DEPARTMENT OF PLANNING & URBAN STUDIES

A GUIDE TO THE PREPARATION OF
A MASTER'S THESIS/PROJECT

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The Place of the Thesis/Project in Graduate Study

A thesis/project represents the difference between undergraduate and graduate work. It is expected to be evidence of originality and ingenuity in working independently to add new facts to the general store of knowledge. The candidate's presentation constitutes an argument for acceptance of the research which he/she has accomplished.

It is necessary that the candidate conform to established standards and demonstrate an ability to utilize the tools of scientific research in problem solving. He/she must demonstrate a thorough acquaintance with a limited field by recourse to authoritative sources. While a master's thesis/project is not expected to involve extended original investigation, any conclusions reached must be so supported that their proof is considered well-established. Graduate study also will require familiarity with all literature bearing on the subject of the thesis/project.

The thesis/project requirement is designed to accomplish certain results in the professional preparation of graduate students. These results may include:

1. Provision for the application of an accepted method of inquiry.
2. Enhancement of the student's skill in reading and interpreting analytic studies.
3. Improvement of appreciation and an understanding of problems involved in research.
4. Provision for practice in recognizing and delimiting research problems.
5. Creation of a desire on the part of the student to engage in analytic investigation.
6. Improvement of the articulative processes of the investigator.
7. Enhancement of the overall scholarship of the graduate students.

As a rule, the most successful thesis/project is one that combines certainty and clarity of procedure with the greatest economy of energy, time materials and expense. Such achievement requires competence of a high order on the part of the master's degree candidate.

Thesis vs. Final Project

The focus of theses are theoretical or applied and are intended to demonstrate a mastery of the literature in the area of study, while also contributing to the literature. Final projects are applied and demonstrate the ability to critically analyze and/or develop planning or public policy issues from a professional standpoint.

The Selection of the Problem

It is assumed that the candidate is generally oriented or competent in the field in which he/she will pursue his/her thesis/project.

In selecting a thesis/project problem, the candidate should consider these points:

1. Is there an opportunity to do work in the field?
2. How much data are available?
3. Has prior research been done on the problem?
4. Is further work feasible?
5. Does the problem engender a desire to solve it?
6. Will the study make a contribution?
7. Does solution of the problem demand abilities in excess of those possessed?
8. How much time will be required to conduct the study?

9.   What financial cost will the study involve?
10.   Is the study sufficiently broad in scope for a master's study?
11.   Does the problem involve an area within the field of urban studies or regional studies?

The Exploratory Development of the Problem

The determination of the nature and scope of any problem required careful analysis, particularly at the outset.

The arrangement of materials, as diagrammed in Appendix A, is recommended for an early analysis of the problem.

The initial steps essential to the preparation of the thesis/project are:

1.   Selection of the problem.
2.   Exploratory development of the problem.
3.   Formulation of a tentative thesis/project outline.

When the candidate has selected the thesis/project topic, he/she should begin immediately to develop a bibliography related to research in the problem area. The candidate must endeavor to assemble all accessible information pertinent to previous research bearing upon the proposed problem.

The Preparation of the Thesis/Project Proposal

NOTE: This is only one example of a way to prepare an acceptable master's thesis/project.

With the area of investigation determined, the nature and scope of the problem established, an exhaustive reading of related literature accomplished and a bibliography developed, the investigator is ready for the extremely important step of developing an outline designed to provide guidance in the logical pursuit of the solution. Following is a desirable approach in developing the outline:

1.   ***Title of the Study.*** This is a brief descriptive statement of the nature and contents of the study.

2.   ***Purpose of the Study.*** A broad statement is required in order to define the professional area by indicating the overall research involved.

3.   ***Analysis of the Problem.*** The analysis of the problem consists of a formulation of the sub-problems or divisions of the main problem. It is probable that there will be one or more such sub-problems but it is doubtful that more than a few can be justified in any one study. The arranging of materials into categories or sub-problems is a procedure which simplified the solution of the main problem. The sub-problems should be stated, at this point in the outline, in the form of questions.

4.   ***Hypothesis or Hypotheses.*** For the purpose of further clarifying the problem, a statement or statements should be formulated to tentatively represent the solution of the problem in a seemingly reasonable way. A hypothesis is a best guess or conjecture which is based on the facts available at the moment, and which is to be proved or disproved by the research.

5.   ***Basic Assumptions.*** Assumptions are suppositions which set the stage for the problem. The investigator

must present reasons or justifications for the suppositions.

6.   ***Use of Terms and Definitions.*** Any terms which are peculiar to the problem or which may facilitate interpretation of the study, must be listed and defined.

7.   ***Delimitations.*** Delimitations are statements clearly defining the scope of the study by accounting for certain exclusions in order that the study may be kept within a given framework.

8.   ***Limitations.*** The recognized shortcomings of the study should be stated in order that the reader may be informed that due consideration was given to them.

9.   ***Need for the Study.*** The significance of the problem as it applies to the student, to scientific literature and to pertinent educational areas, should be stated.

10.   ***Related Literature in the Area of Investigation.*** The historical background of the problem, brief summarizing statements of research previously accomplished and an explanation of the way in which the proposed study contributes to new knowledge must be made clear.

11.   ***Research Design.*** For each one of the sub-problems presented in "Analysis of the Problem," the investigator is expected to clarify in detail precisely what his step-by-step attack will be. This procedure is indicated as follows:

A.   First sub-problem. The component parts of the study as listed in number 3, "Analysis of the Problem," must be restated. However, sub-problems would now be stated positively rather than as questions. Complete parallelism in outlining should be achieved. The presentation of Data, Sources, Techniques and Analysis for the second sub-problem, and for any additional sub-problems should parallel the order and manner of presentation in outlining the first sub-problem.

   (1)   **Data required.** There must be an indication of the essential information necessary to solve this phase of the main problem.

   (2)   **Sources of data.** The source or sources from which the investigator will obtain the necessary information must be clearly indicated.

   (3)   **Method of obtaining data.** The techniques to be used in obtaining data must be outlined in detail. Among those which may be employed are in questionnaire, the interview, the control group, the case study, the experiment, text construction, etc.

   (4)   **Analysis of data.** The eventual treatment of the data must be indicated in as much detail as is reasonably possible and should explain clearly how the investigator proposes to use such tools of analysis as statistical procedures, methods of comparison, and interpreting devices.

B.   The second sub-problem and any additional sub-problems should be developed in a manner which parallels that indicated in paragraph A above.

Obtaining a Thesis/Project Adviser

When the candidate has selected, analyzed and outlined a problem in conformity with requirements as explained in this guide, he/she must find a faculty member in the Department of Planning and Urban Studies, who not only has an interest in the thesis/project topic, but a willingness to serve as the thesis/project chairperson and adviser.

After obtaining a thesis/project adviser, the candidate and the adviser must work together to accomplish refinement and improvement of the candidate's original outline of the problem. Initial conferences will proceed with little difficulty if the previously prepared outline reflects care and effort. The conferences are designed to (1) reaffirm and further clarify the educational significance and feasibility of the proposed problem, and (2) to assist the candidate in perfecting his plans for development of the thesis/project. Students are encouraged to review theses that the adviser believes to be good models.

Obtaining Other Thesis/Project Committee Members

The candidate's thesis/project committee is generally obtained with the advice of the major thesis/project adviser. For theses, the committee is composed of the adviser and two other graduate faculty members. For final projects, the committee is composed of the adviser and two other members, one of whom is an external or outside member. All three of the final project committee members must be members of the graduate faculty. The outside member can be appointed to the graduate faculty for the purpose of being on the candidate's committee. The committee then has the responsibility for approval of the thesis/project outline and final acceptance, or rejection of the thesis/project manuscript. The thesis/project adviser serves as the committee chairperson. In the event that any one committee member other than the chairman is unavailable, the remaining members may conduct any thesis/project meeting or conference with the aid of other faculty members when deemed necessary even though such faculty members originally had no relationship to the study.

APPENDIX A

Suggested Style and Format for Thesis/Final Project Reports

Introduction

Even though there is no standard format for research reports there is considerable consensus with respect to many elements of the format. The description of format presented here represents some of the common elements. However, before making a decision about format consult with the person to whom the report is being prepared – committee chairman, adviser, instructor, editor, etc.

Style of the Report

1. The anticipated audience for the report consists of professional educators who are doing research work in the same area. The report should be written in reference to this group.

2. Consistency in style and terminology is desired. Use an appropriate style manual (Campbell/Ballot or Turabian) and follow the (author/year footnote procedure) style.

3. In other types of writing the advice is given to vary language and avoid redundancy (using the same word often). This advice does not apply to research reports.

4. Simplicity, clarity, directness and precision are all desired traits of research writing. Avoid indefinite antecedents (this study shows, etc.) incomplete comparisons which do not state both parts of the comparison (boys gained more), and indefinite terms (many, often, good, etc.).

5. Avoid personal or unsupported judgments. Be objective.

6. Do not use personal pronouns.

7. The report should be written in the past tense except when hypotheses and suggestions for future research.

8. The level of precision of the data reported should be appropriate to data collected and not beyond that level.

9. Do not be dismayed by repetition.

10. The term "data" is plural. (These data, the data indicate, etc.).

Sequence and Divisions of the Report

The number of chapters in a report is not fixed. Also, the sequence of items within a given chapter or even the nature of items to be grouped together is not standard. A few variations of divisions are:

1.   3 chapters --   The Problem
                         Methodology
                         Results and Conclusions

2.   8 chapters --   The Problem
                         Literature Related to the Problem
                         Rationale
                         Literature Related to Methodology
                         Methodology
                         Results
                         Discussions
                         Conclusions

3.   5 chapters --   Purpose of the Study
                         Review of Literature
                         Methodology
                         Results and Discussions
                         Conclusions

Individual Sections of the Report

This section is organized under the assumption of the basic five chapter report described in the preceding section.

   A.   *Chapter 1 – Purpose of the Study*

           Contents – Purpose of the Study
           Introduction
           Statement of purpose (problem)
           Rationale
           Justification of importance of the study
           Scope of the study – deliminations
           Limitations of the study
           Definitions of terms
           Hypotheses
           Contents

           Comments – Purpose of the Study

           1. All sections should be brief.

           2. Problem statement should indicate the who, what, where and when of the study. Descriptions of these elements should be specific but not detailed.

           3. The rationale section should indicate the "why" of the study. It should trace the origin of the original hypothesis. A more complete development of this topic along with extensive literature references may come later in the review of literature. This section should locate the study in the total research on the problem and indicate how the study will contribute to further development of knowledge in the problem area.

4. The problem statement should be located near the beginning of the chapter.

5. Final operational details of the problem statement will be described in the methodology section so the problem statement should be made with this fact in mind.

6. The first chapter should contain information necessary for a reader to place the general area of study. There should be some information (delimitations) to indicate the scope of the study.

7. Major constructs of the problem statement should be defined if this is necessary. Complete operational definitions may occur later in the report (Methodology section). However, some stipulative definitions may be necessary to help the reader to follow the development of the Review of Literature.

8. The section dealing with the significance of the study should clarify the significance of the study to the field of education, not the significance of the study to the investigator. This section of the report can serve as a foundation for the "Implications" section of the last chapter.

B. *Chapter II – Review of Literature*

Contents – Review of Literature
Literature related to the rationale of the study
Previous investigations
Identification of related theory elements
Literature related to the methodology of the study
Identification of alternate hypotheses and intervening variables
Literature related to measurement techniques
Literature related to design considerations
Literature related to sampling considerations
Literature support for definitions of terms

Comments - Review of Literature

1. Include only those references that have some immediate implications for the study. Be explicit in demonstrating or stating the relevance of all cited literature.

2. The review should be in the form of an integrated presentation of all material. It should not contain a simple listing (annotated bibliography).

3. When summarizing or comparing studies be sure to note possible differences between samples, measurement techniques, etc. Summarize only truly comparable sources.

4. Some of the functions of the review of literature are: the selection of the problem, delimiting the scope of the problem, demonstrating the relationship of the study to previous knowledge, indicating the contribution of the study, and examining tools and methods to investigate the problem.

5. The review of literature may contain both conceptual and research literature.

6. The investigator must be selective with respect to the quality of the sources cited.

C. *Chapter 3 – Methodology*

Contents – Methodology
Statement of Methodology
Statement of the population
Description of the sampling procedure
Description of the sample
Operational definitions
Variables of the study
Measurement procedures
Design of the study
Data analysis techniques
Pretesting and pilot studies

Comments – Methodology

1. The essential criterion for a well-written methodology section is whether or not replications of the study could be conducted by independent investigators using this section as a guide.

2. Any data describing the sample are not results. They should be included in this chapter rather than in as "Results" chapter.

3. The section describing measurement techniques should include some treatment of validity and reliability.

4. The data analysis section should contain information about the statistical analysis techniques that will be used. The practice of specifying levels of significance and statistical hypotheses is not uniform.

5. It may be desirable, but it is not yet common practice, to report the more important "blind alleys" or unproductive approaches considered and abandoned.

D. *Chapter 4 – Results and Discussion*

Contents – Results and Discussion

The content of this chapter is usually arranged around headings related to the specific hypotheses of the study.

Comments – Results and Discussion

1. Results and discussion can both occur in the same chapter but they should be very clearly distinguished. Some writers prefer to present the results and discussion of each separate element of the study together rather than first listing all of the results followed by all of the discussion.
2. The term "results" refers to the actual data of the study. The term "discussion" refers to the

interpretation of the data.

3. The discussions must be based on the data, not on the experiences or background of the investigator.

4. The discussions should consider all possible alternate explanations of the data. There should be a definite decision sated in respect to these alternate explanations and the relationship between the decision and the data or the methodology should be indicated.

5. The discussions should also relate the study to the previous results reported in the review of literature.

6. The data must be accepted or the whole study should be abandoned prior to the presentation of results. Some investigators find all sorts of weaknesses in their study after they see data that does not support their belief.   Don't use "weakness" of the study to explain an undesired result.

7. The results section should contain both descriptive and inferential information. However, only summary values are usually presented. Compete data for all individual observations may be placed in an appendix of the report.

E.   *Chapter 5 - Conclusions*

Contents -- Conclusions
Summary
Conclusion
Limitations of the study
Suggestions for future investigation
Implications of the study

Comments – Conclusions

1. The conclusions should be stated in terms of the original research question or hypothesis.

2. Both the implications and the suggestions for future research should be based on the results of the study.

3. The implications section may discuss the meaning of the data for educational practitioners or theorists.

4. The suggestions for future research may contain information representing new insights or unexpected results of the study.

F.   *Appendix*

The thesis/project report may contain one or more appendices. These may contain detailed information that would distract from the report such as: copies of instruments used, sample lesson plans, complete listing of data, etc.