Occupational Science and Therapy Student Research Handbook

Guidelines for the Preparation of Research Projects

Updated 2021

GRAND VALLEY STATE UNIVERSITY®

Occupational Science and Therapy Department

and Office of Graduate Studies

Acknowledgement

The Occupational Science and Therapy Student Research Handbook is based on an adaptation of *"Guidelines for the Preparation of Theses and Dissertations"* which can be found on the GVSU Office of Graduate Studies website.

This revised document has incorporated guidelines and various options for conducting graduate research projects as approved on August 1, 2021 by the chairperson and faculty of the Occupational Science and Therapy Department at Grand Valley State University.

Table of Contents

Introduction

     The purpose of a research project is to demonstrate your ability to investigate a topic relevant to occupational therapy practice and report the findings in a manner that can be understood by individuals knowledgeable in the topic and from another discipline. This handbook defines the procedures for conducting and writing a masters research project for the Department of Occupational Science and Therapy at Grand Valley State University (GVSU). Adhering to the guidelines in this document will help you avoid delays in the completion and acceptance of your research project. Your final manuscript will become part of the GVSU's permanent collection. Therefore, your manuscript should demonstrate professional writing that is free of spelling, grammatical and formatting errors. To have your degree conferred, your manuscript must be approved by the project committee chair by the timelines detailed in this manual (see Appendix A). You, the student, are responsible for knowing the OST departments specific requirements for research projects.

Section I: Process Overview for Research Projects

A research project represents the culmination of research, scholarship, or creative work that significantly contributes to existing knowledge within academic fields and disciplines. Your completed manuscript is considered your original contribution to the profession. Therefore, it should be written to present meaningful ideas and credible conclusions. The process for completing a research project is detailed throughout this manual. It is important to maintain open communication with your faculty research mentor, committee and group members. This will ensure you progress through the research process in an efficient manner.

<center>**Section II: Roles and Responsibilities**</center>

Student

As a graduate student, it is your responsibility to know the program requirements related to the culminating experience for your degree. These are detailed in the program requirements of the Student Handbook provided at orientation. During the initial research course, students will be connected with an OST graduate faculty research mentor and committee Chairperson. Students will be assigned to projects based on mutual research interests with the faculty member. You will work with your research mentor to identify additional commitee members who could make meaningful contributions to your research project.

Throughout the research project, it is your responsibility to fulfill the research committee's expectations in regard to meeting deadlines, responsible conduct of scholarly or creative work and academic integrity. You must maintain regular communication with all committee members throughout the research process. Additionally, you are responsible for obtaining support from other university resources (e.g., statistics department, librarian, etc.) to guide you in methodology as needed. You are expected to credibly defend all decisions made related to the research process (e.g., purpose of the study, methodology, interpretation of results and conclusions), during a public defense presentation with your research committee.

Faculty Research Mentor/Committee Chairperson

The primary responsibility of the research mentor is to be the Chairperson of the research committee and primary investigator of the project. The research mentor will guide you through the project to be sure it is feasible to complete within a reasonable amount of time during your academic program. In addition, the research mentor will ensure the project challenges you to develop skills of critical inquiry, evidenced-based decision making, reflection, presentation, and

scholarly writing. The research mentor must hold a minimum of adjunct graduate faculty status, and capable of mentoring graduate students in scholarly activities. The research mentor is responsible for coordinating the activities of the Committee, and setting the tone for fair, honest, and equitable assessment of your academic work. Finally, the research mentor is responsible for working to ensure a successful outcome both for the research project.

Research Project Committee Members

Research Committee members are responsible for using their knowledge and expertise to make active contributions to your research project. Members of project committees can either be full or adjunct graduate faculty or research mentor approved community members who are content experts in their field. Members also are expected to critically read and evaluate the initial proposal and final documents, and provide constructive feedback and suggestions for improvement. The committee members responsibilities are complete when they sign the final copy of the manuscript submitted to the Occupational Science and Therapy Department.

Section III: Preparing the Research Project

Committees

In collaboration with your research mentor, you must identify appropriate graduate faculty and/or community members willing to serve on your committee. You will use the Invitation to Committee Member Form (see Student Forms) to invite committee members to join your project. Use the following guidelines to select your committee members:

- Masters research projects or theses must be overseen by a committee consisting of at least three (3) members.

- The research Chair must hold graduate faculty status and be a faculty member within the Occupational Science and Therapy Department.

- At least one committee member must be from outside your specific disciplinary area of study. The research Chair and OST Department Chairperson must endorse committee membership of any members from outside of the department.

- The Dean of the Office of Graduate Studies and the OST Department Chairperson must approve non-graduate faculty as members of committees.

- Non-graduate faculty members may include persons external to the university who are approved for adjunct graduate faculty status.

Research Projects: Once your committee membership is determined you should complete the Committee Membership Endorsement Form (see Student Forms). Submit the signed form to your research mentor/Chair.

Selecting a Research Topic

The OST faculty will provide several research proposals for you to review. You will select research topics that interest you. Your OST 557 professors will assign you to one of the research topics selected. You will proceed with the research with a group of 4-5 students under the guidance of your faculty research mentor. NOTE: It is important to identify your committee member's early in the research process. It is also important to gain approval from the Institutional Review Board (IRB) if your research involves human subjects; or, from the Institutional Animal Care and Use Committee (IACUC) if your research involves animals. No subject recruitment or data collection can begin until you receive written approval from the appropriate Institutional Review committee(s).

Research Project Proposal Defense

During the winter semester, your group will develop a research proposal. All research project proposals must be defended publicly. A research project announcement (see Student Forms) must be posted electronically on the departmental website at least 7 days prior to schedule proposal date (see Diana Briggs).

Research Project Final Defense

During the fall II semester, your group will develop a final defense. All research projects must be defended publicly. A research project announcement (see Student Forms) must be posted electronically on the departmental website at least 7 calendar days prior to scheduled final defense date (see Diana Briggs). A successful final defense occurs when the majority of your committee members approve of your work. Committee members will attest to the acceptability of the manuscript when they sign the final grading rubric (see Student Forms) after successful defense of the research project.

Credit Hours

You must enroll in the course(s) appropriate to the OST Department for the semester(s) you are working on your research project. Consult your OST Student Handbook or the OST Department Academic Coordinator for guidelines on registration for classes and credit hours for your particular degree.

Fees

As a graduate student, you will be charged the applicable graduate tuition rate for your work on your research project based on your degree program. If you fail to complete the work after registering for the required credit hours you must maintain continuous enrollment during each semester until final approval of the research project is granted. Please refer to the Office of Graduate Studies website for additional information on continuous enrollment.

Deadlines

You should work with your committee to establish a schedule for completion of your research project. Regardless of your interim deadlines, you must adhere to the Office of Graduate Studies and Occupational Science and Therapy Department deadlines for final submission of your project. Submission of your final manuscript must occur at least three weeks prior to the last day of the semester you intend to graduate.

Authorship

Based on criteria set by the GVSU IRB, your research mentor must be listed as an author in all submitted and published works. Committee members and other contributors to your research may be included as well, for further guidelines see: http://www.gvsu.edu/ours/gvsu-authorship-guidelines-660.htm

<div align="center">**Section IV: Formatting the Manuscript**</div>

Each academic unit specifies an acceptable format for written research documents. The Occupational Science and Therapy Department specifically requires use of the latest version of the *American Psychological Association's (APA) Style,* or the acceptable format required by the author guidelines of a selected journal.

Plagiarism

According to the GVSU Student Code (section 223.01) plagiarism is defined as: Any ideas or material taken from another source for either written or oral presentation must be fully acknowledged. Offering the work of someone else as one's own is plagiarism. The language or ideas taken from another may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, speeches or the writings of other students. The offering of materials assembled or collected by others in the form of projects or collections without acknowledgment also is considered plagiarism. Properly citing your sources can help you to avoid plagiarism. The current version of the APA style guide addresses plagiarism; for additional information, consult the [GVSU Library plagiarism guide](). Any student who fails to give credit in written or oral work for ideas or materials taken from another source is guilty of plagiarism.

Copyright Protection

The U.S. Copyright Law provides federal copyright protection for both published and unpublished work. If you intend to quote extensively from copyrighted material, or wish to include illustrations, charts, graphs, etc. in your research project, you must obtain permission from the copyright holder to use their material, and include evidence that you received permission in the appendix of your project. Consult with your research project committee chairperson to help determine when you need to seek copyright holder permissions.

Electronic Filing of Completed Work

All research projects and theses must be electronically filed in the GVSU electronic repository (ScholarWorks@GVSU). After your committee has approved your research project, students will submit a pdf of the entire document (including signatures) to the Office of Graduate Studies project coordinator. Students may submit an abstract or full manuscript for the project through ScholarWorks@GVSU. The inclusion of your work in ScholarWorks will make it openly available on the internet. If you submit your manuscript for publication, you may postpone the release of your manuscript online (e.g., embargo) for a specified period of time. If your committee does not submit for publication, include the signed submission agreement for ScholarWorks@GVSU and the final manuscript. If your committee submits for publication, include the signed submission agreement for ScholarWorks@GVSU with the embargo option selected and the abstract only. See the ScholarWorks form (Student Forms) for details.

<div align="center">

Research Resources and Useful Websites

</div>

[Agency for Health Research & Quality](#).

This website contains a plethora of resources including clinical information databases, national guidelines clearinghouse, national quality measures, patient safety data, evidence-based research reports on a wide range of clinical topics, research funding opportunities, etc.

[Allen Cognitive Network.](#)

This website contains detailed information about the history of the *Allen's Cognitive Disability Model*, its various screening and assessment tools, Allen's levels of cognitive function, and other useful resources relevant to the Allen Cognitive Model.

Center for Disease Control and Prevention.

This website contains useful information vital to health care researchers including databases on wide range of diseases, disorders, and conditions such as falls, arthritis, osteoporosis, obesity, autism, speech and learning disabilities, vision impairments, traumatic brain injuries, cerebrovascular accidents (strokes, TIAs), etc.

Cochrane Collaborative.

The Cochrane Collaboration, established in 1993, is an international network of more than 28,000 people from over 100 countries who work together to help health care providers, policy makers, patients, their advocates and careers, make well-informed decisions about health care, based on the best available research evidence, by preparing, updating and promoting the accessibility of Cochrane Reviews (over 4,600) published online in *The Cochrane Library*.

National Center for Research Resources (NCRR).

More than 30,000 NIH-funded investigators nationwide rely on the resources, tools and networks made possible through NCRR support. NCRR's extramural programs enable discovery across the entire continuum of research from basic science to community health care. Collectively, NCRR programs help advance discoveries made at molecular and cellular levels to animal-based studies, and then to patient- oriented clinical research.

National Human Genome Project.

The Human Genome Project (HGP) was an international research effort to sequence and map all of the genes, (i.e., the human genome), of members of our species, *Homo sapiens.* This website contains a wealth of information about the HGP; genetic disorders; assessment tools for the consumer, health care professional, clinical researcher; research initiatives, and research funding opportunities.

National Institute of Arthritis and Musculoskeletal and Skin Disorders.

One of several institutes within the U.S. National Institutes of Health. NIAMS provides
information on a variety of arthritis, musculoskeletal, and skin diseases and conditions, current
research initiatives, projects, patient registries and databases, and funding opportunities.

National Institute of Child and Human Development.

One of several institutes contained within the U.S. National Institutes of Health. NICHD
provides information on a variety of children's diseases, disorders, and developmental
conditions, as well as research initiatives, projects, and research funding opportunities.

National Institutes of Health (NIH).

Homepage for NIH which contains latest research initiatives and projects funded by NIH,
plethora of patient and professional education resources, researcher training resources, grant
writing training resources, and links to the many constituent institutions that compose the
National Institutes of Health.

National Institute of Neurological Disorders & Stroke (NINDS).

One of several institutes within the U.S. National Institutes of Health. NINDS provides
information on a variety of neurological diseases, disorders, and conditions as well as specific
information containing to the various types of Stroke and brain injury. Also, current research
initiatives, projects, patient registries and databases, and research funding opportunities. One of
the core goals at NINDS is to turn science advances into new therapies to benefit people with
neurological disorders, particularly through translational research, i.e., applied clinical research.

National Institute on Disability and Rehabilitation Research (NIDDR).

This website is housed within the U. S. Department of Education. NIDRR provides
leadership and support for a comprehensive program of research related to the rehabilitation of

individuals with disabilities. All programmatic efforts are aimed at improving the lives of individuals with disabilities from birth through adulthood. NIDRR provides useful informational on a variety of disabilities/disorders/conditions, research and funding resources.

National Vital Statistics System.

This website is contained within the Center for Disease Control and Preventions website. The National Vital Statistics System is the oldest and most successful example of inter-governmental data sharing in Public Health and the shared relationships, standards, and procedures form the mechanism by which NCHS collects and disseminates the Nation's official vital statistics. These data are provided through contracts between NCHS and vital registration systems operated in the various jurisdictions legally responsible for the registration of vital events – births, deaths, marriages, divorces, and fetal deaths. One can access a variety of online databases and surveys located on this webpage.

Office of Human Research Protection (OHRP).

OHRP provides leadership in the protection of the rights, welfare, and wellbeing of subjects involved in research conducted or supported by the U.S. federal government. OHRP contains regulatory information, Code of Federal Regulations, the Common Rule, and other documents and reports such as The Nuremberg Code, The Belmont Report, and Helsinki Declaration that provides guidance and oversight to research conducted on human subjects.

Office of Research Integrity.

The Office of Research Integrity (ORI) oversees and directs Public Health Service (PHS) research integrity activities on behalf of the Secretary of Health and Human Services with the exception of the regulatory research integrity activities of the Food and Drug Administration. The ORI website contains useful resources related to research integrity, research training and

continuing education, evaluation of research policies, and handling of research misconduct allegations, and responding to Freedom of Information Act and Privacy Act requests.

OTseeker.com

OTseeker is a database that contains abstracts of systematic reviews and randomized controlled trials relevant to occupational therapy. Trials have been critically appraised and rated to assist you to evaluate their validity and interpretability. These ratings will help you to judge the quality and usefulness of trials for informing clinical interventions. In one database, OTseeker provides you with fast and easy access to trials from a wide range of sources.

PEDro.

PEDro is the Physiotherapy Evidence Database of over 19,000 randomized trials, systematic reviews and clinical practice guidelines in physiotherapy. For each trial, review or guideline, PEDro provides the citation details, the abstract and a link to the full text, where possible. All trials on PEDro are independently assessed for quality. These quality ratings are used to quickly guide users to trials that are more likely to be valid and to contain sufficient information to guide clinical practice.

PRIM&R (Public Responsibility in Medicine & Research.

PRIM&R is an organization for clinical research professionals dedicated to advancing the highest ethical standards in the conduct of research. Since 1974, PRIM&R has served the full array of individuals and organizations involved in biomedical, social science, behavioral, and educational research. PRIM&Rs membership community includes professionals representing human and animal research oversight programs and institutional biosafety programs, as well as researchers, institutional officials, government personnel, subject advocates, ethicists, policy makers, pharmaceutical and biotechnology leaders, and attorneys.

THOMAS (Library of Congress).

THOMAS is the source for federal legislative information. THOMAS provides several options for finding bills, resolutions, and status of proposed and enacted federal legislation.

U.S. Department of Education.

This website contains many useful resources for students, teachers, and researchers. The U. S. Dept. of Education engages in four major types of activities: (1) Establishes policies related to federal education funding, administers distribution of funds and monitors their use. (2) Collects data and oversees research on America's schools. (3) Identifies major issues in education and focuses national attention on them. (4) Enforces federal laws prohibiting discrimination in programs that receive federal funds.

U.S. Department of Health & Human Services.

The Department of Health and Human Services (HHS) is the United States government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves. The department includes more than 300 programs, covering a wide spectrum of activities. In addition to the services that HHS delivers, HHS funds clinical research through the various institutes that comprise the NIH and it also enables the collection of national health and other data.

World Health Organization.

WHO is the directing authority for health within the United Nations system. WHO is responsible for providing leadership on global health matters. This website contains global health information on a variety of diseases, disorders, and conditions; statistical data; WHO research initiatives and current projects, health care delivery models for chronic illness care, health disabilities and function, and research funding opportunities.

<center>**Occupational Therapy Organizations**</center>

American Occupational Therapy Association.

This website contains many occupational therapy specific useful research resources including, but not limited to: clinical information, current OT research projects, emerging areas of OT practice and research, funding opportunities, and sections specifically for OT students, practitioners, and researchers.

Australian Occupational Therapy Association.

This website contains occupational therapy-specific research resources including clinical information on a wide range of clinical disorders/conditions, current Australian OT research projects, research publications, and useful web links.

Canadian Occupational Therapy Association.

This website contains many Canadian occupational therapy specific useful research resources including, but not limited to: clinical information, current OT research projects, international occupational therapy workforce project, funding opportunities, useful resource links, and sections specifically for OT students, practitioners, and researchers.

Council of Occupational Therapists for the European Countries (COTEC).

COTEC is the European organization representing 27 European OT Associations and over 120,000 occupational therapists. The aim of COTEC is to enable National Associations of Occupational Therapists in Europe to work together to develop, harmonize and improve standards of professional practice and education, as well as advance the theory of occupational therapy throughout Europe. This website contains: European OT terminology database, evidence-based practice information, research documents and publications, and useful web links.

[European Cooperation in Occupational Therapy Research and Occupational Science](#)

The European Cooperation in Occupational Therapy Research and Occupational Science (ECOTROS) is composed of a growing international group of more than 300 occupational therapists. ECOTROS co-operates with ENOTHE, the EU-funded European Network of Occupational Therapy in Higher Education and aims to develop greater collaboration with COTEC, the Council of European Therapists for the European Countries. Together, these three groups will enable the very important collaboration of research, education and practice. ECOTROS provides information on researchers and research activities within Europe. ECOTROS_ website contain several useful research resource links including: Researchers interested in cooperation, Research projects, Overview of relevant publications, Online discussion list for people interested and involved in Occupational Therapy Research and Occupational Science, Studying for a PhD in Europe, and Research Organizations.

[European Network of Occupational Therapist in Higher Education (ENOTHE).](#)

This website contains several useful links for occupational therapy researchers and educators. Lists several European partners (and their web links) who are collaborating on a variety of student and faculty research projects.

[World Federation of Occupational Therapists.](#)

This website contains a plethora of useful occupational therapy research and practice resources, web links, OT databases, evidence-based resources, from several countries around the world. An interesting and useful website.

Useful Reference Textbooks and Checklists

Christensen, L.B., Johnson, R.B., & Turner, L.A. (2011). *Research methods, design, and analysis* 11th Ed. Allyn & Bacon.

Creswell, J.W., & Plano Clark, V.L. (2011). *Designing and conducting mixed methods research.* Sage Publications.

Creswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five approaches.* Sage Publications.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research Process.* Sage Publications.

IOM (Institute of Medicine). (2011). *Finding what works in health care: Standards for systematic reviews.* The National Academies Press.

Law, M., Baum, C., & Dunn, W. (2005). *Measuring occupational performance: Supporting best practice in occupational therapy* 2nd Ed. SLACK, Inc.

Law, M., & MacDermid, J. (2007). *Evidence-based rehabilitation: A guide to practice,* 2nd Ed. Slack, Inc.

Locke, L. F., Spirduso, W. W., & Silverman, S. J. (2007). *Proposals that work: A guide for planning dissertations and grant proposals,* 6th Ed. SAGE Publications.

Richards, L., & Morse, J.M. (2013). *Readme first for a user's guide to qualitative methods,* 3rd Ed. Sage Publications.

Shadish, W.R., Cook, T.D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference.* Houghton-Mifflin Company.

Streiner, D. L., & Norman, G. R. (2005). *Health Measurement Scales: A practical guide to their development and use,* 3rd Ed. Oxford University Press.

APPENDICES

Appendix A:

OST Timelines for Group and Individual Research Projects

Fall (OST 557)

☐ Faculty research topics provided during OST 557

☐ Responsibility of each student:

- Select research topics of interest by deadline provided

- Contact research mentor and group members

- Select a date and time for weekly meetings

- Identify two committee members

- Complete all required assignments by due dates

☐ Attend at least one final defense

Winter (OST 564)

☐ Complete all required assignments posted by due dates

☐ Outline and begin writing methods section of manuscript

☐ Collect support letters from community partners assisting with subject recruitment

☐ Identify outcome measures and forms needed for data collection

☐ Create consent form

☐ Create study flyer

☐ Complete IRB process

☐ Communicate with committee members throughout process

☐ Schedule proposal defense

☐ Edit manuscript and IRB documents based on committee member feedback

☐ Submit IRB xForm documents for final review/approval

☐ Complete Evaluation of Research Mentor and Peer and Self Evaluation forms

☐ Attend at least one proposal defense

Spring/Summer (OST 693/695)

☐ Implement research when IRB approval has been obtained

☐ Responsibility of the research group to:

- Ensure necessary physician prescriptions are in place to allow skilled tx by licensed OT (as needed)

- Communicate with community partners on a regular basis to ensure data collection procedures and/or recruitment is done properly

- Continue writing based on selected journal author guidelines

- Complete data collection

- Complete data analysis

- Begin a draft of results and conclusion sections of manuscript based on author guidelines of selected journal.

- Submit proposals for poster presentation to MiOTA, AOTA, or other conferences

- Complete the Evaluation of Research Mentor form for summer and submit to the OST Department Academic Coordinator

Fall II (OST 693/695)

☐ Responsibility of research group to:

- Complete results and conclusion sections based on author guidelines of selected journal

- Schedule defense for at least 3 weeks prior to the end of the semester (per Graduate Dean's Office).

- Submit final draft of manuscript to committee at least 7 days prior to defense

- Submit Final Defense Announcement Form to OST Department Academic Coordinator 10 days prior to your scheduled final defense date

☐ Complete the Evaluation of Research Mentor- Final and Peer and Self Evaluation form

☐ Write abstract based on author guidelines of selected journal

☐ Write a cover letter addressed to Editor in Chief of selected journal

☐ Create a poster

☐ Submit manuscript for publication

Spring/Summer (OST 698 Capstone)

☐ Submit final forms and manuscript (or abstract) to ScholarWorks