

School of Communication Sciences and Disorders

Thesis Guidelines – 2024/2025

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1.1 Objectives and Benefits

Students who undertake the thesis option are expected to formulate an original question related to the field of communication sciences and disorders with guidance from a faculty supervisor and implement a plan to answer the question under the direction of a faculty supervisor and other members of a thesis supervisory committee. The objective is to provide the student with an opportunity to develop independence in conceptualizing and conducting meaningful research in our disciplines.

The thesis option is appropriate for those students who have a strong interest in research, including those who may be considering undertaking doctoral study sometime in the future. A thesis is larger in scope than a research project and requires the student to work more independently.

Students who are in the thesis stream are eligible to apply for scholarships from provincial and federal research funding agencies that are not available to students in the project stream. Interested students should discuss funding opportunities with their faculty supervisor and investigate relevant funding sources.

1.2 Admission to the Thesis Stream

An admission grade point average of 3.7 is required for a student to be admitted into the thesis stream. Normally up to five students are admitted each year; however, the actual number varies with supervisor availability and student interest. When applying for admission to the program, students are asked to indicate their interest in undertaking a thesis. Students considering the thesis option should contact professor(s) who conduct research in their areas of interest before the program application deadline to inquire whether they are taking thesis students for the upcoming year and to discuss possible topics.

If thesis stream positions are still available in the fall term of Year I, interested first year students can apply for admittance to this stream. Applications are submitted to the Committee on Studies (COS). In such cases, the student must secure agreement from a qualified member of the Faculty to supervise their thesis before applying. No applications will be considered after the fall term of Year I.

All applications must include:

A statement of interest describing reasons for pursuing a thesis, relevant preparation, and research interests. If an undergraduate honors thesis was not completed, an explanation should be provided.

Two recommendation letters from undergraduate or graduate professors, including the supervisor of the previous thesis if applicable. These letters can be taken from the student's admission file if they are applying after entrance to the School.

A supporting letter from the professor who has agreed to supervise the thesis.

1.3 Thesis Committee Membership

1.3.1 Supervisory Committee

- The committee must have at least two members from the SCSD, one of whom is the supervisor/co-supervisor.
- The supervisor must be a member of the Faculty of Graduate Studies (FGS) and must have at least a Master's degree or equivalent.
- At least two additional members of the committee must also be members of FGS.
- Individuals who are not members of FGS may be appointed to the supervisory committee when they have appropriate professional and academic qualifications (i.e., at least a Master's for MSc thesis) and expertise to assess a graduate thesis.
- If the supervisor is from outside the School of Communication Sciences and Disorders (SCSD), there must be a co-supervisor who is a member of the SCSD faculty.
- The minimum size of the supervisory committee is three members. The supervisor is the chair of the supervision committee.

1.3.2 Examining Committee

- The committee is typically made up of the supervisory committee plus an external examiner.
 The inclusion of an external examiner on this committee is not a requirement but is strongly recommended.
- The external examiner cannot have been involved in the supervision or direction of the research and is preferably from outside the SCSD. The supervisor should contact potential external examiners.
- Full and adjunct members of Dalhousie University FGS are eligible for committee membership. Members of a graduate faculty of another university are also eligible.
- As with the supervisory committee, individuals who are not members of FGS may be appointed to the examining committee when they have appropriate professional and academic qualifications and expertise to assess a graduate thesis.

1.4 Funding

The thesis track of this program requires a greater workload, which may increase the financial burden to students (as time for outside employment is less and occasionally graduation is delayed). However, thesis-stream students are eligible to apply for additional scholarships and bursaries offered by the university, and the provincial and federal governments. The Faculty of Graduate Studies website provides information about scholarships and bursaries, including those for diverse scholars:

https://www.dal.ca/faculty/gradstudies/finance-your-studies/scholarships-bursaries.html

1.5 Faculty of Graduate Studies Regulations

Students are responsible for familiarizing themselves with all the thesis related regulations and deadlines of the Faculty of Graduate Studies: https://dalu.sharepoint.com/sites/graduate-studies/SitePages/forms.aspx#theses-and-defences

1.6 Overview of Events and General Timelines

Under the supervision of the thesis supervisory committee, the student develops a research prospectus. The student will present their prospectus to the committee at a Prospectus Meeting. In most circumstances, the prospectus meeting will take place by the end of Year I.

After the prospectus meeting has been successfully completed, studies that involve human subjects' participation will require ethics approval from the Dalhousie University Research Ethics Board (REB) and, in some cases, other review boards (e.g., schools, hospitals), before data collection can begin. Studies that involve the use of animals must submit an animal use protocol to the University Committee on Laboratory Animals (UCLA) for ethics review and approval.

Following ethics approval, the student will complete the proposed research work, write up their findings, and defend their work to their examining committee in an oral defence meeting. Students typically complete their thesis during Year III of study.

In addition to the prospectus meeting, thesis students are required to meet with their committees at least once per year. Additional meetings with the supervisor should occur on a regular basis and meetings with other committee members should be scheduled as needed. Annual Progress Reports must be completed by the student and supervisor in the Graduate Studies Information System (GSIS) on DalOnline and submitted for review and approval no later than April 30th of each academic year.

In the thesis stream, students have the option of delaying their final practicum to facilitate completion of their thesis. A request to delay must be made to the Academic Coordinator of Clinical Education when practicum placement requests are made in August. In order to graduate in May, the 12-week, full-time externship placement must begin by the first week of February in order to be completed by the end of

April. Please note, extenuating circumstances such as illness may further impact the timing of the externship placement, which could delay graduation.

The deadline for submission of a final manuscript (i.e., post defence with all corrections made) to the Faculty of Graduate Studies is mid-March for the Spring Convocation and mid-August for the Fall Convocation. See Graduate Calendar for further details and exact dates - https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?

All meetings, including the prospectus meeting, any progress report meetings and the meeting of the defence, will be called by the supervisor. The supervisor will chair the prospectus meeting and any progress report meetings. The Graduate Coordinator of the School or a designated Faculty member (not on the committee) will chair the thesis defence.

1.7 Prospectus Meeting

Before a student submits their proposal for ethical approval or starts the research work, they must receive scientific approval from the thesis supervisory committee. Approval is given via a prospectus meeting. The student circulates a proposal document (see Appendix A) to all committee members typically two weeks prior to the meeting. In the meeting, the student first presents the proposal and a discussion follows. The committee comes to consensus regarding necessary changes to the proposal document and the nature of the proposed work. The agreement reached in the proposal meeting serves, in effect, as a contract between the student and the committee. If major changes to the research plan are made after the proposal meeting, it is necessary to seek approval for those changes from the committee members. The Prospectus Meeting Form (see Appendix B) should be completed at the end of the meeting and placed in the student's departmental file.

1.8 Ethical Review of Research Involving Human Participants

The research proposal must not be submitted to a research ethics board until it has been approved by the thesis supervisory committee (see Section 1.7).

All research that is conducted using human participants must be submitted for review to a Dalhousie University Research Ethics Board (REB). Students will submit to either the Dalhousie Health Sciences REB or the Social Sciences REB, depending upon the nature of their study. Supervisors will help students make the appropriate choice. Thesis projects that propose to involve participants obtained through schools, hospitals, or other institutions generally will have to obtain approval from those institutions' REBs as well. The Dalhousie REB will accept ethics approval from some hospitals but not all. Students should seek the advice of their faculty supervisor on this matter.

The Ethics Submission is a separate document distinct from the thesis proposal. The ethics submission is read by the REB members and therefore must be condensed and succinct and written for reviewers outside the field of communication sciences and disorders. Students should consult the Research Services website to obtain guidelines for ethics submission, required forms, and submission deadlines https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-/apply-for-rebapproval.html.

Students should be aware that the ethical review process may take several months, particularly if approval from more than one review board is required. If the protocol changes after approval has been obtained from all relevant REBs, further approval will be required.

1.9 Ethical Review of Research Involving Animals

All animal research must be completed in certified lab space. Appropriate training is needed before a student performs any manipulation on animals. Such training will be provided either by the project supervisor or personnel in an animal care facility of Dalhousie University.

For all research that is conducted using animals, an animal use protocol must be submitted to the University Committee on Laboratory Animals (UCLA) for ethics review and approval. If the research project is not funded, a research proposal must also be submitted for academic peer review. Students should refer to the Research Services website: http://researchservices.dal.ca/research_1483.html for appropriate guidelines and procedures for protocol submissions. This process may take several months.

1.10 Recruitment of Participants from Hearing and Speech Nova Scotia

After the supervisory committee approves the student's proposal and approval has been obtained from the Dalhousie REB, the student may wish to recruit participants from Hearing and Speech Nova Scotia (HSNS).

For Audiology Participants. The supervisor will contact the corresponding Clinical Director at HSNS for direction about recruiting the target group.

For Speech-Language Pathology Participants. The supervisor will contact the corresponding Clinical Director at HSNS for direction about recruiting the target group.

HSNS will approach potential participants who meet inclusion criteria and will provide names and contact information of those who agree to be contacted. The student must then use a template script that they developed as part of their REB application to contact these individuals and seek their agreement to participate.

1.11 Equipment and Test Materials Access

Students may use any piece of equipment belonging to the SCSD to conduct their research. All equipment and test materials must be reserved and signed out from the reception desk. See Appendix C.

1.12 Oral Defence

Examination of the master's thesis is conducted by means of an oral defence. The examining committee for the oral defence will consist of the thesis supervisor(s) and members of the thesis supervisory committee. An external examiner with a research background, usually chosen from a university department outside of the SCSD (e.g., from Psychology, Otolaryngology, etc.) is strongly recommended. A representative of the School not directly associated with the student's research, usually the Graduate Coordinator or a designate chosen by the Graduate Coordinator, will serve as Chair.

The student will present their thesis research and field questions from the external examiner, the committee, their supervisor(s), and other attendees. Following the defence, the committee will meet and decide whether the student has passed, and if so, what changes must be made to the document before it is submitted to FGS.

1.12.1 Defence Procedures

- The defence is chaired by the Graduate Coordinator or a designated Faculty member.
- The supervisor will take responsibility for determining the date of the defence. The date should be set at least two months before the defence.
- The names of the examining committee members and the date of the defence should be given to the Graduate Coordinator when the committee and date have been set.
- The written thesis should be delivered to the examining committee members at least two weeks before the defence. However, a committee member may request additional time for review, and this must be accommodated.
- The candidate and their supervisor are responsible for submitting the student's name, the research title, and the defence date to the receptionist/department secretary at least two weeks before the defence. The receptionist will distribute a notice of the defence to SCSD faculty and students via email.

- During the defence, the candidate makes a presentation of approximately 20 minutes. The examining committee asks questions, starting with the external examiner (if present). Typically, there are two rounds of questions. After the committee members have asked their questions, the audience members are invited to ask questions. Then the candidate and the audience leave the room and the committee deliberates. The committee's decision is recorded on SCSD's 'Appendix F: Final Report of the Examining Committee' form. There are four possible outcomes:
 - Approved as submitted
 - Approved upon specific corrections being made
 - Rejected with permission to revise and resubmit for a re-examination
 - Rejected outright. In this case, all members of the examining committee must submit written examination reports, signed and dated, which are put in the candidate's file.

The completed form signed by all committee members should be given to the COS secretary who will place a copy in the student's School file.

- The candidate must bring a copy of the FGS 'Master's Thesis Approval Form' to the defence and obtain the committee members' signatures, when appropriate.
- The supervisor should ensure that the student is aware of the formatting standards for the final document set by FGS.

1.13 Dissemination

Thesis students should discuss options for disseminating their thesis work with their supervisor(s) and committee members early in the research process. Scholarly presentations (e.g., SAC, ASHA, CAA, SRCLD, etc.) and publications are strongly encouraged. Funding may be available through the university (FGS, Faculty of Health) for students who present their work at a scholarly conference. Guidelines for assigning authorship are provided in Appendix D.

Third year students in the thesis stream will be expected to present at the SCSD Student Research Day at the end of the Fall term of Year 3. If data collection and analysis for the thesis are not complete, the student can present preliminary findings or the background and development of the research proposal.

1.14 Data Storage

All original data and consent forms must be stored for five years following completion of the research. In most cases, these materials should be stored at the SCSD.

1.15 Changing to Project Stream

If adequate progress is not made, the student may be asked to change from a thesis to a project stream. The supervisor(s) should discuss their concerns regarding the student's performance in the thesis stream as soon as possible. If the student's performance continues to be unsatisfactory, the supervisor will inform the student that they must switch to the project stream. The supervisor will also notify the Graduate Coordinator and Administrative Secretary who will complete the necessary paperwork. A student may also request that they switch from thesis to project stream. The appropriateness of the request will be discussed with the supervisor and graduate coordinator. If a funded student switches out of a thesis stream, they may be required to forfeit unpaid funds and repay funds already received.

Appendix A

School of Communication Sciences and Disorders

Thesis Proposal Guidelines

The thesis proposal must comprise the five elements listed below and be followed by a reference list. It should follow current APA guidelines.

Statement of Topic and Questions

This statement should indicate precisely what the student wants the research to answer or address. As succinctly as possible, it should provide the topic, the experimental question or the point of focus of the thesis or project. It should be no longer than a paragraph. This may serve eventually as the foundation of the abstract of the final document.

Rationale: A succinct statement of topic and question at the onset of a proposal document would serve to provide committee members with a time-saving means of grasping the central premise of the project before they read through the proposal. Most importantly, the degree to which a student can bring precision to a statement of the topic and question relate directly to the establishment of the conditions necessary to facilitate efficient development of the thesis or project. Furthermore, this section of the proposal may serve as the foundation for the abstract in the final thesis or project document.

Review of Relevant Research

For the proposal, this review must be abbreviated, containing only key work. It should "refer particularly to any study or group of studies which are most parallel to the intended project, or to a study which might serve as a model for the present investigation. If related literature is particularly scarce this point should be explained in the prospectus since it represents a consideration to be discussed in the planning sessions." (Shearer, 1982, p.202)

<u>Rationale</u>: The student should demonstrate that the research topic and question are cogently related to a collection of research studies and that s/he has a basic understanding of the key work within it (Tawny & Gast, 1984).

Justification of the Study

It is in this section that the student should convince their supervisor and the members of the committee that they have a firm grasp of the significance of the study and the rationale for its implementation. The student should demonstrate that the endeavour is worthwhile and that they have an understanding of what its results might contribute. It is here that an explicit statement is made of the link between the relevant research, reviewed in the previous section, and the need for this study.

<u>Rationale</u>: The degree to which a student can bring synthesis and cohesion to a thesis or project relates not only to precise articulation of topic and question, but also to an underlying concept of its aim.

Method

Fundamentally, the methodology section requires the student to demonstrate to the thesis supervisor and members of the committee that they know what they are doing. As Shearer (1982) explains, the "Methods" section serves as a blueprint that describes the procedures and measures that will yield the type of data needed to answer fully the research questions. This section also delineates the resources necessary to follow the blueprint. It must, then, include a discussion of the availability of any of the following relevant requirements:

- 1. Participants
- 2. Procedures and Measures
- 3. Apparatus and Instrumentation
- 4. Data Analysis

<u>Rationale</u>: The supervisor and committee members must have information that enables them to judge the student's ability to complete the study within the time period allowed, using the resources available (Shearer, 1982).

Expected Outcomes

A brief discussion should be provided regarding what the student expects the data will show. This expectation usually rests heavily on what the relevant literature or prevailing models suggest or predict. This discussion should include a brief description of how the data will be treated or evaluated in order to permit support for the research question. Treatment of the data may be generally discussed in terms of planned tables or graphs or statistical analysis.

<u>Rationale</u>: Comprehension and synthesis of the research project is enhanced when a student is asked to begin with the research question and the rationale on which it is based, move to a discussion of procedures designed to answer that question, and come full circle to return once again to consider what the data are expected to show relative to supporting a hypothesis or to providing clarity regarding the answer to the research questions.

References

Hegde, M.N. (1987). <u>Clinical research in communicative disorders: Principles and strategies</u>. Boston: College-Hill Press.

Shearer, W. M. (1982). <u>Research procedures in speech, language, and hearing</u>. Baltimore: Williams and Wilkins.

Tawney, J. W. & Gast, D. L. (1984). <u>Single subject research in special education</u>. Columbus, Ohio: Charles E. Merrill Publishing Company.

Appendix B

Prospectus Meeting Form

| This for Meeting | orm is to | be comp | oleted ar | nd filed in the student's | department file a | after the Rese | arch Prospectus |
|------------------|------------|------------|-----------|---------------------------|-------------------|----------------|-----------------|
| Stude | nt's Nam | ne | | | - | | |
| Date of | of Prospe | ectus Mee | eting | | - | | |
| Signat | ture of Si | uperviso | r | | - | | |
| Comn | nittee Me | embers: | | | | | |
| Pass | | Fail | | Pass with Changes | | | |
| Chang | ges Reco | mmende | d: | | | | |
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| | | | | | | | |
| Who i | s respons | sible to o | oversee o | changes? | | | |
| | | | | | | | |
| | | | | | | | |

Appendix C

Regulations for Borrowing Equipment and Test Materials

Equipment Sign-Out

A variety of audio-visual equipment is available for short-term use by students for academic/ clinical purposes. The items available include, but are not limited to:

- Audio Recorders (microphones also available)
- Stopwatches
- Audiometers
- iPads (Tablets)
- If you are interested in other types of equipment, please ask a member of the administrative staff.

To reserve or sign out equipment, students must go to the reception desk. Equipment will be signed out as availability permits and all equipment is signed out for a maximum period of **24 hours**. However, at times during any of the terms, there may be some flexibility due to the nature of the assignments.

Students who sign out equipment are responsible for its proper care and maintenance. All students are responsible for any damage that occurs to the School's equipment. All equipment should be returned to the reception desk in the exact condition they were signed out. All cords must be wrapped neatly and inventory checked before items are returned.

If a piece of equipment malfunctions, report this immediately to the administrative staff.

Students are not to pass or lend any equipment to other students. The items must be returned to the reception desk and signed out by other students as necessary.

Test Material Sign-Out

For a complete list of the tests available for sign-out please see a list available at the reception desk. All tests are available for sign-out from the reception desk and can be signed out for a maximum period of 48 hours. However, at times during any of the terms, there may be some flexibility due to the nature of the assignments.

Students who sign out test materials are responsible for their proper care. All students are responsible for any damage that occurs to the School's test material. All items of each test should be returned to the reception desk in the exact condition they were signed out. Inventory must be checked before items are returned.

Students are not to pass or lend any test materials to other students. The tests must be returned to the reception desk and signed out by other students as necessary.

Appendix D

School of Communication Sciences and Disorders

Guidelines for Determining Authorship in Research Activities Involving Students and Faculty

The purpose of these guidelines is to facilitate the process of determining authorship credit and order in research activities involving students and faculty. Because of variation in the degree of independent work required for the thesis and other types of research activity, separate guidelines will be discussed for each category. Further clarification of these guidelines may be obtained from the School's Committee on Studies.

I Thesis

A student selecting the thesis option is expected to assume considerable independence in developing and executing a study leading to a thesis document. If that document is subsequently submitted in part or whole for publication, the student will be listed as first author. The faculty supervisor as well as other individuals making substantial scholarly contributions should also be given authorship credit. Under exceptional circumstances, a student may not be listed as first author of a manuscript derived from the thesis. Such circumstance may include times when additional collection and/or reinterpretation of data along with the major revision of the manuscript was completed by someone other than the student.

II Research Projects and Other Research Activity

A. Research Projects

A student selecting the research project option will engage in research activities where a faculty supervisor has primary responsibility for the conceptual aspects of the study. The student will implement all or part of the study under close supervision, and will be provided with the opportunity to participate in the conceptualization process. The faculty supervisor, student, and other individuals making substantial scholarly contributions may expect to receive authorship credit of a manuscript for publication that is derived from the project study. Authorship order will be determined by degree of participation in the conceptualization process and scholarly contribution leading to the final product. Consideration will be given to the following activities: developing and refining research ideas, conducting a literature search, creating the research methodology, collecting and analyzing data, interpreting results, and drafting manuscripts. Authorship order should be expected to vary from situation to situation. When a student research project has publication potential, it is recommended that authorship order be discussed early in the process. It should be understood that order may need to be revised based on actual rather than expected contributions.

B. Other Research Activity (e.g., research assistantships)

For nonprofessional contributions such as data input and scheduling participants, students may expect to receive acknowledgement rather that authorship credit.

Appendix E

SCSD Thesis Student Recommended Timeline

Actions **Timeline** Year Prior to beginning studies Pre-admission • Contact potential supervisor (strongly recommended) • Apply for funding (optional) Deadlines vary as early as December [see links on SCSD website - Research/Student research] First Year Fall Term • Attend Thesis Orientation Late August/Early September • Confirm supervisor September/October October • Meet with supervisor Set regular meeting times Review timeline Discuss expectations Early December • Apply for funding • Begin literature review and methods Winter Term • Select supervisory committee • Begin preparing proposal for prospectus meeting Summer Term Deadline: April 30 • Prepare FGS Progress Report August • Complete proposal and prepare for prospectus meeting

Second Year

Fall Term

• Prospectus meeting

• Finalize study design and methods

• Submit to Research Ethics Board(s)

• Begin data collection

Winter Term

• Select examining committee/locate external examiner with supervisor

Summer Term

• Complete data collection

August

October/November

November/December

Following REB approval, if required

November

Third Year

(to graduate in Spring Convocation)

Fall Term

• Analyze data and write thesis

September-December

Winter Term

• Submit completed thesis to examining committee (min. two weeks prior to defence)

January/February February/March

- Defend thesis
- Revise and submit final thesis manuscript to FGS

First week of April

Third Year

(to graduate in Fall Convocation)

Fall Term

• Data collection

September to December

Winter Term

• Analyze data and write thesis

January to April

• Submit completed thesis to examining committee (min. two weeks prior to defence)

Summer Term

• Defend thesis

June mid-August

• Revise and submit final thesis manuscript to FGS

Appendix F: Final Report of the Examining Committee

| Student's Name: | Si | tudent ID number: | | | | |
|--|------------------------------|---|------------------------|--|--|--|
| Thesis Advisor: | | | | | | |
| Thesis Title: | | | | | | |
| | | | | | | |
| | | | | | | |
| After the defense regarding the the | | , the committee members have come to | the following decision | | | |
| | ☐ Approved as submitted | | | | | |
| ☐ Approved upon specific corrections being made | | | | | | |
| ☐ Rejected with permission to revise and resubmit for a re-examination | | | | | | |
| | Rejected outright | | | | | |
| | | | | | | |
| | | | | | | |
| In cases where co | orrections are required: | | | | | |
| | _ | wish to see the revised version for final | annroval | | | |
| _ | | | арргочиг | | | |
| ☐ The advisor(s) can give final approval | | | | | | |
| | | | | | | |
| The revised versi | on should be ready by | · | | | | |
| Signature of the | committee members: | | | | | |
| Chair | | Advisor | | | | |
| | | | | | | |
| Co-advisor/comm | nittee member | Co-advisor/committee member | | | | |
| External member | | Date | | | | |
| | | | | | | |
| October 24, 2017 For SHCD Departme | nt ONLY. Do not send to FGS. | | | | | |

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