

THESIS HANDBOOK

LOGAN UNIVERSITY PROGRAMS

Master of Science in Nutrition and Human Performance

2011-2012

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Introduction

A thesis is the written report of what is learned by a student during the course of a research project while obtaining a master's degree. The primary goal is to add to the existing body of knowledge in the discipline.

Thesis Committee

The graduate committee consists of a minimum of three members: 1) the research advisor; 2) the Master of Science in Nutrition and Human Performance (MSN) program director (or designee); and 3) one research faculty member. Additional members may be included as selected by the research advisor and student (usually to bring additional expertise to the research project). Graduate faculty members from other universities may also serve on committees (but not chair the committee) when the research work involves such collaborations. A list of research faculty in the MSN program is available from the MSN program director. It is the responsibility of the student to find a research advisor and research project.

Changing Research Advisors

The assignment of a graduate student to a research advisor may be changed if the thesis research develops into another expertise area and if another faculty member agrees to serve as the advisor. However, changing to a different thesis advisor should be made only under exceptional circumstances (and only with the written permission of the program director). The unanticipated departure of a graduate student to another faculty member may leave the original adviser with no means of completing the project begun by the student. If the project has been supported by external funding, its suspension could jeopardize future collaboration with and support from the funding source. Both the original advisor and the new adviser must be in agreement that the change is in the best interests of all parties involved. In the event of a disagreement regarding the desirability of a change, the MSN program director will seek to mediate the disagreement, and make a final decision. Change of research advisor and thesis project requires the development of a new research proposal.

Thesis Plan Options

Two options exist for thesis research. Students may choose between a Plan A or a Plan B thesis. Either option requires a significant and similar amount of time and effort.

Plan A Thesis

The Plan A thesis track involves a significant original research project with the intention that the research findings will be reported through the publication of an article(s) in a peer-reviewed journal. Some viable options would include:

- Original research involving clinical intervention or cross-sectional studies.
- Reinterpretation of published studies such as a meta-analysis.

Data mining of the published literature (with proper acknowledgement) with the data used or reanalyzed in way not utilized in the original publications.

The structure of the written Plan A thesis is determined in conjunction with one's research advisor and may include the traditional format or a manuscript format. In the traditional format chapters may include:

- Introduction: including the problem statement, information needed for the reader to understand the problem, your elegant solution to the problem and a description of how it will solve the problem, and your research objectives;
- Literature Review: a review of the scientific literature dealing with this problem and your solution to the problem, complete enough that it remains unlikely that any meaningful work may have been overlooked;
- Research Methods: how you will test your hypothesis, including a description of your research subjects, the data obtained, and how the data was analyzed and your definition of what a significant finding would be;
- Results: a description of the analyzed results from the study including what was significant;
- Discussion: including your conclusions, implications or the relevance of your findings and the direction of future work in this area; and a
- Bibliography.

A manuscript format thesis would include an introductory chapter, the manuscript submitted for publication and your full literature review or research proposal included as an appendix.

Plan B Thesis

Several formats are acceptable for a Plan B Thesis. The student and his or her research advisor must agree on the format. However, students may choose from any of the following options:

- The study may be a replication (with proper acknowledgement) of a published study.
- The study may involve developing an assessment device or survey with field-testing.
- The study may be a review and critical analysis of research/literature in a selected area.
- The study may show application of scientific methodology and principles to solve a problem.
- The scope of the study may be a pilot study.
- Studies whose results are primarily useable in a single setting would be acceptable. It may
 be a case study.

The structure of the written Plan B Thesis is determined in conjunction with one's research advisor. A suggested outline for a review and critical analysis of the literature and review might consist of an introductory chapter (introduction; problem statement; rationale, purpose and significance of study; and research questions, objectives or hypotheses), a second chapter reviewing and analyzing the literature (review of literature and relevant research; critical analysis of literature and research; and summary), a chapter outlining the study (research design; subject selection; methodology; and data analysis methodology) and provide a summary and discussion (conclusions, implications, recommendations and directions for further research), and a final chapter containing the bibliography. It is recommended that the student use APA Style in writing their Plan B Thesis. The Plan B Thesis track involves directing a rigorous literature review with an application of the synthesis of ideas towards a significant problem or question of interest to the student and research advisor with the intention that the findings will be reported through the publication of a review article in an appropriate professional journal.

Thesis Research Proposal

The selection of a thesis project is a significant decision. Careful consideration should be given to a project's feasibility and its potential contribution to the scientific body of knowledge, in the form of a peer-reviewed publication in a professional journal. The student should be genuinely enthusiastic about the project selected and highly motivated to complete it. The selection of a project should be

made in a timely fashion, to allow the student to begin thesis research as soon as possible. Indecision in selection of a project, or a change to a different project midway through a student's program unnecessarily prolongs the time necessary for a student to obtain his/her degree. The thesis research proposal will aid in the application process for the Logan University Institutional Review Board (IRB) approval (see IRB Approval section). Timely selection of an advisor, research topic, development of the research proposal and application for IRB approval will leave you more time to conduct your research and write the thesis.

The research proposal describes in detail the project the student will complete for his or her thesis research. After the student and the advisor agree on the thesis project but before more than cursory research has been conducted, the student will prepare the thesis proposal.

The thesis proposal typically has the following elements: Introduction of the problem that needs to be solved; an explanation of what efforts have been made to solve it in the past; what a solution might look like – lead-in to your proposed solution to the problem; a specific testable hypothesis statement that you will test (remember you cannot prove a hypothesis 'true,' you can only prove a hypothesis 'false'); research methods (including subject description, recruitment, and ethical treatment, experimental study design, how data will be collected and analyzed, statistical methods that will be used, your study timeline); possible outcomes (positive and negative) and what each would mean; and a summary statement of how your solution to the problem would benefit the world. Make sure that you clearly explain everything so there are no hanging assumptions or incomplete ideas that someone reviewing your proposal might not understand or be aware of. Do not use any abbreviations in the proposal as this tends to cause confusion to reviewers.

In preparing the proposal the student and advisor are encouraged to meet with a representative of the Research Division to establish proper experimental design. Copies of the proposal are given to each member of the student's graduate committee. This should clearly communicate to the committee the aims and rationale for the proposed project, the experimental design, analytical methods, timeline to completion, etc. Committee members may suggest or require changes in the proposed plan, which the student should incorporate in a revision of the proposal. The final version of the research proposal is signed by each committee member and submitted to the MSN program director.

The signed research proposal becomes the "contract" the student must fulfill to complete the requirement for thesis research. It can also be used as the first three chapters in a traditional format of the thesis. Significant deviations from the experiments outlined in the approved proposal, or a change to a new thesis project requires submission of a new proposal following the procedure outlined above.

IRB Approval

University policy requires that all research proposals be reviewed by the Logan University Institutional Review Board (IRB) to protect personal privacy and ensure the safety and ethical treatment of human subjects as required by law. Research proposals that include the use of human subjects, human data of a personal nature or that may lead a researcher or reader to be able to discover the identity of the research subject will require a full IRB review. Research proposals that utilize published literature data mining or meta-analysis may not require a full IRB review (both Sections I and II of IRB proposal). IRB review applications are available on the Logan College website (search for 'IRB' and download the IRB proposal section I and II forms) and submit the completed forms to the IRB Committee Chairman, Dr. John Gutweiler. IRB reviews are only conducted toward the end of each trimester (check with the IRB committee chairman for deadlines). Your research project cannot be conducted until IRB approval is obtained, including pilot studies. Collecting data prior to IRB approval can result in massive negative consequences for our institution and will not be tolerated. Submission in a timely manner is highly recommended so that you do not waste valuable time (i.e., an entire trimester) waiting to obtain IRB approval.

Thesis Preparation

Guidelines for writing thesis (see sample pages in the Appendix).

The thesis must represent the personal research and writing of the student. It is expected that the work of each graduate student will result in the publication of at least one paper in a peer-reviewed, professional journal.

The finished thesis is approved by the research advisor and program director. Upon acceptance of the final draft, the student should fill out the Thesis Completion Form (both pages) and obtain the necessary signatures. There are options for immediately releasing the thesis upon delivery to the library (making it available for worldwide access), delaying release for up to one year if the contents are to be published, or securing the thesis if it contains patentable material, other intellectual property or creative work. In the latter case the student must also submit a 'Request to Secure Thesis' form to the Dean of University Programs. The research advisor has the responsibility to disclose the work to the Coordinating Committee of Intellectual Property at Logan University.

A pdf file of the final thesis is submitted to the MSN program director along with the completed and signed Thesis Completion Form (see Appendix). The MSN program director will see that all submitted theses are archived in the university library.

Appendix

Research Proposal Approval Form

Name:
Research Proposal Approved Yes
OR
Approve with Qualifications Yes - with the expectation that the following qualifications will be met to the satisfaction of the Research Advisor and/or MS Program Director before the research project is begun.
Has IRB approval been obtained for this research project? Yes No (IRB approval must be obtained before beginning any research project)
IRB Number
Signature of Research Advisor Date
Signature of MS Program Director Date

Petition to Change Research Advisor/Project

Graduate Student Name:	
Current Research Advisor:	
Current Project Title:	
Proposed New Advisor:	
Justification for proposed change:	
Craduata Student Signatura	Date
Graduate Student Signature	Date
Current Advisor Signature	Date
New Advisor Signature	Date
New Advisor Signature	Date
Program Director Signature	Date

(Sample Title Page)	

[Title: Titles Must Be in Mixed Case and May Not Exceed Six Inches on One Line

and Must Be in the Inverted Pyramid Format When

Additional Lines Are Needed]

[Student Name]

A thesis submitted to the faculty of Logan University in partial fulfillment of the requirements for the degree of

Master of Science

[Research Advisor], Chair [Committee Member] [Committee Member]

Master of Science in Nutrition and Human Performance

Logan University

[Graduation Month] [Year]

Copyright © [Year] [Student Name]

All Rights Reserved

(Sample Abstract Page) ABSTRACT

[Title: Titles Must Be in Mixed Case and May Not Exceed Six Inches on One Line and Must Be in the Inverted Pyramid Format When Additional Lines Are Needed]

[Student Name]

Master of Science in Nutrition and Human Performance, Logan University Master of Science

[The abstract is a summary of the work with emphasis on the findings of the study. It must be single spaced and no more than one page in length. It must match the same font and size as the rest of the work. The abstract precedes the optional acknowledgement page and the body of the work.]

Keywords: [keyword, keyword]

(Sample Acknowledgements Page)

ACKNOWLEDGEMENTS

[This page is optional. Students may use the acknowledgements page to express appreciation for the committee members, friends, or family who provided assistance in research, writing, or technical aspects of the dissertation, thesis, or selected project.

Acknowledgements should be simple and in good taste.]

Thesis Completion Form - 1

Name as it appears on t	he Thesis:		
First	Middle or Initial	Last or Surname	
Student #:			
Graduation Date:			
Type of Submission:			
Plan A T	ThesisPlan B 7	Thesis	
Do you need to secure y *(Usually only for patent pu		Yes*	
the owner(s) of each third-p am submitting is the same as I hereby grant to Logan Ur under the conditions specifi	opriate, I have obtained and attached arty copyrighted matter that is inclust that approved by my research advisoriversity and its agents the non-excluded on page 2, my thesis in whole or nership rights to the copyright of the is.	nded in my thesis. I certify that or. usive license to archive and mal part in all forms of media, now	the version I ke accessible, v or hereafter
Printed Name of Student	Student S	ignature Γ	Pate

Thesis Completion Form - 2

Electronic and Print Thesis Inform		
Student, Research Advisor, and Pr My Committee and I agree that my subm following status (choose one):	ogram Director Agreement: itted thesis should be placed in the electro	onic thesis archive with th
Release the entire work immedia	tely for worldwide access.	
Delay release of the entire work fautomatically release the work for worldw	or up to one year for publication purpose vide access.	s. After the one year delay
copyright owner also agrees not to exerci prior authorization from Logan Univers Programs. Submit the 'Request to Secure	t purposes or as a creative work. If secure ise his/her ownership rights, including puity. This secure option requires approval a Thesis' form to the Dean of University Pd, the work will be immediately released for	blic use in works, withou of the Dean of Universit rograms before submittin
university and program content and for consistent and acceptable; its illustrativ	we have read the thesis in its final form and mat requirements. Its format, citations, a e materials including figures, tables, and I manuscript is acceptable and is ready fo	and bibliographic style ar I charts are in place an
Printed Name of Research Advisor	Signature of Research Advisor	 Date
Printed Name of Program Director	Signature of Program Director	 Date

Request to Secure Thesis Form

Student Name:		
Thesis Title:		
Secure thesis beginning:	, until:	·
Reason for request to secure thesis:		
	g this work as an electronic thesis an le available for public view until the r	_
Printed Name of Student	Signature of Student	Date
Printed Name of Research Advisor	Signature of Research Advisor Date	
Approved by:		
Printed Name of Dean of University	Programs	
Signature of Dean of University Prog	grams Date	