

Dissertation Manual

Capella University | 225 South 6th Street, 9th Floor
Minneapolis, MN 55402 | 1-888-CAPELLA (227-3552)



CAPELLA UNIVERSITY

Copyright © 2007 Capella University

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted by Sections 107 and 108 of the 1976 United States Copyright Act, without the prior written permission of Capella University.

Published by
Capella University

**225 South 6th Street, 9th Floor
Minneapolis, MN 55402
www.capella.edu**

Table of Contents

<u>Introduction and Purpose of the Dissertation Manual.....</u>	<u>6</u>
<u>Chapter 1: Overview of the Dissertation Process</u>	<u>7</u>
Defining the Doctoral Dissertation	
History of the Academic Dissertation	
Types of Dissertation Research	
The Dissertation and the Scholar-Practitioner Learning Model	
Doctoral Degrees at Capella University	
The Dissertation Process at Capella University	
Course Facilitation and Participation	
Academic Honesty, Integrity, and Plagiarism	
Conferral of the Doctoral Degree	
<u>Chapter 2: Description of the Dissertation Process</u>	<u>15</u>
Steps in the Dissertation Process	
Organizing the Dissertation Process	
<u>Chapter 3: Establishing a Dissertation Committee</u>	<u>16</u>
Structure of the Dissertation Committee	
Description of the Dissertation Committee	
Selecting and Nominating the Committee	
Roles of the Mentor, Dissertation Committee, Dissertation Course Instructor, and the University Support Staff	
Working with the Committee	
<u>Chapter 4: Selecting, Validating, and Managing the Dissertation Topic.....</u>	<u>23</u>
Selecting a Dissertation Topic	
When to Select a Topic	
What Constitutes a “Good” Topic?	
Formulating a Mission Statement	
Validating the Topic	
Managing the Topic	
<u>Chapter 5: Conducting a Literature Review.....</u>	<u>32</u>
Functions of the Literature Review	
Strategies for Conducting the Literature Review	

<u>Chapter 6: Institutional Review Board Approval and Protection of Human Participants in Research</u>	39
Training in Protection of Human Participants in Research – The CITI	
Application for IRB Approval	
<u>Chapter 7: Conducting the Dissertation Research</u>	48
Data Collection Plan and Design	
Data Collection	
Data Processing	
Data Analysis	
Changes in the Design	
Tips for Conducting the Dissertation Research	
<u>Chapter 8: Writing the Dissertation Manuscript</u>	54
Overview of the Dissertation’s Components	
The Preliminary Pages (Front Matter)	
Body: The Five-chapter Model	
References and Appendixes (End Matter)	
Writing the Manuscript	
Completing the Final Manuscript	
General Dissertation Writing Tips	
Selected Books on Dissertation Writing	
<u>Chapter 9: Reviewing the Dissertation Manuscript, Conferencing, and Approving</u>	70
Dissertation Review and Approval	
Dissertation Evaluation Criteria – Written	
Dissertation Completion Conference Call	
Dissertation Completion Conference Call Evaluation Criteria and Outcomes	
<u>Chapter 10: Format Editing</u>	82
Manuscript Path	
Second Review	
Publication	
<u>Chapter 11: Submitting and Publishing the Dissertation Manuscript</u>	84
Dissertation Abstracts International	
UMI ProQuest, the Publisher	

<u>Chapter 12: Tips and Techniques</u>	<u>86</u>
Time Management	
Dissertation Workspace	
Work Habits	
Scheduling	
Handling Administrative Requirements	
Overcoming Writer’s Block	
Other Ideas	
<u>References</u>	<u>90</u>
<u>Appendix A: Synopsis of Research Designs & Reference List</u>	<u>91</u>
<u>Appendix B: Sample Dissertation Data Collection Plan.....</u>	<u>98</u>

Introduction and Purpose of the Dissertation Manual

Writing and researching a dissertation can be an exciting project. It provides an opportunity to focus on a single, carefully defined area of interest within the learner's field of study. In completing a dissertation, a learner selects a topic and develops a methodology in consultation with the mentor and members on the dissertation committee.

Successful completion of the dissertation requires a number of crucial skills that together help the learner develop independent thought, judgment, and critical thinking faculties, while offering the opportunity to contribute original ideas to existing scholarship. The dissertation requires the learner to research and evaluate relevant reference materials to formulate pertinent questions and/or hypotheses, to design an appropriate research study to answer those questions or test the hypotheses, and to present findings in the form of a coherent scholarly manuscript of appropriate format. Completing a dissertation exercises organizational, writing, and research skills.

Independent research does not mean working in isolation, however. In completing the dissertation, learners at Capella University work closely with their mentors and dissertation committees and complete a required sequence of four dissertation courses. Learners talk through their ideas with their mentors, committees, dissertation course instructors, peer learners, and other faculty members. To ensure that they progress efficiently and effectively, learners should actively participate in the dissertation course activities and maintain close contact with their mentors to discuss the development of their projects and to receive feedback and advice. Learners can also seek advice and assistance from other members of their committees at any time.

This manual is intended to support learners and faculty at Capella University through the essential processes of writing and presenting their dissertation. It provides an overview of the dissertation process and describes in broad terms the roles and responsibilities of the learner, the mentor and dissertation committee members, the dissertation course instructor, and the university support staff. Further, the manual provides guidelines for the content and style of the dissertation documents and describes the processes for document approval and final publication of the dissertation as well as for fulfillment of the academic and administrative requirements for the doctoral degree at Capella University.

In addition to the general requirements, individual schools and specializations may have additional requirements for dissertations or degree conferral not detailed here. Learners are responsible for the requirements detailed in this manual as well as for requirements of their school and specialization.

Doctoral learners may benefit from reviewing dissertations published in their field of study; doing so will provide a schema by which learners may better understand the content and format of dissertation research. That said, learners are cautioned that standards for dissertation research vary across institutions and therefore may deviate from the expectations for dissertation research at Capella.

[Return to Table of Contents](#)

Chapter 1: Overview of the Dissertation Process

Defining the Doctoral Dissertation

The dissertation is a scholarly document intended to demonstrate the research competence of the author and to produce greater understanding of cultural, social, psychological, or physical phenomena. It is written in the formal language and style of its discipline or field of study, and it results from a comprehensive, logical, and ethical investigation. The dissertation is a logical extension of published research that involves the acquisition, analysis, and interpretation of new data. In some instances, extant data is appropriate for reanalysis. A dissertation study is based on the assumption that there exists one or more of these elements:

- An external reality that can be sampled, observed, measured, and analyzed.
- An internal phenomenological reality that can be described in sufficient detail by the person experiencing it.
- A social or organizational reality that can be derived by examination of its structure or communicated through its participants' reports.

Regardless of the underlying assumption, the dissertation should address an important problem that is feasible to study within the learner's field. The dissertation study must be carried out through the application of accepted methods and procedures appropriate to the stated problem. The dissertation is not just descriptive; it has a sound extant basis or a well-developed conceptual basis that leads to the question(s) under investigation. This basis serves as the origin for conclusions and inferences that lead to further research, to enhanced theoretical understanding, and to recommendations for organizational improvement (in cases of action science).

Finally, the dissertation is an expression of the highest level of critical thought and is expected to be a substantive contribution to the theory or practice of its discipline or field of study. The quality of the final draft of the dissertation will be appropriate for publication. Capella University recommends a five-chapter dissertation, but allows for variation when warranted. The specific organization of any dissertation is at the discretion of the learner in consultation with the mentor and by approval from the committee. The five recommended chapters are as follows:

- Chapter 1. Introduction and Statement of the Problem
- Chapter 2. Literature Review
- Chapter 3. Methodology
- Chapter 4. Data Analysis and Results
- Chapter 5. Conclusions and Recommendations

These five chapters are preceded by a series of introductory sections that are collectively known as *front matter*. Front matter contains the following items, in order: title page, copyright page, approval signature page, abstract, dedication, acknowledgments, table of contents, list of tables and list of figures, if the dissertation includes tables or figures. The inclusion of some of these sections, such

as the copyright, dedication, and acknowledgments, is at the discretion of the learner. Others, such as the list of tables and list of figures, are dependent on their presence in the manuscript.

In addition to these elements, a dissertation also includes a collection of supporting materials following the presentation of the main text. These materials are collectively known as *end matter*, which consists of materials outside the main body of the document that may furnish useful references to the reader. The end matter may include, but is not limited to, references and appendixes.

History of the Academic Dissertation

The tradition of writing a dissertation as part of doctoral study dates back to the late Middle Ages in European universities that were at the forefront of academic and scientific thought. Many of their traditions surrounding dissertation writing are still followed today.

The dissertation as a genre emerged from the oral culture of medieval graduate education, which emphasized mastery of ancient philosophies, and evolved into a public recognition of original scientific investigation in pre–World War I Germany. University scholars enlisted graduate students to facilitate and record their research. Modeled from the original research report, the dissertation became a *sine qua non*, an essential element, for acquiring the doctoral degree.

James Morris Whiton wrote the first dissertation in the United States at Yale University in 1861. His study of the proverb "*Brevis vita, ars longa*" contained six pages written in Latin. Fifteen years later, a total of 83 dissertations had been written in the United States. The rate of dissertations rose modestly from the turn of the twentieth century until the early 1950s, when the number of dissertations recorded increased exponentially. In 2004, over 32,000 dissertations were recorded in the University Microfiche Incorporated (UMI) Proquest¹ database. Among the two million dissertations written since Whiton's, the structure and expectation of the dissertation remains an instantiation of the scientific method: background, method, analysis, and conclusions.

Types of Dissertation Research

Capella learners are diverse in terms of the ontological and epistemological assumptions that frame the way they see the world, understand scientific inquiry, and select an approach to their research problem. Types of dissertation research at Capella follow closely those found in the scholarly literature of learners' disciplines or fields of study. Informed by their research questions, learners select and defend a research design, method, and technique among competing alternatives. The research design is the outcome of a logical process for planning research. The design follows a

¹ The ProQuest® online information service provides access to thousands of current periodicals and newspapers, many updated daily and containing full-text articles from 1986 on.

careful articulation of the research problem, the purpose relative to the problem, and the information required to fulfill the purpose of the dissertation.

Dissertations can be divided into two general classifications based on their purpose:

1. *Inquiry-oriented studies* that have as their purpose to find out something about the problem.
2. *Action-oriented studies* that have as their purpose to bring about change or improvement in the area of the problem.

Designs can be categorized along a temporal dimension: past, present, and future. Ex post facto (causal-comparative) designs are consistent with the past because cause and effect can be inferred only when groups are assigned randomly at the time of the investigation and not when groups of individuals or organizations occur naturally. Experimental, correlational, and developmental designs are selected when the research question seeks to explain present behaviors or circumstances. Evaluation, action science, and structural modeling are appropriate for predictive designs.

Research methods focus on the choice of information and tend to follow two lines of inquiry: deductive and inductive reasoning. Quantitative methods, those that present their results in the form of numbers, are typically confirmatory or deductive, but some can be exploratory or inductive.

Qualitative methods, those that present their results in the form of words or themes, tend to be exploratory or analytical, but some can be used to confirm specific hypotheses derived by deductive reasoning. Mixed methods, those that present their results in both numbers and words, reflect a current trend in research that addresses the shortfalls in one design, such as the reductionistic nature of quantitative methods, by drawing on the strengths of the other, such as a content analysis of responses to open-ended questions.

The following table summarizes three broad categories of research methods and gives samples of corresponding designs frequently found in scholarly literature and appropriate for dissertation research at Capella. [Appendix A](#) presents a brief description of each of the designs listed and a reference list for further study.

(Note that this manual is intended to serve as a guide for its users rather than as an exhaustive source of research methods or designs. The field of research is constantly evolving and new methods frequently emerge. It is up to the discretion of the schools to determine the appropriate types of inquiries in their various disciplinary areas.)

Research techniques refer to different ways of gathering, analyzing, and interpreting information. They include questionnaire design, interviewing, coding of qualitative data, content analysis, and statistical analyses of all kinds.

Selection of an appropriate method, design, and technique is defensible on an academic basis rather than on a personal preference for one method over another. Learners should answer the research question in a manner consistent with the underlying methodological assumptions that provide the best approximation to valid conclusions. They should consult with the committee frequently throughout the design phase of the dissertation to develop a study that is methodologically sound.

Research Methods and Designs		
Quantitative Method	Qualitative Method	Mixed Method
Experimental <i>True Experimental</i> <i>Quasi-experimental</i> <i>Natural</i> <i>Ex Post Facto</i> <i>(causal-comparative)</i> Nonexperimental <i>Survey</i> <i>Correlational</i> <i>Developmental</i> <i>Delphi</i>	Ethnography Case Study Grounded Theory Phenomenology Heuristic Conceptual Modeling	Action Science <i>Quality Improvement</i> <i>(e.g., Baldrige Studies)</i> <i>Operations Research</i> <i>Policy Analysis</i> <i>Participatory Action Research</i> Evaluation Studies <i>Program Evaluation</i> <i>Curriculum Evaluation</i> Sequential Parallel-Simultaneous Equivalent status Dominant-Less dominant Multilevel

The design, method, and technique by themselves may be inadequate to defend the level of rigor expected of dissertation research at Capella. For example, experimental designs are frequently found in published research across many disciplines where only a simple *t* test was used to infer a cause and effect relationship because of a statistically significant difference between the experimental and control group on a particular measure. Single or multiple *t* tests may be inadequate considerations for an experimental design when a factorial analysis of variance could be used to explain the complex relationships among variables. Similarly, a multiple regression analysis would be more appropriate for a correlational design than computing multiple bivariate correlations, which fail to take into account overlapping variance among predictor variables. Considerations of more than two variables in one design demonstrate an aspect of research competency consistent with doctoral-level mastery. Qualitative research designs must be similarly rigorous and follow closely the comprehensive procedures necessary for a thorough investigation of the phenomenon. (For more information concerning available resources for determining an appropriate research design, please consult [Appendix A](#) of this manual.)

The Dissertation and the Scholar-Practitioner Learning Model

Capella University's pedagogical model focuses on developing scholar-practitioners through learning that incorporates both theoretical knowledge and relevant experience. Learners develop along a continuum that represents a synthesis of scholarship with practical application appropriate to their level. Doctoral-level learning at Capella develops scholar-practitioners who engage in research that

applies current knowledge and that contributes new theoretical knowledge to the field of study.

Becoming a scholar-practitioner—a requirement for earning the doctoral degree at Capella—implies that learners have developed the research skills and competence to apply appropriate theory to significant professional problems and issues. The dissertation is one of the learner’s primary demonstrations of the competency to carry out independent scholarly research that both advances theory and contributes to improved professional practice in a discipline or field of study.

Doctoral Degrees at Capella University

The Doctor of Philosophy (PhD) and the Doctor of Psychology (PsyD) degrees are among the highest academic distinctions of graduate education. Definitions of “philosophy” are of little help when it comes to understanding what the Doctor of Philosophy degree connotes. In essence, the PhD credential implies that the holder has completely mastered a specific subject area and is capable of extending the body of knowledge by

- Conducting independent, thorough, and comprehensive research.
- Exhibiting higher-level critical thought processes.
- Writing at a scholarly level.

Programs leading to the PhD and PsyD at Capella University train highly qualified scholar-practitioners to master a field of study and contribute to their discipline by advancing original research. PhD programs train scholar-practitioners for a variety of careers in research, education, administration, and professional practice. Programs in Clinical and Counseling Psychology leading to the PsyD degree focus on clinical training and prepare learners for careers as professional psychologists, among others. All doctoral programs require course work, qualifying comprehensive examinations, and a demonstration of research competence: the dissertation.

At Capella, areas of specialization appear on a doctoral learner’s transcript, but in reality, the subject of the dissertation establishes the academic area of scholarly expertise.

The Dissertation Process at Capella University

The dissertation is the culminating event of the doctoral program at Capella University. Courses, colloquia, and comprehensive examinations prepare the learner for the major research and writing effort that goes into a dissertation. Writing a dissertation is a completely new experience, yet it bears some resemblance to research projects that many Capella learners have already carried out in their professions. Before the dissertation, being a doctoral learner is primarily an extension of prior academic experience. The dissertation, however, is a new kind of academic project, one that demonstrates the transition of a learner to a scholar-practitioner.

Carrying out a dissertation project is not an effort of the learner working independently. Doctoral learners work under the supervision of their mentors, dissertation committee members, and other faculty who have expertise conducive to

the success of the dissertation. For example, some faculty have strong skills in research design and data analysis, while other faculty are subject matter experts. In the end, however, learners are solely responsible for the quality and integrity of all aspects of their dissertation.

Course Facilitation and Participation

Units in the dissertation courses are self-paced. Learners may move through them at their own pace, but the final deliverables must be completed before a learner is allowed to register for the next course. Learners must actively participate in all courseroom activities, including assignments and discussions, in addition to making timely progress on their dissertation. If a learner does not complete the course requirements while first enrolled in the course, he or she may register for the continuation (-C) course to continue the work.

Within a specific course, the instructor may create different discussion areas based on the research design and methodology (e.g., quantitative, qualitative, or mixed) to engage learners in in-depth discussions of appropriate research designs and methods. One of the most commonly cited benefits of the academic community fostered in the courseroom is networking among learners. Learners are strongly encouraged to interact with their peers by offering and accepting feedback. In addition, university support staff members (academic advisors and learner support associates) are available outside the courseroom to answer procedural questions and process necessary forms and documents.

Academic Honesty, Integrity, and Plagiarism

Capella University considers academic honesty and integrity to be one of its highest values. The dissertation should represent an original contribution to the knowledge base of the learner's field of study. Learners are accountable for conducting original research that leads to the discovery of new information or theories. Thus, they are expected to submit original work. The reuse of end-of-course essays or reports, master's theses, or doctoral research conducted elsewhere is prohibited. When citing previous work, learners treat it as they would any other work cited according to the fifth edition of the *Publication Manual of the American Psychological Association* (APA, 2001, henceforth referred to as the *APA 5 Manual*) format.

As in courseroom discussions, academic essays, projects, the comprehensive exams and other academic writing at Capella, learners must cite the ideas and work of others appropriately and according to *APA 5* format. Properly crediting others' scholarly work is an ethical imperative for all academics and one that demonstrates an author's own integrity. The same principles that guide expectations of academic honesty and integrity in course work and the comprehensive examinations hold true for the dissertation.

Dissertation committee members can detect plagiarism in several ways. First, as experts in particular fields of practice, they will have read and deeply understood the literature being reviewed by a learner. Thus, members of the dissertation committee will be able to identify areas in which others' works are used improperly. Where citations do not provide evidence for the source of those comments, the committee members will consider it a problem. Credit is due to the scholars who have gone

before us. Being able to work with the literature in one's own words demonstrates a level of understanding that allows original thought about a body of literature.

Secondly, the proposal/prospectus completion and final dissertation conference calls provide an opportunity for the learner to show a depth of understanding in a field of practice. In these calls, the committee members investigate areas where the learner has not demonstrated a depth of understanding to ensure that he or she has sufficient knowledge of the dissertation study. Learners who are adequately prepared will be evident to the committee.

An informal investigation conducted by the university showed that the majority of violations of academic honesty occurred because learners were either careless or unaware of what constitutes plagiarism. Learners simply did not know what plagiarism was or how to properly cite scholarly references. Capella University has since taken several initiatives to increase learners' awareness of plagiarism. Learners must understand what plagiarism is and how to avoid engaging in it. They may consult the university's [Policy 02.61: Academic Honesty](#) and materials in the courseroom for more information. Also, learners and faculty can access [Academic Honesty: Using Sources and Preventing Plagiarism](#) on iGuide:

From Learner iGuide

- Go to the *Advising & Resources* menu, click *Writing Support*.
- Click *Academic Honesty: Using Sources and Preventing Plagiarism*.

From Faculty iGuide

- Go to the *Resources* menu, click *Writing Support*.
- Click *Academic Honesty: Using Sources and Preventing Plagiarism*.

For additional guidance on plagiarism, see page 349 of the *APA 5 Manual* for examples of correct paraphrasing as well as a brief discussion about plagiarism.

To prevent any unintended violation of the academic honesty policy, learners should submit their written documents to a Capella-designated third-party agent (MyDropBox.com) to check the authenticity of their work. This service is provided at no additional charge to Capella learners and faculty and is available in the dissertation courserooms.

Conferral of the Doctoral Degree

The award of the doctoral degree (PhD or PsyD) is contingent upon a learner having successfully done all of the following:

1. Completed all program-required and elective courses, colloquia, and all other program-specific requirements.
2. Completed the comprehensive examination.
3. Obtained committee and school approval on the dissertation.
4. Made all necessary final form and content changes and obtained format editing approval of the dissertation.

5. Passed the final dissertation conference call.
6. Obtained approval for the signature page from the mentor and the dean of the school
7. Published the dissertation online with ProQuest UMI, Capella's dissertation publisher.
8. Completed the graduation application and obtained clearance from Academic Records on the graduation audit to verify successful completion of all courses.

In addition to the general requirements, individual schools and specializations may have additional requirements for degree conferral that are more extensive than those detailed here. Learners should become familiar both with the requirements described above and with those of their specific school and specialization.

Degrees are conferred at the Capella University commencement ceremony.

[Return to Table of Contents](#)

Chapter 2: Description of the Dissertation Process

Steps in the Dissertation Process

The steps to complete the dissertation are listed here and discussed in detail in the chapters of this manual:

[Establishing a Dissertation Committee](#)

[Selecting, Validating, and Managing the Dissertation Topic](#)

[Conducting a Literature Review](#)

[Institutional Review Board Approval and Protection of Human Participants in Research](#)

[Conducting the Dissertation Research](#)

[Writing the Dissertation Manuscript](#)

[Reviewing the Dissertation Manuscript, Conferencing, and Approving](#)

[Format Editing](#)

[Submitting and Publishing the Dissertation Manuscript](#)

Organizing the Dissertation Process

As with any major undertaking, ultimate success in completing the dissertation is enhanced by starting with a plan. This plan should include a series of realistic and achievable goals and a reasonable timeline for each major event, taking into account other personal and family commitments. Setting a goal of completing the dissertation proposal/prospectus, research, and final writing in three months is not realistic, and neither is allocating two or three years. The average Capella dissertation takes between nine and 18 months from start to finish.

When doctoral learners begin their studies at Capella, they are required to develop a Degree Completion Plan (DCP). This activity integrates their prior education and experience with their personal capabilities and goals, and it also yields a reasonable plan to achieve the doctoral degree. In many ways, the DCP is an academic road map that takes the learner from start to finish in his or her program.

Learners should approach the dissertation in a similar manner. Dissertations can integrate and build on prior work in courses and in the comprehensive examinations, or they can branch out into entirely new areas of study. Establishing a goal or objective and developing a plan to get there form the basis of traditional strategic planning and also serve learners well in undertaking a dissertation.

The dissertation course sequence also provides the means to guide learners through the stages of the dissertation. It offers both the academic support necessary for learners to complete tasks in every step of the dissertation process and the administrative support to assist learners in submitting necessary documents.

[Return to Table of Contents](#)

Chapter 3: Establishing a Dissertation Committee

Structure of the Dissertation Committee

The dissertation committee has overall responsibility for providing content, technical, organizational, ethical, and administrative guidance for the learner in the dissertation process. The dissertation committee members work collaboratively with the mentor (committee chair) to guide the learner as he or she continues to develop and strengthen his or her advanced academic skills to accomplish the capstone project of the doctoral program. Committee members evaluate the dissertation proposal/prospectus and manuscript to ensure that the work meets rigorous academic standards for quality and that the learner meets the guidelines for ethical research, academic honesty, and academic writing and presentation.

To this end, the dissertation committee should form a collective of subject matter and methodological experts that coincide with the topic under investigation and the methods proposed. Committee members are available to learners throughout the dissertation process to provide counsel relevant to the study and consistent with their expertise. The committee members must hold doctorates and possess extended knowledge and experience in either the subject area of the dissertation or the research methodology used to provide guidance and proper scholarly oversight of the dissertation work.

Dissertation committees in all schools at Capella University are typically composed of the following three members:

- Committee Chair (the mentor): faculty member from the learner's school and specialization.
- Faculty Evaluator: faculty member from the learner's school, preferably from within the learner's specialization.
- Independent Faculty Reviewer: faculty member from another specialization within the learner's school, a faculty member from another school within Capella, or a visiting faculty/scholar from another institution.

Actual committee membership varies by school. See the *Dissertation Committee Nomination Form* for specific school requirements.

Additionally, at the discretion of the academic leadership (i.e., the school's dean), some variation to this committee structure may be approved to accommodate an individual school's needs (e.g., adding a learner-peer on the committee).

Description of the Dissertation Committee

The dissertation committee reviews and approves the proposal/prospectus, guides the research, approves the final dissertation, and participates in the scheduled proposal/prospectus and dissertation conference calls. The committee provides timely and competent guidance to the learner throughout the dissertation research and writing processes.

Committee Chair – Mentor

At Capella University, faculty mentors are vitally important to the success of learners working on their dissertation. Faculty mentors chair the dissertation committee, guiding and counseling learners throughout the most critical phases of the doctoral program.

The chair of the dissertation committee is the liaison among the learner, the committee, and school. The mentor guides and supports the learner as he or she develops and demonstrates competencies in critical thinking, analysis, synthesis, and integration of relevant theories and research.

The mentor is primarily responsible for guiding and supporting the learner through the development of the proposal/prospectus and supervising the learner as he or she

- Receives training in protection of human participants in research.
- Designs and conducts the research project.
- Completes the dissertation manuscript.

The mentor provides feedback on the learner's writing and research skills and refers the learner to additional support and resources within the university when those skills need further development. During the dissertation process, the learner and the mentor will be engaged in collaborative efforts involving the communication skills of writing, discussing, and negotiating.

The mentor should ensure that the proposal/prospectus and the completed dissertation comply with all criteria used to evaluate acceptable scholar-practitioner work at the doctoral level, including content, structural, and ethical guidelines according to the Institutional Review Board (IRB) and the *APA 5* Manual form and style requirements. The mentor is the focal point for communications between the committee members and the learner and facilitates the pace and flow of the conference calls. The mentor also is responsible for delivering the final drafts of the documents to the school for review and communicating any comments from the school to the learner, who is, in turn, responsible for making the necessary improvements. For details about specific review and approval processes, refer to the appropriate chapter(s) in this manual.

Committee Members

A committee member should be a doctoral-level scholar-practitioner or a faculty member and should not be in a position of possible conflict of interest or have a dual-role relationship with the learner. A conflict of interest may take many forms, but it usually occurs when the individual

- Has competing organizational interests.
- Has a stake in the outcome of the dissertation research.
- Has a personal bias.
- Can claim direct or indirect financial or other forms of tangible or intangible benefit from the product or idea being developed from the dissertation research.

A dual-role relationship can happen when an individual serves in the capacity of both the committee member and at least one other role with the learner in which the committee member has influential powers over the learner or vice versa. Usually the second role is social, financial, or professional and may be concurrent or subsequent to the learner/ committee member relationship. Examples of such roles are personal therapist, business associate/colleague, employer/employee, friend, or relative.

Selecting and Nominating the Committee

Learners may work to select and nominate the dissertation committee members once their comprehensive examination final conference is scheduled and confirmed. Potential committee members should be contacted in a timely fashion to determine their availability and to obtain their agreement to serve. Learners should “re-introduce” themselves (to remind faculty of their original meeting) and provide a brief overview of the dissertation topic and the anticipated methodological approach in the invitation to serve.

There is no optimal process through which a learner can select committee members who are best suited for the learner’s learning styles and work habits. Many Capella learners select their dissertation committee members based primarily on the relationships they develop with faculty members whom they encounter in courses and at seminars and colloquia.

In deciding the individuals best suited to serve on a learner’s committee, learners will find it valuable to view the committee not only as a group that guides the research, but also as one that supports it. In professional environments team leaders are responsible for assembling groups to address specific issues or problems. In those cases, the team leader invites individuals to join the team because they bring specific skills and experiences that maximize the capability of the team. Assembling a dissertation committee should be approached in a similar manner. Individual faculty, visiting scholars (if used), and learner-peers (again, if used) should be selected to serve because they possess skills and expertise that will maximize the “team’s” potential for success.

Once the selected committee members have agreed to serve, the learner should develop a statement that will be submitted as part of the nomination document, outlining the rationale for the selection of each member. The rationale should reflect the concept that the committee is a team assembled to support the completion of the dissertation project. For each member of the committee, the learner should outline the principal function(s) and skills/experiences the individual brings to the team. The learner should also include any prior interactions (course instructor, comprehensive committee member, seminar presenter, etc.) that have occurred with each individual.

To establish the committee, learners submit the *Dissertation Committee Nomination Form* and the visiting scholar’s CV (if applicable) for the school’s review. The school reviews and approves nominations based on qualifications, suitability, availability, and other instructional obligations.

Once approved by the school, the committee will serve until the completion of the dissertation. Should any changes occur in committee composition after the school’s

approval, the learner is required to gain the mentor's approval and to submit a revised nomination form for the school's review.

Reconstituting the Committee

A learner may initiate a dissertation committee change only one time. The school determines any change of mentor or dissertation committee, based on needs and appropriate feedback from the learner and faculty. No more than one change of mentor (in the comprehensive and dissertation phases) and one change of dissertation committee will be permitted.

Roles of the Mentor, Dissertation Committee, Dissertation Course Instructor, and the University Support Staff

Learners in the dissertation process at Capella are supported by a network of faculty and school/university staff in their efforts to complete the capstone research projects. This network includes the mentor, the dissertation committee, the dissertation course instructors, and a team of university support staff (including the learner's advisor). Learners tend to be most satisfied with their dissertation experience when members in the network of support system work together in an active and coordinated manner.

It should be clearly understood that the faculty mentor, as chair of the dissertation committee, is primarily responsible for guiding the learner through the development of the proposal/prospectus and supervising the learner in conducting the research project. The dissertation committee, on the other hand, has the sole authority and responsibility for accepting and endorsing the proposal/prospectus and final dissertation manuscript, prior to the final approval by the school's dean or the dean's designee (e.g., faculty chair). Ultimately, the committee is responsible for the academic progress of the learner and the scholarly quality of the dissertation. The committee passes the learner as a result of satisfactory performance on the final dissertation conference call, following the approval of the final dissertation manuscript.

The role of the dissertation course instructor is to support and guide learners through a series of milestones and assignments or tasks in each specific dissertation course. These milestones and assignments are designed to ensure that learners are well prepared for the dissertation project and will complete it in a timely manner. While offering general information on the various aspects of the dissertation project, instructors do not teach substantive content about the research project, research design, or research methods. Rather, their role is to orient learners to the dissertation process and to provide information to assist learners through tasks associated with the development of a research proposal/prospectus and the completion of the research project. These instructors assist learners to meet course outcomes by facilitating discussion questions, providing clarifying information on course content, and by creating a supportive climate in the courseroom, allowing peers to offer suggestions and feedback on each other's projects. (Content instruction on research design and related methods occurs in the learner's previous course work. Additional formal instruction occurs at residency-based research colloquia or seminars required of all doctoral learners.) While course instructors are

selected for their expertise in research methodology, they emphasize that the learner's committee is responsible for guiding learners through the dissertation research process.

During the dissertation process, the university support staff further augments mentor and instructor support, providing advising and administrative assistance to learners. The university support staff facilitates the processing of necessary completion forms to keep learners moving throughout the dissertation process, answers process-related questions, and helps learners troubleshoot administrative issues throughout the dissertation process.

The mentor facilitates the university support staff's tasks by submitting forms that the university staff processes when the learner satisfactorily meets certain milestones.

Responsibilities of Faculty Serving on the Dissertation Committee

Capella University has adopted the following faculty best practices for the dissertation process. These guidelines inform faculty about the university's expectations when serving on dissertation committees. Here is a summary of these expectations:

Mentors manage the dissertation development and completion process as chair of the learner's committee. Included in these activities are the following:

- Providing both academic and administrative (with the assistance of the advisors and university support staff) guidance to learners on each stage of the dissertation process from proposal/prospectus development to the final dissertation completion conference call.
- Managing the tasks of the committee (e.g., negotiating approval of the research topic with the committee, assisting the learner in interpreting suggested proposal/prospectus revisions from other committee members, chairing the proposal/prospectus and final dissertation completion conferences, and submitting all required documents and materials to the university support staff and/or the school's designee immediately following the proposal/prospectus and dissertation completion conferences).
- Clearly communicating to the learner the expectations of the university and the school concerning procedures for completing the dissertation research project and the doctoral degree.
- Working collaboratively with dissertation online course instructor(s) to track learner progress in the dissertation courses and process.
- Seeking consultation from faculty leadership, as needed, regarding procedures and policies associated with the dissertation process.
- Advising the learner of Capella University standards for scholarship in the design and completion of doctoral research.
- Ensuring that the IRB approval materials are submitted and approved prior to the implementation of research projects.
- Supervising the completion of the IRB Application in compliance with

university IRB policies and procedures.

- Advising the learner regarding university procedures for review and processing of the dissertation.

Committee members maintain collegial relationships with all members of the committee (including the learner) that reflect the core values of Capella University (e.g., mutual respect, trust, and commitment to a positive learning experience). Committee members are responsible for the following:

- Evaluating and approving the proposal/prospectus and the completed dissertation work. All members should be present during the proposal/prospectus and the dissertation completion defense conferences.
- Maintaining sufficient expertise in the scientific and/or practice literature supporting the approved research topic in order to execute their duties as members of the committee.
- Assuring that the level and quality of the learner's scholarship demonstrates appropriate mastery of degree specialization competencies.
- Responding in a timely fashion to all requests for draft feedback or proposal/prospectus and dissertation edits. E-mail and telephone messages are responded to in a timely fashion.

Working with the Committee

How best to work with committee members is an individual matter, but it is helpful if each person's expectations are clearly communicated. Learners should be sensitive to committee members' time availability and other professional responsibilities and commitments. Learners, however, do have a right to expect reasonable access and turnaround time. It is essential to be in close contact with the mentor and to understand the way the mentor facilitates the dissertation process and views his or her role as the chair of the committee.

Relationship with the Mentor

The ongoing relationship between the learner and the mentor is unlike any other that the learner will experience in the academic endeavor. Lifelong friendships quite often develop. Because of factors such as the dissertation topic and methodology as well as the personalities and work styles of learner and mentor, there are few constants in the mentor/learner relationship. The relationship evolves with each person's contribution. In the beginning, the mentor provides significant guidance and advice, but as the project develops, learners find themselves developing an increasing degree of autonomy and independence. As mentioned earlier, the dissertation process transitions the learner from practitioner-scholar to scholar-practitioner, and nowhere is this shift more evident than in the mentor/learner relationship. What begins as a somewhat hierarchical relationship may end up as a relationship of peers and even continue afterward as a friendship.

Relationship with the Committee

Some learners choose only minimal contact with the committee, preferring to work almost exclusively with their mentors. They meet with their committee for the proposal/prospectus conference and then do not meet again until the final dissertation conference. That may work well for some learners; others may decide that they prefer more frequent contact. Learners should discuss with their mentor the best way to work with the committee and ask how the mentor has worked with other doctoral learners and committees.

Learners should maintain regular contact with the committee members, keeping them informed about the study's progress. The committee members may prefer not to see any work until it is approved by the dissertation chair, but they should be kept aware of the learner's efforts and progress. The entire committee must collectively approve both the proposal/prospectus and dissertation before it is forwarded to the school for approval to hold the respective conferences.

It is especially important for the learner to talk to the individual committee members during periods of difficulty. Too often, learners talk to the committee only when they are making progress and not when they are running into obstacles. All committee members have written major research projects before and have probably solved similar problems in their own work. Their experience supervising dissertation research may reveal useful advice for overcoming challenges learners face during the dissertation experience. It is this optimal level of cooperation between the learner, the mentor, and the committee that helps to ensure the success of the dissertation project.

[Return to Table of Contents](#)

Chapter 4: Selecting, Validating, and Managing the Dissertation Topic

Selecting a Dissertation Topic

Selecting a topic is the first step in the dissertation process. The emphasis should be on identifying a topic that sustains the learner's interest and contributes to either knowledge or practice within the specialization; it should also be based on obtainable data, manageable in scope, and within the learner's range of competence.

Furthermore, the topic's focus must be neither too broad and diffuse or too narrow and restricting; available resources and time are other considerations that impact the selection of a topic.

Given these requirements, selecting a topic is conceivably the most difficult part of the dissertation. Learners often begin with a topic that is too large, too vague, or too grand. Many want to "change the world." Instead, they need to remember that the problem must be manageable and that dissertation topics often are reduced to less than half of the original concept and scope.

There are many sources of good topics. Some learners begin with questions or concerns that have evolved from professional experience and have interested them even before starting their doctoral programs. Many evolve from course work and the papers prepared for those courses. Others come from information uncovered as a learner progresses through the program. Still others can arise from interactions with faculty and other learners.

A Conceptual Framework for Selecting a Dissertation Topic

Selecting a topic for the dissertation is a creative process. It is an opportunity for learners, in collaboration with the mentor and other committee members, to choose from a virtually unlimited list of possible topics the one that will guide and motivate them through the research process and allow them to demonstrate their skills as independent scholar-practitioners.

In short, the topic of the dissertation represents a researchable area, drawn from the learner's scholarly/professional specialization, that is important and holds the learner's interest.

It is important to be clear about what the dissertation topic is **not**:

- The dissertation topic is **not** the detailed problem that the study addresses.
- The dissertation topic is **not** the research study itself.
- The dissertation topic is **not** the methodology of the research study.

Developing the problem, purpose, and methodology by which the topic will be studied is part of the process of writing the proposal/prospectus. Although the choice of a topic may make developing the proposal/prospectus easier, it is distinct and prior. Learners should consult widely with faculty and peers, and they may use their course or professional experience to find intriguing research topics; but ultimately, the choice of topic is that of the learner.

A simple yet effective exercise that can yield a good choice of topic centers on the construction of a possible dissertation title as follows:

Steps	Rationale
<p>1. Think about the most interesting area within the professional specialization about which research might be possible. Choose a minimum of three words and a maximum of five words to define that area. Be sure that there are no methodology words among the five (e.g., "ADHD among disadvantaged children").</p>	<p>Learners will naturally select an area about which they feel motivated. Limiting the number of words prevents the learner from focusing prematurely on the problem or the methodology.</p>
<p>2. Think about the statement and imagine a creative headline that captures the excitement and interest of the topic. Decide what newspaper the headline would appear in (e.g., <i>New York Times</i>, <i>USA Today</i>, or <i>National Enquirer</i>), and try to write the headline to match that style (e.g., "Is Ritalin an answer for ghetto kids?").</p>	<p>Learners will enjoy thinking about their topic as socially important and will free themselves from the conceptual confines that usually accompany thinking about a dissertation topic.</p>
<p>3. Take a blank sheet of paper (or start with a blank page in a word processing program). In the center of the page, place a colon (:).</p>	<p>This establishes a demarcation to clearly distinguish the subject area from the study itself. Distinguishing between the topic and the study is critical and is often overlooked by learners.</p>
<p>4. On the left side of the colon, place the catchy title (e.g., Is Ritalin an answer for ghetto kids?:).</p>	<p>Readers will see this first, and it will capture their interest.</p>
<p>5. On the right side of the colon, write the words "A study of" followed by the 3–5 word area statement.</p>	<p>Separating the area from the study clarifies that many studies can be done about a single area.</p>
<p>6. The resulting title is both catchy and specifies a research topic. (e.g., "Is Ritalin an answer for ghetto kids?: A study of ADHD among disadvantaged children").</p>	<p>From this topic/title, the problem, purpose, and methodology can be derived (see below).</p>

When to Select a Topic

Capella encourages learners to have an idea for their dissertation topic as they begin their programs. Then they can tailor their course work to assist them in refining their topic and in conducting preliminary and related research as they progress through

their courses and comprehensives. For instance, in consultation with their mentors, learners may align the learner-choice question in the comprehensive examination with a prospective dissertation topic. Learners should take full advantage of this refinement process and research opportunity. At the same time, learners should not feel obligated to pursue this topic as they approach the dissertation phase of their programs. Sometimes the best topic ideas come at the latter stages of the program.

Doctoral Learner Success Lab courses (i.e., ED8005, HS8005, OM8005, and PSY7022) include preparation of the Degree Completion Plan (DCP). Within the context of the DCP, learners are asked to begin thinking about their dissertation topics. This activity, however, is not a final selection. Instead, the intention is to direct the learner to think about topic selection at the beginning of the program.

Many will change their topic concept as they progress through the academic phases of their doctoral programs. These changes might be minimal, such as a reduction in certain parts of the project or the addition or substitution of others. In other cases, the entire idea may be scrapped in favor of another research area that was uncovered in a course. No matter whether one keeps the same topic, changes it slightly, or replaces it entirely, there is a benefit to identifying the dissertation topic as early as possible. Research papers written for individual courses and comprehensive questions can be tailored to permit early investigation of the subject when appropriate.

What Constitutes a “Good” Topic?

There is no magic formula for selecting a “good” topic. So much of what goes into a dissertation reflects the interests and desires of its author. There are, however, certain characteristics that one should consider in selecting a topic.

Passion

The word *passion* is not something normally associated with the academic environment. Academe so prides itself on its deliberate, thorough, and objective analysis of phenomena and events that *unemotional* would seem to be a better descriptor than *passion*. Nevertheless, one should be passionate about the subject and fully committed to finding the answer or defending the position. It is this passion for the subject that will carry learners through those times of writer’s block, when they just cannot seem to turn thoughts into words on paper or when it is “just too much effort” to sit down at the computer and type or to bury themselves in the pages of a book.

Originality

The fundamental purpose of a dissertation is to build on previous research findings in order to contribute new scholarship to the overall body of knowledge. A dissertation must be original work, but the word *original* can have a broad interpretation. Within the context of a dissertation, *original* does not necessarily mean the first time a study of a specific type was undertaken. Validating prior research results using a different sample make-up can still be original work, as can investigating the repeatability of a previously proven theory. Extensive consultation with the mentor

and committee along with adherence to the validation process discussed later in this chapter can help to ensure originality.

Manageability

To be manageable, a dissertation should cover a topic that can be researched without excessive difficulty. A manageable topic should include the features listed below:

- There should be a reasonable amount of previous studies related to the topic upon which to draw.
- The topic should be reflected in up-to-date theoretical activity.
- Tested survey and observation instruments should all be readily available.
- It should be interesting from a practical perspective or for its contribution to existing theory. No matter what its subject, however, it must reflect original research and contribute to the overall body of knowledge.

To know whether a topic meets all these criteria, learners should tap the expertise of their mentors and the committee members or other faculty who have knowledge and experience in the area.

There are common misconceptions that a dissertation should “change the world” or that it should be the “seminal work” on the subject. Neither idea could be further from the truth. So too is the idea that dissertations are by nature long manuscripts that cover wide-ranging subjects. Dissertations have been as short as 25–30 pages, although most of these occur in the natural sciences. The typical Capella dissertation averages 125–150 pages of text, excluding references, appendixes, and front matter.

Manageability is not related to page count, however. It is related to the complexity of the study and the number of variables investigated. Consider the learner who seeks to evaluate the acceptability of a certain type of professional development program. In essence, the objective is to determine whether the users like and respond positively to it. The chosen methodology is a survey. In conducting preliminary research, however, the learner discovers that prior studies have noted male/female differences in acceptance of professional development methodologies. Other sources have noted ethnic group differences as well.

In order to ensure a thorough study, the learner decides to evaluate survey responses for males and females in four ethnic groups. That is a total of eight groups to be evaluated. Since the objective involves seeking statistical significance, the learner decides that a minimum of 100 survey responses for each group is required. That equates to 800 responses. Again, during preliminary research, a specific reference notes that a 20% response rate is exceptional for surveys and researchers should use 10% as a planning figure. To get 800 responses, the learner would need to send out 8,000 surveys, which, needless to say, is not manageable.

So when considering a topic, learners will find that reviewing previous dissertations with the same or a similar topic is a valuable exercise. Doing so can provide a sense of the kind of detail and content that produces an acceptable dissertation.

Within Competence Range

Doctoral study is divided into two major components: an academic component and a research component. The academic component consists of the courses, seminars, and residencies that learners are required to take and ends with the comprehensive examination. The dissertation constitutes the research portion in its entirety.

During the academic component, learners build competency in the basics of their specific disciplines or specializations. They study various theories and their application to the challenges of everyday life. The academic experience develops their ability to acquire, comprehend, integrate, and synthesize the competencies in the theoretical, research, and best practice literature in their specializations. It is reasonable to expect that the dissertation would be a natural extension of this process. For instance, it makes no sense for a learner to study leadership in depth during the academic portion of the program and then pursue a dissertation study that focuses on a totally different discipline with no reference to or application of leadership principles. In that particular case, the learner would be pursuing research that is not within his or her competence range or area of specialization. In sum, the dissertation should complete a natural progression from courses and comprehensives to original research.

Formulating a Mission Statement

Mission statements traditionally define the present. In the case of a dissertation, however, it defines both what the work is about and the objective it seeks to achieve. Dissertation mission statements might look like one of the following:

To identify evaluative criteria for executive decisions and to relate compliance with the criteria to the outcome of the decision (20 words)

To determine the existence and extent of differences in gender preference for conflict resolution approach (15 words)

To evaluate the efficacy of role-playing exercises in teaching 20th century history to inner-city youth (15 words)

Beginning the dissertation process by articulating a short (25 words or less) mission statement for the work accomplishes at least two objectives:

1. It assists the learner in maintaining focus on the topic. It is a good idea to print the mission statement in large type and keep it posted in a prominent place where it can always be seen.
2. It provides an initial assessment of manageability. If the mission statement cannot be expressed in 25 words or less, it is a good indication that the topic is too complex and, therefore, unmanageable.

Validating the Topic

The term *scoop* in the newspaper business means that one publication was able to report an event ahead of the competition. This event also occurs in academe when one scholar publishes results before others pursuing the same research are able to publish theirs. Clearly, a learner does not want to be working on his or her

dissertation when someone else publishes an exact or nearly exact duplication of the work. Before beginning extensive research on a particular topic, it is beneficial to outline certain aspects of the project to refine the value and direction of the work as well as to determine its originality.

The following 12 questions, answered at the beginning stage of the dissertation, will not only help to ensure meeting all these objectives, but will also provide information usable in the proposal/prospectus itself.

1. What is the problem or condition to be addressed?

The answer to this question is usually in the form of a few words, a phrase, or a very short sentence, at most. Using the three mission statements noted above, the answers to this question might be the following: flawed executive decisions, variability in conflict resolution, or challenges teaching inner city youth. Articulating the problem or condition succinctly identifies key words for preliminary library and Internet searches. It also helps the learner focus on specific areas for the literature review.

2. In what professional area does this occur?

Depending on the specific topic, identifying the professional area in a few short words helps to refine the focus of the literature search. Again, using the three mission statements, the answers to this question might be traditional corporations (or e-business companies or not-for-profit organizations), human resource departments (or community colleges or public service agencies), and public schools (or private or faith-based).

Conducting an Internet search using “flawed executive decisions” and “e-business companies,” for example, will produce information more directly related to the topic and minimize the need to review and ultimately reject many resources that might show up in a much broader search. For the most part, the sources produced are likely to be usable, assuming they are credible.

3. Are there any negative effects of the problem?

Implicit in the definition of *problem* is the existence of negative effects. In the case of the subject already discussed, the problems might be drastically reduced profits, inconsistency in conflict resolution, or poor scores on standardized tests. Identifying the problem areas helps to outline the background and justification for the study, two critical components of the proposal/prospectus and the dissertation itself.

Learners should not be constrained by seeking to solve a problem, however. It may be of equal or greater value to analyze a situation or condition to determine why a problem may not exist. In these cases, it might be said that the *problem* would be the apparent absence of any flaws and the consequent reliance on a process or program without the benefit of thorough investigation.

4. What is the learner’s interest in the problem?

On this point learners are able to interject how the problem has affected them directly and transpose those effects into a broader context. Extrapolated to a

larger group, they form the basis for the study's significance, another key component of the proposal/prospectus and dissertation. It may have been the learner's class, for instance, that experienced the low standardized test scores, but a successful solution can improve test scores of all inner-city schools.

5. Who is affected by it?

Identifying who is or might be affected by the problem helps isolate its scope and adds to the significance of the study. If a series of evaluative criteria for executive decisions can be isolated and proven valuable not only in assessing decisions, but by extension in making them, major failures can be avoided, cost increases to consumers reduced or avoided, and society as a whole benefited.

6. How will this study help?

Answering this question essentially explains why the learner is doing the research. It articulates the purpose of the study and adds to its significance.

7. What is the professional value of the project?

This question looks beyond the immediate problem at hand and predicts the study's impact on the overall profession or specialization. Methods that ultimately lead to better decisions, successful conflict resolution, or improved teaching practices not only help to solve the specific problem addressed in the study, but can also have an impact that transcends the study's scope. This potential impact, in turn, contributes additional information to the purpose and significance of the study.

An additional benefit arises if the objectives of the study are successful and a solution to the problem identified and "proven"; that is, the professional value of the study increases and encourages further research either by the learner or by others.

8. What needs to be done?

In answering this question, the learner begins to focus on methodology. Does the project require one or more of the following aspects?

- *Analysis*—a breaking down into component parts to determine their contribution to the whole as well as the interrelationship of the parts.
- *Comparison*—examining different events or situations and determining areas of commonality.
- *Contrast*—examining various events or situations and determining areas of difference or uniqueness.
- *Synthesis*—combining old things in new ways.
- *Evaluation*—comparing an event or situation to a standard.

9. What other topics, issues, or subjects are involved?

This question looks beyond the immediate problem and adds words and phrases (applicable to the study) that can assist with the literature search and

provide additional background to the study and value to its outcome. Using the three sample mission statements, one might include decision making, gender studies, and pedagogy as more general areas to answer this question.

10. How does the study relate to theory?

Every scholarly study has a theoretical base upon which it is built. Even the most practical of studies has a theoretical foundation. Sometimes it is difficult to identify the relevant theory or theories, but it is necessary to do so because research studies that lack a theoretical base are not dissertations. Again, drawing on the three subjects mentioned in the discussion of mission statements, possible theoretical foundations could include the examples below:

- Decision-making models such as *pure* rationality, *bounded* rationality, and cybernetics.
- Conflict resolution models such as avoidance, confrontation, and compromise.
- Pedagogical models such as computer visualization and *games-to-teach*.

11. What will result from the study?

In response to this question, one identifies the study's outcome in general terms. In the case where the research is focused on answering a question, the logical outcome would be an answer to the question. For example, in the decision-making study, the expected outcomes would be the identification of key criteria for decision quality evaluation and that these criteria would prove effective in "predicting" the success of specific decisions. In another case, that of the conflict resolution study, one might take the position that there were or were not gender-based differences in conflict resolution style. In either case, the position leads to the research questions or hypothesis statements that will be discussed in the proposal/prospectus and dissertation.

12. What has or has not already been done?

This question is perhaps the most critical of all. Prior research done in one's area of specialization can provide excellent insights into where to find relevant scholarly material in support of the study, which of many possible methodological approaches yields the most meaningful results, and what pitfalls can be avoided. At this stage answering this question does not require an extensive literature search; but it does require, at the very least, a search through online databases such as *ProQuest Dissertations and Theses*, *WorldCat*, *Networked Digital Library of Theses and Dissertations*, and/or *EDT Digital Library* (these databases may be accessed through the Capella library) to identify any prior studies relevant to the project. As with the answers to all the previous questions listed, the information gathered at this stage provides basic input to the proposal/prospectus itself.

Managing the Topic

It is important to note that neither the dissertation topic nor the proposal/prospectus is carved in stone. As their studies evolve and develop, many will change their topics or modify what was outlined in the proposal/prospectus as they work, eliminating certain aspects or adding others. Some might even take a completely new direction. However, learners must keep their mentors and committees informed of major changes in content or focus. (It is wise to discuss them with the committee in depth before undertaking the changes.)

In those cases where some modification of the topic or approach is indicated, the following questions may prove valuable:

1. Can any variable or phenomenon be reduced in scope?
2. How would the proposed changes affect the length, depth, breadth, and scholarly value of the study?
3. Can the number of experiments, case studies, regions, years, theorists, or other variables be reduced and still make a valuable contribution (or even more simply, just finish)?

In most cases, the changes to the topic relate to a reduction in scope. Specific attention to the manageability of the topic in the early stages of topic development will decrease the need to reduce the scope of the project.

Learners should consult with their mentors and committees about any changes they propose. They may be quite sympathetic to the learner's desire to shorten an unwieldy project and may even offer suggestions on how to do so without compromising the quality of the study. The mentor, committee, and school must approve any changes in the dissertation topic or proposal/prospectus before the learner can proceed with the research project. Learners should also keep in mind that if the changes in the dissertation topic or proposal/prospectus affect the research design or the ways in which they interact with human participants in the research project, the IRB representative must review and approve the changes before the research-related interaction can take place. (See [chapter 6](#) for more details about the IRB approval process.)

[Return to Table of Contents](#)

Chapter 5: Conducting a Literature Review

The task of finding relevant resources and determining the importance of the literature with regard to the dissertation topic can be challenging early in the research process. The first place to begin, once the learner has chosen a topic, is with a review and survey of the literature, canvassing as many sources as possible in order to avoid duplicating work already done and to select those works that are germane to the dissertation study.

A thorough review of the literature benefits the learner in at least two important ways:

1. It helps the learner explore and clarify the project's scope and objective.
2. It may also yield overlooked facts that can add to the value of the research.

Both of these benefits contribute to a more clearly defined approach to the topic.

As they approach this section, learners should be careful not to confuse a literature review with an annotated bibliography. An annotated bibliography provides an ordered listing of sources with brief notes about each work but draws few, if any, systematic connections among them. A literature review, on the other hand, presents a more in-depth exploration of the theoretical underpinning of the proposed research study through a careful analysis, evaluation, integration, and synthesis of the existing body of knowledge. In it the learner acknowledges significant previous research, theory, or scholarly efforts on the topic, most often represented by articles published in peer-reviewed scholarly and scientific journals. Books written by those conducting research in the field as well a variety of other sources (e.g., existing databases, institutional reports, journals, and first- or second-hand accounts in the case of certain qualitative studies) may also represent valid information on the topic. This combined set of published literature represents the existing knowledge base about the topic that the learner will assess in the literature review.

The literature review serves a variety of purposes, but its primary aims are to locate the proposed dissertation study in the broader scholarly literature base and to establish the study's relevance and significance within the field of specialization. The key to accomplishing these goals lies in the definition of the terms *relevance* and *significance*. In a general policy statement, the Council of Graduate Schools (1991) defined these terms within the following context:

The dissertation must be an extended, coherent, written work of original research, demonstrating a doctoral candidate's comprehensive knowledge and mastery of methodological, historical, topical, empirical and theoretical issues relevant to the chosen research subject. It must be a significant contribution to scholarship. It must contain the results of extensive critical research of documentary source materials, laboratory work and/or field work. (Council of Graduate Schools, p. 7)

Relevance is defined as being directly related to the specialization the learner has pursued throughout his or her course work. For example, within the School of Business and Technology, a relevant study would pertain to leadership, human resources, general business, or information technology, depending upon one's area

of specialization. A dissertation that proposes to examine “the degree to which the social quotient of the first born determines psychological well being of the individual” is questionable with respect to its direct relevance to the School of Business and Technology.

Significance, on the other hand, is defined as the degree to which the dissertation contributes to the existing body of knowledge refining/revising theories or practices, extending the frontiers of knowledge, or offering alternative interpretations to the existing understanding of the specialization. In the scholar-practitioner framework, such refinements, revisions, extensions, or alternative interpretations may have either practical, theoretical, or methodological relevance and significance. The learner should examine the impact of the proposed study in light of its implications to both scholarly and professional communities.

The term *significance* implies different things to different people. Some construe significance as the degree to which the research addresses a problem of a segment of individuals, various qualities of individuals, a group, an organization, various levels or aspects of civil society, or government. For instance, does it respond to the problem and provide new knowledge by which to better deal with the problem? Others might consider significance to be the degree to which the research is of interest to the scholarly community and outside groups. Still others may define it as the degree to which the research challenges and prepares the individual to assume his or her role as a professional in the field.

Regardless of the standard used for determining significance, however, the literature review sets the stage for subsequent sections by evaluating previous research methods and findings and by providing a framework for formulating the research design and methods. It also serves as a benchmark for comparing the results of the proposed study with those found in the literature.

Functions of the Literature Review

Overall, a well-developed review of literature demonstrates the learner’s mastery in the discipline through a thorough scrutiny of the existing literature and the integration, synthesis, and evaluation of relevant theories and research. To accomplish this end, the learner must be able to

- Identify critical and relevant literature.
- Highlight the crucial theoretical and/or conceptual debates.
- Pinpoint the gaps in existing research or theory/theories.
- Evaluate viable research designs and methodology.
- Indicate how the proposed research will help to bridge these gaps and lead to greater understanding of the phenomenon.

Identify Critical and Relevant Literature

The primary purpose of the literature review is to establish the theoretical and/or conceptual context for the dissertation study. To do so, the learner must demonstrate a comprehensive grasp of the discipline and an awareness of important theoretical and research/methodological developments and advances in the

specialization. The learner must also be able to sift through the volume of work reviewed, identify the most pertinent and relevant literature to the proposed study, and synthesize the findings concisely. Learners must be judicious in their choice of exemplars and citations so that only the most relevant and seminal sources are highlighted and referenced.

As they conduct their reviews, learners should distinguish among different types of literature and discuss the type(s) of literature appropriate for their studies. The important distinctions among sources are listed below in the order of their authority and reliability. Learners should note that each type of work differs in the authority of its conclusions and in the reliability and validity of the methods it employs.

1. Broad reviews of theory—these provide a substantial base of theoretical knowledge and compare and contrast competing views about the underlying structures or processes that explain the phenomenon under investigation.
2. Broad reviews of experimental/empirical results—these provide a substantial base of empirical references that evaluate and synthesize empirical evidence presented in multiple studies, carried out by independent researchers via a multitude of measures and across different settings and populations.
3. Review of published reports of empirical or field research—these provide review, critique, and personal insights and interpretations of individual experimental results that other professionals in the field have reviewed.
4. Review of unpublished reports of empirical or field research—these provide review, critique, and personal insight/interpretation of individual experimental results that peers in the field have not scrutinized.
5. Review of policy or internal institutional reports—these can provide indications of professional or practical concerns and outcomes; however, they also usually represent a political or institutional agenda and should be handled with care.
6. Opinion articles or personal exchanges—these can provide indications of academic or professional or practical concerns or findings; however, they also represent only the author's thinking and are, therefore, not scrutinized by the academic or professional communities.

Highlight Crucial Theoretical and/or Conceptual Debates

The second primary purpose of the literature review is to justify the need for and interest in conducting the proposed research. There are many different ways to achieve this goal, but those that begin with an in-depth analysis of the critical literature and highlight the seeming paradoxes or internal contradictions in the existing literature are commonly used and have proven effective. By delineating key studies affirming rival or otherwise inconclusive claims within the literature, the learner can underline the potential contribution of the proposed study to the resolution of the theoretical and/or conceptual arguments along with a better understanding of the phenomenon under investigation.

Pinpoint the Gaps in Existing Research and/or Theory/Theories

Every dissertation sets out to achieve some worthy cause, and filling a “void” in the existing literature is a powerful one. The dissertation’s introduction has identified knowledge and information that are missing or unknown about the phenomenon in the existing literature. The critical review of the literature further seeks to uncover “gaps” in the extant knowledge base that the dissertation study fills. In doing so, the learner demonstrates critical thinking skills and a strong understanding of the problem as well as how the study builds upon and extends previous knowledge in the area. It answers the question, How does the study relate to these past efforts?

Evaluate Viable Research Designs and Methodology

Previous research may also provide insights to various methodological considerations for the study. These may include how other researchers have used specific designs, framed hypotheses, selected samples/participants and instruments, defined concepts operationally, used different data collection methods or analytic procedures, and addressed various ethical considerations in studying the topic. For qualitative studies, where the strategy for presenting the data is less defined than in quantitative studies, previous research may offer potential ways to organize the analysis and findings.

Whether the study is a quantitative, qualitative, or a mixed methods study, the literature review should further establish the rationale for the study and establish the way—methodologically—in which others have approached this or similar problems. In this manner, learners show the relationship of their work to the literature. Selecting only the literature that is of value to their research also indicates their ability to evaluate the work of others and reflects the quality of scholarly thinking.

Bridge the Gaps and Lead to Greater Understanding of the Phenomenon

Ultimately, the review of the literature should accomplish the goal of identifying how the study fits into and contributes to the existing literature and the theoretical or applied knowledge base. If the intent of the study is to replicate a previous study with improvements in design or using a different population, this purpose should be clearly evident. Similarly, if the purpose is to refute or extend previous works, this too should be explicitly stated. Learners should provide solid justification for their research studies, citing the limitations of the previous research without being dismissive of others’ work. Ideally, the review of previous works should identify a gap—something that is unknown, missing, or for which there are inconsistent or conflicting findings—that the study addresses, thereby contributing to the incremental accumulation of scientific knowledge on the topic.

Finally, the learner should state how the study contributes to theory and practice within his or her discipline or specialization, thereby improving the ability of the scholar-practitioner to be an effective leader, helping professional, and agent for change. Thus, the findings and results of the study should be examined in light of their contribution to

- The existing body of knowledge and the theoretical framework.
- The best practices in the field.

- The solution of problems encountered in the field.
- Innovations and improvements brought about in the field.
- Suggestions for subsequent research to advance the theory and practice.

In the end there is no substitute for a thorough literature survey. Over and above academic and professional involvement with faculty and colleagues, scholarly reading keeps the learner from flawed research. Thus, preparatory reading is the bedrock for any research.

Strategies for Conducting the Literature Review

As they prepare the literature review, learners should keep in mind that it serves to provide information and citations to support three aspects of the dissertation:

1. The rationale for undertaking the research.
2. The background of previous research relevant to the topic.
3. The theory generating the question(s) or hypothesis(es).

Just as there is no prescribed format for the literature review, there also is no established procedure for conducting the literature search and review. Nevertheless, the strategies presented in this section will prove useful to the learner who employs them.

Starting the Review

1. From the outset, learners should adopt an organized method of taking notes that works for them. Some may find that the old standby of using note cards serves them well, while others may find note cards cumbersome or easy to lose. For them, a binder or spiral notebook is a better choice. Still others may prefer to take notes on their computers. Here, the method is not important; it is the consistent use of one method that will prove most helpful because it is easier to stay organized from the beginning than it is to get organized halfway through a project.
2. Learners should plan to consult an adequate number of sources appropriate for their discipline. Although there is no required number of sources to cite, the depth and breadth of the research should be evident to everyone who consults the dissertation in the future.
3. Often, learners struggle most with knowing where to start. Two approaches may assist them as they begin their search:
 - Learners should begin with reference resources from the library and the Internet. A search of subject headings in the library catalog, periodical indexes, electronic databases, Internet search engines, and dissertation indexes (this last one is particularly significant) will typically reveal scores of sources that must be evaluated for their relationship and relevance to the research question.

- Learners may consult leading journals and search recent issues for the latest information on their topics. From these articles it is possible to recognize recurring names of the leading people in the field. (When committee members and others examine a literature review, they will expect to see certain names; their absence signals that the learner may not have conducted a thorough search.)
- 4. From the beginning learners should write down the complete reference citation for each source they consult in relation to their dissertation topic. Nearly every entry displays the following information: author, year of publication, title, and publication data. Developing the habit of recording and double-checking these details from the start will save a great deal of time later on. If learners store the citations on their computers, they should follow the APA format from the outset so that the citations can be included in the dissertation reference list later on.
- 5. The easiest way to begin screening potential sources is to skim abstracts or prefaces, tables of contents, and indexes. If the title appears promising, learners should read the introduction and scan the rest of the text using the index. Titles that do not relate directly or indirectly to the topic should be eliminated. The remaining titles constitute a working reference list.

Taking Notes

1. At this point, the learner becomes the reader with the task of sorting the list into resources that are relevant to the study, those that are indirectly related to the topic, and those that are not relevant at all. The search should include titles that both support and dispute the research question or hypothesis. Obviously, the resources that are directly related should be the first reviewed.
2. Learners should take notes on each work as they consult it, even if it is simply a note to themselves that the source is not relevant or is out of date. This strategy will save them from wasting valuable time checking sources that they forgot they had previously ruled out.
3. Recording the date the notes were taken may also prove helpful for future reference.
4. Some learners may want to photocopy the title page, abstracts, and even whole chapters of the works they plan to cite. This practice should be used judiciously, however, not only because of the expense involved, but also because of the additional organization required to keep the related pages together. In addition, photocopying sources sometimes becomes a substitute for actually reading them and ultimately becomes a means of procrastinating on the real work of research. Like any tool it has beneficial uses when it is used appropriately.
5. Using a system for classifying information in the notes has proven helpful to researchers. Some prefer color coding information (e.g., using different colored note cards for different types of information); others have adopted abbreviations to identify the content of a note at a glance. Sometimes it helps

to plan in advance the categories of information one expects to find. Several of these appear in the list below:

- Theoretical framework of the study.
 - Rationale for the research problem.
 - Defense of the chosen research design.
 - Support for the methodology chosen for the study.
 - Conflicting theories or opinions about the problem.
6. Usually, it is unnecessary to read the entire text from cover to cover. Learners should practice efficient reading and skimming techniques to gather the information they need from a source.

Throughout the process of conducting the literature review, it is important for learners to stay in contact with their mentors, committee members, and their instructors and peers in the dissertation courses. Doing so will provide encouragement to keep their focus and maintain their motivation through this phase of the dissertation process.

Once the learner has examined the relevant resources, he or she is ready to write the literature review. (Learners should consult [chapter 8](#) of this manual for a suggested structure for their review as well as many useful strategies for writing it.)

[Return to Table of Contents](#)

Chapter 6: Institutional Review Board Approval and Protection of Human Participants in Research

Before any research-related recruitment or interaction takes place, the Institutional Review Board (IRB) or its designee must approve all research, conducted under the auspices of Capella University, that involves human participants and/or their records. This requirement applies to all dissertation research projects. Before learners may complete the IRB Application form, however, they must first complete the CITI training modules described below.

Training in Protection of Human Participants in Research: The CITI

To provide training in protecting human participants in research and the principles and guidelines of the IRB, Capella University has adopted a series of online modules known as the *CITI - Collaborative IRB Training Initiative*. These training modules are provided at no additional cost to Capella learners and faculty, and they meet current federal requirements. All Capella doctoral learners applying for IRB approval must complete the required CITI modules plus any additional modules specific to their dissertation topics. All supervisors of research (i.e., mentors) and IRB reviewers must complete the same modules.

The CITI Overview

CITI contains a series of web-based educational modules in research ethics founded by Dr. Karen Hansen at the Fred Hutchinson Cancer Research Institute and Dr. Paul Braunschweiger at the University of Miami. CITI offers a dual-track curriculum, one for social/behavioral researchers (SBR) and one for biomedical researchers (BMR). The Capella CITI program consists of eight required and 21 additional modules. Each module takes approximately 20–30 minutes to complete. These modules are embedded in the Dissertation I (9986) course (unit 4), and must be completed as part of the course requirements.

The eight required modules provide information essential for most human participant research in the social and behavioral sciences. Six of these modules contain a short quiz at the end to assess the learner's understanding of the content covered. These modules include the following:

1. Introduction (no quiz)
2. History and Ethical Principles (quiz)
3. Defining Research with Human Subjects (quiz)
4. The Regulations and the Social and Behavioral Sciences (quiz)
5. Assessing Risk in Social and Behavioral Sciences (quiz)
6. Informed Consent (quiz)
7. Privacy and Confidentiality (quiz)
8. Capella University (no quiz)

The 21 additional modules are available upon completion of all required modules. Five of these cover additional topics on research ethics in social/behavioral sciences (SBR); the remaining 16 modules cover topics in biomedical sciences (BMR). Learners are required to complete one or more additional modules if they are relevant to their research topics. The additional modules include the following:

1. Research with Prisoners (SBR)
2. Research with Children (SBR)
3. Research in Public Elementary and Secondary Schools (SBR)
4. International Research (SBR)
5. Internet Research (SBR)
6. History and Ethical Principles (BMR)
7. Basic Institutional Review Board (IRB) Regulations and Review Process (BMR)
8. Informed Consent (BMR)
9. Social and Behavioral Research for Biomedical Researchers (BMR)
10. Records-Based Research (BMR)
11. Genetic Research in Human Populations (BMR)
12. Research With Protected Populations – Vulnerable Subjects: An Overview (BMR)
13. Vulnerable Subjects – Research With Prisoners (BMR)
14. Vulnerable Subjects – Research Involving Minors (BMR)
15. Vulnerable Subjects – Research Involving Pregnant Women and Fetuses in Utero (BMR)
16. Group Harms: Research With Culturally or Medically Vulnerable Groups (BMR)
17. FDA-Regulated Research (BMR)
18. Human Subjects Research at the VA (BMR)
19. HIPAA and Human Subjects Research (BMR)
20. Workers as Research Subjects – A Vulnerable Population (BMR)
21. Conflicts of Interest in Research Involving Human Subjects (BMR)

CITI Registration and Format

The CITI modules can be accessed from www.citiprogram.org, or through the Dissertation I courseroom. Learners in 9986 must complete the appropriate CITI modules as part of the course requirements.

To register for the CITI course

1. Go to www.citiprogram.org.
2. Click *Register for the CITI Course*.

3. In the *All Others* box, select *Capella University*.
4. Click *Submit*.
5. Follow the instructions on the site to complete the registration.

After registration is confirmed, learners can begin working through the CITI modules by clicking *Basic Course*. All required modules must be completed before the additional modules become available.

The required modules are presented in sequence. That is, the previous module must be successfully completed before the subsequent one becomes available. However, learners can start and stop at any point and return to a module as often as necessary. To successfully complete a required module, learners must review the content materials and take a short quiz, when applicable. A minimum score of 75% correct, aggregated across all quizzes, is required to successfully complete the training and obtain IRB approval. If the passing score is not achieved, learners may review the materials and retake the quizzes as many times as needed. The final record will reflect results from the latest quizzes taken.

Progress Tracking and Completion Records

The CITI software tracks course progress within the *grade book* and produces a *course completion record* to report course completion. The former can be viewed and printed out at any time; the latter is available for viewing and printing upon completion of the required modules.

For those learners who registered for the CITI course prior to the end of May 2004 (under the old platform, which expired in July 2004), an Excel file containing quiz results and course progress was sent to registered Capella IRB administrators from the University of Miami, the hosting agent. For those learners who registered for the CITI course after May 2004 (under the new platform), course completion records are located on the CITI Web site and are available only to individual learners and registered Capella IRB administrators.

Capella learners applying for IRB approval must indicate the CITI training completion date and any relevant additional modules completed on the Institutional Review Board (IRB) Application form. The school's IRB reviewer or administration staff will have access to the completion records to verify training completion dates and modules taken.

Certificates remain in effect for **three** years from the date of issue. However, whenever new federal, state, or institutional compliance regulations are implemented, researchers must obtain an updated certificate prior to engagement in any research activities.

Application for IRB Approval

The purpose of the IRB review and approval process is to ensure ethical treatment and protection of human research participants and/or their records. This provision is in compliance with the policy of Capella University (Policy O2.08: Use of Human Participants/Subjects in Research) and with the principles and guidelines of the federal and state governments and relevant professional societies and organizations

(e.g., American Education Research Association, Academy of Management, American Counseling Association, and American Psychological Association).

The Institutional Review Board Application Form

To apply for the IRB approval, the learner must complete and submit the *Institutional Review Board Application* and all supporting documents², along with their research proposal/prospectus to the school IRB designee (reviewer).

There are seven main sections in the Institutional Review Board Application form, following the contact information for the learner (researcher) and the mentor (research supervisor), and the IRB training record for the learner (researcher):

- Project information, including the title, inclusive dates, and whether the proposed research involves human participants, animal subjects, or others.
- Funding resources.
- Research summary, describing the topic and purpose of the research, research questions and/or hypothesis, research design and methodology, rationale for using human participants and/or their records, how the data will be analyzed, and how the results will be interpreted. (If the research does not involve the use of human participants or their records, the summary should clearly state this fact and indicate the alternative data collection strategies.)
- Description, recruitment, and selection of the participants (target sample or population).
- Risks/Benefits Analysis.
- Description of how confidentiality, privacy, and anonymity of data will be achieved.
- Approval for use of records.

The application also includes a checklist for the informed consent/assent documents the learner must include with the application (if applicable).

In addition, the instructions for the application include a checklist for the essential components to help ensure the completeness of the application process. The learner should use this checklist (as well as the other lists embedded in the application) when preparing the IRB Application, and the mentor/IRB reviewer should use it when reviewing the completeness of the application. Failure to submit a complete application and all supporting materials will delay the approval process. Finally, the form must be signed and dated by the learner (researcher), the mentor (research supervisor), and the school's IRB reviewer (the Provost's designee).

² Supporting documents may include the informed consent form, data collection protocol, survey cover sheet, data collection instrument, letter of authorization from an external agency or institution for access to participants or their records, recruitment letter or script, and/or data collection letter or script.

Note that the IRB Application is required even if the dissertation research does not involve the use of human participants and/or their records. Upon reviewing the IRB Application and the proposal/prospectus, the school IRB reviewer will determine if the proposed dissertation research may be exempt from further review. An exemption is considered an approval of the IRB Application.

Preparing and Developing the IRB Application

When developing the IRB Application, the learner works closely with the mentor, who is responsible for determining that the application is complete and that no supporting document is missing. The mentor endorses the completed IRB Application and forwards it³, along with the dissertation proposal/prospectus, to the school's IRB reviewer (e.g., a school-designated IRB reviewer, faculty director, or the faculty chair of the learner's specialization) for final review and approval. The mentor's signature on the IRB Application form indicates that he or she has worked with the learner to develop the application materials and that he or she accepts responsibility for guiding the learner through the research process to ensure continued compliance with research ethics.

The school's IRB reviewer may ask the mentor, as research supervisor, to clarify aspects of the protocol that may have potential inconsistencies with the principles and guidelines of ethical research. In cases where the dissertation research is referred to the full university IRB committee for review, the mentor may be asked to attend the IRB committee meetings to address issues in the research design that may pose potential risk of harm to the participants.

IRB Review and Approval Process

There are two categories of review for the IRB Application for the dissertation at Capella:

1. School level
2. Full University IRB Committee level

Every IRB application begins with the school-level review, and each school has its own submission and review procedures. Please contact your mentor for the procedures specific to your school.

As the Capella University IRB designee, the school IRB reviewer determines if the application is exempt from full IRB review. He or she first evaluates the IRB Application (and the proposal/prospectus, when appropriate) to determine whether the selection of participants is equitable and whether their participation is voluntary.

³ Each school may have its own IRB and proposal/prospectus submission and approval process. See the next section for more information.

If the proposed research meets these ethical standards, the reviewer will then determine if it presents more than a minimal risk of harm. If the research involves more than a minimal risk of harm, the application is either returned to the mentor so that the learner may revise the research design, or it is forwarded to the University IRB Committee for review to determine whether the risk is warranted by the value of the possible research results.

If any intended participants in the research are Capella learners, faculty, or staff, the application is automatically forwarded to the University IRB Committee for review and must be accompanied by a letter of authorization to access Capella participants and/or their records. The letter of authorization may be obtained from the Office of Assessment and Institutional Research.

In reviewing a research protocol, the IRB reviewer also assesses the proposed research according to the ethical principles of the *Belmont Report* as well as the applicable federal regulations. These considerations include the following:

- **Respect for Persons.** This principle acknowledges the participant's autonomy and the researcher's obligation to respect that autonomy. It also protects participants with diminished autonomy (e.g., children) from possible exploitation.

From this principle of respect for persons comes the **informed consent process** in which researchers must provide potential participants with information about the study in a manner they can understand and then allow them to choose whether or not they wish to participate.

- **Beneficence.** This principle obligates the researcher to protect participants from harm as well as to maximize the anticipated benefits of the research and minimize possible risks resulting from the research.

To apply the principle of beneficence, researchers and IRB reviewers analyze the risks and benefits to the participants to ensure that the anticipated risks are commensurate with the potential benefits. In every study researchers should minimize the risks as much as possible.

- **Justice.** This principle requires the equitable distribution of both the benefits and the burdens of research.

Implementing the principle of justice requires researchers to avoid selecting participants solely because they are accessible or easy to influence. In addition, it charges researchers not to exclude participants who are likely to benefit from a study.

- **Confidentiality, privacy, and anonymity.** The researcher must make adequate provisions to ensure that participants' identities will not be revealed in the course of the research or dissemination of research results.

After reviewing the protocol, the IRB designee (reviewer) *approves*, *approves with modifications* (minimal modifications or revision), or *declines* the proposed research activity.

When an outside agency or research setting is used for data collection, the learner must obtain official letters of authorization from a person at the agency or research setting who has the authority to grant such access. If the outside agency has its own

IRB review process, the agency's IRB reviewer must approve the proposed research protocol before data access authorization is granted and by Capella's IRB before any research-related interaction with the potential participants begins. Failure to obtain the IRB approval before contacting the participants is a severe violation of the Capella *Use of Human Participants/Subjects in Research* policy (Policy 02.08) and warrants referral to the Academic Standards Committee for further investigation and possible disciplinary action.

(The IRB Application Evaluation Criteria have been developed to guide learners, mentors, dissertation committee members, and school reviewers through the development, review, and approval process of the IRB Application.)

Learners should keep in mind that the IRB approval process typically takes 7 to 10 days to complete if

- All application materials and documents are complete at the time of submission,
- The proposed research study does not involve any risk of harm to the participants, and
- The proposed research is clearly articulated in the IRB Application and the proposal/prospectus.

When one or more of these conditions is not met, the review process may take considerably longer (up to 3 or 4 weeks) because of the need to request the necessary modifications from the learner and/or to acquire full documentation for the planned research. But once the IRB reviewer grants approval and signs off on the proposed dissertation study, the learner may begin the research project as planned. *Any subsequent changes to the learner's interaction with human participants or their records must be reviewed and approved by the designated IRB reviewer.*

IRB approval is in effect for *one* calendar year. One month before the expiration date, a Request for Renewal, accompanied by a copy of the approved application, must be submitted to the reviewer who granted the original approval or to an appropriate designee. Among other things, the request must describe the reason for requesting the renewal and state the expected completion date. To qualify for renewal, the research design and process should contain no changes to the original application. (The Request for Renewal form may be accessed at the Research & Scholarship Center.)

Although there is no maximum number of renewals a project may receive, the IRB reserves the right to request that the researcher submit an IRB Application Revision or a new IRB Application, if circumstances dictate such action. (Learners should also keep Satisfactory Academic Progress [SAP] standards in mind as they conduct their research so that they can complete their projects in a timely fashion.) In the event that the CITI completion certificate expires prior to the application for renewal, the learner must retake the necessary CITI modules to obtain approval for renewal.

If changes that affect human participants or their records need to be made in the research protocol, the learner must submit an *IRB Application Revision* form to the appropriate reviewer along with the original application. The revision is a completely new application with an additional section where the researcher must explain the rationale for changing the research interactions and detail the differences between

the original and the amended application. *Learners must not implement the new interactions until they have received approval for the changes.* Approval of the revised application is also in effect for one calendar year.

Informed Consent/Assent

Of the supporting documents for the IRB Application, the informed consent/assent is usually the most commonly required. **Informed consent** refers to “a person’s voluntary agreement, based upon adequate knowledge and understanding of relevant information, to participate in research or to undergo a diagnostic, therapeutic, or preventive procedure. In giving informed consent, participants may not waive or appear to waive any of their legal rights, or release or appear to release the investigator, the sponsor, the institution or agents thereof from liability for negligence” (Federal Policy §116; 21 CFR 50.20 and 50.25). Learners must obtain informed consent from all human participants or their legal guardians prior to any data collection activities.

If the potential research participants are children of appropriate ages (generally between 7 and 18), who have the intellectual ability to comprehend what it means to volunteer in a research study, **informed assent** of the children is also needed. “Assent” refers to a child’s agreement to participate in research. However, not all children are capable of assent due to their age, maturity, and psychological/mental state. Waiver of assent is also allowed if the research involves no more than minimal risk, as approved under 45 CFR 46.404. The learner, in consultation with the mentor, is responsible for assessing the need to obtain assent from the participants, but the school’s IRB reviewer will ultimately determine whether the assent is required.

The most important goals of informed consent are to ensure that potential participants have received information about the research study in a manner comprehensible to them and to allow them to choose whether or not they wish to participate. For the potential participants’ consent to be valid, they must be competent to make the decision at hand, and their consent must be voluntary.

Informed consent must be obtained in writing after the potential participant has had the opportunity to carefully consider the risks and benefits of participation and to ask any pertinent questions. Consequently, the discussion of the study should be carried on in layperson’s terms, and the potential participant’s understanding should be assessed along the way. Throughout the course of the study, the learner must ensure the participant’s continued understanding of what participation in the project entails and that the participation remains voluntary. In other words, learners should view informed consent as an ongoing process, not as a single event or a mere formality.

Although the actual components of specific consent forms may vary according to the nature of the research project and the characteristics of the participants, the federal Common Rule (45 CFR 46.116) requires that a consent form contain all of the following basic elements whenever appropriate:

1. A statement that the study involves research.
2. An explanation of the purposes of the research.
3. The expected duration of the participant’s participation.

4. A description of the procedures to be followed.
5. Identification of any procedures that are experimental.
6. A description of any reasonably foreseeable risks or discomforts to the participant.
7. A description of any benefits to the participant or to others which may reasonably be expected from the research.
8. A disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the participant.
9. A statement describing the extent, if any, to which confidentiality of records identifying the participant will be maintained.
10. For research involving more than minimal risk, an explanation of the compensation and medical treatments that are available if injury occurs; where further information may be obtained.
11. An explanation of whom to contact for answers to pertinent questions about the research and research participants' rights, and whom to contact in the event of a research-related injury to the participant. For dissertation research conducted by Capella learners, the contact (name and phone number) of the learner, the faculty research supervisor (i.e., the mentor/committee chair), and the school's IRB reviewer must be included for this purpose.
12. A statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled, and the participant may discontinue participation at any time without penalty or loss of benefits to which the participant is otherwise entitled.

For more information about informed consent, visit the [Office for Human Research Protections \(OHRP\)](#) website or the *CITI Informed Consent* Module available at <http://www.citiprogram.org>.

[Return to Table of Contents](#)

Chapter 7: Conducting the Dissertation Research

Following the proposal/prospectus completion conference call and IRB approval, the learner proceeds to implement the research project, adhering to the terms and conditions of the approved proposal/prospectus and IRB Application. The implementation of the research project occurs mainly in Dissertation III (9988) and includes the data collection, check-in, processing, and analysis.

Although the data collection activities occur primarily in the third dissertation course, learners may begin data collection and research-related interaction with human participants as soon as they pass the proposal/prospectus completion conference and the school IRB reviewer approves their IRB Application. Field tests can usually be conducted prior to IRB review and approval since they typically do not involve the use of human participants. For example, validating instruments via expert agreement of item content, gaining permissions to conduct the study from an institution, and determining the informed consent procedures do not require IRB review or approval.

In contrast, pilot studies conducted to determine if the proposed research procedures will produce the anticipated results typically require the use of human participants (“confederates”) similar to the actual participants. IRB review is required since the use of confederates is necessary to conduct the pilot study. It cannot be overemphasized that learners are responsible for maintaining high standards of ethical behavior and integrity when conducting the research project and that mentors are responsible for supervising learners to ensure ethical and responsible conduct while they carry out the research project.

As data collection activities take place, learners work closely with their mentors through regularly scheduled communication (via either e-mail or telephone) to discuss progress to date, ask questions, seek consultation, or receive support to persevere. Learners also apprise the Dissertation III (9988) instructor of their progress. Regular communication ensures that the learner does not falter at this critical stage of the research process. Throughout this stage, the role of the mentor is central to the successful completion of the research.

Data Collection Plan and Design

The work of a dissertation most commonly involves the collection, analysis, and interpretation of relevant data to support the theoretical or empirical arguments of the learner. Some dissertations focus on the examination of archived data or re-examination of previously collected data. Whatever the design of the study and the sources of the data may be, a well thought-out, comprehensive data collection plan is critical for the success of the dissertation research project.

Successful data collection necessitates not only thorough upfront planning, but also a great deal of coordination and follow-through. To ensure that the proper data are gathered to meet the overall objectives of the dissertation study, a detailed plan outlining all essential elements of data collection is in order. The format of the plan may be as simple as a word processing document or a spreadsheet with bullet points or rows delineating the milestones and timelines of the data collection effort, or it

may be as elaborate as a formal project plan complete with task definition, start-end dates, duration, and resources for each milestone.

Key elements of the plan may include the data collection timeline; instrumentation; procedures; sampling plan and setting; sources of data; IRB process; field/pilot testing; assembly and distribution of materials; data check-in, processing, and analysis; and any additional information appropriate for the learner's specific study. (A sample data collection plan can be found in [Appendix B](#). Learners should remember that this sample data collection plan does not cover all possible aspects of data collection. Instead, they should create and customize their own plans to fit their specific needs.)

Learners should create the data collection plan early in the dissertation project, taking into consideration the goals and timeline of the entire dissertation. The plan should be constructed in light of not only the essential components of data gathering, but also factors that may potentially impact the progress or completion of data collection. For example, when planning classroom observations, the learner should schedule the data collection activities to coincide with the days and times when the schools are in session. Learners should also consider a contingency plan to account for unforeseeable events that may hamper the data collection effort so that the overall timeline for the dissertation is not jeopardized.

Although the plan should lay out all milestones in a somewhat sequential fashion, learners must bear in mind that the data collection activities do not necessarily progress in a linear fashion. While some events are prerequisites of others, many are independent of one another in terms of timing and sequencing. For example, the IRB approval must be obtained before any research-related interaction with the human participants may occur, but the learner may begin assembling data collection materials while undertaking the informed consent procedure.

In addition, some activities may occur concurrently with others, while others may take several iterations to complete. For example, it is very likely that when survey questionnaires are sent to distant participants for response, the data will trickle in over a period of time (e.g., weeks or months). While awaiting the remaining data to return, the learner may begin processing the data already received. Furthermore, the process of field testing and instrument revision may take a few iterations before the instrument is finalized. In short, learners should take into account the specific situations surrounding their data collection activities and plan accordingly.

Data Collection

The mentor supervises and monitors the data collection activities to ensure that learner implements the process according to the approved plan outlined in the proposal/prospectus and that it complies with established ethical guidelines. This ongoing interaction between the learner and the mentor may include telephone conversations, e-mails, or in-person meetings if the two are in close proximity.

If a field test and/or a pilot study is conducted, the learner provides the mentor with written material for review on the results of the field test and/or pilot study. This information is then incorporated into revisions to the dissertation research design as needed.

As learners check the progress of their data collection activities and identify gaps or bottlenecks in the process, they may need to follow up with the non-respondents to remind them of the timeline for responding. For missing or otherwise unusable data, they may want to follow up with the participants for further clarification. Achieving a 100% response rate on data collection is very unlikely, so learners must be strategic about selecting the participants with whom they follow up and adjust their timeline or sampling plan accordingly.

If the data collection procedure involves interviews or other forms of in-person interaction with the participants and the participants cannot make the original schedule, the learner should reschedule the session and assess its impact on the overall timeline of the data collection process. If the postponement imposes a significant delay in the final dissertation completion timeline, the learner should consult with his or her mentor and committee about readjusting the timelines or implementing the contingency plan laid out earlier in the process, if necessary.

Data Processing

In most cases, data collected need to be processed before any analytical procedures can be applied. The actual mechanism used to process data will vary depending on the nature (e.g., quantitative or qualitative) of the data. The learner may take the following steps to prepare **quantitative** data for analysis:

- Score test items against the key, compute raw item or scale scores, convert raw scores to normative or criterion scores or categories.
- Code categorical variables; assign numerical values to categorical variables for ease of statistical manipulation (e.g., 1 = Female, 2 = Male).
- Key and enter the data electronically, eliminating identifiable personal information to ensure the anonymity of the participants.
- Conduct data quality control and cleanup; run preliminary descriptive statistics (frequency, range of values, mean, standard deviation) to identify invalid, inaccurate, inconsistent data, or outliers; verify and correct any errors in the data.
- Impute values for missing data.
- Compute new or composite variables based on existing variables (e.g., compute chronological age based on the test date and birth date).
- Construct scales and compute scale values.
- Convert, merge, and/or reformat data when necessary.
- Finalize preparation of the data for analysis.

Here are some steps a learner may take to prepare **qualitative** data for analysis:

- Sort and organize field notes and other documents.
- Check sound/image quality of and index audio/video documents.
- Assess and evaluate textual data for accuracy, completeness, and legibility/clarity.

- Conduct data quality control (fix any errors in the data), and edit or clean up the data as needed.
- Code, label, key, and enter the data electronically; eliminate identifiable personal information to ensure the anonymity of the participants.
- Link data listing to interview text files and audio files where appropriate.
- Identify patterns, themes, etc.
- Develop category/classification system.
- Finalize preparation of the data for analysis.

Data Analysis

Upon completion of the data collection and processing/preparation, the learner proceeds to analyze the data so that he or she may later report on the findings and draw conclusions from them. While a discussion of the data analysis methods or techniques is not within the scope of this manual, a few words about the mentor's role in supporting this effort are necessary.

The mentor serves as a consultant, guide, coach, and referral resource as the learner completes the data analysis. The learner will send the mentor the preliminary reports of the data for review. The mentor then provides substantive feedback to the learner about the clarity, accuracy, and overall comprehensiveness of the data analysis. If the mentor is not an expert in this aspect of the research process, he or she refers the learner to a committee member selected for this area of expertise or to other resources available to the learner.

Changes in the Design

Even the best plans sometimes do not work as expected in research. This outcome reflects the dynamic nature of the research process, yet it is also a source of potential anxiety and frustration to the learner. After getting into the data collection stage of the dissertation research process, the learner may find that the number of participants is significantly less than what the design called for, that the location for the data collection is suddenly no longer available, or that the window of time during which data will be available has narrowed. When the research design requires modification after the proposal/prospectus conference call has been held, learners should follow the procedures below, which are designed to accommodate these changes and to assist them in successfully completing the dissertation.

- The learner notifies the mentor that a change in design is necessary and provides the background information supporting the need for a change.
- The mentor works with the learner and solicits input from the committee to devise a reasonable solution to the problem that will retain the integrity of the overall design and the research process.
- The learner submits an IRB Application Revision to reflect the changes in the design that relate to the protection of the participants in the research.
- The mentor consults with the committee to review the changes via e-mail or a telephone call. With committee input, the mentor approves the change.

- If the change in design significantly alters the design or major features of the research, a conference call is held to review the change and to approve the revised proposal/prospectus. **Note:** If the learner must submit a new IRB Application, it must be approved by the school's IRB reviewer prior to holding a second proposal/prospectus conference call.
- The learner is advised to include the change in design with all underlying rationale in the final dissertation document.

Most likely, the need to change or modify a research design will be infrequent; however, mentors can use this experience, when it occurs, to reinforce the dynamic nature of research and to demonstrate that research with human participants is often fraught with uncontrolled variables and problems that the learner must resolve with great creativity.

Tips for Conducting the Dissertation Research

The actual conduct of the study varies with each design. As noted earlier, however, learners should not undertake this effort alone. They should stay in routine contact with committee members and, most importantly, with their mentors. While it is not the purpose of this manual to provide methodological guidance or advice, there are some general pieces of advice that learners should keep in mind as they progress. These are discussed below.

Be Flexible

Learners should begin the actual study by attempting to follow the plan they outlined in the proposal/prospectus. Often, however, what was planned may not be executable due to factors not apparent at the time the proposal/prospectus was developed.

Learners should be prepared to modify the experimental design, with input from the committee as described above, and be flexible enough to consider alternative approaches. They should make specific note of these variations in approach and record the reasons these changes had to be made. The differences between the proposed and actual methodologies will be discussed in detail in the dissertation itself.

Pay Attention to Detail

Learners should execute the study without overlooking any detail. Sometimes ignoring a specific detail because it is considered "insignificant" negatively affects the outcome of the entire study. Each step in the proposed or revised methodology should be implemented exactly as planned without exception. Again, in those cases where the study does require change, the learner must consult his or her committee.

Record Observations

The learner should keep a journal to record observations related to the study. Minimally, the learner should take good notes as each phase of the study is executed. He or she should record not only the observations, but also the thoughts

or ideas these observations generate. In cases where study outcomes do not meet expectations, these thoughts and observations may help to explain why.

Stay in Contact with the Committee

Learners should consider holding bi-weekly or monthly progress discussions by phone or e-mail with key members of the committee as the study progresses, and they should include their mentor in any conversations related to the conduct of the study.

As the study progresses through its execution and writing phases, the need to maintain contact with the various members of the committee will probably diminish. This change is an indication of the natural progression of the learner from student to scholar. Learners will find themselves gaining increased confidence in their capabilities and a diminishing reliance on the counsel of others. As the study nears completion, the learner becomes the expert on the study and its results.

[Return to Table of Contents](#)

Chapter 8: Writing the Dissertation Manuscript

Overview of the Dissertation's Components

The organization of the dissertation's text reflects the stages of the research process, devoting a chapter to each step (in the five-chapter model). In general, dissertations accepted by Capella University should observe the style conventions delineated in the *APA 5 Manual*. Because the APA manual was written for journal articles and not for dissertations, however, the authors of the APA manual have given permission to adapt the APA guidelines to fit specific needs. The [Dissertation Format Guidelines](#) on iGuide specify Capella's formatting standards. Doctoral learners should review these standards thoroughly and use the *APA 5 Manual* as their guide throughout the process of writing their dissertations. It is possible, however, that the dissertation's subject may warrant the use of a different style manual. In such cases, the committee members will discuss more suitable options with the learner.

There are three major components of a dissertation:

- The preliminary pages (front matter).
- Body (the five-chapter model).
- References and Appendixes (end matter, when applicable).

The Preliminary Pages (Front Matter)

The order of the materials comprising the front matter is as follows: title page, copyright page (recommended), approval signature page, abstract, dedication (optional), acknowledgments (optional), table of contents, and a list of tables and list of figures (if the dissertation includes tables or figures). Page numbers for the front matter appear in lowercase roman numerals and are not included in the page count for the document.

Title Page

A dissertation's title should express the core idea of the study, typically in no more than 15 words. Each letter of the title is capitalized. Superfluous phrases such as "A Study of the . . ." should not appear in the title. Instead, the title's key terms should help readers identify both the project's nature and its scope. See the [Dissertation Template](#) for a sample title page layout.

Copyright

Obtaining copyright protection for the dissertation is advantageous. If learners wish to copyright their work, they may file for copyright during the publication process. See the [Dissertation Template](#) for a sample copyright page layout.

Signature Page

The dean of the school and the chair of the dissertation committee sign this page to show that the dissertation meets the requirements for the degree. Typically, the page includes the document information (i.e., title, author, month and year the dissertation received final approval) along with the names of all committee members. The signoff area contains the lines for the committee chair's (mentor) and the school dean's signatures (above the printed names of each). (Learners should be careful to proofread the spelling of all committee members' names.) Signatures on the approval page should be original and in black ink. See the [Dissertation Template](#) for a sample signature page

Abstract

The abstract is a concise synopsis (fewer than 350 words) summarizing the dissertation's contents. The mark of a well-written abstract is that it is able to stand alone since it is often printed separately. In it the learner provides a summary of the dissertation's research question or hypothesis, scope, methods, results, recommendations, and conclusions. When appropriate, it should indicate directions for future study as well.

Although it appears before the dissertation, learners usually compose the final abstract after they have completed the dissertation. Many find it helpful to build on the structure of their proposal/prospectus abstract as they write their dissertation abstract. See the [Dissertation Template](#) for a sample abstract page layout.

Dedication

The dedication page provides a place for learners to express their appreciation to and respect for significant individuals in their lives. The dedication is personal; thus, any individuals named are frequently unrelated to the topic of the dissertation. Indeed, it need not be academic in any way.

Typically, the learner dedicates the work to one or two individuals who instilled in him or her the value of education and the drive to succeed in educational pursuits. Learners dedicate dissertations to significant individuals, immediate family, or relatives who have played a role in their lives. See the [Dissertation Template](#) for a sample dedication page layout.

Acknowledgments

The acknowledgments differ from the dedication in one significant way: They recognize individuals who have supported the learner's scholarly efforts or who have held a role in the learner's academic career as it relates to the dissertation research. Here, the learner recognizes, by name, the contributions of the mentor, the committee members, and individuals who helped with the dissertation research (e.g., librarians, statisticians, editors, etc.). Finally, learners should also express appreciation for the use of copyrighted or otherwise restricted materials in the acknowledgments, if applicable. See the [Dissertation Template](#) for a sample acknowledgments page layout.

Table of Contents

The table of contents provides readers with an ordered list of the dissertation's components and their respective page numbers. It also includes the major headings for each chapter. See the [Dissertation Template](#) for a sample table of contents.

List of Tables and List of Figures

All tables and figures used in the dissertation should be separately itemized on the list of tables and list of figures.

Body: The Five-chapter Model

Because dissertation models vary from field to field, Capella University does not endorse one particular dissertation model; however, many dissertations adhere to the five-chapter model described in this section.

The five-chapter model works best with dissertations that entail data collection and quantitative analysis intended to answer specific questions posed at the outset of the study. However, there may be topics or research questions for which a different organizational model is better suited. For example, in qualitative studies where the primary focus of the research is frequently on the process rather than prediction and validation of the outcomes, new questions may evolve in response to the incoming data that the structure of the five-chapter model may not accommodate.

Similarly, in some qualitative studies, where the researcher is the primary instrument for data collection and analysis, there may be a need to expand the description of instrumentation section into a separate chapter to explicate the researcher's role and qualifications to establish credibility. In short, the type of study should dictate the format of the dissertation. Learners should discuss with their mentors which dissertation model is most appropriate for their study.

The descriptions below are based on the five-chapter dissertation model.

Chapter 1: Introduction/Statement of the Problem

Chapter 1 introduces the research question: its purpose, scope, and relevance to the field or discipline. In many cases, the introduction can be an expansion of the appropriate sections (1–3) of the proposal/prospectus. Chapter 1 is written primarily in present tense. The one exception may be the "Background to the Problem" section, which brings a historical perspective to the text and may, therefore, be written in past tense. Overall, chapter 1 reflects the current state of the field vis-à-vis the research question. While it follows a standard format, the order of the contents might vary in order to fit the specific project. (Such variations should be discussed by the learner, mentor, and committee members.) The introductory chapter usually includes the following elements.

Introduction to the Study

A well-written introduction presents the topic and research question concisely and completely. It establishes context by including sources that support specific themes or ideas. Overall, the introduction demonstrates that this is a topic worthy of further investigation at the doctoral level.

Background of the Study

This section provides necessary background information about current knowledge of the problem. It provides information essential for the educated reader to understand.

Statement of the Problem

In this section the learner describes precisely what he or she intends to research. It clarifies and limits the nature of the study, focusing the reader's attention on the problem under investigation. Clarity and simplicity characterize the most effective problem statements.

Purpose of the Study

This section provides a general outline of the objectives of the study.

Rationale

This section presents the justification for conducting the study. Questions such as the following should be addressed:

- Why is the study being conducted?
- Will it question or correct previously held beliefs or conclusions?
- Will it contribute new knowledge to the field?

Answers to these questions can be extrapolated from those articulated in the topic validation process discussed in chapter 4 of this manual.

Research Questions/Hypothesis(es)

The nature of the research study will determine whether it will pose questions to be answered or propose hypotheses to be tested. Research questions should be designed primarily to discover facts or establish relationships. Hypotheses, on the other hand, consist of a set of assumptions accepted provisionally as a basis for the investigation. Hypotheses are to be tested and accepted or rejected based on the findings of the study.

Nature of the Study

This section provides a preliminary overview of the methodological approach to and range of the study. Whether a study will be exploratory or definitive/confirmatory, qualitative, quantitative, mixed, or some other type is discussed here.

Significance of the Study

This section discusses the potential impact of the study's outcomes. What makes this study important? Who will benefit from this study? How is it important to the discipline? Answers to these questions can be extrapolated from those articulated in the topic validation process discussed in [chapter 4](#) of this manual.

Definition of Terms

To enhance the reader's understanding, learners should introduce words, phrases, and concepts that have a specialized or restricted meaning within the dissertation. Only unusual or unfamiliar terms or ordinary ones used in unconventional ways need to be defined here.

Assumptions and Limitations

This section identifies assumptions or limitations that affect the study. For example, in a study that examines gender differences in ethnic origin, an assumption might be that within either gender, there are no differences related to ethnic origin. Or a study that looks at executive decision-making in traditional, for-profit organizations may be limited in its relevance to other environments.

Chapter 2: Literature Review

The primary purpose of the literature review is to identify the dissertation's position within the framework of previous research on the topic. The literature review is not merely a list of books, articles, and Internet sites related to the topic. Rather, it is an organized and coherent synthesis of the best and most relevant research related to the dissertation topic. The literature review chapter is, as the learner might anticipate, a logical extension of the literature review section in the proposal/prospectus.

The literature review serves many purposes, among which are the following:

- Helps determine the study's procedures and refine the research design.
- Offers opportunities for evaluation and critique of prior research.
- Positions the study in its historical context.
- Provides the justification and theoretical or conceptual framework for studying the topic.

Although there is no prescribed outline for the literature review, learners may want to approach this chapter in the traditional format of an introduction, body, and conclusion. The following suggestions may be helpful in employing this approach.

The Introduction

- The introduction to the literature review should provide a transition from the previous chapter to the information presented in this one.
- It should explain both the parameters of the review and the basis for selecting the literature included.

The Body

In developing the literature review, learners should demonstrate the relevance of the literature reviewed, showing the relationship of the cited works to the topic of the dissertation. They should also organize the literature so that the reader can perceive that relevance. Readability is one hallmark of a well-written review.

In general, learners should summarize the literature in clusters of relationships, grouped around major themes or topics, and selected from diverse and relevant sources. It is important to use primary sources whenever possible. The breadth and depth of literature reviews will vary depending on the content and complexity of the topic as well as the needs and desires of the learner and committee, but the comprehensiveness of the review should be evident.

Learners should also be mindful that research in many topics is evolutionary, and new development and advances are likely to become available over time. Generally, learners should avoid using reference materials older than five years. The obvious exceptions include those works considered seminal in the subject area.

A thorough literature review usually includes the following subsections:

- A brief summary of the conceptual framework for the study or the theory generating the question.
- A review of the critical literature as it relates to the project's key topic. This review should include an organization, evaluation, and synthesis of research in the identified theme areas.
- An illustration of the crucial theoretical and/or conceptual debates in the field, resulting in gaps, controversies, or dilemmas in the existing research and/or theory/theories.
- An explanation of how the present research will help bridge the gaps or resolve the controversies or dilemmas and lead to greater understanding of the problem. This explanation may be supported by showing the research question's relationship to major themes or sub-problems in the literature as well as to the developmental support for alternative hypotheses generation (in the case of quantitative studies).

- An evaluation of viable research designs and methodology as well as a summary of findings, the existing literature, and how the research will contribute to the field.

In addition to presenting the research of others, learners should also discuss any pilot work they have done on the topic along with the particular hypotheses or research questions the dissertation addresses. Both the pilot work and the hypotheses should be clearly linked to the research and conclusions presented in current literature.

The Conclusion

The chapter ends with a summary of the general conclusions others have drawn, major differences of opinion among researchers, and a clear placement of the dissertation within the context of previous research.

In short, this chapter should clearly demonstrate that the learner has

- Completed a comprehensive survey of the current research relative to the dissertation topic.
- Analyzed, evaluated, and synthesized the work of others into an integrated review.
- Clearly identified the context within which the dissertation research was undertaken.

Strategies for Writing the Literature Review

- Before writing the review, learners may find it advantageous to map the themes from their research on a large poster board or a computer document or spreadsheet, noting the names of key authors they want to include. Since it is easy to get mired in the details of research, following this advice may assist learners in seeing their literature reviews holistically.
- As they write, learners should keep in mind that this is their review of the literature; they should include their own insights rather than merely parroting the words of others throughout the review.
- Chapter 2 is written in both present and past tense, depending on the time of the reference and how it is referred to. As a rule, authors who wrote in the past should be quoted in the past tense (the author "wrote"). Their works may be quoted in present tense, however (In *Book Name*, the author "writes.")
- Learners may find it is helpful to divide the chapter into thematic sections and treat each one as a miniature version of the review. This approach makes the project as a whole more manageable.
- Ultimately, a well-written literature review must flow logically from point to point as it evaluates and synthesizes the work of others. This objective cannot be accomplished if the learner focuses first upon one source and then

upon the next. Instead, the learner must pull the relevant points from multiple sources and integrate them into his or her train of thought.

- To check the logic and flow of the review, learners may find it beneficial to read the entire chapter or at least the transitional paragraphs aloud. Sometimes the ear catches what the eye misses. If there is a place where the writing sounds disjointed or where there is no link between the thoughts, learners should mark those places and return to fix them later.
- Learners should take the time to double-check the spelling of all the authors they cite in their review, remembering that their reputation as scholars rest on the completeness and accuracy of their work.

Chapter 3: Methodology

The methodology chapter of the dissertation explains in detail how the study will be conducted, based on the explanation of methods in the proposal/prospectus. It also allows future researchers to follow the method in order to replicate the research procedures to verify the findings. Thus, this section must be detailed and exact.

This chapter will include sources of data, characteristics of the participants, instrumentation, data collection procedures, and data analysis techniques as well as a description of the field/pilot testing, if appropriate. The learner should also explain all steps in the process and how they relate to the research question(s) or the hypotheses. In cases where human participants or their records were used, a description of what precautions the learner has taken to ensure the protection of the participants' rights and welfare should also be included. The following elements, where relevant, should be identified:

- Who or what is being studied.
- How it/they is/are studied.
- How the information was gathered.
- How the analysis was undertaken.
- How confidentiality will be maintained.
- How data will be stored.

Depending on the nature of the methodology used, chapter 3 may contain the following components:

Quantitative

- Researcher's philosophy and justification for the choice of inquiry and methods.
- Theoretical framework: Research questions from literature review and testable hypotheses.
- Research design strategy: Type, underlying assumptions, and rationale.

- Sampling design: Population, sampling method, sample characteristics, and sample size.
- Measures: Variables, constructs, instruments, reliability, and validity.
- Data collection procedures.
- Ethical issues, such as informed consent, privacy, or confidentiality.
- Field and/or pilot testing.
- Data analysis procedures: Coding, cleaning, and statistical procedures.
- Limitations of methodology and strategies for minimizing the impact of the identified limitations.

Qualitative

- Researcher's philosophy and justification for the choice of inquiry and methods.
- Theoretical framework: Initial research question and objectives.
- Research design strategy: Type, underlying assumptions, and rationale.
- Sampling design: Participant/case characteristics, selection criteria and setting.
- Measures: Instruments (if applicable), researcher's role, including qualifications, assumptions, and credibility.
- Data collection procedures, including researcher's participation.
- Ethical issues, such as informed consent, privacy, confidentiality, or bias.
- Field and/or pilot testing.
- Data analysis procedures: Coding, multiple sources, corroboration, triangulation, and analytical procedures.
- Limitations of methodology and strategies for minimizing the impact of the identified limitations.

The dissertation must establish that the methods and techniques chosen are well suited to the type of problem studied. No one method is ideal for every study; instead, the most important criterion is that the chosen method best suits the problem. A discussion focusing on the choice of one method over other available options is warranted in this section. Referencing the methods used in other studies within the discipline strengthens the learner's choice.

Dissertations that involve human participants should take great care to ensure that issues of informed consent, respondent confidentiality, and resulting data security are discussed thoroughly in chapter 3. It is inappropriate to refer the reader to documents included in the appendixes, such as the IRB Application form, for details about the procedures used. As [chapter 6](#) of this manual explains, the IRB Application form supports the administrative oversight that ensures protection of human

participants. It also includes key points in the study methodology and should be discussed thoroughly in the methodology portion of the dissertation.

Chapter 4: Data Analysis and Results

Chapter 4 presents a non-evaluative reporting of the data, supported by tables, figures, and charts where applicable. If hypotheses or research questions guided the study, the data is reported relative to each hypothesis or research question.

In the results chapter, the learner reviews the collected data and explains the statistical analysis performed on them. Usually, the section begins with a summary of the primary results of the study and then proceeds to describe the data in enough detail to demonstrate the credibility and validity of the conclusions. Tables or figures often provide the most efficient and effective means of communicating the data, but they should always be clearly referenced by title and explained in the body of the chapter so that readers can easily identify and understand them.

This chapter will vary considerably in size and detail according to the research methods used. If, for example, the study reports the results of an empirical survey, most of the data will exist in the form of tables. On the other hand, if the study is qualitative in nature with reports of interviews, historical research, or conceptual analysis, more prose may be required. In either case, the chapter must provide sufficient detail for the reader to fully comprehend the results.

Because the study has been completed, chapter 4 is typically written in the past tense.

Chapter 5: Conclusions and Recommendations

The final chapter of the dissertation can be challenging to write because it requires the learner to evaluate his or her own work and provide personal insight into and interpretation of the study's results. In general, however, it should accomplish two objectives:

- It should assess whether the dissertation addresses the problems that precipitated the study (and how well); in doing so, the learner should interpret the study's results in light of existing findings in the field.
- It should recommend directions for future study.

To assess the findings in relation to the research question, this chapter should discuss the general implications of the study as well as the extent to which these implications can be generalized. The study's conclusions should also be clearly connected to the results. In some instances, the data analysis does not support the hypothesis(es) or fully answer the research question; this is not uncommon in dissertation research. However, this outcome should not be interpreted to mean that the research has failed. The overarching purpose of a dissertation is to add to the body of knowledge. Even if the analysis does not support the researcher's contentions or answer the questions he or she posed, the very fact that something is not demonstrable or answerable under the experimental conditions contributes to the

disciplinary body of knowledge. Should this occur, the learner should provide an explanation of the probable cause(s) for this outcome.

To make recommendations for future research, the chapter should discuss how the study could have been improved or what additional data might have been gathered to make the results more meaningful; it should also point to any additional research that the study's results suggest. High quality research does not answer all the questions, but it does point to further activity that will strengthen disciplinary knowledge of the topic.

The content of chapter 5 is normally divided into the three major sections described below.

Summary and Discussion of Results

This section includes an overview and discussion of the entire study, including a brief restatement of the problem, the relevance and types of literature reviewed, the methodology used, and the study's findings.

In the discussion section the learner qualifies, analyzes, and interprets the results in light of the study's initial hypotheses and research questions. From this section the readers should gain an understanding of both the practical and theoretical ramifications of the study as well as its limitations.

Conclusions

This section typically goes beyond the study's findings and places the conclusions within a broader conceptual framework and the literature base.

Recommendations

This section includes two parts:

- Recommendations developed directly from data.
- Recommendations for further research, including ideas for additional study that have arisen from but were not incorporated in the study or supported by the data.

It is permissible for learners to speculate somewhat in this chapter, but they should explicitly distinguish between what is speculation and what the data support.

References and Appendixes (End Matter)

References and appendixes, in that order, appear after chapter 5.

References

The reference list follows the dissertation and is a vital component of the entire work. It contains an alphabetical listing (usually by author) of every work cited within the dissertation. If a work was consulted but not referred to within the

dissertation, it does not belong on the reference list. Reference lists should be formatted according to the standards listed and described in the most current edition of the *APA 5 Manual*.

Appendixes

Appendixes normally include supplementary supporting materials relevant to the study but not critical to its discussion. They may contain significant documents related to the dissertation research process, but too distracting to include in the body of the manuscript. For example, large quantities of raw data or transcripts of interviews may be included in the appendixes since this information can be summarized for the actual text.

The appendixes may also contain other materials used in the study. For example, blank copies of learner-designed or -modified instruments are typically placed in appendixes. However, learners should not include printed copies of unmodified versions of instruments or protocols in standard use within a discipline since these items are readily available to readers from other sources. Copies of superfluous maps, charts, or other graphics may also be included the appendixes. (The same care for confidentiality of data should be taken in the appendixes as in the manuscript itself.) Some schools may also require learners to include the IRB Application materials in the appendixes or exhibits. Learners should clarify such requirements with their schools.

If the dissertation includes more than one appendix, the appendixes should be labeled alphabetically according to the order in which they are referenced in the main text.

Writing the Manuscript

Writing Strategy

Writing a dissertation is fundamentally an intellectual process. The finished manuscript is evidence of the learner's analysis, logic, critical thinking, and research. It is important that the manuscript be complete, thorough, organized, and well written. This section offers a three-stage writing strategy to help learners prepare, draft, revise, edit, and proofread their dissertations. (Visit Capella's [Online Writing Center](#) to learn more about these writing stages.)

Stage 1: Prewriting and Drafting

Prewriting

Many writers have strategies for capturing all of their thoughts before they actually begin drafting: some free-write, some use mind-mapping tools, others write outlines. No matter what strategy learners use, they should make sure it allows them the freedom to think fluidly and clearly about their ideas. This is not a good time to edit their writing, stop their thoughts, or pause for other interruptions. It *is* a good time to take notes, jot down ideas, make connections among ideas, and keep track of

various trains of thought. Any activity or strategy that keeps the mind loose and that provides a way to record ideas is a useful prewriting strategy.

Drafting

As they begin to move from prewriting to drafting, learners should retain the spirit of freedom encouraged by free-writing. Early drafts often are—and should be—messy, illogical, sloppy, and disorganized. Frequently, ideas about organization, connections among themes or findings, or new interpretations of data will occur to writers as they are writing. It is important to let this process happen and to let the content of the writing as well as the thinking about the content guide the development of the text. Learners may find, for example, that an organizational structure they started with becomes unworkable because they have new interpretations that no longer fit the structure. When something like this happens, learners must let the structure evolve to accommodate the new material. In other words, ideas are primary: Let them guide and direct the shape of the draft.

Should the need to attend to a finer level of detail (e.g., check a citation, verify the proper way to reference a particular type of document, or check consistency in the use of terminology, etc.) become evident, learners should not interrupt the writing process to do so. Instead, they should create a separate to-do list that includes these items and then accomplish these tasks at a later stage of the writing process.

Stage 2: Revising

A draft that seems complete often benefits from being set aside for a period of time—a few days, a week, or sometimes even longer. This time lapse allows the writer to return to the draft with fresh eyes and to see it for what it actually says instead of what the writer hopes it says or means it to say. Once a draft is completed and has rested, it is ready to be revised.

The revision stage of writing entails “re-seeing” the writing: evaluating its order, logic, clarity, and overall efficacy. Revising often involves significant changes; big sections of text might get moved to a new place, whole paragraphs might be deleted, or ideas within a section might be entirely reorganized. Changes like this are a natural, organic part of the writing process; they demonstrate that the writer’s mind is working well, and they help to ensure that the finished product reflects the writer’s best thinking.

Stage 3: Editing and Proofreading

Just as a draft benefits from resting before being revised, a revision benefits from resting before being edited and proofread. Furthermore, much writing benefits from being edited and proofread in different steps, which are detailed below.

Editing

Whereas prewriting and drafting focus on capturing ideas, and revising focuses on clarifying ideas and their relationships to each other, editing focuses on *words*.

Editing involves analyzing writing at the sentence level for style, tone, and voice. While it can be difficult not to edit while drafting or revising, it is best to reserve full-scale editing until after revisions are complete; otherwise, time might be spent editing sentences, paragraphs—or even full sections—that will be eliminated from the final document.

Many writers find it helpful to read their writing out loud while editing; this practice helps them truly “hear” the sounds of their words and to make better choices about syntax and diction as well as style and tone. It can also be helpful to keep the *APA 5* Manual close at hand as well as other resources like dictionaries or major reference books in the discipline.

Proofreading

Proofreading is a final check of the document to ensure that it is polished, professional, and typographically clean. During this stage, learners should pay attention to the smallest of details: periods, commas, apostrophes, and other punctuation marks; spelling and capitalization; hyphenations and indentations; and so on. They should also carefully review the format of tables, figures, in-text citations, and references as well as cross check the reference list against the in-text citations to ensure thoroughness.

Completing the Final Manuscript

At the conclusion of the research, the next step in the process is the completion of the final manuscript. Please see the [Dissertation Template](#) on iGuide to complete the manuscript.

Reviewing and Revising/Updating Earlier Chapters

Between the completion of earlier chapters, the execution of the research, and the writing of the final dissertation manuscript, additional information often comes to light. Sometimes actual methods may vary from those in the first three chapters, and in rare cases the overall direction of the research may differ from what was originally planned. Learners often discover additional references, and they may modify their methodologies to overcome specific problems that arise. Thus, the first three chapters should not simply be modified; rather, they should be substantially revised after the study has been completed. Much of the text, however, may carry over. Although the suggestions below do not identify all that should be done, they provide a starting point.

- Chapter 1 will probably not require much revision unless the overall direction of the research has dramatically changed. Learners should take care, however, to update introductory information that has changed as a result of the actual execution of the project.
- Chapter 2 should be modified to reflect any additional references consulted and referenced. The reference section should also be updated accordingly.

- Chapter 3 typically undergoes the most significant changes, since it must reflect the work actually done. Any changes to methods, data collection, data analysis, and so on must be included in this chapter.
- Chapters 4 and 5 are usually written close to the completion of the dissertation and, therefore, may not need as much updating as the earlier chapters. However, learners should refine and polish all chapters upon completion to ensure coherence, consistency, and continuity.

Completing the Abstract and the Front and End Matter

After completing all of the above revisions, learners should write or revise the abstract and the appropriate front and end matter, culminating the process with a finishing touch on the table of contents, the lists of tables and figures, references, and appendixes.

General Dissertation Writing Tips

Here are a few tips learners should consider when composing the dissertation:

- All technical terms should be properly defined. Dictionaries or encyclopedias are not considered scholarly sources of definitions; instead, definitions should be drawn from research within the field.
- Statements should be factual rather than judgmental. For example, a judgment says one method is better than another; a factual statement says that one method takes fewer steps than another.
- Concrete and specific language is essential. Vague terms like “soon,” “many,” and “almost” should be avoided.
- First person is acceptable when it refers to the author or coauthors; however, learners should avoid the editorial “we” (as in “We can see...” or “From this finding, we can deduce...”). Instead, use an appropriate noun to clarify the specific usage (*APA 5 Manual*, pp. 37–40).
- Scholarly language and terms specific to the field or discipline are appropriate; colloquial language is not.
- Contractions (such as “can’t” or “don’t”) should be avoided.
- Research results rather than researchers or researching circumstances should be the focus of the writing.
- “Knowledge” and “data” must be distinguished. “Knowledge” comes from the references used in the study; “data” are produced by the study itself.
- Conclusions should be drawn directly from the evidence; conclusions unsupported by evidence do not belong in the dissertation.
- Anonymity should be scrupulously protected. If the study involves individuals who must be treated anonymously, consider writing initial drafts with real names in order to keep proper track of the participants’ activities. Names must then be removed or replaced in the final version.

- Tables and figures must be essential to be included. Be sure that each table and figure has a purpose. Do not provide a graphic representation of material that already appears in a table, and do not create a table when the information is just as easily provided in the manuscript text. A table of one or two rows of data is superfluous and unhelpful to the reader.
- Different drafts of the manuscript should be retained until there is strong a reason to believe that they are no longer needed. Each version should have a different file and be saved under a different name (e.g., Chapter 1 Version 1, Chapter 1 Version 2, etc.). This will aid in tracking versions and progress.

Selected Books on Dissertation Writing

Cone, J. D., & Foster, S. L. (2002). *Dissertation and theses from start to finish*. Washington, DC: American Psychological Association.

Davis, G., & Parker, C. (1997). *Writing the doctoral dissertation: A systematic approach* (2nd ed.). Hauppauge, NY: Barrons Educational Series.

Glatthorn, A. (1998). *Writing the winning dissertation: A step-by-step guide*. Thousand Oaks, CA: Corwin Press.

Herr, G. & Anderson, A. (2005). *Action research dissertation: A guide for students and faculty*. New York: Sage Publications.

Locke, L. F, Spirduso, W. W., & Silverman, S. J. (1993). *Proposals that work: A guide for planning dissertations and grant proposals* (3rd ed.). Thousand Oaks, CA.: Sage Publications.

Madsen, D. (1991). *Successful dissertations and theses: A guide to graduate student research from proposal to completion* (2nd ed.). Hoboken, NJ: Jossey-Bass.

Meloy, J. (2001). *Writing the qualitative dissertation: Understanding by doing* (2nd ed.). Notre Dame, IN: Lawrence Erlbaum Assoc.

Rossmann, M. (2002). *Negotiating graduate school: A guide for graduate students* (2nd ed.) Thousand Oaks, CA. Sage Publications.

Rudestam, K., & Newton, R. (2001). *Surviving your dissertation: A comprehensive guide to content and process* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Secrist, J., Wright, D., & Fitzpatrick, J. (1998). *Secrets for a successful dissertation*. Thousand Oaks, CA: Sage Publications.

[Return to Table of Contents](#)

Chapter 9: Reviewing the Dissertation Manuscript, Conferencing, and Approving

Dissertation Review and Approval

Review of the dissertation leading to committee approval is an iterative process that typically takes place for each chapter and involves the mentor's initial endorsement of each submission before distribution to the entire committee. Upon completion of committee review and endorsement, the dissertation is submitted to the school's academic leadership (the dean or the dean's designee) for final review and approval to ensure the highest level of academic quality. The dissertation is then submitted for format editing review and a completion conference call is scheduled after all necessary changes have been made to the written dissertation. The dissertation review, approval, and conferencing processes occur in the last (fourth) dissertation course, 9999.

The dissertation completion conference call is the first primary forum for the learner to share the completed dissertation with the academic community. It should not be scheduled to address shortcomings of the written dissertation. Instead, the dissertation completion conference call is an opportunity for the learner to present the research, collaborate with the members of the committee, and create new possibilities for future research. The committee may request that these suggestions for future research or other aspects of the dissertation be added to the document after the conference call. More details about the [dissertation completion conference call](#) can be found later in this chapter.

Criteria have been established for evaluating the written dissertation document and the dissertation completion conference call. See the *Dissertation Manuscript Evaluation Criteria* for the written dissertation evaluation criteria and the dissertation completion [conference call evaluation criteria](#) later in this chapter.

The **first round**⁴ of dissertation manuscript review occurs at the committee level, after the draft is acceptable to the mentor. The learner (or the mentor) sends the draft to the other committee members as an attachment to an e-mail message, indicating that the mentor has reviewed the draft and found it to be acceptable. Committee members then review the draft and evaluate it using the online *Dissertation Evaluation Form*. (Committee members should retain a copy of the evaluation for their own files.) The evaluations are sent directly to the learner and the mentor. The mentor then consults with the learner about concerns, corrections, and/or changes that committee members believe the learner needs to make. The committee review and approval process occurs upon completion of each chapter and again upon completion of the all chapters of the dissertation (i.e., the entire dissertation manuscript).

⁴ Learners should consult with their mentors regarding school-specific review processes that may be required after obtaining committee approval for the dissertation chapters. School-specific review processes may also be in place for the completed dissertation.

The **second round**⁵ of review occurs after the committee has reviewed and accepted the draft of the entire dissertation manuscript and the learner has made all necessary revisions and changes to the satisfaction and approval of the mentor and the committee. The dissertation manuscript is then forwarded to the school's dean (or the dean's designee) for final review and approval according to the standards and process specified by each school.

As with the evaluation of the proposal/prospectus, dissertations are evaluated on the following aspects:

- Overall quality of the study.
- Relevance and significance of the topic/research problem.
- Extent of critical analysis, synthesis, and integration in the literature review.
- Appropriateness of the methodology for the problem being studied.
- Compliance of the study with the standards of professional and ethical conduct.
- Study's conclusions based on the review of the literature and the analysis of the data collected.

These aspects are taken into consideration in the evaluation of specific dissertation chapters that address them. An emphasis is also placed on the conformance of the manuscript to the writing format/style and mechanics standards prescribed in the *APA 5 Manual*.

The dissertation manuscript is not scored in the sense that numeric points are assigned to each component. Instead, each component is evaluated to determine an *approved/approved with revisions/not-approved* status. The committee determines if each required component of the dissertation is present and meets the evaluation criteria. The committee may require iteration of the written manuscript, and the school may have other specific review processes. (Refer to the links above for more information about the school-specific dissertation manuscript review process and to the [dissertation evaluation criteria](#) later in this chapter for more information on the standards by which the dissertation is evaluated.)

Learner's Role

Learners are responsible for familiarizing themselves with the dissertation evaluation criteria and the final conference call evaluation criteria and for applying them to the development of the dissertation manuscript as well as to the preparation for the final conference call. In cases where one or more chapters of the dissertation are rated as *not approved* or *approved with revisions*, the learner is responsible for rewriting or making necessary revisions to the specific chapter(s) in question and any other chapters that may be affected to ensure the consistency and overall integrity of the

⁵ See Footnote #4.

dissertation. Learners should clarify mentor and committee members' expectations and feedback on any chapter of the dissertation designated as *not approved* or *approved with revisions* in order to make necessary corrections and obtain their approval. Once the school's dean or designee has approved the dissertation, learners must also prepare for format editing review and the dissertation completion conference call.

Mentor's Role

Mentors are responsible for collecting reviews from committee members and the school reviewer and for providing feedback to the learner. Feedback and corrective action recommendations on the dissertation must be fully communicated to the learner if rewriting/revising a chapter and/or resubmitting a supporting document is required. In cases where there is a split decision, it is the mentor's responsibility to facilitate a dialogue with the committee to discuss and/or resolve the differing evaluations prior to communication with the learner. The mentor guides and supports the learner in the revisions of all dissertation chapters rated *approved with revisions* or *not approved* and serves as the final judge of the adequacy of these revisions prior to the resubmission of the dissertation/chapter(s) to the committee, when necessary.

Committee Member's Role

Committee members, including the chair (mentor), are responsible for using the review criteria specified in the online *Dissertation Evaluation Form* (available on iGuide) to evaluate the dissertation chapters and manuscript and to provide constructive feedback on any weaknesses or deficiencies as well as noteworthy strengths.

Along with identifying deficiencies, the committee member will provide the steps the learner should employ in order to achieve an approved dissertation. Every committee member judges each essential component of the dissertation chapter using the ratings of *approved/approved with revisions/not approved* in regard to the stated criteria. If a committee member judges a specific chapter(s) *approved with revisions*, the learner will be required to address the deficiency to the satisfaction of the mentor. If a committee member rates a chapter *not approved*, the learner will be required to address the deficiency to the satisfaction of the entire committee.

Dissertation Evaluation Criteria – Written

The dissertation evaluation criteria provide a set of common standards and benchmarks that assist the committee in evaluating and providing constructive formative feedback on each chapter of the dissertation. (The Dissertation Evaluation Form is available on iGuide.)

Chapter 1: Introduction/Statement of the Problem

- The introduction adequately establishes the background and context of the study.

- The problem statement is adequately articulated, supported with research, and amenable to the investigation.
- The justification of purpose and significance is integrated with the problem statement and makes an adequate case for conducting the research.
- The nature of the research design adequately describes and is appropriate to the stated problem.
- The research questions and/or hypotheses are stated in answerable or testable form and are appropriate to the stated problem.
- The relevant assumptions and limitations have been identified.
- All technical terms have been adequately defined and explained.

Chapter 2: Literature Review

- The literature review establishes an adequate theoretical framework for the study.
- The literature review adequately examines current empirical, theoretical, and practice literature associated with key variables of the problem.
- In areas where literature that directly addresses the topic is limited, current literature in related fields is used to build a rationale for the problem.
- The literature review cites appropriate research literature to defend the selection of research design and methodological procedures for this study.

Chapter 3: Methodology

- The research design is adequately described and justified.
- The relationships between the problem, the research questions/hypotheses, design and methods are logically defensible.
- The description of the population/sample and/or participant selection procedures is adequate.
- All the constructs involved are adequately operationalized.
- The data collection and analysis procedures are sufficiently described to determine if questions can be answered or hypotheses can be tested.

Chapter 4: Data Analysis and Results

- The data processing and analysis procedures are appropriate in light of the study's design and hypotheses.
- The data have been analyzed using the appropriate techniques as described in the methodology chapter.
- The analyses are performed and presented correctly.
- The results adequately address the hypotheses and/or questions.

Chapter 5: Conclusions and Recommendations

- The findings are discussed in terms of the research problem, conceptual framework, and research questions/hypotheses.
- All the relevant conclusions that can be drawn from the analysis are identified.
- The recommendations for future research and practice are identified and justified.
- The learner's general conclusions are warranted in light of the results.

APA 5 Writing Style and Mechanics

Writing Format and Style

- APA standards for the orderly presentation of ideas are followed (2.01).
- APA standards for the smoothness of expression are followed (2.02).
- APA standards for economy of expression are followed (2.03).
- APA standards for precision and clarity are followed (2.04).
- APA standards for expressing ideas without biased language are followed (2.13-2.17).

Writing Mechanics

- APA standards for grammar are followed (2.06-2.12).
- APA standards for punctuation are followed (3.01-3.93).
- APA standards for citations are followed (3.94-3.103).
- APA standards for presenting the reference list are followed (4.01-4.16).

In addition to evaluation standards specific to each chapter of the dissertation, the criteria also include a checklist to allow the committee to review and comment on the content and format of the front matter: title page, copyright page, signature page, abstract, dedication, acknowledgments, table of contents, list of tables, and list of figures (when applicable).

Dissertation Evaluation Outcomes

The *Dissertation Evaluation Criteria* list the components and standards that the committee uses to evaluate each chapter of the learner's dissertation as well as the manuscript as a whole.

Each committee member will make one of three recommendations for each criterion regarding each chapter:

- Approved: The chapter/manuscript of the dissertation satisfies a specific criterion and is approved as written.

- **Approved with revisions:** The chapter/manuscript of dissertation is approved, pending revisions specified by the committee member to satisfy a specific criterion.
- **Not Approved:** The chapter/manuscript of the dissertation is rejected on the basis of a specific criterion by the committee member. Learners must rework the dissertation chapter/manuscript to meet the standard of that criterion.

If the Chapter/Manuscript Is Approved as Written

The mentor submits the dissertation to the school for review and approval. Upon approval, the learner completes the format editing review. See [Chapter 10](#) for more information regarding the format editing review.

If the Chapter/Manuscript is Approved Pending Revisions Overseen by the Mentor

The mentor and the committee members indicate the required revisions on the *Dissertation Evaluation Form*. If the school reviewer requires revisions in the dissertation, the mentor should also collect and communicate the revisions specified by the school reviewer to the learner. The learner should work closely with the mentor to make necessary changes to the dissertation and resubmit the final draft of the dissertation to the mentor for evaluation and approval.

If the Chapter/Manuscript is Not Approved

The mentor and the committee members should make the reasons for disapproval clear to the learner and document the reasons on the *Dissertation Evaluation Form*. If the school reviewer does not approve the dissertation, the mentor should also collect the school reviewer's reasons for rejection and communicate them to the learner. The learner should work closely with the mentor to rework the dissertation into a document that complies with the committee's and/or the school reviewer's direction and then resubmit the final draft of the dissertation to the committee and/or the school reviewer, if appropriate, for evaluation and approval.

Dissertation Completion Conference Call

The dissertation completion conference call offers the learner an opportunity to present the dissertation officially to the committee. Its purpose is to provide learners with a forum in which to share their research with the academic community and to interact with that community in a collegial and professional manner. In this interaction with the committee, the learner is expected to receive and attend to the committee's suggestions or questions, to integrate the committee's recommendations into current research, or to create new avenues for future research which may be an extension of the current study. This call also affords the learner and the committee the chance to engage in rigorous dialogue on the subjects surrounding the topic of the dissertation and to generate ideas and suggestions that were not previously recognized. The questions the committee formulates should not have right/wrong answers, but instead should explore the possibilities ("what if?").

The conference call is a dynamic and creative collaboration between the committee members and the learner. During the call the learner is able to share his or her research in a professional academic setting and to demonstrate the ability to collaborate with other members of the academic community. Additions may even emerge from these discussions that the learner and/or the committee will desire to incorporate into the dissertation. At the same time, the conference call also allows the learner to expand and clarify some of the ideas expressed in the dissertation as well as to demonstrate his or her verbal communication skills in an academic context.

From the committee's perspective, the conference call affords committee members an opportunity to provide feedback on the learner's demonstrated strengths or weaknesses in the dissertation and to guide the learner in fine-tuning the written and oral communication skills that characterize a doctoral-level scholar-practitioner. It also permits them to discuss ideas for future research and applications of the research with the learner in a creative forum. In the end, though, it gives committee members an opportunity to celebrate the achievement of this major milestone of the doctoral program with the learner.

The dissertation completion conference call is not scheduled until the learner has addressed all issues with the dissertation, the committee has agreed that the dissertation is acceptable, the school approves the dissertation (except HASOP), and the learner passes the format editing review. The procedure for the conference call is described in more detail in the section that follows.

Scheduling and Conducting the Dissertation Completion Conference Call

Learners should become familiar with the steps required to schedule and conduct the dissertation completion conference call and to review the criteria the committee will use to determine the outcome of the conference. Prior to the actual conference, the learner should discuss the content expectations associated with the conference call with the mentor.

Preparing for the Dissertation Completion Conference

When approaching a dissertation completion conference call, learners should bear in mind that the dissertation itself has been reviewed and endorsed by the entire committee and approved by the school's dean (or the designee) prior to the conference. Any significant problems should have been discussed and addressed prior to this point.

For the call itself, the learner should prepare a 10–15 minute synopsis of the dissertation, highlighting the distinct features of the study and providing personal insight into and interpretation of the results. The learner should not dwell on the details of the dissertation project since the committee has thoroughly reviewed and evaluated the document prior to the call.

To facilitate the call, the learner may prepare a document outline or a series of PowerPoint slides illustrating the main points to be discussed. These should be distributed to the committee members prior to the call.

After the learner's initial presentation, the mentor will poll the committee for individual questions. Committee members may ask questions about all aspects of the

dissertation, including areas that are germane to the research study which may not have been covered directly in the dissertation. Some mentors solicit questions before the call and then synthesize them into a list to be addressed at the conference. (Mentors may or may not share these with the learners.) Even in these cases, however, the learner should be prepared for questions requiring extemporaneous answers. Mentors should prepare the learner for the call.

Dissertation Completion Conference Call Procedure

As the chair of the dissertation committee, the mentor directs the dissertation completion conference call. Most calls last approximately 60–90 minutes. Usually, the call begins with the committee chair (mentor) presenting the learner to the committee. The learner then proceeds to give a succinct presentation of the dissertation study as described above. When the learner has completed the presentation, the committee chair opens the floor for questions from the committee members. The committee should focus on assessing the learner's readiness to transition into the academic and professional world as an independent scholar-practitioner. (Some guidelines for the focus of the conference can be found in the section that follows.)

Upon conclusion of the conference, the committee votes to *approve* or *not approve* the dissertation completion conference. In the cases where a conference is *not approved* by all members of the committee, a second conference will need to be scheduled to address any deficiencies or outstanding issues. Most learners receive the committee approval on the dissertation completion conference, but some may be asked to consider incorporating into their dissertations the ideas or perspectives that have emerged from the discussions during the conference. In most cases, these additions are voluntary and do not need to go through another round of review and approval process.

Dissertation Completion Conference Call Evaluation Criteria and Outcomes

After the conference, the committee may convene to discuss the learner's dissertation defense and to deliberate their assessments. Members of the committee will evaluate the conference call on the basis of the learner's ability to present his/her research in a scholarly manner. A set of dissertation completion conference evaluation criteria (available on iGuide) have been created to specify the standards the committee will use to evaluate the conference call. These criteria are based on Bloom's taxonomy of affective learning outcomes to scale four criteria of Capella University's scholar-practitioner model and are designed to help the learner effectively transition into the academic and professional community. The proficient level of performance defines the scholar-practitioner attributes required of all Capella University's doctoral graduates.

The four criteria against which the dissertation defense conference is evaluated are as follows:

- Sharing of Knowledge with the Academic Community
- Innovative and Creative Applications of Scholarship and Practice
- Better Ways to Apply Current Knowledge

- Interaction with the Academic Community

The degree to which the learner demonstrates evidence of mastering these criteria is judged according to the three basic categories of Bloom's affective domain. The outcome of each category can be achieved with varying levels of affective indicators.

1. **Receives.** The information that the learner brings to a topic may facilitate new learning or interfere with it. The continuum of attention ranges from passively recognizing a topic (awareness), through being open to receiving information (willingness to receive), to selecting which pieces of information will be actively received.

Lowest affect – *Awareness*: "I recognize that the terms in this field of study are ..."

Medium affect – *Willingness to receive*: "I understand your question to be asking in general about ..."

Highest affect – *Controlled or selected attention*: "Even though I may not understand all the terms that you used, I can answer certain parts about ..."

2. **Responds.** The learner's active engagement in the topic is found beyond merely giving attention to it. Satisfaction is found in being involved in the topic.

Lowest affect – *Acquiescence in responding*: "I am passive about this topic, but willing to comply with the requirements."

Medium affect – *Willingness to respond*: "I voluntarily found evidence about ..., even though only ... was required."

Highest affect – *Satisfaction in response*: "I enjoyed going beyond the requirements to find evidence to support ..."

3. **Values.** The learner demonstrates a behavior that has become stabilized and consistently present to the extent that it has become a belief, which is similar to holding an attitude or having an opinion. Motivation for behavior comes from the belief rather than pleasing or obeying someone else.

Lowest affect – The learner may demonstrate the acceptance of a value. That is, a belief may be tentative and open to change, such as "Some professionals in this field believe ..., while others believe ... and the proof for the choice waits for evidence (acceptance of a value)."

Medium affect – The learner may show preference for a belief. That is, a belief may be accepted as one's own, yet the person may also want to find evidence to support that choice, such as "I believe that ... and here is the evidence to support that belief (preference for a value)."

Highest affect – Commitment to a value system is the highest affective level of valuing. At this level, the learner holds a belief so firmly that he or she exhibits emotions of loyalty and reveals a desire to convince others to hold that belief also. "I feel passionately that ..., and I feel sure that you will also ... when you understand that ... (commitment)."

Manifestation of these emotional attitudes or affective attributes in the four evaluation criteria of the dissertation completion conference is summarized as follows:

- *Sharing of Knowledge with the Academic Community*

Receives – Acknowledges multiple perspectives on problem and research.

Responds – Acts in response to multiple frameworks by synthesizing them into current research.

Values – Factors new perspectives into current research to generate new ideas for future research.

Failure to demonstrate a satisfactory level of affective attributes appropriate for doctoral-level scholar-practitioners may result in presentation of information that is biased, incoherent, inconsistent, or narrowly focused.

- *Innovative and Creative Applications of Scholarship and Practice*

Receives – Acknowledges suggestions for creative applications of scholarship and practice.

Responds – Acts in response to suggestions by synthesizing new ideas into current applications of scholarship and practice.

Values – Integrates new suggestions with existing research to develop creative applications for scholarship and practice that incorporates all perspectives.

Failure to demonstrate a satisfactory level of affect appropriate for doctoral-level scholar-practitioners may result in presentation of no evidence of scholarship and practice applications.

- *Better Ways to Apply Current Knowledge*

Receives – Acknowledges suggestions for new and better ways to apply current practice.

Responds – Acts in response to suggestions for new and better ways to apply current practice by synthesizing new ideas into current research project.

Values – Integrates suggestions for new and better ways to apply current practice into current research and creates new models for future research projects.

Failure to demonstrate a satisfactory level of affect appropriate for doctoral-level scholar-practitioners may result in no evidence of contributions that apply current knowledge in better ways.

- *Interaction with Academic Community*

Receives – Listens (passively attends) to the suggestions from the professional community.

Responds – Incorporates the ideas of the professional community into the current research.

Values – Integrates the ideas of the professional community into the current research to create new models.

Failure to demonstrate a satisfactory level of affect appropriate for doctoral-level scholar-practitioners may result in unwillingness to acknowledge or attend to the ideas of the professional community, thus leading to interaction in a noncollaborative manner.

In the conference call, learners are expected to demonstrate the ability to interact with an academic community in an effective manner. The affective domain of Bloom's taxonomy has been used to scale the assessment of the call during which learners are expected to demonstrate the ability to receive information, respond to that information, and integrate it into new thoughts or conclusions about the research.

The last two levels of Bloom's Affective domain, "organizing" and "internalizing values," are not included here because of the time limit of the conference call. These two levels require a length of time to accomplish and demonstrate, so it is not valid to assess them in a time-limited dynamic model of discourse during which many concepts and strategies will be presented. Nevertheless, learners should continue the lifelong development of these two higher levels of scholar-practitioner attributes in future work and achievements within the scholarly community through research, public service, or teaching.

Committee members will evaluate each learner's conference call performance using these dissertation conference evaluation criteria. Upon conclusion of the conference, the committee votes to *approve* or to *not approve* the learner's dissertation completion conference call performance. The committee will *approve* a learner's conference call performance if the learner demonstrates at least a proficient (receiving) level of performance on each of the evaluation criteria.

The committee will *not approve* a learner's conference call performance if the learner demonstrates an unsatisfactory or a basic level of performance below receiving on any one of the evaluation criteria. All members of the committee must agree on this joint decision. In the cases where a conference is not approved by the committee, a second conference will need to be scheduled so that the learner can demonstrate at least a proficient (receiving) level of performance on the criteria.

If the Dissertation Completion Conference Is Approved

The mentor and the committee members provide feedback for the learner to indicate how the learner could continue to enhance his/her professional development, such as through additional research, theoretical integration, or practical applications. After the call, the learner completes all required revisions from the conference. The mentor then completes the final review of the dissertation and confirms that all revisions were completed. Upon final approval, the mentor submits the *Conference Completion Form* available on iGuide, and the learner proceeds to submit the dissertation manuscript for publication.

If the Dissertation Completion Conference is Not Approved

The mentor and the committee members should clearly point out any deficiencies to the learner during the conference call. The learner should take notes on these reasons during the conference and clarify reasons for disapproval with the mentor. He or she will work closely with the mentor to develop the scholar-practitioner attributes and to prepare a conference call presentation that will demonstrate a proficient level of performance. Upon the mentor's approval, the learner schedules a second dissertation completion conference call.

[Return to Table of Contents](#)

Chapter 10: Format Editing

Overview

Once the learner gains school approval of the dissertation (or mentor and committee approval for HASOP), he or she is ready for format editing (formerly called form and style). The comps/diss support staff will send the learner contact information for the format editor (reviewer).

Learners are responsible for submitting the manuscript themselves. Neither the mentor nor the comps/diss support staff will do so on their behalf. If the manuscript is too large to send as an e-mail attachment, the reviewer and learner will set up an alternative means of delivery, such as converting the manuscript to PDF format, zipping the document, mailing a CD, or posting the manuscript to a Web retrieval site.

The review process focuses on formatting and involves evaluating the manuscript for adherence to the style and format standards of Capella and the *APA 5 Manual*. The reviewer does not correct, copyedit, or comment on the content of the manuscript, nor does the reviewer offer instruction on word processing applications. The reviewer will send the learner a set of notes outlining the required changes. If the revisions are extensive, the learner may be asked to resubmit the manuscript for further review(s). Learners are solely responsible for entering any changes.

Manuscript Path

Once the learner is approved to send the dissertation to format editing, the following process occurs:

1. The learner forwards the dissertation to the format editing mailbox.
2. The reviewer acknowledges the manuscript has been received and provides a return date. The turnaround time for the initial review is 5 business days.
3. The reviewer sends the learner a set of notes outlining the required changes. Learners are solely responsible for entering all changes.
4. The learner confirms with the reviewer that he or she has received and read the notes. The learner contacts the reviewer directly with any questions or clarifications on the edits.
5. The reviewer notifies the learner via e-mail that the format editing process is complete.

Learners typically do not need to resubmit their manuscripts for subsequent reviews. However, the reviewer may request clarification on specific items. Similarly, if there are substantive formatting issues, the reviewer will request a second review (see *Second Review*, below).

6. The learner prints one last hard copy of the manuscript and reads it closely, cross-checking with the editing notes.

7. The learner forwards a copy of the dissertation, format editor notes, and approval confirmation email to the mentor.
8. The mentor reviews the dissertation to ensure that all format edits have been completed.
9. Mentor approves learner to complete conference call upon confirmation.

Second Review

If the dissertation requires extensive changes, the reviewer will request a second review. Inattention to basic requirements such as margins, typeface, table and figure formatting, heading levels, appropriate reference citations, and copyright compliance can add up to a manuscript that requires a second review. Learners will benefit from frequently consulting the [Dissertation Format Guidelines](#) and the dissertation template before, during, and after the writing process.

Once the learner has made the changes and incorporated the format reviewer's corrections, he or she returns edited manuscript to the reviewer. The reviewer conducts the second review, and barring any outstanding or ongoing formatting issues, the format editing process will be considered complete.

[Return to Table of Contents](#)

Chapter 11: Submitting and Publishing the Dissertation Manuscript

Once learners complete the conference call, the comp/diss support staff will send them information regarding the publication process. Capella uses an electronic submission site, UMI ProQuest, to facilitate publication. The site will provide step-by-step instructions on the final preparations for publication and for completing the required publication forms and optional copyright and ordering forms.

UMI ProQuest provides a central processing and publication point for all dissertations. Its archives hold copies of over 1.5 million dissertation titles that date back as far as 1870. The UMI ProQuest dissertation database is the first place scholars will go to determine what research has been conducted on any given subject.

Capella arranges the following as a service to the learner:

- Addition of the dissertation to UMI's database.
- Publication of the work in Dissertation Abstracts International, Dissertation Abstracts Online, Dissertation Abstracts Ondisc, ProQuest Digital Dissertations, and the Comprehensive Dissertation Index.
- Sale of soft- or hard-bound copies of the dissertation to those requesting and paying (for which the learner receives a royalty).

If requested, UMI ProQuest also offers the following services to learners for a fee:

- Agent services in filing the manuscript with the Library of Congress Copyright Office. Should a learner select this option, a copy of the dissertation will be placed in the Library of Congress.
- Printing and binding hard- and soft-bound discount copies of the dissertation (in book size and format) for personal distribution and use. While there is no rule or tradition specifying to whom one might give bound copies of the dissertation, learners should consider providing a bound (and suitably inscribed) copy to the person or persons to whom the work was dedicated (if living) and to the mentor. An additional copy or copies may also be purchased for the learner's personal library.

Dissertation Abstracts International

One of the better-known services of UMI ProQuest is *Dissertation Abstracts International* (DAI), which has been a standard reference in academic libraries for decades. The most recent version exists in *Digital Dissertations*, which is a partially free subset of DAI covering the dissertations and theses prepared in the current and the previous year (some 50,000 are listed for 1999 and 2000). The full DAI database of citations reaches as far back as the 1870s. Since 1980, abstracts have also been included. Entries in *Digital Dissertations* include indexing terms, abstracts, and the first 24 pages of most of the doctoral dissertations and master's theses in PDF format. These 24-page excerpts are "teasers" for dissertations that can run over 200 pages; usually, they are sufficient for an individual to decide if the entire manuscript is worth ordering. Tables of contents and the lists of tables and figures pages are

informative, and the remaining pages can be helpful in judging the relevance of the entire document.

UMI ProQuest, the Publisher

UMI ProQuest acts as a publisher and, like other publishers, “sells” dissertations in the form of books. Also like other publishers, they incur printing costs and pay a royalty to the author—in this case, the learner. The royalty is currently 10% of the list price (also similar to most academic publishers) and is paid once royalty fees within a calendar year exceed \$10. Information on how and when royalties are paid as well as the process by which that occurs can be found in the publication information provided by UMI ProQuest.

The real value in publishing through UMI ProQuest is that it provides access for other scholars to consult a learner’s work. The more new research cites a learner’s work, the more the author’s (and Capella’s) image and credibility are enhanced. Ideally, significant reference by other scholars to a learner’s work could make the learner a nationally recognized expert on the subject and one that organizations or other scholars seek out for consultation.

[Return to Table of Contents](#)

Chapter 12: Tips and Techniques

Time Management

Writing a dissertation can be a long and involved process, which often causes stress to the learner and his or her family. While many factors may contribute to the stress level and affect the progress of the dissertation, effective time management can help alleviate some of the stresses and increase efficiency. Here are a few strategies:

- Plan the day. Block out the necessary time to accomplish what needs to be done. Also plan how many days during the week to schedule for dissertation work.
- There is no scheduling strategy that has been proven “best.” Instead, learners should choose one that works for their specific situation. It is sometimes best to schedule larger blocks of time for the initial draft and early revisions in order to maintain the flow of the thought process and organization of the manuscript. Later, when editing for grammar and punctuation, shorter blocks of time may be sufficient.
- Follow the schedule consistently. If the plan is to work three hours on the dissertation on a particular day, do so.
- Learners should work closely with their mentors and committees to set long-range goals, working backwards from the target completion date. They should become familiar with the dissertation resources and process information on iGuide and consult with their mentors or course instructors to determine the completion dates of the various milestones leading to the completion of the dissertation.

The milestone planning features available in the dissertation courses and on iGuide will prove especially helpful. For instance, if a learner has planned a specific date for commencement, he or she should be aware of when the final version of the dissertation should be turned in to the appropriate office or staff (e.g., learner support associate) for online publication to meet that deadline. To do that, when should the signature page be submitted for the mentor’s and the school dean’s signature? To meet that date, when should the conference call be planned? To schedule that, when should format editing be completed? To achieve that, when should the dissertation be submitted to the school and to the committee for review and approval? Use specific dates rather than listing a month or a quarter as a deadline. Many learners have specific target completion dates centered on licensing examinations, availability of employment or promotional opportunities, and so on. They should make sure to incorporate those deadlines into their plans.

- Once the long-range plan is set, learners should consult with their mentors as to whether or not it is reasonable. It can take three months or more to prepare, develop, and defend the proposal/prospectus alone, and an additional six to nine months (or more) to complete the dissertation, depending on the type of study undertaken. Learners should avoid being too ambitious and thereby set themselves up for frustration or even failure.

- Be careful not to let short-term concerns take over the time allotted to the dissertation. Because a dissertation project is usually without an immediate deadline or an external monitoring force, it is sometimes easy to let it slide to make room for something with a more imminent deadline in a busy schedule. In doing so, the learner tends to lose the focus and the momentum to continue. Allocating time for those foreseeable events in advance will prevent them from preempting time scheduled to work on the dissertation. If these events do not occur, use the additional time to get ahead of the dissertation schedule.
- Learn to refuse requests or invitations. Avoid accepting every social invitation and doing favors for others that interfere with the dissertation schedule.
- Sometimes the biggest challenge in effective time management is not so much allocating a large amount of uninterrupted time to work on the dissertation; rather, it involves maintaining a consistent pace and sticking to the times designated for the dissertation. This dedication may take the form of setting aside a feasible amount of time every day to work on the dissertation or creating a ritual that mentally prepares the writer for the daily work on the dissertation. Maintaining consistent (preferably daily) contact with the dissertation will help to keep the momentum going and ideas percolating constantly.
- Pick the best time of day to work. Some are early risers and can sit down with a cup of morning coffee and read or write. Others are more effective at the end of the day. Still others prefer to reserve all of one or both days of the weekend for their dissertations. Learners should maximize efficiency by working at the best time of the day for them.

Dissertation Workspace

The location where one works on the dissertation is just as important as the time allocated to it. Working at the kitchen table with family members walking in and out or in a room where the television or stereo is on is unnecessarily distracting. It may be best to read materials at a local library or coffee shop. Writing is done best in a quiet room of the home. The workspace should also be well lit and equipped with functional, comfortable furniture. Access to supplies (paper, printer, highlighters, etc.) should be easy and available.

Work Habits

Everyone has work habits that help them to be more effective. These “rituals,” such as having a pot of coffee available or playing music softly, can maximize work efficiency. But work habits that are developed and used in professional or personal environments do not necessarily translate directly to academic pursuits. The dissertation is primarily an intellectual process; the ability to think clearly and insightfully is critical to success. Develop work habits that enhance rather than distract thought processes.

Figure out what habits work best and follow them. If something is distracting, eliminate it. Research in “state-dependent learning” shows that, just as in many other aspects in life, learning tends to be locked in certain mental and physical states

over time. One way to increase the efficiency of learning is to trigger the most favorable conditions and maintain the mind-body-environment balance to achieve the best outcomes. If the current environment does not produce the best outcomes, the individual may want to adjust the existing conditions (i.e., habits, rituals, etc.) or create new ones to evoke the desired outcomes. Once the favorable conditions are established, the individual can then work in a consistent setting and follow established habits or behavior patterns that reduce interruptions in the work flow.

Scheduling

While it is important to establish consistencies around the working conditions for the dissertation, it is equally important to be flexible and not to let any internal or external conditions completely dictate when, where, and how the work should be done. It can be very tempting to become tied to a schedule, a workspace, or work habits. While it is ideal to allocate a given number of hours on a given day to working on the dissertation in the privacy of a home office with a fresh pot of coffee, it should not become an excuse to avoid thinking about the dissertation at other times. Sometimes the best ideas arise while commuting or pursuing other activities. Be prepared for such occasions. Carry a notepad or a personal electronic device to write down thoughts as they occur. They can be expanded upon later when returning to the designated workspace.

Handling Administrative Requirements

The most frustrating part of the process is often associated with administrative requirements and unavoidable delays. These can include the time to prepare and e-mail the dissertation to the school or to the form and style editor as well as the time it takes for these reviews to transpire. The following strategies can help minimize these frustrations:

- Be familiar with resources in the dissertation courseroom and on iGuide in order to get a good understanding of all processes and their timelines.
- Accommodate administrative turnaround time and potential delays (e.g., holiday breaks) in the long-range schedule.
- Keep accurate and up-to-date records.
- Maintain continuous dialogue with the mentor and the dissertation course instructor to ensure appropriate progress is made.
- Use the checklist and timeline tracking resources on iGuide. Note the required completion date (to meet the long-range schedule), and check items off as they are accomplished.
- If human participants are involved, ensure all laws and regulations are followed, and all necessary documents are complete at the time of IRB Application. The administrative tasks associated with research involving human participants can consume large amounts of time.
- Be familiar with the APA writing style and the university form and style requirements. Know the formatting and presentation rules for dissertations and follow them from the beginning. There is nothing more frustrating than

having a successfully the dissertation and be delayed for the conference call because of extensive formatting changes.

Overcoming Writer's Block

No matter how well organized a learner may be or how conducive the work environment and schedule are to writing a quality dissertation, there may be certain times when the words simply do not come. What happens then?

These are those occasions “when time and circumstance permit, but the thoughts just do not flow.” Rather than sit and stare at the computer waiting for the words to come, learners should take advantage of the opportunity to begin clearing out the list of “to-dos” they have developed along the way. Taking this approach not only makes effective use of time, but may also trigger a breakthrough by looking at dissertation content from a different angle.

Another activity that might make effective use of the time is to verify the formatting requirements. Check margins, heading levels, table organization, and so forth. Or think about the person to whom the work might be dedicated (if not already decided). Think about those who might be included in the acknowledgments and make a list of them.

If all else fails, try reading some newspaper articles, reviewing referenced materials, or reading everything written in the dissertation up to the point the block was experienced.

Other Ideas

Writing a dissertation is hardly a linear process, so do not be afraid of working in an order different from that of the chapters. While it may work better for some people to complete the chapters one at the time in a sequential fashion (first chapter 1, then chapter 2, and so on), others may find it easier to complete the literature review (chapter 2) first before delving into the problem statement and research questions; still others may prefer to start with the chapters or sections that they feel most comfortable with. Similarly, while some people prefer to finish one chapter completely before moving on to the next, others may work better with big ideas for all chapters fleshed out before filling in details for each chapter. There is no right or wrong way to write a dissertation; the best approach is the one that helps the individual to move forward and get the work done. If this means breaking the norms, so be it.

Be reasonable. Many people recommend a maximum of 4 or 5 hours a day for working on dissertations. A person simply cannot write productively all day long. Trying to do so may cause undue stress or burnout. Schedule break times to “decompress.”

Sometimes it is better to stop at a point where the next item to be addressed is known. Write down something like “introduce the concept of X and then explain its relationship to the topic” at the end of the day as a reminder of where to start the next day. Doing so can provide an efficient and productive start and increase the chance that the whole day will be productive.

References

- Argyris, C., & Schon, D. (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison Wesley.
- Baldrige National Quality Program: Retrieved April 20, 2005, from <http://www.quality.nist.gov/>
- Bloom, B., Mesia, B., and Krathwohl, D. (1964). *Taxonomy of educational objectives*. New York: David McKay.
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Chicago: Rand-McNally.
- Council of Graduate Schools (1991). *The role and nature of the doctoral dissertation: A policy statement*. Washington, DC: Author.
- Creswell, J. (2003). *Research design: Qualitative, quantitative, and mixed*. (2nd ed). Thousand Oaks, CA: Sage Publications.
- Dalkey, N. C. (1969). *The Delphi method: An experimental study of group opinion*. Rand Corporation, RM -5888-PR.
- Giorgi, A. (1985). *Phenomenology and psychological research*. Pittsburgh, PA: Duquesne University Press.
- Kirk, R. E. (1995). *Experimental design: Procedures for the behavioral sciences* (3rd ed.). Pacific Grove, CA: Brooks/Cole.
- Moustakas, C. (1990). *Heuristic research*. Newbury Park, CA: Sage Publications.
- Moustakas, C. (1994). *Phenomenological research*. Thousand Oaks, CA: Sage Publications.
- Patton, M. (2002). *Qualitative research and evaluative methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology*. Thousand Oaks, CA: Sage Publications.

[Return to Table of Contents](#)

Appendix A: Synopsis of Research Methods and Designs

Quantitative Methods

- **Experimental Designs:** A class of research designs that infer causal inference. Primary resource: *Experimental and Quasi-experimental Designs for Research* by D. T. Campbell and J. C. Stanley, 1963, Chicago: Rand-McNally.

Data Analysis: Factorial analysis of variance.

- ✦ True Experimental
 - ✓ The purpose of a true experimental design is to support a cause and effect relationship among variables. The manipulation of an independent variable is a distinguishing characteristic of this design, accomplished by varying the independent variable quantitatively through changing levels of the treatment variable (such as 1 hour, 5 hours, or 10 hours of instruction) or qualitatively by comparing various treatment groups to a control group. Causal inference is possible since research participants are assigned randomly to treatment conditions (Kirk, 1995).
- ✦ Quasi-experimental
 - ✓ Like the true experimental design, there is a control group; however, the researcher does not randomize participants to treatment conditions. The independent variable is manipulated in a natural setting using naturally occurring groups.
- ✦ Natural experiment
 - ✓ This method uses events outside the control of the researcher to manipulate the independent variable. For example, comparing individuals with either right- or left-brain trauma on a measure of attention.
- ✦ Ex Post Facto (causal-comparative)
 - ✓ This method infers possibility of causality by comparing participants where the characteristic is present with participants where the characteristic is absent. This design is useful when manipulation is not possible. Approaches include studying participants who differ on an independent variable to see how they differ on a dependent variable or studying participants who differ on a dependent variable and study how they differ on a set of independent variables.

Nonexperimental Designs: Pertain to a class of research techniques that involves observation and measurement of the phenomenon *in situ*, rather than manipulating events or circumstances. Nonexperimental designs are warranted when (a) it is not possible or ethical to randomize participants to treatment conditions (manipulate an independent variable) as in true experimental design, (b) multiple groups are not used as in case studies or surveys, or (c) multiple groups in multiple waves of measurement as in quasi-experimental design. Examples of nonexperimental designs include naturalistic observation, interview, case study, and survey.

Data analysis: As a class of quantitative approach, nonexperimental designs encompass many types of statistical analyses such as multiple regression, chi-square, and ANOVA.

☀ Survey

- ✓ Pertains to a research technique where participants are recruited to complete a questionnaire used to evaluate, explain, or predict attitudes or behaviors. Dissertation research must go beyond basic descriptions.
- ✓ Data analysis: quantitative questionnaires lend themselves to many types of statistical models such as (but not limited to) analysis of variance, multiple regression, and discriminant function analysis. Open-ended questions (text) require content analysis of themes.

☀ Correlational

- ✓ A class of quantitative research designs that examine relationships among variables. Exploratory correlational designs are used to account for variances in the criterion variable as a linear function of a set of (regressor) variables. Predictive correlational designs are used to predict values on one variable by a linear combination of (predictor) variables.
- ✓ Data analysis: multiple regression, discriminant analysis, loglinear analysis, canonical correlation, factor analysis, and structural equation modeling.

☀ Developmental

- ✓ Cross-sectional: Participants are selected on the basis of representation across a developmental continuum. For example, the study of intelligence across the lifespan would include participants selected at various ages that represent milestones of intellectual development. This type of study is a single snapshot of multiple groups at one point in time.
- ✓ Longitudinal: Participants are selected at an early developmental stage and followed over time. This type of study requires snapshots at each developmental milestone.
- ✓ Data analysis: Time series analysis, between and within group factorial analysis of variance.

☀ Delphi Process

- ✓ Successive examination of expert opinions leading to consensus judgment through repeated questionnaires and feedback of results
- ✓ Data analysis: Compute medians and interquartile ranges (Dalkey, 1969)

Qualitative Methods

☀ Ethnography

- ✓ From an anthropological tradition, focuses on the illumination of patterns of socio-cultural phenomena through field observation. Ethnography is an appropriate design to study intact social groupings (e.g., tribes, classes) that use unobtrusive and noninvasive methods of observation to minimize the effect of intrusion by the researcher.
- ✓ Data analysis: Content analysis of text

- ✦ Case Study
 - ✓ An exploration of a *bounded system* or *case* over time. In a case study, data is often collected from multiple sources including documents and records, audio-visual data, in-depth interviews, and observation. A bounded system is circumscribed by the time and place where a case is studied—a program, an event, an activity, or an individual(s). The analysis of the data consists of conducting a detailed analysis of the structure and dynamics of one or a few exemplars of a theory, a problem, or an issue.
 - ✓ Data analysis: Detailed description and thematic analysis.

- ✦ Grounded Theory
 - ✓ A descriptive research approach that attempts to develop theories of understanding based on data from the real world. The primary tools of discovery are interviews and observations. Grounded theory goes beyond the descriptive and interpretive goals and is aimed at building theories. The goal of this approach is to derive theories that are grounded in (based on) reality. A grounded theory is one that is uncovered, developed, and conditionally confirmed through collecting and making sense of data related to the issue at hand.
 - ✓ Data analysis: Open-ended inductive examination of carefully selected exemplars of a phenomenon (issue, problem, or complex of events) aimed at constructing a theory that explains the phenomenon.

- ✦ Phenomenology
 - ✓ Concentrates on the study of phenomena as experienced by the individual with the emphasis on exactly how a phenomenon reveals itself to the experiencing person in all its specificity and concreteness. As a methodology, phenomenology is open to whatever may be significant to the understanding of a phenomenon. The subject experiencing a phenomenon is required to attend to it exactly as it appears in consciousness, without prejudgment, bias, or any predetermined set or orientation (Moustakas, 1994).
 - ✓ Data analysis: Detailed systematic content analysis of the experience of one or a few persons in order to construct and interpret their meaning.

- ✦ Heuristic
 - ✓ A form of phenomenological inquiry that brings to the fore the personal experience and insights of the researcher. Heuristics is a research model that places special emphasis on knowing through the self, by becoming one with the topic and experiencing it, as it exists in the world (Moustakas, 1990).
 - ✓ Data analysis: Systematic content analysis of a complex issue through the application of simple principles (rules of thumb).

- ✦ Conceptual Modeling
 - ✓ Development and refining of an explanatory framework that can guide change and improvement of social and educational programs.

- ✓ Data analysis: Often requires computer applications that incorporate content analysis of text, visual representations, and multidimensional scaling analysis.

Mixed Methods

- ✦ Action Science – an orientation to research based on the work of organizational theorists such as Argyris and Schon (1978) that emphasizes the use of research for social and organizational change and improvement.
 - ✓ Quality Improvement Studies (e.g., Baldrige Studies) – Research that examines an organizational process within a conceptual framework oriented toward meeting customer needs with a view to increasing their efficiency and their effectiveness.
 - ✓ Operations Research – Detailed studies of the steps in manufacturing, supply chain management, and distribution within organizations.
 - ✓ Policy Analysis – Research into the legal and political dimensions of governmental actions aimed at analyzing and improving statutes and regulations.
 - ✓ Participatory Action Research – Collaborative inquiry into educational and social situations that involve planned interventions and evaluations of their impact.
- ✦ Evaluation Studies – Research into the structure and function of ongoing programs and processes that compares their performance against established criteria and standards.
 - ✓ Program Evaluation – Studies of the internal logic, efficiency, and effectiveness of definable sets of activities leading to a predetermined objective.
 - ✓ Curriculum Evaluation – Studies of the logic and outcomes of organized sets of educational activities.
- ✦ Sequential (two-phase) studies: The researcher first conducts a qualitative phase of a study and then a quantitative phase, or vice versa. The two phases are separate.
- ✦ Parallel-simultaneous studies: The researcher conducts the qualitative and quantitative phase at the same time.
- ✦ Equivalent status designs: The researcher conducts the study using both the quantitative and qualitative approaches about equally to understand the phenomenon under study.
- ✦ Dominant-Less dominant studies: The researcher conducts the study “within a single dominant paradigm with a small component of the overall drawn from an alternative design” (Creswell, 1995, p.177).
- ✦ Designs with multilevel use of approaches: Researchers use different types of methods at different levels of data aggregation. For example, data could be analyzed qualitatively at the student level, qualitatively at the class level, quantitatively at the school level, and qualitatively at the district level (Tashakkori & Teddlie, 1998, p. 18).

Selected Books on Research

- American Educational Research Association. (1999). *Standards for educational and psychological testing*. Washington, DC: Author.
- American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.
- American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct*. Retrieved March 8, 2004 from http://www.apa.org/ethics/code2002.html#8_02
- Anderson, B. F. (1971). *The psychology experiment: An introduction to the scientific method* (2nd ed.). Belmont, CA: Wadsworth.
- Baruss, I. (1990). *The personal nature of notions of consciousness: A theoretical and empirical examination of the role of the personal in the understanding of consciousness*. Lanham, MD: University Press of America.
- Berg, B. L. (2004). *Qualitative research methods for the social sciences*. Boston: Pearson.
- Breakwell, G. M., Hammond, S., & Fife-Schaw, C. (Eds.). (2000). *Research methods in psychology* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Campbell, D. T., & Stanley, J. C. (1990). *Experimental and quasi-experimental designs for research*. Boston: Houghton-Mifflin.
- Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, Institute of Medicine. (1995). *On being a scientist: Responsible conduct in research* (2nd ed.). Washington, DC: National Academy Press. Retrieved March 7, 2004 from <http://www.nap.edu/readingroom/books/obas/>
- Cone, J. D., & Foster, S. L. (1999). *Dissertations and theses from start to finish*. Washington, DC: American Psychological Association.
- Corcoran, K. & Fischer, J. (1994). *Measures for clinical practice: A sourcebook : Volume 1: Couples, Families, and Children* (3rd ed.). New York: Free Press.
- Corcoran, K. & Fischer, J. (1994). *Measures for clinical practice: A sourcebook: Volume 2: Adults*. New York: Free Press.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.

- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods*. Thousand Oaks, CA: Sage Publications.
- Cronk, B. C. (2004). *How to use SPSS: A step-by-step guide to analysis and interpretation*. Glendale, CA: Pyrczak.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage Publications.
- David, R. (2000). *Practical statistics for educators* (2nd ed.). Lanham, MD: University Press of America.
- Fowler, F.J. (2002). *Survey research methods* (3rd edition). Thousand Oaks, CA: Sage Publications.
- Francis, B. (1988). *The proposal cookbook*. Minneapolis, MN: MicroFutures.
- Gall, M. D., Borg, W. R., & Gall, J. P. (2003). *Educational research: An introduction* (7th ed.). White Plains, NY: Longman.
- Glicken, M. D. (2003). *Social research: A simple guide*. Boston: Allyn and Bacon.
- Hayes, S. C., Barlow, D. H., & Nelson-Gray, R. O. (1999). *The scientist practitioner: Research and accountability in the age of managed care* (2nd ed.). Boston: Allyn and Bacon.
- Herr, K., & Anderson, G. L. (2005). *The action research dissertation: A guide for students and faculty*. Thousand Oaks, CA: Sage Publications.
- Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation: A collection of principles, methods, and strategies useful in the planning, design, and evaluation of studies in education and the behavioral sciences* (3rd ed.). San Diego, CA: Educational and Industrial Testing Services.
- Kirk, J., & Miller, M. L. (1999). *Reliability and validity in qualitative research* (Vol. 1) (Qualitative Research Methods Ser., Vol. 1). Newbury Park, CA: Sage Publications.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (8th ed.). Upper Saddle River, NJ: Prentice Hall.
- McNiff, J., Lomax, P., & Whitehead, J. (2001). *You and your action research project*. London: Hyde Publications. (Original work published 1996).
- Merriam, S. B. (1998). *Qualitative research and case study applications in education* (2nd ed.). San Francisco: Jossey-Bass.
- Mertens, D. M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. Thousand Oaks, CA: Sage Publications.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Neuman, W. L. (2005). *Social research methods: Quantitative and qualitative approaches*. Boston: Allyn and Bacon.
- Newman, I., & McNeil, K. (1998). *Conducting survey research in the social sciences*. Lanham, MD: University Press of America.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Reason, P., & Bradbury, H. (Eds.). (2001). *Handbook of action research: Participative inquiry and practice*. Thousand Oaks, CA: Sage Publications.
- Sproull, N. L. (2002). *Handbook of research methods: A guide for practitioners and students in the social sciences*. Lanham, MD: Scarecrow Press.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.
- Sternberg, R. J. (1993). *The psychologist's companion* (3rd ed.). Cambridge University Press: New York.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.
- Stringer, E. T. (1999). *Action research* (2nd ed.). Thousand Oaks, CA: Sage Publications.

[Return to Table of Contents](#)

Appendix B: Sample Dissertation Data Collection Plan

Step	Task	Timeline
1	Determine data collection timeline. <ul style="list-style-type: none"> • Outline data collection timeline, and determine target and latest possible completion date in relation to target date for completing the dissertation. • Consider cyclical availability of participants (e.g., coincide data collection with school year for student participants, avoid holidays, etc.). • Lay out contingency plans for delayed completion of data collection. 	
2	Determine what instruments/tools to use. <ul style="list-style-type: none"> • Standardized tests, surveys, questionnaires, etc. • Customized/developed instruments • Interview questions/protocols (prepare interview questions/protocols) 	
3	Determine data collection methods and procedures. <ul style="list-style-type: none"> • Group administration of instruments • Individualized interview, observation, etc. • Archived records/documents review 	
4	Create a clearly defined sampling plan. <ul style="list-style-type: none"> • Size of the sample/population/participants • Demographic characteristics (gender, age, race/ethnicity, etc.) • Sampling strategy (e.g., random, stratified random, purposeful, etc.) 	
5	Determine the location setting of the data. <ul style="list-style-type: none"> • Educational (school, university, etc.) • Hospital/Clinics • Private practices • Business • Government agencies 	
6	Identify the sources of the data. <ul style="list-style-type: none"> • Personal/professional contacts • Leads provided by faculty or colleagues • Public announcement (determine scope, media, and screening process) 	

Step	Task	Timeline
7	<p>Contact the external organization/institution for permission/authorization to access data or participants.</p> <ul style="list-style-type: none"> • Become familiar with the procedures and requirements for obtaining authorization. • Secure necessary documents for requesting permission/authorization. • Follow the procedures and requirements to obtain authorization. 	
8	<p>Obtain IRB approval.</p> <ul style="list-style-type: none"> • Complete dissertation proposal/prospectus. • Prepare informed consent/assent documents. • Develop and complete IRB Application. • Submit IRB Application and all supporting documents. • Receive approval on IRB Application. 	
9	<p>Conduct field test (may be conducted prior to IRB approval if no actual human participants are involved).</p> <ul style="list-style-type: none"> • Identify expert judges to critique on the strengths and weaknesses of the research questions/hypotheses and/or data collection instruments/protocols. • Conduct the field test. • Assess expert judges' feedback. • Incorporate expert judges' feedback and revise research questions/ hypotheses and/or data collection instruments/protocols, if necessary. 	
10	<p>Conduct pilot test/study (IRB approval and informed consent/assent required).</p> <ul style="list-style-type: none"> • Identify sample/participants. • Obtain informed consent of participants. • Conduct the pilot test. • Process and analyze data. • Determine reliability/validity of data collection protocols/instruments. • Revise data collection protocols/instruments if necessary. 	
11	<p>Complete the informed consent process.</p> <ul style="list-style-type: none"> • Distribute informed consent/assent documents. • Obtain informed consent/assent from participants or legal guardians. 	

Step	Task	Timeline
12	Prepare or assemble data collection materials. <ul style="list-style-type: none"> • Obtain sufficient copies of testing/survey materials. • Prepare tools and materials to capture responses (audio/video device, computer or paper/pencil stationary for taking field notes, etc.). 	
13	Collect data. <ul style="list-style-type: none"> • Distribute data collection instruments. • Set up and conduct interview/observation • Take field notes. • Review archived documents/records. 	
14	Receive and check in data. <ul style="list-style-type: none"> • Screen data for usability. • Organize, store, and track of data as they come in. • Check received data against the sampling plan. • Identify gaps in the sampling plan, and follow up with nonrespondents. • Implement contingency plan in case of delayed schedule. 	
15	Process data. Quantitative <ul style="list-style-type: none"> • Scan data for missing values and follow up with respondents or delete cases if necessary. • Score cases. • Code categorical variables. • Enter data and make them anonymous. • Conduct data quality control and cleanup (e.g., run preliminary descriptive statistics to identify invalid/inaccurate/inconsistent data). • Impute values for missing data. • Compute new or composite variables. • Construct scales and compute scale values. • Convert, merge, and/or reformat data when necessary. 	

Step	Task	Timeline
	<p>Prepare data for final analysis.</p> <p>Qualitative</p> <ul style="list-style-type: none"> • Sort and organize field notes and other documents. • Check sound/image quality of and index audio/video documents. • Assess and evaluate textual data for accuracy, completeness, and legibility/clarity. • Conduct data quality control and editing/cleanup. • Make data anonymous. • Code/label/enter data. • Link data listing to interview text files and audio files where appropriate. • Identify patterns, themes, etc. • Develop category/classification system. • Prepare data for final analysis. 	

Return to Table of Contents