a Title

A title should summarize the main idea of the paper simply. It should be a concise statement of the main topic and should identify the actual variables or theoretical issues under investigation and the relation between them. See APA manual for the specific format for the title page.

Introduction/Review of Literature

Overview of problem. The first paragraph should provide the reader with a broad theoretical overview of the problem to be investigated. The introduction is used to describe the current state of the body of knowledge. The body of a paper opens with an introduction that presents the specific problem under study and describes the research strategy. Before writing the introduction, consider the following: (a) What is the point of the study?; (b) How do the hypotheses and the experimental design relate to the problem?; (c) What are the theoretical implications of the study, and how does the study relate to previous work in the area?; and (d) What are the theoretical propositions tested, and how were they derived? A good introduction answers these questions by summarizing the relevant arguments and the data, giving the reader a firm sense of what has been done and what will be done.

Review of literature. Discuss the literature (cover all bases) but do not necessarily include an exhaustive historical review. Assume that the reader has some knowledge (but is not an expert) in the field about which you are writing. Although you should acknowledge the contributions of others to the study of the problem, cite only that research pertinent to the specific issue, and avoid references with only tangential or general significance. If you summarize earlier works, avoid nonessential details; instead, emphasize pertinent findings, essential details, relevant methodological issues, and major conclusions. Refer the reader to general surveys or reviews of the topic if they are available. Demonstrate the logical continuity between previous and planned work. Develop the problem with enough breadth and clarity to make it generally understood by as wide a professional audience as possible.

Controversial issues, when relevant, should be treated fairly. A simple statement that certain studies support one conclusion and others support another conclusion is better than an extensive and inconclusive discussion. Whatever your personal opinion, avoid animosity and ad hominem arguments in presenting the controversy. Do not support your position or justify your research by citing established authorities out of context, but do not hesitate to be critical of poor research design and unjustified conclusions, especially if you find evidence of inconsistent findings in the literature. Also, use primary sources and not another author's summary of someone's findings. Read and make copies of all original articles, so that members of the thesis committee can have access to them.

Statement of the problem and rationale. You now have introduced the problem and developed the background material (how has the background material contributed to the current research question). Therefore, you will summarize the background information as a rationale for the problem you plan to investigate. Make this statement(s) [the purpose of your study] in the Statement of Problem. Be sure to show how your study contributes to the field by potentially presenting information not previously available to the field. In order to accurately state the problem, you must clearly identify the variables of interest.

The next sub-section contains a formal Statement of Hypotheses. This statement should specify the conceptual relation between the independent and dependent variables (predictor and criterion variables) that you plan to investigate (e.g., It is hypothesized that there will be a relation between gender and death anxiety, such that women will report higher levels of accidental death anxiety than will men). Questions to bear in mind in closing the Statement of Hypothesis are: "What results do I expect and why do I expect them?" The logic behind "Why do I expect them?" should have been made explicit in the Statement of Problem. The reader should not have to search through the paper to uncover the logical steps of your deductions. Hence, clearly develop the rationale for each hypothesis in the statement of the problem.

Method

The Method section describes, in detail, how the study will be conducted. Such a description enables the reader to evaluate the appropriateness of your methods and the reliability and the validity of your results. It also permits experienced investigators to replicate the study if they so desire. If you refer the reader to another source for details of the method, give a brief synopsis of the method in this section. Identify sub-sections. It is both conventional and expedient to divide the Method section into labeled sub-sections. These usually include descriptions of the Participants, Materials (or Apparatus), the Procedure and the Design. If the design of the experiment is complex or the stimuli require detailed description, additional sub-sections or sub-headings to divide the sub-sections may be warranted to help readers find specific information. Your own judgment is the best guide on what number and type of sub-headings to use. Include in these sub-sections only the information essential to comprehend and replicate the study. If insufficient detail is given, the reader is left with questions; if too much detail is given, the reader is burdened with irrelevant information.

Participants. The sub-section on participants answers three questions: (a) Who will participate in the study?; (b) How many participants?; and (c) How will they be selected? Give the total number of participants and the number that will be assigned to each experimental condition. When humans are the participants, report the procedures for selecting (Will they be volunteers? Will they be satisfying a class assignment? Will they be paid?) and assigning participants, and the agreements and payments that will be made. Give major demographic characteristics such as general geographic location, type of institutional affiliation, gender, and age. When a demographic characteristic will be an "experimental variable", describe the group specifically. For example, "The second group will be comprised of 40 men between the ages of 20 and 30 years, all of whom will have emigrated from Scandinavia, will have been permanent residents of the United States for at least 15 years, and will be living in a major city in Minnesota."

Materials. The sub-section on materials briefly describes the apparatus or materials used and their function in the experiment. Standard laboratory equipment, such as furniture, stopwatches, or screens, can usually be mentioned without detail. Identify specialized equipment obtained from a commercial establishment by the firm's name and the model number of the equipment. Complex or custom-made equipment may be illustrated by a drawing or photograph, although such figures do add to manuscript preparation and printing costs. A detailed description of complex equipment may be included in an appendix.

A detailed presentation of the reliability (test-retest [specify length of time], internal consistency) and validity (validity coefficients, factor analysis results if any) data of the responses to any test is required. Each test should be described in detail (number of items, type of response format [true/false, 7-point Likert-like], example items, possible range of scores). Be sure to include the tests in the appendix.

Procedure. The sub-section on procedure summarizes each step in the execution of the research (e.g., obtaining institutional approval, manner of recruiting subjects, what is communicated to potential subjects, debriefing details). Include the instructions to the participants, the formation of the groups, and the specific experimental manipulations. Describe randomization, counterbalancing, and other control features in the design. Summarize or paraphrase instructions, unless they are unusual or constitute an experimental manipulation, in which case they may be presented verbatim. Most readers are familiar with standard testing procedures; unless new or unique procedures are used, do not describe them in detail. Remember that the Method section should tell the reader what you plan to do and how you plan to do it. **Remember to ask yourself, "Can someone else conduct this study in the same manner that I would, given my written procedures?"**

Design. Clearly identify the role(s) that each variable plays in your design (i.e., I.V.s and D.V.s or predictor and criterion variables, and how they will be operationally defined). Specify the experimental design and analysis for each hypothesis (e.g., the 3 X 2 factorial design will be analyzed by factorial analysis of variance followed by planned comparison tests for specific predictions and Duncan's Multiple Range test for non-predicted effects), level of significance, and whether your tests will be one or two-tailed. A power analysis is encouraged in order to determine an appropriate sample size. In addition, include an indication of which effect size measure will be used.

References

Just as data in the paper support interpretations and conclusions, so reference citations document statements made about the literature. All citations in the manuscript must appear in the reference list, and all references must be cited in the text. Choose references judiciously and cite them accurately. The standard procedures for citation ensure that references are accurate, complete, and useful to investigators and readers. Be sure to cite original sources for material which you originally found in a secondary source. You must also read the original source. Secondary sources are usually not used in scientific papers. All references should now include the Digital Object Identify (doi). See <http://www.doi.org/> for more information). References must follow APA format.

Appendices

An appendix is helpful if the detailed description of certain material is distracting in, or inappropriate to, the body of the paper. Some examples of material suitable for an appendix are (a) a new computer program specifically designed for your research and unavailable elsewhere, (b) an unpublished test and its validation; (c) a complicated mathematical proof, (d) a list of stimulus materials (e.g., those used in psycholinguistic research), or (e) a detailed description of a complex piece of equipment. Include an appendix only if it helps readers to understand, evaluate, or replicate the study.

NOTE: For research proposals, all tests and scales should be included in the appendix; however, in the thesis proper, copyrighted materials are omitted.

V. WRITING THE THESIS: UNIVERSITY GUIDELINES

Guidelines have been developed to standardize thesis formats for the University. These guidelines apply to all graduate programs in the College of Arts and Sciences (e.g., Education, Pastoral Counseling, Psychology, Speech Pathology, and Theology).

These guidelines can be found on the [Department website](#) in the Current Students, Thesis section. If you have any questions please contact the Graduate Program Director or the Director of Program Operations in Speech-Language Pathology for this document.

APPENDIX A

UNIVERSITY THESIS REQUIREMENTS

LOYOLA UNIVERSITY MD REQUIREMENTS FOR MASTER'S THESIS
(established 2010)

- A committee of three members must oversee the thesis. Per University guidelines, the chair must be a tenured or tenure track member of the Loyola faculty, the second member must be a full time member of the Loyola faculty, the third may be a member of the Loyola faculty or may be an outside reader who holds the minimum of a master's degree and be judged by the department chair or dean to have expertise in the area. The vita for any outside member of a committee must be kept on file in the department.
- The committee must approve of and sign off on the proposed thesis as well as the final thesis. The thesis proposal and/or the final thesis paper must be defended by the student orally before the members of the committee.
- IRB approval must be obtained when human participants are used.
- The final thesis must be filed with the Loyola/Notre Dame Library, following their guidelines.
- Specific guidelines for the thesis process must be outlined in the Graduate Catalogue and in the respective student handbooks. Course descriptions for thesis courses must also be included.

Written by Amanda Thomas
2010

APPENDIX B

THESIS COMMITTEE FORM

(Required form)

DIRECTIONS: The Major Reader completes and submits to the Director of Program Operations (for stipend processing). Signature required from Major Reader only; list names of other committee members.



LOYOLA UNIVERSITY MARYLAND

— 1852 —

**DEPARTMENT OF SPEECH-LANGUAGE-HEARING SCIENCES
THESIS COMMITTEE FORM**

STUDENT NAME: _____

DATE: _____

PROPOSAL TITLE: _____

Major Reader

Reader #1

Reader #2

APPENDIX C

APPROVAL OF PROPOSAL BY THESIS COMMITTEE

(Required form)

DIRECTIONS: Obtain signatures of the Thesis Committee indicative of approval. Submit signed form (hard copy) to the Director of Program Operations upon completion.



LOYOLA UNIVERSITY MARYLAND

— 1852 —

**DEPARTMENT OF SPEECH-LANGUAGE-HEARING SCIENCES
APPROVAL OF PROPOSAL BY THESIS COMMITTEE**

STUDENT _____

**We approve the problem and the research design, and the student may proceed with
Human Subjects Review.**

Major Reader

Date

Reader

Date

Reader

Date

Director of Program Operations

Date received

APPENDIX D

FINAL APPROVAL OF THESIS

(Required Form)

DIRECTIONS: Fill out requested information and print 2 copies. On one copy, obtain signatures of the thesis committee at *final approval*. Obtain signature of the Department Chairperson then send/deliver to the Dean of Loyola College. Upon signature of Dean, submit both copies (one signed and one unsigned) to the Director of Program Operations who will then submit to the Records Office.



LOYOLA UNIVERSITY MARYLAND

— 1852 —

**DEPARTMENT OF SPEECH-LANGUAGE-HEARING SCIENCES
FINAL APPROVAL OF THESIS**

The thesis of _____

entitled: _____

submitted to the Department of Speech-Language-Hearing Sciences in partial fulfillment of the requirements for the degree of Master of Science in Speech-Language Pathology, has been read and approved by the Thesis Committee.

Committee Chair

Department Chair

Reader

Dean of Loyola College

Reader

Date

APPENDIX E

*LOYOLA/NOTRE DAME LIBRARY DISSERTATION/THESIS DIGITIZATION
PERMISSION*

(Required)

DIRECTIONS: Complete this form and submit to Library, yhalterman@loyola.edu

**THE LOYOLA/NOTRE DAME LIBRARY
DISSERTATION/THESIS DIGITIZATION PERMISSION**

The Loyola/Notre Dame Library has embarked on a project to digitize all of the dissertations produced at Loyola University Maryland and the College of Notre Dame in their doctoral programs and theses written for Master's degrees.

The student must, as a condition of a degree award, provide one paper copy and one electronic copy of the thesis or dissertation to Loyola/Notre Dame Library Inc.; completed signature pages in paper format are to accompany the paper thesis or dissertation. A copy of the title page should accompany the completed digitization permission page.

Loyola/Notre Dame Library Inc. will not require express permission of the students to publish their theses or dissertations electronically for the use of the Library's basic constituency: students, faculty, and staff of the College of Notre Dame and Loyola University Maryland, students, faculty, and staff of the members of the Maryland Interlibrary Consortium, and walk-in patrons.

Student Agreement:

I hereby certify that, if appropriate, I have obtained and attached hereto a written permission statement from the owner(s) of each third party copyrighted matter to be included in my thesis, dissertation, or project report, allowing distribution as specified below. I certify that the version I submitted is the same as that approved by my advisory committee.

I hereby grant to Loyola/Notre Dame Library Inc. the non-exclusive license to archive and make accessible, under the conditions specified below, my thesis, dissertation, or project report in whole or in part in all forms of media, now or hereafter known. I retain all other ownership rights to the copyright of the thesis, dissertation, or project report. I also retain the right to use in future works (such as articles or books) all or part of this thesis, dissertation, or project report

Please check the level of digital access that you grant the Loyola/Notre Dame Library Inc.

- _____ Access by Library's basic constituency: students, faculty, and staff of the College of Notre Dame and Loyola University Maryland, students, faculty, and staff of the members of the Maryland Interlibrary Consortium, and walk-in patrons.
- _____ Worldwide distribution via the Internet

I hereby agree to the statement above and the indicated level of access to the digital reproduction of my dissertation/thesis. I understand that I might want to discuss this with my dissertation advisor.

Name (printed) _____ Email: _____

Signature _____ Date _____

Email electronic copy to: yhalterman@loyola.edu

APPENDIX F

LCC DIRECTIONS AND SUBMISSION FORM (Required if working with LCC)

DIRECTIONS: Read the attached directions and complete the attached form. Submit to Dr. Sally Gallena at sgallena@loyola.edu

**Loyola Clinical Centers (LCC)
Research Committee**

**Procedures for Requesting Approval of Research to Conduct Research at the Loyola
Clinical Centers (LCC)**

What is the role of the Research Committee?

- Review all proposed research to determine whether it reflects the core values of Loyola University Maryland and the mission of the LCC (see below).
- Weigh the potential benefits of proposed research for participants and future clients against any potential risks to the participants or burden on the Clinic.
- Approve all research conducted through the Loyola Clinical Centers.
- Track all research conducted through the Loyola Clinical Centers.

What research falls under this committee's purview?

- All research conducted by Loyola faculty or students, (including assignments for classes), conducted with clients or data from the Loyola Clinical Centers.
- Any research proposed by an outside party, conducted with clients or data from the Loyola Clinical Centers.

How do I apply for my research to be approved?

- Prior to submitting your research for IRB approval, please submit the following to Dr. Lena G. Caesar electronically:
 - i. IRB application (Note: To be submitted even if you expect your research to be “Exempt” from full IRB approval. Be sure to answer questions #15 and #16 on the IRB application, regarding Risks & Benefits)
 - ii. The Clinic Research Committee submission form (attached, and available from Dr. Gallena sgallena@loyola.edu)

How will I know if my research is approved?

- The Research Committee will notify you within 14 working days if your Research a) has been approved, b) requires additional information, or c) has been denied.

The Mission of the Loyola Clinical Centers

The Loyola Clinical Centers is a community-based organization operated under the auspices of Loyola University Maryland, providing comprehensive education and training of graduate students in and across a variety of disciplines; committed to the ideal of social change in service to the community, the city, the nation and the world; and dedicated to research and scholarship of the issues that most affect the ability of people to develop, change, and lead fulfilled and meaningful lives.

**Application for Approval to Conduct Research
Loyola Clinical Centers**

Principal Investigator's Name:

Student? Y N

Faculty Supervisor (if student):

Project Title:

- I. Provide a brief description of the nature and purpose of the research study.**
- II. Describe how your research is consistent with the Mission of the Loyola Clinical Centers.**
- III. Clearly provide demographic information regarding your anticipated subject pool.**
- IV. Specify how participants will be contacted and/or recruited.**
- V. Provide a detailed description of the study's methodology & research design.** (including major hypotheses, data collection methods, instrumentation, data analysis, etc).
- VI. Will Informed Consent and/or Child Assent be obtained? Yes No**
(If yes, please attach copies of the forms)
- VII. Clearly describe procedures for protecting the confidentiality of data.**
- VIII. Indicate where data collected for this research will be kept (check only one option):**
Entirely in the client's medical record at the Clinic

By the PI in a locked cabinet; participants do not require medical records

Partially in the client's medical records; other data collected for research purposes only will be kept by the PI in a locked cabinet

Other options:

IX. Has the Principal Investigator completed HIPAA training at the Loyola Clinical Centers? **Yes** **No**

(If no, please provide documentation of proposed HIPAA training, or request training via the Loyola Clinical Centers).

X. Describe the burden your research will place on the following people, and the steps you will take to minimize that burden. Please consider time, cost, and training (i.e. the need to learn additional procedures).

- Clients of the clinic (your research participants):
- Supervisors at the Clinic:
- Student clinicians at the Clinic:
- Administrative and support staff at the Clinic:

XI. Anticipated time frame/duration of the study: _____

XII. *Declarations:*

I understand that even if granted site approval, I must submit a copy of my IRB approval letter to the LCC Research Committee prior to initiating my research.

Signature

Date