DALHOUSIE UNIVERSITY

School of Communication Sciences and Disorders

Research Project Guidelines – 2023/2024

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1. Objectives

All students enrolled at the SCSD are required to undertake some form of research experience. Unless the student applies to and is accepted into the thesis stream of the program, he or she will undertake research project activity assigned by the Committee on Studies (COS) of CMSD.

The purpose of the research project is to provide the student with an opportunity to obtain hands-on experience doing research or to develop the skills that are important for research including writing, critical thinking, knowledge comprehension, analysis of research quality, and review. Outcome products can include a research proposal, research paper, series of critiques of journal articles, or other options. The product should attempt to contribute to the knowledge base of the field or increase the effectiveness and/or efficiency of clinical practice.

By focusing on a topic within the field, the student will draw implications from research to practice and learn how to become a knowledge contributor and consumer. Depending on the nature of the project, students may conduct independent data collection and analysis, participate in the existing research of a professor, conduct a literature review and/or participate in a research seminar. The final product depends on the nature of the project. Through this experience, students are expected to improve their skills in organization, communication (e.g., learning appropriate methods of contacting external agencies with requests), and writing in a logical and coherent fashion; and therefore, be better prepared for conducting large-scale projects in their professional practice and for practicing in an evidence-based manner.

2. Role of the Committee on Studies

The responsibility of the COS includes (1) providing ethical review and approval of projects that are not required to be reviewed by the Dalhousie University Ethics Review Board (REB); (2) managing project offers from supervisors, ranking from the students, and the assignments of the project to each student, (3) enforcing deadlines and sharing the responsibility for the integrity of work with regard to originality, quantity of effort and the final products with the supervisors of each project, (4) managing the presentation of the final product, (5) reporting the grade to FGS, which is done by the Chair of COS.

3. Responsibilities of the Student

The project is a rigorous research experience for which six credits are obtained for two courses: CMSD 7001 in the Winter Term Year 2, and CMSD 7002 in the Fall Term Year 3. Accordingly, all projects will span at least two semesters, and many will last for two years or more. While the length and the starting time of a project is determined by the supervisor, the workload for each student should be planned by considering it as that in two full-term courses of six credits, or 8–9 hours per week for total 24 weeks.

The student is responsible for (a) meeting the deadlines set by the School, and (b) meeting the expectations regarding quantity and quality of work set by the supervisor. The student is responsible for taking the initiative in carrying out the tasks required by the project and to ensure regular communication takes place. Regardless of the length of time a project spans, students are required to register for two project classes: In the event that the requirements of the Winter Term Year 2 class (CMSD 7001) are not completed on time, the student will be required to register for this course again in the following summer academic term.

4. Responsibilities of the Supervisor

The supervisor will mentor the student in designing and carrying out the project, and is responsible for approving any project ethics proposal, report or other products. **The supervisor's signature is required on everything a student submits to the COS or to any other official organization such as the Dalhousie REB.** The student will communicate with the COS only with the knowledge and approval of their supervisor.

5. Project Description and Process

5.1 Project Formats

Each student must complete a single project. All projects are six credit hours. The format for projects can vary. Options are:

(1) Research seminar (e.g., may involve journal article critiques) + completion of a major literature review or development of research proposal, research grant or ethics proposal.
(2) Literature review + data analysis (supervisor supplies the data).
(3) Literature review + REB proposal + data collection and analysis.

For any of the above options, a presentation in December of Year 3 is mandatory. A final written paper is optional and will be determined on a case-by-case basis in discussion with the supervisor.

If the project is part of funded research conducted by a faculty member, then the major expenses of the work are incurred by the faculty member. However, there may be costs specific to completing the project (e.g., travel, copying or printing) that will not be covered by any fund. If this is the case, it should be revealed to students during the project ranking and assignment process. A discussion making of a plan to cover the cost should be done early in the project.

5.2 Project Topics

Project topics are mainly offered by faculty members based upon their research interests and expertise. However, student-initiated topics may be accommodated at the discretion of the faculty supervisor. If a student has a particular interest, they should discuss their topic and possible formats with a potential faculty supervisor and secure a commitment before the whole list of projects has been distributed by COS in a given year.

5.3 Individual and Group Projects

Depending upon the project, students may work independently, in pairs, or in small groups (3-6 students). The faculty supervisor will be responsible for assigning work responsibilities to each group member. For group projects, the faculty supervisor may require that each group member submit a final product or the group may work together on one, depending on the nature of the project and the needs of the group. Students will be required to write drafts of project products, and submit revisions based upon the comments and suggestions of the supervisor(s).

5.4 Project Assignment

Students will be assigned to research projects in the winter term of Year I following the process described below. In February of Year I, the COS will distribute a list and a brief description of all projects offered by faculty. Shortly after circulation of this list, a meeting with all project students will be held, during which faculty members will describe their offers and research interests to the students. Students are encouraged to read relevant literature and to discuss offerings with the faculty members for a better understanding of potential topics.

Students will then rank order their preferences for all projects proposed by faculty and submit their form with their rankings to the Chair of COS in the Winter term of Year 1. The COS will match students to projects; every effort will be made to place students in their most preferred projects.

5.5 Project Supervision

Usually projects are supervised by one or two faculty members in SCSD. Co-supervision may also occur between faculty in SCSD and other departments (e.g., Psychology) or between faculty in SCSD and clinical staff working in the community. When this occurs, individual responsibilities will be worked out between the co-supervisors. However, the faculty supervisor from SCSD will always assume ultimate responsibility for ensuring that the project is completed, and final products submitted within the required timelines.

5.6 Implementation of the Project

The implementation of the project varies with the project and the faculty supervisor. Students should meet with their supervisor shortly after project assignment to discuss how the project will be carried out, the required tasks, the final presentation, and the final products that will be required. A schedule of meetings should be agreed upon by the student(s) and supervisor.

5.7 Final Presentation

All students must present their research projects at the Project Presentation Day in December of Year 3. Students may choose from two presentation format options. One option is an oral presentation that should be 10 minutes in length for an individual project, or 15 minutes in length for a group project, followed by a five-minute question and answer period. A second option is a poster presentation. Students should consult with their project supervisor regarding the most appropriate option for their particular project.

Students are required to submit a title of their presentation approved by their supervisor(s) to the Administrative Secretary via email by early November of Year 3 and must indicate at that time whether they will be doing a poster presentation or an oral presentation.

Students are required to submit an abstract of their project to the Administrative Secretary via email by mid-November of Year 3. Abstracts should be double-spaced and no more than 150 words. The abstract should briefly state the topic and the major findings or the outcomes of the research. The title of the presentation, the student(s) full name, undergraduate and any additional degrees held, the university(s) from which the degree(s) was granted, and the supervisor(s) name should also be provided. The abstract will be included in a Final Presentation Program.

5.8 Final Products

All projects culminate in *one or more* final products, one of which will be the final presentation or poster. In addition, the final product may be a formal paper written in APA style. Depending on the nature of the project, the end product might also include a videotape, a manual, or a computer software program. Projects must be completed by the 3rd week in December of Year 3. If an extension is required, the student must ask the faculty supervisor to grant one. If granted, the supervisor will email notification of the extension to the administrative secretary. The extended deadline for submission of final products is the end of the Winter term of Year 3. An award will be given for the project with the greatest academic merit. Projects are nominated by supervisors in February of the students' 3rd year (see Appendix E). The winner is selected by the COS.

6. Ethical Review of Research Involving Human Subjects

Research projects that involve the participation of human subjects or analysis of data from humans require a proposal for ethical approval of the work. This proposal will be submitted to the COS, a Dalhousie University Research Ethics Board (REB), or a hospital REB. To decide if you need approval for your project and, if so,

where to send your project proposal for ethical review, consider the type of project you are completing and consult your supervisor(s).

6.1 Five Types of Projects

There are five general types of projects as distinguished by the need of ethical approval:
- Projects that <u>do not require</u> ethical approval
  - Projects that do not involve human subjects e.g., systematic reviews, product development
  - Projects for which the faculty supervisor already has ethical approval from the Dalhousie University REB or a hospital REB
- Projects that <u>require</u> ethical approval but <u>do not involve vulnerable populations</u> (e.g., healthy adults and minimal risk)
  - <u>Submit proposal to COS</u>. Use the Dalhousie REB form.
- Projects that <u>require</u> human ethics approval and <u>involve a vulnerable population</u> (e.g., children, clinical populations, or more than minimal risk)
  - <u>Submit proposal to either the University's REB using the Dalhousie form OR a hospital REB</u> using the hospital form.
  - Dalhousie University and Halifax hospital REBs have a reciprocity agreement meaning approval from one implies approval from the other.
- Projects that <u>require</u> human ethics approval and <u>involve hospital patients</u>
  - Submit proposal to the appropriate hospital REB. Use the hospital form.
- Projects that <u>require</u> human ethics approval and <u>involve schools</u>
  - <u>Submit proposal to Dalhousie University AND THEN the appropriate school board REB</u>. Use the Dalhousie and appropriate school board form.

6.2 Ethics Proposal Submissions

REB Proposals to COS
COS is responsible for reviewing REB proposals of student projects involving only the populations that are not considered vulnerable. COS also reviews the scientific aspects of the research project.

Student researcher(s) should take the lead in writing the REB proposal as well as in the running of the project. This should also be clearly stated in the consent form.

The REB application submitted to COS must be completed in the form provided by Dalhousie University Research Services that can obtained from https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-/apply-for-reb-approval.html. Instructions to REB proposal writing and the consent form can also be obtained from this website.

Students must email ethics proposals to COS as well as to the Administrative secretary of SCSD.

REB proposals to Dalhousie, hospitals or schools.
Dalhousie University ethics proposals should be submitted to either the Health Sciences or the Social Sciences REB, depending upon the project topic. Most of the time, proposals will be submitted to the Health Sciences REB. Dalhousie University REBs meet monthly. As discussed above, the forms and guidelines are posted on the Research Services website. Submission deadlines are also on their website (http://researchservices.dal.ca/research_1482.html). If you have questions about the process you can contact Catherine Connors, Director (catherine.connors@dal.ca), or Angela Hersey, Manager (angela.hersey@dal.ca), of Research Ethics.

Hospitals and schools have their own submission forms and deadlines. Consult the appropriate website for more information. **Important:** Students must inform the Administrative secretary when a proposal is submitted to an REB other than COS. In such cases, email the title of the project, the student(s) involved, the supervisor(s), the date of submission, and the REB receiving the submission so that COS has a record of the project's review. Once final approval is received, the student must provide a copy of the final approval form to the Administrative secretary.

Students should be aware that **the ethical review process may take several months**, particularly if approval from more than one review board is required.

6.3 Data Storage and Confidentiality

For reviews conducted by COS, a copy of the approved proposal and the final ethics approval form signed by the Chair, COS will be stored in a designated area at SCSD. An important aspect of the ethics review by the COS is to ensure confidentiality of the data resulting from the research. Only the designated researchers (students and supervisors) are allowed access to the data during and after the completion of the project. Following completion of the project, data and signed consent forms are to be stored for a minimum of five years following presentation and/or publication, and should be destroyed after it is no longer needed. Data must be kept in a locked room housed within the SCSD, usually the supervising faculty member's lab or office. Any confidential patient information should be stored at the SCSD at all times. Any data (paper or electronic) removed from the School by the student researchers must have all identifiers removed to ensure confidentiality.

7. 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 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. Refer to the Research Services website https://www.dal.ca/dept/animal-ethics/about.html for guidelines and protocol for submissions. **The whole process may take two to three months.**

8. Recruitment of Participants from NSHSC

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 the Nova Scotia Hearing and Speech Centres (NSHSC).

For Audiology Participants. The student will submit two copies of the Request for Participants from HSNS Audiology Patients form (see Appendix A) to her/his supervisor who will then forward the request to the specific Director, HSNS.

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

The Centres 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 follow the protocol scripted in Appendix B to contact these individuals and seek approval to participate.

9. Equipment and Test Materials Access

Students may use 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 – Regulations for Borrowing Equipment and Test Materials.

10. Dissemination

Project students should discuss options for disseminating their work with their supervisor(s) and committee members early in the research process. Scholarly presentations (e.g., CASLPA, ASHA, CAA, SRCLD, etc.) and publications are encouraged.

11. Project timelines

February, Winter Term, Year 1	Project offers circulated
February, Winter Term, Year 1	Faculty present on their research and offers
Mid March, Winter Term, Year 1	Students submit ranking forms
Early April, Winter Term, Year 1	Students receive project assignments
Start of Winter Term, Year 2	Register for CMSD 7001
Start of Fall Term, Year 3	Register for CMSD 7002
November, Fall Term, Year 3	Students submit abstract and format of presentation
December, Fall Term Year 3	Students present projects at School event
End, Fall Term, Year 3	Students submit supervisor-approved final products unless supervisor approves an extension
February, Winter term, Year 3	Supervisors nominate project for award to COS (optional)
April, Winter Term, Year 3	Students submit supervisor-approved final products that have received extensions

Appendix A

Request for Participants from HSNS Audiology Patients

Student's Name: _____

Project Supervisor: _____
(SCSD faculty)

Title of Project: _____

                                      _____

Type of Study: _____

Indirect Participant Contact (e.g., mail survey, chart audit, patient data base) _____

Direct Participant Contact (including phone survey)_____

Number of Participants: _____

Clinical Population: _____

                                      _____

                                      _____

(PLEASE RETURN TO STUDENT MAILBOX)

Student's Name: _____

The following clinicians may be contacted regarding participants: _____

_____

_____

_____

_____

_____

_____

Appendix B

School of Communication Sciences and Disorders Student Project/Thesis Telephone Contact

Potential Research Participants

Hello may I speak with Mr./Mrs./Ms. _____

My name is _____. I am calling from the Dalhousie University School of Communication Sciences and Disorders, which is affiliated with the Nova Scotia Hearing and Speech Centres. You indicated on the patient consent form when you registered with the Centres that you could be contacted about participating in research. Thank you for allowing us to contact you regarding our research project.

Please be aware that your participation in a study will not in any way affect your eligibility for services through the Centres. Any information used in a study will remain strictly confidential.

The purpose of this study is:

As a participant you would be asked to:

Would you be willing to participate in this project?

( ) Yes   ( ) No

(At this point, student can make arrangements to conduct the study: i.e., set-up appointment, begin telephone survey, etc.)

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:

- Tape Recorders (microphones also available)
- Digital Recorders
- Video Cameras (tripods also available)
- Headsets (with built-in microphones)
- External Speakers
- Stopwatches
- Otoscopes
- Audiometers
- Dictaphones
- VHS Tape Adaptors

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 with no exceptions.

Students who sign out equipment are responsible for its proper care and maintenance. 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 reception 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 one of three grey duotangs in the Student Lounge. These duotangs must remain in this room at all times. All tests are available for sign-out from the reception desk and can be signed out for a maximum period of 24 hours with no exceptions.

Students who sign out test materials are responsible for their proper care. 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 additional collection and/or reinterpretation of data along with the major revision of the manuscript 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

Award for Project with greatest academic merit

Submission Process:

Supervisor nominates a project for the award to the COS secretary by February of the students' 3rd year.

Supervisor fills out an evaluation form that addresses the following criteria:
1. Intellectual curiosity
2. Independence of effort
3. Quality of written product or presentation: e.g., logical flow and clear communication of ideas
4. Potential contribution to the larger body of knowledge

Selection Process:

COS selects the award recipient from the nominated projects by the end of April, Winter Term 3rd year, based upon the above criteria and also taking into account:

1. The number of students involved
2. The format of the project

Appendix F

Research Project Award Evaluation Form
(for faculty use only)

Student(s) name(s): _____
_____
_____
_____
_____

Title of project: _____
_____

Number of students on project: _____

Name(s) of supervisor(s): _____
_____
_____

Format: Written Submission
Poster
Oral Presentation

Using the following scale, please rate the student research project in comparison to other projects supervised:

Excellent (top 10% of projects I have supervised)
Very Good (top 15-25%)
Good (30-50%, i.e., expectation from typical graduate student)

	10%	15-25%	30-50%	<50%
Intellectual curiosity				
Independence of effort				
Clear communication of ideas				
Quality of final product or presentation				
Potential contribution to the larger body of knowledge				

Comments:

Nomination form(s) due to Administrative Secretary on Friday, March 23, 2020

Revised: June 26, 2020

Appendix G

Research Project Feedback Form - Students

☐ Mid project   ☐ End of Project

Student name: _____   Supervisor(s) name(s): _____

Score	Description	Student Performance	Supervisor's Input
N/A	Not applicable	• Insufficient opportunity to evaluate	• Not applicable to type of research project experience
AB	Absent Skill not evident	• Performance changes marginally in response to specific direction	• Provides extensive supervision and specific directions
E	Emerging	• Applies skill with extensive input from supervisor • Attempts but frequently requires specific direction • Relies on supervisor for solutions or alternatives	• Provides all or nearly all solutions and alternatives • Frequently provides specific directions
D	Developing	• Applies skill with some input from supervisor • Arrives at solutions or alternatives following moderate discussion with supervisor • Performs well with guidance • Requires some specific direction	• Provides moderate supervision
N	Nearly acquired	• Applies skill with little input from supervisor • Arrives at solutions following general discussion with supervisor	• Provides occasional supervision
A	Acquired Independent skill	• Proficient and independent in applying skill	• Minimal supervision is required

	N/A	AB	E	D	N	A	Comment
Literature Review							
Gathers references including a variety of sources of appropriate caliber (e.g., peer-reviewed journals).							
Obtains information that is clearly related to the research area and that provides supporting details for the research.							
Shows a clear command of the material and sound understanding of the research question(s).							
Research Proposal / Data Collection and Analyses							
Understands the justification for the particular methods employed to address the research question(s).							
Takes initiative to ensure that the proposal /REB submission is completed in a timely fashion.							
Includes all required details in the proposal / REB submission.							
Collects data with sufficient attention to details.							
Shows clear understanding of data and analyses.							
Writing and/or Presentation							
Analyzes current knowledge and its limitations in a careful, in-depth, and logical way.							
Explains the research method in a clear and correct manner.							
Explains the research results in a clear and correct manner.							
Understands potential impacts, implications, and limitations of the research, and identifies possible future research directions.							
Presents information in a well-organized manner.							
Incorporates well-designed tables and figures.							
Uses writing/presentation style appropriate for research.							
Uses accurate grammar, spelling, and punctuation.							

	N/A	AB	E	D	N	A	Comment
Meetings with Supervisor(s) / Communication							
Participates actively in group discussion.							
Provides insightful comments.							
Comes to meetings fully prepared and organized.							
Shows excellent communication skills.							
Professionalism							
Respects and understands research ethics.							
Maintains professional demeanor with supervisor(s), research participants, and other members of the research team.							
Maintains the integrity, organization, and confidentiality of data.							
Is punctual when meeting with supervisor(s) or research participants.							
Collaborates well with the student team.							
Shows responsibility and contributes equally to the project.							
Respects roles of team members.							

Appendix H

Research Project Feedback Form - Supervisors

☐ Mid project   ☐ End of Project

Supervisor name: _____ Student name: _____

	N/A	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Stimulates student interest in research.						
Communicates clearly with students.						
Checks on student progress regularly.						
Engages in collaborative leadership.						
Judges well the amount of supervision required by students for various project parts or based on student performance.						
Sets reasonable deadlines.						
Provides feedback in a timely manner, for example on written work.						
I am satisfied with the workload in this research project.						
I am satisfied with how the workload was distributed among students in group projects.						
Project was consistent with what I expected.						
I am satisfied with the learning experience.						

Additional comments: