Prospectus Guidelines for COT PhD Dissertation Candidacy Qualifying Exam

Title of your Research Idea

by

Your Whole Name

Prospectus

Submitted to the College of Technology

Eastern Michigan University

Dissertation Candidacy Qualifying Examination Committee

in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

Candidacy Qualifying Examination Committee:

Faculty Name, PhD, (Potential Dissertation Chair)

Faculty Name, PhD, (Research Methods Representative)

Faculty Name, PhD, Academic Advisor (or Concentration Adviser)

Month Day, Year

Ypsilanti, Michigan

Table of Contents (10-20 pages)
Introduction

Begin with a short opening statement that introduces and generally describes your prospectus. This should be just a short, succinct paragraph that will lead into your specific statement of the problem, given in the next section. Format for the paper requires that it (a) have 1" top, bottom, and right side margins with 1.25" left margin; (b) be typed and double spaced using a serif (e.g., Times) 12 point font with no right margin justification; (c) show bottom centered page numbers, using small Roman numerals for the preliminary pages and Arabic numerals for the body of the text, counting but not numbering the first page of text or the cover page; and (d) be formatted to utilize three or four levels of headings (EMU Dissertation Manual, 2006, pp. 19, 28). Follow American Psychological Association style (APA, 2001) throughout. Do not place in a binder, use just one staple in the upper left corner.

Statement of the Problem

This should be a clear, precise, formal statement of the problem. This is not the objective of the study, hypothesis, or research question, but the underlying problem that has caused a need for research.

Nature and Significance of the Problem

This section should provide background information about the research problem and its relative significance. Develop a synthesized presentation of information obtained from an initial review of the literature, using at least eight (8) solid references related to the problem, and provide citations and/or quotations referring to the sources of the information you use. Possible causes of the problem and its effects, and possible results or benefits of research on the problem should be discussed. It is better to keep your introductory statement short (one paragraph, as noted above), and elaborate on the background of the study in this section.
Objective of the Research

With regard to the problem, and its nature and significance, precisely and concisely state the objective(s) of your prospective research project.

Hypotheses and/or Research Question(s)

This section should very precisely state the hypotheses and/or research questions that will be specifically investigated by your proposed research design. This is a result of carefully analyzing your statement of the problem and research objectives, in consideration of available background information and information obtained from your preliminary review of the literature.

Methodology

Describe your proposed methodology in the following subsections. Begin here with a short introductory statement, leading into the research design subsection.

Research Design

Name and describe the generic research design to be used, based on cited references about that research design, and explain why that design is appropriate for the research problem. The design must utilize either a qualitative, descriptive, or experimental methodology (see Appendix A). Although mixed-model methods may be utilized, it must still be fundamentally classified as a qualitative, descriptive, or experimental design (Tillman, 1998) for the purposes of your candidacy qualifying examination (COT PhD Dissertation Candidacy Qualifying Examination Policy, 2007).

Population, Sample, and Subjects

Specifically state the population the study is trying to describe or generalize to, the sample taken from that population, and the sampling technique to be used. However, not all
types of research use populations and/or samples. If not, state why not, and what or who is being investigated in order to collect data.

_Human subjects approval._ If you plan to collect data or information from human subjects in any part of your research project (_EMU Dissertation Manual_, 2006, pp. 6, 9, 13), you must note in the prospectus that you intend to complete a _Request for Human Subjects Approval Form_ (6-2008) and attach it to your submitted dissertation proposal.

_Data Collection_

Describe how the generic research design will be specifically applied to your research situation. Describe the research environment, conditions and treatments (where applicable), and data collection instrumentation and techniques to be used.

_Data Analysis_

Describe how the data will be analyzed in order to gather meaning from the data. If using statistical analysis, you do not need to provide the actual formulas in the prospectus (actual formulas will be required in the formal dissertation proposal).

_Personnel_

List and describe the people needed to conduct and/or support the research project.

_Resources_

List and describe the materials, equipment, and facilities needed.

_Budget_

Provide a breakdown of the estimated total costs for the project.
Timeline

Provide a research project schedule for the start, major steps, and finish dates of the project. This may consist of a list (work breakdown structure) of the major tasks to be completed with the start and finish dates listed for each major task.

Conclusion

This section should be a summary and concluding statement about your research idea, including the possible benefits that may result from the successful completion of the study. As a reference to guide you, the COT PhD Dissertation Candidacy Qualifying Examination Policy (2007) is attached to this document as Appendix C. Do not include it as part of your prospectus.
References

Begin the References section on a new page. The use of ten or more cited references will be expected by your examination committee. Eight or more should be used to provide evidence in support of the nature and significance of the problem described in your prospectus and at least one or two should be used in support of naming and describing your generic research design. You must list all the references you cite in the text of your prospectus (EMU Dissertation Manual, 2008, p. 24; APA, 2001, pp. 215-281).

While the following is an example of the format and spacing for your reference list, you should not include style manuals in your list; include only references related to the technical content of your prospectus.


Appendices

(This page should only have the title “Appendices” on it.)
Appendix A: Taxonomy of Research Designs
Taxonomy of Research Designs (by T. Tillman)

I. Qualitative Research (Naturalistic Inquiry, Field Research) – Uncovers information about a phenomenon in its natural context in order to examine complex behaviors and interactions and to derive grounded theory directly from the data.

   A. Historical Research
   B. Grounded Theory Studies
   C. Ethnographic Studies
   D. Anthropological Studies
   E. Case Studies
   F. Delphi Studies

II. Descriptive Research – Describes the characteristics or relationships of past or existing phenomenon chosen by the researcher, but not under the researcher' control.

   A. Sample Survey Research
      1. Opinion Survey Studies
      2. Descriptive Statistical Survey Studies
   B. Mathematical Modeling
   C. Correlational Research
      1. Relationship Studies
      2. Prediction Studies
   D. Causal-Comparative Research
   E. Meta-Analysis

III. Experimental Research – Examines cause-and-effect relationships where the researcher controls (a) the group assignment of subjects, (b) conditions, and/or (c) treatments in order to determine the effect upon criterion variables.
A. Pre-Experimental Designs

1. One-Shot Case Study Design
2. One Group Pretest-Posttest Design
3. Static Group Comparison Design

B. Quasi-Experimental Designs

1. Weak Quasi-Experimental Designs
   a. Single-Subject Repeated Measurements Design –
      (1) Case Study Design
      (2) Baseline Design
      (3) Withdrawal Design
      (4) ABAB Designs
      (5) ABAC Designs
      (6) Multiple Baseline Designs
   b. Interrupted Time Series Designs
   c. Cross-Sectional (Regression-Discontinuity) Design

2. Strong Quasi-Experimental Designs
   a. Nonrandomized Group Multiple Time Series Design
   b. Nonrandomized Group Pretest-Posttest Design

C. True Experimental Designs

1. Posttest Only Control Group Design
2. Pretest-Posttest Control Group Design
3. Solomon Four Group Design
4. Randomized Group Multiple Time Series Design
5. Factorial Designs
   a. 2x2     b. 2x3     c. 3x3     d. other
6. Taguchi Designs
Appendix B: COT PhD Dissertation Candidacy Qualifying Examination Policy
Candidacy Qualifying Exam – After the student has completed the majority of their doctoral course work and all of their research skill courses, they will be required to pass a research candidacy qualifying exam prior to forming their dissertation committee and starting work on their dissertation research proposal. The purpose of this examination is to determine the student's ability to (a) identify research problems in technology and apply a range of different research methods that could be used to collect and analyze data and/or information to resolve those problems, (b) find, analyze, integrate, synthesize, and evaluate literature related to their research problems, (c) document their research plans clearly and formally in writing at a high scholastic level that is fundamentally based on EMU PhD dissertation format and APA style requirements, and (d) coherently present and defend their research plans in a formal scholastic setting that is fundamentally based on the COT PhD dissertation proposal and final defense settings. The student will be required to write and present three research prospecti (short research proposals of approximately 10 to 20 pages in length-- see also “Prospectus Guidelines”) such that one prospectus describes a qualitative research design, one describes a descriptive research design, and one describes an experimental research design that may be used to collect and analyze data or information to resolve their selected research problems (see definitions below). The three research problems identified in the prospecti may be very similar or may be quite different from one another. Each prospectus will consist of the following sections: cover page, an introduction section, a methodology section, list of references, and appendices. An example format with specific requirements for each prospectus will be provided. A candidacy exam committee will be formed, consisting of a research methods faculty, the student’s technology specialization/academic advisor, and the potential director of the dissertation. If a faculty member serves in more than one of these three roles, additional potential dissertation committee members will be added until the candidacy exam committee consists of a minimum of three members. A week to 10 days after the student’s prospecti have been distributed to the committee, the student will give three 10 to 15 minute presentations on their prospecti to the committee members. The remainder of the exam will consist of questions from the committee to determine if the student's ideas are viable and to ensure that the student understands basic research techniques to
initiate doctoral-level research. Failure of either of the written or oral portions of the candidacy exam will result in a review of the student’s performance in the PhD program by the candidacy exam committee in consultation with the Doctoral Operations Committee. The committee may recommend that the student be (a) dismissed from the doctoral program, (b) permitted to withdraw from the doctoral program, or (c) allowed to retake the examination (either partially or totally) after a remediation plan has been developed and implemented. After passing the Candidacy Qualifying exam, the student may register for dissertation proposal credits, form a dissertation committee, and begin work on their dissertation research proposal.

Registration: The student will register for a two credit hour course with their Candidacy Committee Chair (COT 894 Candidacy Seminar) during the semester or term that the Candidacy Qualifying exam is taken.

Research Methods Definitions for Candidacy Exam:

I. **Qualitative Research** (Naturalistic Inquiry, Field Research) – Uncovers information about a phenomenon in its natural context in order to examine complex behaviors and interactions and to derive grounded theory directly from the data.

II. **Descriptive Research** – Describes the characteristics or relationships of past or existing phenomenon chosen by the researcher, but not under the researcher’ control.

III. **Experimental Research** – Examines cause-and-effect relationships where the researcher controls (a) the group assignment of subjects, (b) conditions, and/or (c) treatments in order to determine the effect upon criterion variables.