



GUIDELINES FOR PH.D. RESEARCH ACTIONS

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Ph.D. in eLearning Methodology
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Preface

CIDE's Ph.D. in eLearning Methodology is a Plan 1.1 research degree program requiring students to take no course work but register 48 credits for research work to complete their dissertation. Students are expected to pursue on their own with a certain level of supervision at a distance via the Internet or other communication channel such as email, telephone, Facsimile and a limited face-to-face interactions.

In order to help the students to progress well on their own, two approaches were adopted:

- 1) The whole 48 credits of Dissertation are divided into six Sections totaling 16 courses: Dissertation 1-16. Students may register the minimum of one course (3 credits) or the total of three courses (9 credits) per semester. Their academic evaluation is based upon the performances accomplished on the given tasks.
- 2) Course (of) Actions and tasks for each Dissertation course were assigned for each student as a tentative guideline to help the student follow step-by-step to complete the course and properly graded.

This document contains guidelines comprising the Three-Year Study Plan, Course Actions and Tasks to be performed by each student. Details of certain actions and tasks are provided in the Ph.D. Study Guide. Students are advised to follow each action and task according to their own pace and the number of courses taken in each semester.

We hope you find this Guideline useful and help you study and work independently until your complete your dissertation.

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Section I Acronym, Study Plan and Course Actions

This Section contains three parts: Acronym list, Three-Year Study Plan and Course Actions and Tasks.

1. Acronym lists

It is crucial to note that this Guidelines for Ph.D. Research Actions use acronyms to shorten phrases in order to save space or to avoid awkward repetition of phrases. Acronyms are abbreviations of the things that represent and are formed by combining the first, and sometimes other, letters of the principal words. The acronyms used in this paper are as follows.

DR	=	Documentary Research
AMA	=	Academic Major Advisor
ACO	=	Academic Co-Advisor
MA	=	Major Advisor
CO	=	Co-Advisor
ER	=	Experimental Research
DT	=	Developmental Testing
R&D	=	Research and Development
RDR	=	R&D Research
RP	=	Research Proposal
SR	=	Survey Research

2. Three-Year Study Plan (Six Semesters)

First Year

First Semester

<i>Course Code</i>	<i>Course Title</i>	<i>Credits</i>
EL 9001	Dissertation 1 (Development of DR-1)	3 (0-3)
EL 9002	Dissertation 2 (Development of DR-2)	3 (0-3)
EL 9003	Dissertation 3 (Development of DR-3)	3 (0-3)
	Qualifying Examination	

Total	9 (0-9)
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Second Semester

<i>Course Code</i>	<i>Course Title</i>	<i>Credits</i>
EL 9004	Dissertation 4 (Development of RP-1)	3 (0-3)
EL 9005	Dissertation 5 (Development of RP-2)	3 (0-3)
EL 9006	Dissertation 6 (Development of RP-3)	3 (0-3)
	Proposal Defense	
	Total	9 (0-9)

Second Year***First Semester***

<i>Course Code</i>	<i>Course Title</i>	<i>Credits</i>
EL 9007	Dissertation 7 (Development of R&D Prototype-1)	3 (0-3)
EL 9008	Dissertation 8 (Development of R&D Prototype-2)	3 (0-3)
EL 9009	Dissertation 9 (Development of R&D Prototype-3)	3 (0-3)
	Total	9 (0-9)

Second Semester

<i>Course Code</i>	<i>Course Title</i>	<i>Credits</i>
EL 9010	Dissertation 10 (Development of R&D Prototype-4)	3 (0-3)
EL 9011	Dissertation 11 (Conduct DT of R&D Prototype-1)	3 (0-3)
EL 9012	Dissertation 12 (Conduct DT of R&D Prototype-2)	3 (0-3)
	Total	9 (0-9)

Third Year

First Semester

<i>Course Code</i>	<i>Course Title</i>	<i>Credits</i>
EL 9013	Dissertation 13 (Conduct ER-1)	3 (0-3)
EL 9014	Dissertation 14 (Conduct ER-2)	3 (0-3)
EL 9015	Dissertation 15 (Conclusion of Dissertation-1)	3 (0-3)
	Total	9 (0-9)

Second Semester

<i>Course Code</i>	<i>Course Title</i>	<i>Credits</i>
EL 9016	Dissertation 16 (Conclusion of Dissertation-2) Dissertation Defense	3 (0-3)
	Total	3 (0-3)

3. Course Actions and Tasks

Students are required to conduct all expected tasks in order to pass each course. Course Actions are divided into six sections:

- 1) Conduct Review of Literature and Documentary Research;
- 2) Develop Research Proposal and Conduct Survey Research;
- 3) Conduct R&D Research (Development of R&D Prototype, Survey Experts' Opinions, if applicable);
- 4) Conduct Developmental Testing of R&D Prototype (if applicable);
- 5) Conduct Experimental Research (if applicable);
- 6) Conclusion of Dissertation.

Section II

Conduct Review of Literature And Documentary Research

This Section contains three courses: EL 9001-3 (Conduct Review of Literature and Documentary Research).

EL 9001 Dissertation 1 (Documentary Research - 1)

3 (0-3) credits

Course Actions: Formulation of dissertation concept paper for Ph.D. in eLearning Methodology with dissertation title, rationale, objectives, research methodology, research instruments and collection of data, and expected outcome; submit the proposal of the title of a documentary research based on the keywords in the approved dissertation title; conduct the documentary research on the approved topic; prepare the outline or concept mapping; and develop Chapter I Introduction.

Tasks:

- 1) Propose the Dissertation concept paper to the Doctoral Committee. Topics for Ph.D. dissertation should fall within the wide spectrum of eLearning innovations and their application to education. The dissertation topic should represent in-depth and advance research for expanding new knowledge in the field. The research relevance should also involve on innovative and sufficient importance to be the doctoral degree study. (Appendix 1);
- 2) Upon approval of the Concept Paper, your Academic Major Advisor (AMA) and Academic Co-advisor (ACO) will be assigned;
- 3) Submit the proposal of the documentary research based on the keywords in the approved dissertation title to your AMA and ACO. The documentary research proposal must contain the title of the documentary research and a brief synopsis;
- 4) Preparing the outline or concept mapping of the approved research topic (Appendix 2)
- 5) Develop Chapter 1 Introduction of the Documentary Research

Reminder: Submit Tasks No. 3-5 to your AMA and ACO for Quality Assessment (QA) on the specified date.

EL 9002 Dissertation 2 (Documentary Research - 2) 3 (0-3) credits

Course Actions: The continuation of documentary research: reviewing related literature, interviewing experts and authorities in the topic, study visits and getting involved in national and international seminars and conferences in the field; develop remaining Chapters according to the approved outline.

Tasks:

- 1) Collect content and data for Documentary Research by reviewing related literature, interviewing experts and authorities in the topic, joining study visits and getting involved in national and international seminars and conferences in the field;
- 2) Develop Chapter 2-3 of the Documentary Research

Reminder: Submit Tasks No. 1-2 to your AMA and ACO for QA on the specified date.

EL 9003 Dissertation 3 (Documentary Research - 3) 3 (0-3) credits

Course Actions: Finalizing the documentary research: Develop the final Chapter, write the abstract, prepare an article for publication in an academic journal and prepare a presentation paper in an international conference in eLearning.

After the completion of the documentary research, students are ready to make plan for Qualifying Examinations.

Tasks:

- 1) Develop Chapter 4 of the Documentary Research
- 2) Develop Chapter 5 Summary of the Documentary Research, Discussion, and Recommendations
- 3) Get ready for Qualifying Examinations: The QE preparation stage comprises steps: (1) Crystallize the state of arts in eLearning, Section particularly the key concept of the DR; (2) Prepare for QE written examinations to display the well-verse concepts and principles, and theories in eLearning; and (3) Prepare for QE oral examinations to display the students' ability to express themselves.
- 4) Take Qualifying Examination. Good luck!

Reminder: Submit Tasks No. 1-4 to your AMA and ACO for QA on the specified date.

Section III

Develop Research Proposal and Conduct Survey Research

This Section contains two parts: EL 9004-5 (Development of Research Proposal).

EL 9004 Dissertation 4 (Development of Research Proposal - 1) 3 (0-3) credits

Course Actions: Begin developing your Research Proposal (RP) comprising Statement of the Problem, Objectives, Research questions/Hypothesis, Research Methodology, Operational Definitions, and Expected Outcomes. Also, attach the research conceptual model displaying the relationships among independent variables, dependent variables, and intended research procedure is required.

If your Dissertation is on developing an innovative prototype (R&D), you're recommended to make plan for conducting Need Assessment¹ based on the Dissertation topic, to determine existing needs, desirable characteristics and attributes of the proposed innovation (concepts, principles, theories, practices, systems, methodology, and inventions) or the topic of research. Then, develop Chapter I of your Dissertation based the CIDE format. This is your first Survey Research².

Tasks:

- 1) After passing Qualifying Examination, your Major Advisor (MA) and Co-advisor (CO) will be assigned;
- 2) Develop the RP based on the format designed by CIDE;
- 3) Plan and prepare for the first SR on need assessments;
- 4) Draft Chapter 1 of the Dissertation based on approved RP and result of the Need Assessment (Appendix 3).

Reminder: Submit Tasks No. 2-3 to your Major Advisor and Co-Advisor for QA on the specified date.

¹ **Need Assessment** is recommended to get in depth information on the Dissertation topic to justify your research proposal. For R&D research, NA is a must. It is the second step required for R&D research before developing a conceptual framework for the prototype of the proposed innovation.

² **Survey** is a technique of obtaining information on the research topic to get in depth information unobtainable from review of literature or interviews with authority in the field. The result of the survey must be analysed and presented in the form of survey research report.

EL 9005 Dissertation 5 (Development of Research Proposal - 2) 3 (0-3) credits

Course Actions: Continue developing and modifying your RP on Statement of the Problem, Objectives, Research questions/Hypothesis, Research Methodology, Operational Definitions, and Expected Outcomes based on additional information and data gained from Sections of your SR. Conduct the SR and write the SR Report; Finalize Chapter I of the Dissertation, and develop Chapter II of the Dissertation making use of the content from the DR completed during EL9003.

Tasks:

- 1) Conduct your first Survey Research (SR) on need assessments of the proposed innovations (concepts, principles, theories, practices, systems, methodology, and inventions) following CIDE formats and details of the SR as specified in the Study Guide.
- 2) Write Survey Report based on the results of need assessment;
- 3) Finalize Chapter 1 Introduction;
- 4) Draft Chapter 2 Review of Related Literature based on the Documentary Research

Reminder: Submit Tasks No. 1-4 to your Major Advisor and Co-Advisor for QA on the specified date.

EL 9006 Dissertation 6 (Development of Research Proposal - 3) 3 (0-3) credits

Course Actions: Finalize your RP, make preparation for Research Proposal Defense Oral Examination, and defend your RP. Then, finalize Chapter 2 of the Dissertation, and develop Chapter 3 of the Dissertation.

Tasks:

- 1) Prepare Research Proposal Presentation;
- 2) Finalize Chapter 2 Review of Related Literature;
- 3) Draft Chapter 3 Research Methodology;
- 4) Taking Defense Oral Examination. Good luck!

Reminder: Submit Tasks No. 1-4 to your Major Advisor and Co-Advisor for QA on the specified date.

Section IV

Develop R&D Prototype and Conduct Survey of Experts' Opinions

From the results of your DR and SR, you are pretty much ready to develop the R&D Prototype of your research innovation, i.e. your proposed system, models, projects, etc. Follow the seven steps for a prototype development as shown in Fig.1 Brahmawong's Seven-Step Model for R&D Prototype Development:

Step I:	Review of related body of knowledge through documentary research (DR), interviews, field visits, and Internet searches on the R&D Prototype;	Completed in EL 9001-3
Step II:	Conduct a survey of need assessment on the R&D Prototype (First Survey);	Completed in EL 9004-6
Step III:	Develop the Conceptual Framework of the R&D Prototype;	EL 9007
Step IV:	Survey of Experts' Opinions ³ through questionnaires, Delphi Technique, or a focus group (Second Survey);	EL 9008
Step V:	Develop the first draft of the R&D Prototype making use of the knowledge and information crystallized from Step I, II, and III.	EL 9009
Step VI:	Seek Experts' Verification of the Prototype OR Conduct Developmental Testing of the R&D Prototype: Tryout and Trial Run	EL 9010
Step VII:	Revise and Finalize the R&D Prototype	EL 9010

Fig.1 Seven-Step Model for Prototype Development (Brahmawong, C. 1999)

This Section contains four courses: EL 9007 – EL 9010 (Development of R&D Prototype).

³ Not applicable for a Quality Research. If your quality research proposal is approved by the Ph.D. Graduate Committee, confer the provided Quality Research Guideline for course of actions.

EL 9007 Dissertation 7 (Development of R&D Prototype - 1) 3 (0-3) credits

Course Actions: Based on the Seven-Step Model for Prototype Development, you are ready to develop the R&D Prototype on Step III: Develop the Conceptual Framework of the R&D Prototype by writing the concept, objectives, components, production steps, technical attributes or characteristics, usages, and other relevant information to describe the proposed Prototype.

Tasks:

- 1) Develop R&D Prototype Conceptual Framework;
- 2) Submit the draft Prototype Conceptual Framework to your MA and CO) for approval;
- 3) Develop instruments for gathering experts' opinions on the R&D Prototype;
- 4) Try out of tools for gathering experts' opinions such as questionnaires; interview guides, observation forms, and so on.

Reminder: Submit Tasks No. 1-4 to your Major Advisor and Co-Advisor for QA on the specified date.

EL 9008 Dissertation 8 (Development of R&D Prototype - 2) 3 (0-3) credits

Course Actions: Conduct the survey of experts' opinions using the developed research instruments and begin gathering the expert's opinion either via questionnaires (conventional or Delphi Techniques), or Focus Group and write the Survey Report on the Experts' Opinions on the R&D Prototypes. Summarize in a Fact Sheet critical points recommended for incorporated in the Conceptual Framework of the R&D Prototype. Then, finalize the Conceptual Framework of the R&D Prototype for use as the Prototype blueprint.

Tasks:

- 1) Conduct the survey of experts' opinions via questionnaires (preferably through Delphi Technique), interviews, or focus groups;
- 2) Write the Second Survey Report on Experts' Opinions on the R&D Prototype;
- 3) Write a Summary Fact Sheet of critical points recommended for incorporated in the Conceptual Framework of the R&D Prototype;
- 4) Finalize the Conceptual Framework of the R&D Prototype for use as the Prototype blueprint.

Reminder: Submit Tasks No. 1-4 to your Major Advisor and Co-Advisor for QA on the specified date.

EL 9009 Dissertation 9 (Development of R&D Prototype-3) 3 (0-3) credits

Course Actions: Draft the R&D Prototype: Phase I (Planning and Preparation) based on the data and information collected from the Survey of Experts' Opinion, Review of Literature in DR, and results of SR.

Tasks:

- 1) Draft Phase I: Planning and Preparation of the R&D Prototype (25% of the completed prototype);
- 2) Present the draft for peer comments at the first designated Doctoral Research Seminar (Date and time to be announced);
- 3) Summarize the recommendations and suggestions in a Fact Sheet;
- 4) Revise the Draft as recommended by peers, MA and CO from the Summary Fact Sheet.

Reminder: Submit Tasks No. 1-4 to your Major Advisor and Co-Advisor for QA on the specified date.

EL 9010 Dissertation 10 (Development of R&D Prototype-4) 3 (0-3) credits

Course Actions: Draft the R&D Prototype: Phase II (Designing and Developing) based on the data and information collected from the Survey of Experts' Opinion, Review of Literature in DR, results of SR, and the Summary Fact Sheet on peer-reviews of Phase I.

Tasks:

- 1) Draft Phase II: Designing and Developing of the R&D Prototype (25% of the completed prototype);
- 2) Present the draft for peer comments at the second designated Doctoral Research Seminar (Date and time to be announced);
- 3) Summarize the recommendations and suggestions for Phase II in a Fact Sheet;
- 4) Revise the draft of Phase II as recommended by peers, MA and CO from the Summary Fact Sheet.

Reminder: Submit Tasks No. 1-4 to your Major Advisor and Co-Advisor for QA on the specified date.

Section V

Conduct Developmental Testing of R&D Prototype

This Section contains two courses: EL 9011-12 (Conduct DT of R&D Prototypes⁴).

EL 9011 Dissertation 11 (Conduct DT of R&D Prototype - 1) 3 (0-3) credits

Course Actions: Engage in Phase III of developing the R&D Prototype by seeking Experts' verification of the Prototype: content and technical quality.

Seeking the Experts' opinion is allowed into two conditions: (1) Verification of technical and content quality of R&D Prototype before using it in the DT process, and (2) Verification of expensive and time-consuming R&D prototype. Some Prototypes are too costly to conduct the experiments or put into practice, such as the models for establishing eLearning Centers, educational Radio and TV stations or Production Centers, and eLibraries. In this case, the R&D Prototype may be verified by 3-5 highly and experienced qualified experts in order to study the propose R&D Prototype, assess the feasibility of the Prototype, and give recommendations for modification or improvement.

Tasks:

- 1) Engage in Phase III: Seeking Experts' verification of the R&D Prototype on content and technical quality (25% of the completed prototype);
- 2) Present the draft of Prototype for peer comments at the third designated Doctoral Research Seminar (Date and time to be announced);
- 3) Summarize the recommendations and suggestions for Phase III in a Fact Sheet;
- 4) Revise the draft of Phase III as recommended by peers, MA and CO from the Summary Fact Sheet;
- 5) Submitting the modified Prototype to experts for verification;
- 6) Summarize recommendations and suggestions of Experts in a Fact Sheet.

Reminder: Submit Tasks No. 1-6 to your MA and CO for QA on the specified date.

EL 9012 Dissertation 12 (Conduct DT of R&D Prototype - 2) 3 (0-3) credits

⁴ **Not applicable for a Qualitative Research**, if your qualitative research proposal is approved by the Ph.D. Graduate Committee, confers the provided Qualitative Research Guideline for course of actions.

Course Actions: Evaluate R&D Prototypes by conducting the Developmental Testing (DT) of the R&D Prototype. This is Phase III of the R&D Prototype Development (50% of the completed prototype).

Two DT stages are required: Tryout (during the development of various stages of the Prototype) and Trial Run (after the whole Prototype is completed and used in a real life situation for a period of time such as one semester or one year).

Details on the techniques for tryout and trial run of the Prototype will be given in the Study Guide. After the DT is completed, write the Report on R&D Research and summarize the findings in at least one article for publication in an international journal recognized by CIDE. Also, begin writing Chapter 4: Data Analysis.

Tasks:

- 1) Evaluate the R&D Prototype by conducting the DT in two stages: try out and trial run;
- 2) Finalize Chapter 3 of the Dissertation;
- 3) Write the Report on R&D Research;
- 4) Write at least one article on the summary of the findings for publication in a international journal with peer-review recognized by CIDE OR present the paper at an international conference in ICT or eLearning;
- 5) Draft Chapter 4 of the Dissertation;

Reminder: Submit Tasks No. 1-5 to your MA and CO for QA on the specified date.

Section VI

Conduct Experimental Research

This Section contains four courses: EL 09013-14 (Conduct Experimental Research⁵)

EL 9013 Dissertation 13 (Conduct Research - 1) 3 (0-3) credits

Course Actions: After completion of the three researches: Documentary Research, Survey Research, and R&D Research, Experimental Research (ER) is ready to be conducted.

In conducting an ER, the R&D Prototype is put into practice in real situation through a process of experimental design accordingly to the research objectives.

In Dissertation 13, the students are required to design the experimental research, develop research instruments, and identify population and samples and venues of the experiment(s).

Tasks:

- 1) Design the Experiments;
- 2) Develop research instruments;
- 3) Identify populations and samples of the Experiments;
- 4) Locate and contact the venue(s) for the Experiments.

Reminder: Submit Tasks No. 1-4 to your MA and CO for QA on the specified date.

EL 9014 Dissertation 14 (Conduct Research - 2) 3 (0-3) credits

Course Actions: Begin the Experiments according to the experimental design; collect and analyse data, and present the findings; write the Report of Experimental Research, and develop an article on the findings for publishing in an international journal or international conference in ICT or eLearning. Meanwhile, finalize Chapter 4 of the Dissertation

Tasks:

- 1) Conduct the Experiments
- 2) Collect data according to the research instruments;
- 3) Conduct data analysis and summarize research findings;

⁵ **Not applicable for a Qualitative Research**, if your qualitative research proposal is approved by the Ph.D. Graduate Committee, confers the provided Qualitative Research Guideline for course of actions.

- 4) Write the Report of Experimental Research;
- 5) Develop an article on the findings for publishing in an international journal or international conference in ICT or eLearning;
- 6) Contact and apply for submission of the article in the international journal or international conference in ICT or eLearning;
- 7) Draft Chapter 4 of the Dissertation with an emphasis on presenting analyzed data, conceptualized of data in tables and graphs, and present the findings according to the Dissertation objectives. Tables showing the results of the analysis for each questionnaire items are presented in the appendix.;
- 8) Draft Chapter 5 of the Dissertation showing details of the Prototype comprising Executive Summary and four Sections:

Executive Summary

Section I: Introduction,

Section II: Systems Analysis or Analysis of the Present Systems, Practices, or Operations based on the context of the R&D research;

Section III: Details of the R&D Prototype; and

Section IV: Implementation of the Prototype. (Details on writing Chapter 5 is provided in the Study Guide).

Reminder: *Submit Tasks No. 1-8 to your MA and CO for QA on the specified date.*

Section VII

Conclusion of Dissertation

This Section contains two courses: EL 9015-16 (Conclusion of Dissertation).

EL 9015 Dissertation 15 (Conclusion of Dissertation - 1) 3 (0-3) credits

Course Actions: Develop the last chapter of the Dissertation by summarizing the Dissertation Process by briefing Chapter 1 and 3; Summarize findings according to the objectives; present discussion and recommendations. Details and format of the last chapter are given in the Study Guide.

Write an article on the complete Dissertation.

Tasks:

- 1) Develop the last chapter of Dissertation;
- 2) Write the Summary of Findings, Discussion and Recommendations;
- 3) Write a research article on the Dissertation;
- 4) Contact an international journals for submission of the research article or apply for presenting the article in an international conference on ICT or eLearning;
- 5) Finalize Chapter 4: Data Analysis;
- 6) Finalize Chapter 5: Details of the Prototype;
- 7) Draft Chapter 6: Summary, Findings, Discussion and Recommendation;
- 8) Write Bibliography;
- 9) Prepare Appendices;
- 10) Write Dissertation Abstract.

Reminder: Submit Tasks No. 1-10 to your MA and CO for QA on the specified date.

EL 9016 Dissertation 16 (Conclusion of Dissertation-2) 3 (0-3) credits

Course Actions: Get preparation for Dissertation Defence by writing a brief summary of Dissertation, developing a PPT presentation, rehearsal the Defense with MA and CO, and take the Oral Defense of the Examination. Also, publish On-line Dissertation abstract on the web sites of Assumption University/College of Internet Distance Education.

Tasks:

- 1) Finalize Chapter 5 of the Dissertation;
- 2) Finalize Chapter 6 (if any) of the Dissertation;
- 3) Prepare for the Final Dissertation Defense;

- 4) Revise the Dissertation (if any);
- 5) Write the Summary of Dissertation (3-5 pages);
- 6) Prepare a PPT presentation;
- 7) Publish on-line Abstract.

Reminder: *Submit Tasks No. 1-7 to your MA and CO for QA on the specified date.*

Appendices

Appendix 1

The Research Proposal Concepts

Research Components:

The research proposal would normally include the following components and also depending on the nature of the project:

- 1. Statement of the problems or research question:** What are the relevance of and the rationale for choosing this area of enquiry? Why is the research question posed in the way it is? Does the candidate have any particular motivation for posing this question or does he/she possess any expertise in this area?
- 2. A focused introduction:** This should include a brief critical review of the literature relevant to the research question. What are the main texts and trends informing the thinking which has led to the formation of this research question?
- 3. Hypotheses:** What are the main hypotheses or lines of enquiry? Within what general theoretical and/or historical framework will this research be carried out? What specific contribution from an eLearning expert perspective is relevant to this piece of research?
- 4. Research design and methodology:** How are the main hypotheses going to be investigated or researched? An outline of the methodology, research design and procedure should be given. In addition, the anticipated structure of the dissertation such as sections and chapters should be outlined.
- 5. Pilot work:** In proposals for empirical research, details will need to be provided of the proposed pilot work, the sequence of the various investigations and the research instruments which are intended to be used. In addition, the relevant methods of analysing the data will need to be discussed.
- 6. Timetable:** An outline of the approximate timetable of the various stages of the proposed research should be given.

Research Proposal Format

The research proposal format contains the following topics:

- 1) Title of the Proposed Dissertation;
- 2) Statement of the Problem base on IPESA Model⁶;
- 3) Review of the State of Art (Based on Review of Literature and Documentary Research);
- 4) Purposes of the Study: General and Specific
- 5) Scope of the Study
 - i. Type of Research (R&D, Experimental Research, Quality Research);
 - ii. Population and Samples;
 - iii. Research Questions and/or Hypotheses;
 - iv. Research Instruments based on PACIS⁷ (See the Study Guide)
 - v. Data Collection and Analysis
- 6) Research Action Plan (Specify research activities and datelines and provide a Gantt Chart)
- 7) Research Budget
- 8) Expected Outcomes
- 9) Appendices (If any)
- 10) Curriculum Vitae of Researcher

⁶ **IPESA**=Ideal situation, **P**resent situation, **E**xisting problems, **S**olutions to existing problems, and **A**lternative options to help solve the problems thus leading to the need to propose the study.

⁷ **PACIS**= **P**rototypes and tools for developing prototypes: Tools for testing the **A**tttributes of samples; Tools for measuring and comparing the **C**ontext for the experiments; Tools for measuring the **I**mpacts; and **S**tatistical instruments.

Appendix 2
Concept Mapping of a Documentary Research



[Leadership Skills](#)
[Time Management](#)

[Problem Solving](#)
[Stress Management](#)

[Decision Making](#)
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Mind Mapping is a useful technique that improves the way you take notes, and supports and enhances your creative problem solving.

By using Mind Maps, you can quickly identify and understand the structure of a subject, and the way that pieces of information fit together, as well as recording the raw facts contained in normal notes.

More than this, Mind Maps encourage [creative problem solving](#), and they hold information in a format that your mind finds easy to remember and quick to review.

Popularized by Tony Buzan, Mind Maps abandon the list format of conventional note taking. They do this in favor of a two-dimensional structure. As such, a good Mind Map shows the 'shape' of the subject, the relative importance of individual points, and the way in which facts relate to one another.

Mind Maps are more compact than conventional notes, often taking up one side of paper. This helps you to make associations easily. And if you find out more information after you have drawn the main Mind Map, then you can easily add it in.

Mind Maps are also useful for:

- Summarizing information.
- Consolidating information from different research sources.
- Thinking through complex problems.
- Presenting information in a format that shows the overall structure of your subject.

What's more, they are very quick to review as you can often refresh information in your mind just by glancing at one. In the same way, they can be effective mnemonics: Remembering the shape and structure of a Mind Map can give you the cues you need to remember the information within it. As such, they engage much more of your brain in the process of assimilating and connecting facts, compared with conventional notes.

Drawing Simple Mind Maps

The original Mind Tools site was planned and researched using Mind Maps. They are too large to publish here, however part of one is shown below. This shows research into [time management](#) skills:

Figure 1: An Example Mind Map



See how to construct a Mind Map.

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New Career Skills - twice a month PLUS Brainstorming Toolkit Free!

Subscribe to our **free** e-newsletter, and get new skill-builder tools every two weeks. Plus get our **Brainstorming Toolkit** pdf worth US\$9.99 free when you subscribe!

"Great newsletter. Simple and not too long. Great articles. Thank you."

Mandi J Luis, Burlington, Ontario, Canada

First name

Email

[Privacy Policy](#)

What People Say About Mind Tools...

"I love your site and just wanted to let you know how much I appreciate the knowledge that you have available."

Sherrie Clevenger, Laguna Beach, CA, USA

"I would like to congratulate you on the layout of the latest eBook. I find it easier to relate the tools and easier for me, a more advance student, to understand. I would also like to thank you for a wonderful website that I have found to be enlightening and helpful to me in my career."

Thomas Gibb, Westminster, BC, Canada

"I would like to thank you for this opportunity. Mind Tools is not only useful. In fact it is much more than that - it changed all my life!"

22/07/2009

- [About Mind Tools](#)
- [Contact Us](#)
- [What's New?](#)
- [Site Services](#)
- [Directory](#)

Relevant Courses & Resources

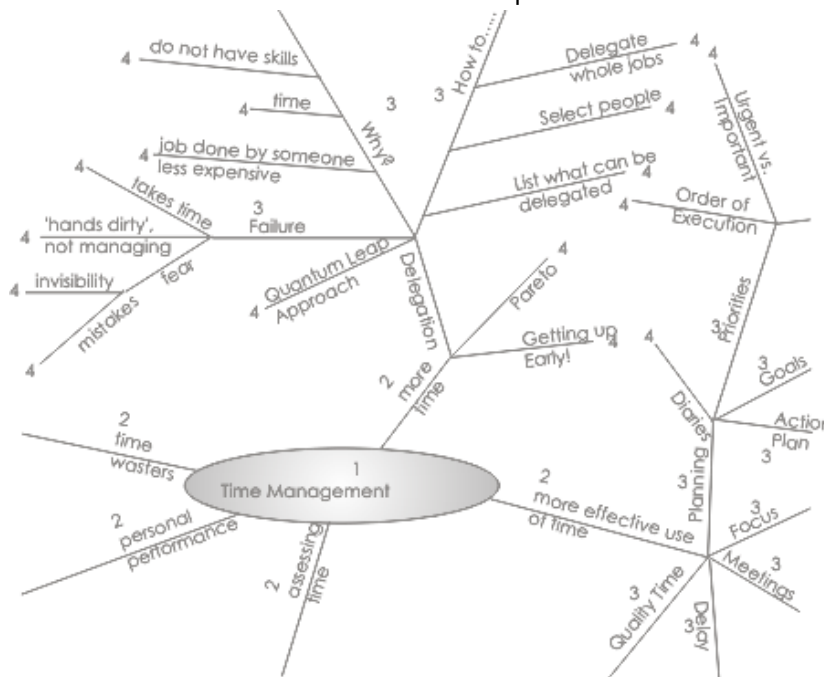
Mind Tools Ebook



The key tools on the Mind Tools site, brought together into one easily downloadable, easily printable PDF.

[More>>](#)

Learn how to draw Mind Maps with ...



Paolo Abdala,
Rio de Janeiro, Brazil

"Many, many thanks for one of the best websites available. Your site offers practical, helpful advice in a clear easy to follow manner, which one is readily able to apply."

Shereen S Wagner,
Johannesburg, South Africa

"Since I subscribed this year I have really enjoyed the articles and they have greatly helped me to reassess and refocus my career goals. Thank you for sharing your thoughts and have a wonderful Christmas!"

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Mind Mapping software. Free 21 day trial available now!

www.MindGenius.com

MindMapper

2009

Mind Mapping software Visualizes your Thinking
www.mindmapper.com

Thinking Methods

Thinking for Innovation Great problem solving techniques
www.IdeaConnection.co

To make notes on a subject using a Mind Map, draw it in the following way:

1. Write the title of the subject you're exploring in the center of the page, and draw a circle around it. This is shown by the circle marked 1 in Figure 1, above.
2. As you come across major subdivisions or subheadings of the topic (or important facts that relate to the subject) draw lines out from this circle. Label these lines with these subdivisions or subheadings. These are shown by the lines marked 2 in Figure 1.
3. As you "burrow" into the subject and uncover another level of information (further subheadings, or individual facts) belonging to the subheadings above, draw these as lines linked to the subheading lines. These are shown by the lines marked 3 in Figure 1.
4. Finally, for individual facts or ideas, draw lines out from the appropriate heading line and label them. These are shown by the lines marked 4 in Figure 1.

As you come across new information, link it in to the Mind Map appropriately.

A complete Mind Map may have main topic lines radiating in all directions from the center. Sub-topics and facts will branch off these, like branches and twigs from the trunk of a tree. You do not need to worry about the structure produced, as this will evolve as you develop your mind map.

Note that the idea of numbered 'levels' in Figure 1 is only used to explain how the Mind Map was created. All we are showing is that major headings radiate from the center, with lower level headings and facts branching off from the higher level headings.

While drawing Mind Maps by hand is appropriate in many cases, software tools like [MindGenius](#) improve the process by helping to you to produce presentation quality Concept Maps, which can easily be edited, distributed and redrafted.

Improving your Mind Maps

Once you understand how to make notes in the Mind Map format, you can develop your own conventions to take them further. The following suggestions may help to increase their effectiveness:

- *Use single words or simple phrases for information:* Most words in normal writing are padding: They convey facts in the correct context, and in a format that is pleasant to read. In your own Mind Maps, single strong words and meaningful phrases can convey the same meaning more potently. Excess words just clutter the Mind Map.

- *Print words*: Joined up or indistinct writing can be more difficult to read.
- *Use color to separate different ideas*: This will help you to separate ideas where necessary. It also makes your Mind Map easier to remember. Color also helps to show the organization of the subject.
- *Use symbols and images*: Where a symbol or picture means something to you, use it. Pictures can help you to remember information more effectively than words.
- *Using cross-linkages*: Information in one part of the Mind Map may relate to another part. Here you can draw in lines to show the cross-linkages. This helps you to see how one part of the subject connects with another.

Click on the thumbnail below for a great example of a mind map that has extremely high visual impact.



Key points:

Mind Mapping is an extremely effective method of taking notes. Mind Maps show not only facts, but also the overall structure of a subject and the relative importance of individual parts of it. They help you to associate ideas and make connections that you might not otherwise make.

If you do any form of research or note taking, try experimenting with Mind Maps. You will find them incredibly useful!

MindTools.com - [Join Our Community!](#)

In the next article, we look at SQ3R, a useful technique for getting the most out of material you read. To read this, click 'Next article' below. Other relevant destinations are shown in the "Extension Resources" list underneath.

Spread the word:



Where to go from here:

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Extension Resources (Not included in the Mind Tools E-book.)

* Shows articles available in full only to [Career Excellence Club](#) members.

- [The Cornell Approach to Note Taking](#) - Taking notes effectively and efficiently*
- [Delivering Great Presentations](#) - Communicating effectively*
- [Keep It Simple](#) - Avoiding confusion and complexity*
- [Charts and Graphs](#) - Choosing the right format
- [Chunking](#) - Grouping information so it's more easily understood
- [Affinity Diagrams](#) - Organizing ideas into common themes

[return to top](#)

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stress.mindtools.com.

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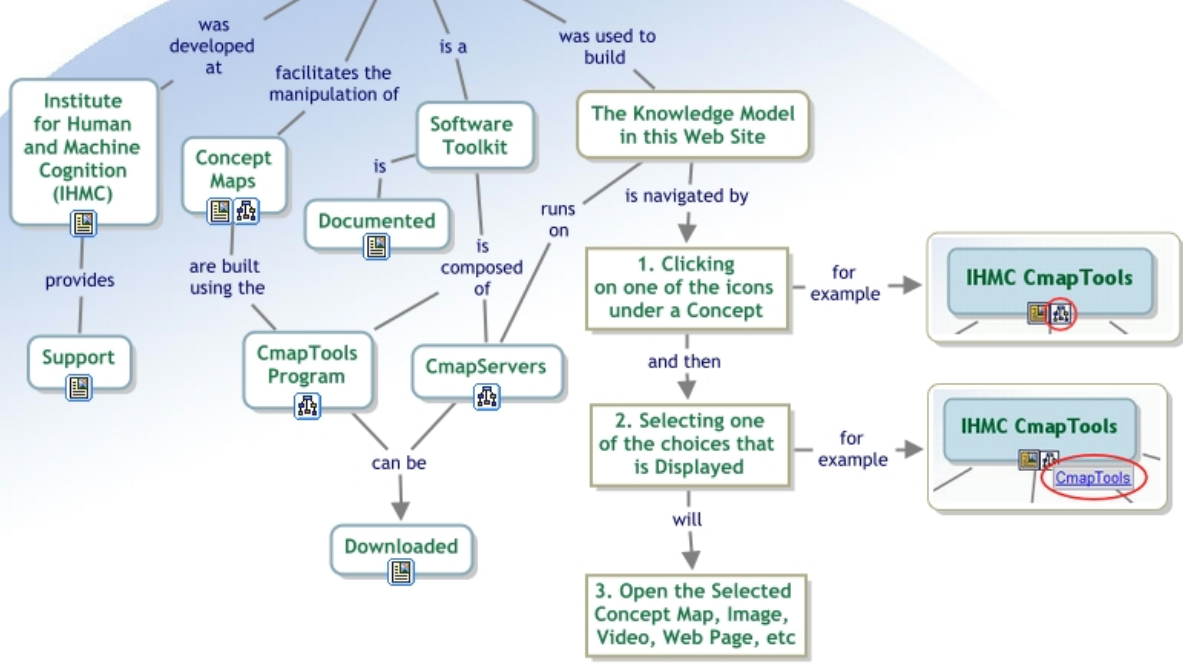
MindTools.com is one of the Internet's most-visited career skills resources.
Click [here](#) to see analysis.



The IHMC CmapTools software empowers users to construct, navigate, share, and criticize knowledge models represented as Concept Maps

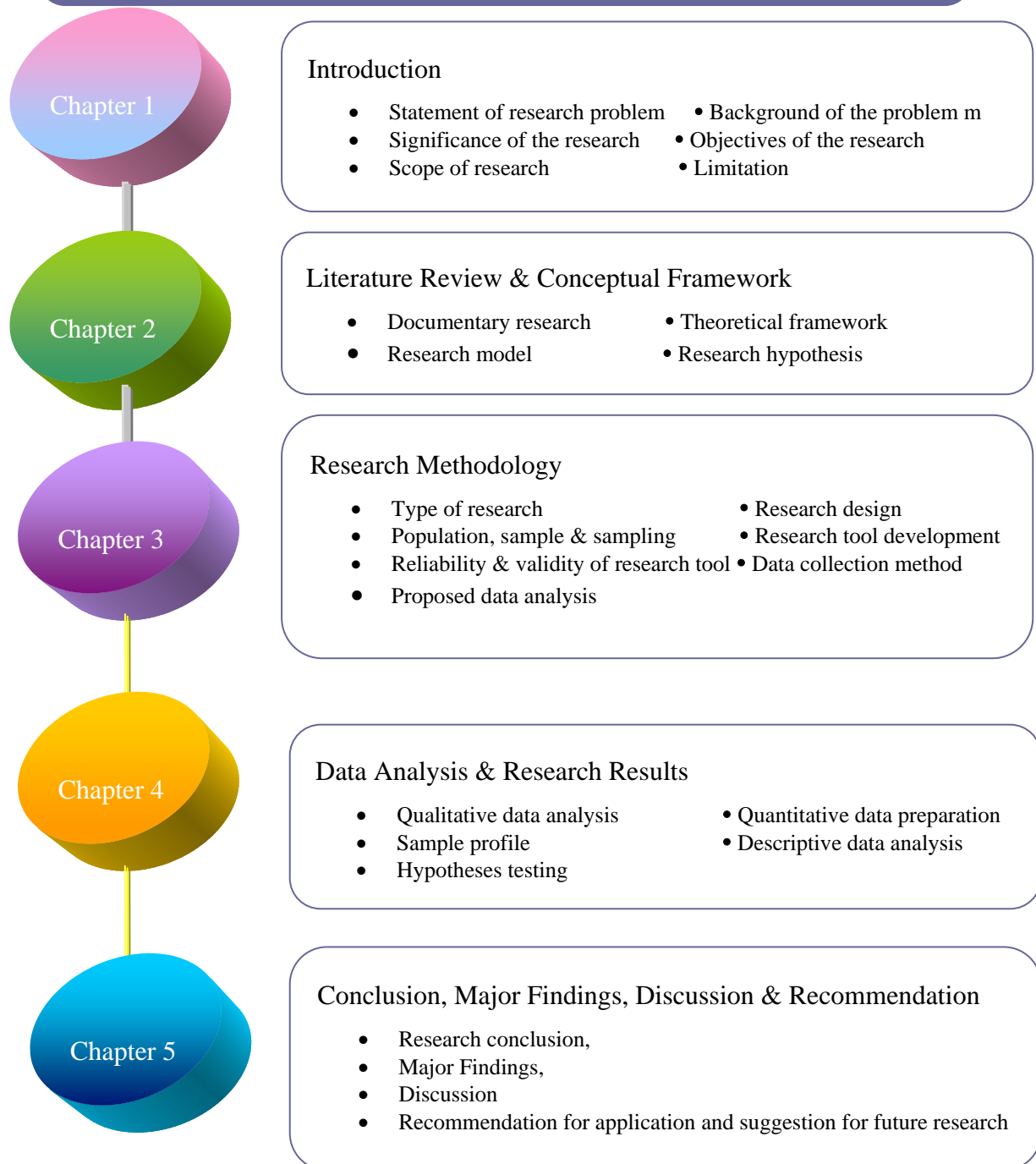


IHMC CmapTools



This Concept Map was created with IHMC CmapTools

Appendix 3 Dissertation Structures



Please note: Normally, a Dissertation contains five chapters (Chapter I-V), but an R&D Dissertation contains six chapters. Chapter V presents the details of the Prototype, and Chapter VI Conclusion, Discussion, and Recommendations

Appendix 4
Writing Dissertation Guidelines

1. Introduction to Writing the Dissertation

To earn a Doctor of Philosophy degree from Assumption University within the College of Internet Distance Education the student must write a dissertation in addition to completing the required course curriculum. A dissertation is a specialized research report that differs significantly from research or term papers. To fulfil the Ph.D. in eLearning Methodology Program requirements, students must follow the specific format outlined in this guideline.

Completing the requirements for a doctoral dissertation:

- provides an opportunity to present a problem or issue for advanced study in a chosen field;
- requires the student to develop and implement an original idea or theory concerning a problem or issue and to personally conduct research on it; produces a publication-quality written account of original research;
- presents an academic and intellectual challenge while increasing the general body of scholarship in a chosen field;
- encourages collaboration, cooperation, discussion and debate of information among health professionals; and
- supports and encourages the exploration and development of eLearning methodology and its evolving body of scientific research.

These guidelines describe the expectations of the Ph.D. in eLearning Methodology Program, explain what is required from the student and clearly outline the structure, format and process necessary to complete the dissertation. By carefully following these guidelines and collaborating with the research advisor, the student should be able to produce a written product that meets the standards and requirements of advanced scholarly research. The completed dissertation will provide objective evidence of the student's ability to perform advanced research and writing at the doctoral level.

While providing the outline, structure, format and requirements for the dissertation, the guidelines are not intended to suppress independence, creativity, flexibility of thought or advanced synthesis of thought. Writing a dissertation is intended to enhance and support advanced exploration; research; formulation of theoretical concepts; the gathering of information; analytical thought; the integration of ideas and synthesis of information; theories; and abstract interpretation and conclusions. These are to be developed into novel theory; knowledge and practical application; and the general body of knowledge and literature in the chosen field of study. In summary, writing the dissertation will assist the student in attaining the highest possible level of scholarly achievement.

One of the main purposes of a doctoral dissertation is to produce research and a written document acceptable for publication. In addition, the format presented in these guidelines may apply to the grant proposal features of various funded programs and will provide practice in this format and style of writing.

The Ph.D. in eLearning Methodology Program considers student research and reports, including doctoral dissertations, the property of the student. As such, all intellectual property rights, including but not limited to, copyright interests in and to the student research and reports shall vest in the student. Should Ph.D. in eLearning Methodology wish to publish or otherwise use student research and reports or a portion thereof, it will do so only after obtaining written permission.

As the written report of a research endeavor, the doctoral dissertation is an objective, factual report; therefore it is *not* a compilation of anecdotes or a history of personal experiences or perspectives. The dissertation is a factual report of a problem or issue; the data or information-gathering process used in the study; and the findings, results and conclusions of the research. However, case studies of specific clients or situations may be used sparingly as illustrations or documentation of specific points for emphasis or clarification. Since case studies should be used only for clarification and not as the main portion of the dissertation, include them in either the Statement of the Problem or Issue section or the History and Background section of the dissertation.

This Written Dissertation Guideline draws upon the work of Clayton College of Natural Health (2003), which is an guideline for students in Doctoral Degree Level. The purpose of this guideline is to outline the methodologies of written dissertation by detailing the steps of demonstrate the research conduction systematically.

2. The Dissertation Process and Sequence

While doctoral students who enrolled in the Ph.D. in eLearning Methodology Program may begin considering dissertation topics and problems for study at any time during their doctoral program, the college requires that students follow the specific, sequential steps described below when completing the research and writing of their doctoral dissertation.

Step 1: Obtain a Copy of the Dissertation Guidelines

The Ph.D. in eLearning Program provided a copy of the Dissertation Guidelines to all students. This guideline included information on the structure and format of the dissertation, the time sequence and the steps for writing the dissertation proposal and the dissertation.

Step 2: Complete the Dissertation Concept Form

The completed Dissertation Concept Form may be submitted at any time during Section II of *Guidelines for Ph.D. Research Actions*. Once this form has been approved, work may begin on the proposal. The Dissertation Concept Form is designed and attached in the following section.

Step 3: Submit the Dissertation Proposal

After completing EL 9001- EL 9006 Dissertation 1-6, the student should submit six copies of the dissertation proposal (Chapters 1, 2 and 3) with a clearly labeled title page that includes identifying information and the proposed title of the dissertation. The research advisor will review the student's program for completion of Assumption University, Doctor of Philosophy graduation requirements. In addition, the dissertation proposal will undergo a technical review and a content review. Editing corrections, revisions and suggestions will be made and returned to the student. (Beginning with the dissertation proposal, all paperwork should be submitted in a folder or binder. Professional binding is not necessary until the dissertation is completed and approved, as revisions and refinement are a normal component of the writing process. Please do not send materials loose in boxes, envelopes, or bound with rubber bands or binder clips.)

Step 4: Begin Writing the Dissertation

Once the dissertation proposal has been approved, complete the research and begin writing the dissertation. The dissertation writing process is the final component of the doctoral program. Consult the research advisor while planning and writing the dissertation to avoid extensive editing and rewriting.

Step 5: Submit the First Draft

Submit four copies of the first draft of the dissertation to the research advisor: one copy for major advisor, one copy for co-advisor, one copy for content review and one for technical review.

Step 6: Revise the Dissertation

After both the technical review and the content review have been completed, the first draft of the dissertation will be returned for final editing and revision. After completing the necessary changes, submit the final draft for final review. The Acceptance Form (Appendix C) should follow the title page for dissertation committee signatures.

Step 7: Final Review of the Dissertation and Graduation

After the final review is completed and approved, the research advisor will submit the doctoral candidate for graduation.

Step 8: Having the Approved Doctoral Dissertation Bound

Students may wish to submit the final approved dissertation with the Dissertation Acceptance Form for binding; bindery information is included in Appendix B at the end of these guidelines. The Ph.D. in eLearning Methodology Program do require students to have their dissertations bound, cause it may be beneficial to have it available in a bound format. Any cost for binding will be the responsibility of the student.

DISSERTATION CONCEPT FORM

Student Name: _____

Student ID Number: _____

Degree Program: **Ph.D. in eLearning Methodology**Working Title of the Dissertation:

Use the information below as a template for completing this approval form. When determining the problem or issue to be researched and how the data and/or information is to be used, remember that these elements must be presented in a logical sequence in the written dissertation so readers will understand and accept the conclusions as valid. The various aspects of the research project must be stated clearly on this form before it may be submitted.

Chapter 1: Introduction to the Problem or Issue

The theoretical, conceptual, philosophical and historical information included in Chapter 1, the Introduction to the Problem or Issue, will be obtained primarily from books or articles. Materials from any time period may be used for this section of the dissertation.

Statement of the Problem or Issue: State the general purpose of the study and what is to be accomplished. This statement describes the reason(s) for conducting the research and forms the basis for the dissertation. The information in Chapter 1 justifies why the stated problem or issue is significant and should be researched. The systematic, analytical thought motivating the study may be driven by a failure of established ideas, taking an innovative approach to a problem or issue, closely examining a problem or issue, or critically analyzing the inadequacies of current practices in addressing an old problem or issue. For more information on the types of research, see section 5 *Writing the Dissertation* within this guidelines. Limit the Statement of the Problem or Issue to approximately 100 words.

Background and History: This section of Chapter 1 includes further justification of the need for research and establishes why the problem or issue has been historically important and continues to be an important area for study. It also describes what events, discoveries and controversies surround the problem or issue and may include statements of opinion by anyone knowledgeable in the field, such as other researchers, authors, professionals and theorists. Limit the Background and History section of the completed form to approximately 100 words.

Research Question(s): Once the problem or issue has been clearly established and stated in the Statement of the Problem or Issue, then it must be restated as one or more research questions based on the type of research that will be conducted.

Hypothesis(es): If a research design and methodology that relies on analysis of the data through the use of statistics will be used, state the research hypothesis(es).

Significance of the Study: State the significance of the study based on the research question(s) and research hypothesis(es), if any (see paragraph above). This section may include a brief restatement of the problem or issue to be researched, a discussion of the possible impact of the study and the potential implications of the results or conclusions of the study.

Definition of Terms: In this section of Chapter 1, define and describe the variables, significant issues and/or uncommon terms used in the proposed study.

Chapter 2: A Review of Related Literature and Research

Chapter 2 will provide a comprehensive review of the current literature relating to the proposed research. Briefly summarize on the approval form (in approximately one paragraph) five scientific, professional or peer-reviewed journal articles published within the last five years that place the proposed study in the context of current research.

Chapter 3: Design of the Study

Chapter 3 will describe how the information for the proposed study will be gathered, including a description of the instruments and methods that will be used; a description of how this information will be evaluated, assessed or, if appropriate, statistically analyzed; and a description of the population to be studied, including how study subjects or records will be chosen and related details of the proposed study procedure. If statistical analysis will be used, state the assumptions underlying how the data will be analyzed. The scope and limitations of the study should also be described.

Classification of the Study

Refer to the Statement of the Problem or Issue on this approval form to identify the type of research that will be conducted. Since the type of research has been identified in the Statement of the Problem or Issue, only state that type of research in this section of the approval form.

3. The Dissertation Proposal

Submit the dissertation proposal to the Program after completing EL 9001- EL 9006 Dissertation 1-6. The dissertation proposal comprises the first three chapters of the dissertation.

- Chapter 1 - Introduction to the Problem or Issue
- Chapter 2 - Review of Related Literature and Research
- Chapter 3 - Design of the Study
- Appendix (if appropriate — see the note below)
- References

Note: An Appendix typically includes graphs, charts, statistical documentation, other documentation and additional supporting or explanatory material that documents and supports the information in the body of a dissertation. The Appendix is more likely to be used to support the material in Chapter 4, Results and Findings of the Study, and should be included in the first draft of the completed dissertation rather than in the dissertation proposal. However, if it is appropriate and necessary to document or clarify material in the proposal, reference portions of the Appendix section. For example, a copy of a survey instrument or self-report inventory may be included in the Appendix section of the dissertation proposal.

3.1. Conducting the Research and Writing the Results

After collecting the data and/or gathering information as described in Chapter 3, Design of the Study, write the results (Chapter 4) and conclusions (Chapter 5) of the dissertation. The completed dissertation should be a minimum of 75 pages. Although there is no minimum number of required references, the problem or issue being studied must be thoroughly researched (Chapter 1) and reflected in the literature review (Chapter 2) as well as in the other chapters of the dissertation. The brief number of references required for the Dissertation Concept Form should increase substantially to reflect a level of scholarly research.

3.2. The Completed Dissertation

The completed dissertation will include the dissertation proposal (which comprises Chapters 1, 2 and 3) plus Chapters 4 and 5.

- Chapter 1: Introduction to the Problem or Issue
- Chapter 2: Review of Related Literature and Research
- Chapter 3: Design of the Study
- Chapter 4: Results and Findings
- Chapter 5: Conclusions, Implications and Recommendations for Further Research
- Appendix (if appropriate)

- References Cited

3.3. Dissertation Outline

Title Page

Acceptance Form

Abstract (the final step in the writing phase; see page 37)

Acknowledgments

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Chapter 5: Conclusions, Discussion, Implications and Recommendations for Further Research

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Recommendations for Further Research

Summary

Appendices

References Cited

4. Tips on Writing Style and Dissertation Documentation

Perform the research personally by collecting the data or gathering information through interviewing; conducting experimental or clinical research; conducting surveys; and reviewing the literature or other data-collection methods appropriate for the study design of the research project. The major portion of the dissertation, however, will rely on the works of others as reported in books (the theory, philosophy and history related to the problem or issue that is included in Chapter 1); journal articles, newspapers, electronic media, etc. (the current research reviewed in Chapter 2); and any information obtained from other sources throughout the entire dissertation. Document and reference the author of each source of information according to APA (American Psychological Association) style as described in *The Writer's Harbrace Handbook* (Miller, Webb and Horner, 2001). **Note:** There are many editions of this book in print, and some students may have a previous edition entitled *Hodges' Harbrace Handbook* (Horner, Webb and Miller, 1998). When writing the dissertation, be sure to follow recent (within five years) APA style guidelines.

The references cited at the end of the dissertation document the entire work and should provide the information necessary for a reader to identify and retrieve each source. Each reference in the dissertation must appear in the References Cited section. This enables students to establish credibility as careful, cautious researchers.

When writing the dissertation, follow the proper rules of documentation for advanced research and writing. The Ph.D. in eLearning Methodology Program requires that doctoral dissertations follow APA 5th style. Consult *The Writer's Harbrace Handbook* for detailed information on APA style. If a copy of *The Writer's Harbrace Handbook* was not received after enrollment, please refer to Appendix B for instructions on how to obtain one. Students may also purchase the full *Publication Manual of the American Psychological Association*; see Appendix B for ordering information.

The Writer's Harbrace Handbook and the *APA Publication Manual* clearly provide guidelines for academic or scientific writing regarding the use of "intellectual property," or the ideas of others. Since the dissertation is an objective, factual report of a research endeavor and is therefore not primarily composed of original ideas, it is imperative that students adhere to guidelines regarding the use of intellectual property and closely follow the guidelines related to summarizing, paraphrasing, direct quotations and plagiarism. Remember that every time a new concept or idea is introduced, a new reference will need to be added. The exception to this occurs in Chapters 4 and 5 of the dissertation, in which the researcher submits his or her interpretations and conclusions from the results and makes recommendations for further study. Since the student will focus on original ideas in these chapters and may be more creative in his or her presentation, fewer outside references are likely to be used.

A variety of research links may also be found on the The Ph.D. in eLearning Methodology Program website, elearning.au.edu/phdelm/. Students should not rely only

on one type of source — also consult books, journal articles and possibly Internet sources when writing the dissertation.

Be careful when using Internet resources since many of them have not been reviewed and may lack validity for a project of this significance. Review them for accuracy as well as for references and use caution when interpreting and using the results. Some Internet resource links may require membership in the database network for a fee.

If an Internet source or link indicates style and documentation information conflicting with the *APA Style Manual* or *The Writer's Harbrace Handbook*, be sure to use APA style when including that information in the dissertation.

Acknowledgments

The Acknowledgments statement is designed to convey gratitude and acknowledgment to those who have offered support and assistance for the dissertation research and writing. This should be a concise and clearly stated one or two paragraph, which may include family members, friends and professional colleagues or consultants to whom the student is grateful.

Tense

When writing the proposal for the dissertation, which includes Chapters 1-3, use the *future* tense. After completing the remaining chapters and sections of the dissertation, change the *future* tense in Chapters 1-3 to *past* tense to correlate with the rest of the document.

Objective Style

Write the dissertation using the objective, third-person narrative form. Avoid the use of personal pronouns unless they are part of a quotation from another source. Remember that the dissertation is not a compilation of personal experiences or anecdotes, but rather a written and factual report of a scientific or academic study — and it should be written accordingly. Although creativity is encouraged, the first three chapters of the dissertation will be more factual and therefore written in report fashion. Some creative writing is more acceptable in Chapters 4 and 5, which include an interpretation of the results of the study and recommendations for future research.

5. Writing the Dissertation

5.1. Chapter 1: Introduction to the Problem or Issue

Chapter 1 of the dissertation introduces and clearly states the problem or issue being researched and explains why this topic was chosen. The Introduction to the Problem or Issue details why this topic should be studied, the new data or other information needed and how this data and information will be collected.

Descriptions of Various Types of Research

According to Bobby K. Jordan, Ed.D., author of *Dissertation, Thesis, and Research Project Workbook — A Step by Step Writing Guide for Success*, dissertation projects may include Social Impact or Action Research, Theoretical Research, Historical Research and Evaluation Research (Jordan, 1993, pages 10-12). In *A Student Guide for Educational Research*, B. S. Chissom, J. E. McLean and R. L. Hoenes identify yet another type of research they refer to as Clinical or Scientific Research or Fieldwork (Chissom, 1980). The following descriptions will help the student determine what type of research is most appropriate for the doctoral dissertation study.

In general, ***Social Impact or Action Research*** studies a problem or issue in society that requires clarification, in-depth analysis and the development of viable solutions or suggestions for changes to improve a problematic situation. These studies are more appropriate for topics related to research and development projects, action research and policy research. If this type of research is chosen, focus should be placed on a specific problem or issue to explore and how it may be changed for the better. (Remember to narrow the focus to one specific problem or issue — or even one element of a specific problem or issue — for the doctoral dissertation. Recommendations for follow-up studies will be made in Chapter 5 of the dissertation.)

An example of the Statement of the Problem or Issue for a Social Impact or Action Research study might be: Children in low-income families often have hidden nutritional deficiencies resulting from inadequate diets. Conditions such as hypoglycemia and anemia often result from poor diets. Current research suggests a strong link between the presence of these conditions and a host of social problems, including poor concentration, behavioral maladjustments, low scholastic performance and juvenile delinquency.

Theoretical Research studies generally focus on examining an established theory from a new angle. For example: What is the nature of the increase in cases of adult-onset diabetes and what is causing it? If this type of research is chosen, think of a specific physical or social situation that has a presumed, but questionable, cause and effect. Ask what other factors might be involved in that situation and determine research questions the study can effectively address. An example of the Statement of the Problem or Issue for a Theoretical Research study might be: The economic status of families appears to influence their ability to provide diets that are nutritionally sound.

Historical Research studies focus on events that have led to a current interest in a specific problem or issue. If this type of research is chosen, think of a past situation that is related to an important current situation which requires investigation and reevaluation based on new information. An example of the Statement of the Problem or Issue for a Historical Research study might be: Since the onset of the Industrial Age, the American diet has decreased steadily in nutritional value. A historical analysis of the decline depicts a parallel between the expansion of modern society and the decline of a diet derived from natural, unaltered foods.

Evaluation Research studies provide new and valuable information to be used in making decisions regarding a specific problem or issue. If the dissertation involves this type of research, determine an existing situation that needs reevaluation, what event(s) or recent development(s) is/are raising concerns, and the information the study can provide to help improve the situation.

An example of the Statement of the Problem or Issue for an Evaluation Research study might be: The government program Women, Infants and Children (W.I.C.) seeks to provide mothers and children of low socio-economic status with vouchers for nutritional supplements rich in iron, protein and calcium. A great portion of the supplements are vouchers for milk, cheese and infant formula. However, according to recent research, consumption of dairy products contributes to a variety of illnesses, including allergies, abnormal growth patterns, over-production of fat cells, excess mucous and digestive maladies. In light of this research, the question arises: Is W.I.C. a truly effective method of providing nutritional supplementation?

Clinical or Scientific Research (Fieldwork) studies use standard scientific methods and statistical analysis to collect data and gather information, examine relationships among variables, compare the effects of interventions and obtain conclusions. This type of study usually yields a number of surveys, graphs, questionnaires and other carefully formatted investigative tools. If this type of study is chosen, determine what variables can be quantified and compared in a specific situation, what value it will be to compare those variables and what interventions can be included in the experimental design.

An example of the Statement of the Problem or Issue for a Clinical or Scientific Research (Fieldwork) study might be: This project describes the creation of a garment using special polymer fibres and the testing of its effectiveness in protecting migrant farm workers against the environmental hazards and toxins associated with their work.

Use the following steps to determine what specific problem or issue may be researched for the doctoral dissertation.

Developing the Introduction to the Problem or Issue

Step 1: Make a list of situations, conditions, events, programs or other elements in society of interest or concern.

Step 2: Choose one topic from the list and consider why it is of interest or concern and what more can be discovered about it. Formulate questions to be answered and/or list issues that need to be researched. Also write a sentence concerning how the results of the study may be used to heighten awareness or understanding of the issue and/or improve a problematic situation.

Step 3: Draft a statement that clearly describes the problem or issue and explains why it should be studied.

Step 4: Revise the draft statement until it clearly describes the chosen topic and the reasons for studying it.

Statement of the Problem or Issue

Using the statement drafted from the previous steps, describe as briefly and precisely as possible the purpose of the study and how it affects the specific problem or issue chosen for research. State what the study is to accomplish in terms of emphasizing changes, increasing understanding of, or enhancing the interpretation of data and other information. This statement concerns the specific study and should not be combined with the Introduction to the Problem or Issue, which describes the topic chosen for research. Use the following steps to write the first part of Chapter 1 of the dissertation.

Writing the Statement of the Problem or Issue

Step 1: Draft a statement describing the research goal of the proposed study as completely and concisely as possible. Ask what should be accomplished with the study. Should the results of the study help change a situation or condition (see the description of Social Impact or Action Research)? Should the results increase awareness or understanding of a situation (see Theoretical Research)? Should the results provide a more accurate interpretation of an event or situation (see Historical Research)? Should the results provide new information to help reevaluate a situation (see Evaluation Research)? Should the results increase understanding of comparisons between or among groups (see Clinical or Scientific Research)?

Step 2: Keep revising the statement until it clearly and comprehensively describes the purpose of the proposed study.

Background and History

Once the problem or issue to be researched has been identified and what conclusions the study should accomplish, write the Background and History section of Chapter 1 of the dissertation. The following steps will help organize this section of the dissertation.

Writing the Background and History

Step 1: Describe specific ways the problem or issue being researched affects people or society in general.

Step 2: List as many reasons as possible regarding why people need to know more about this problem or issue. Think of a reason for changing a specific problematic situation or condition and/or why awareness or understanding concerning a specific issue should be increased.

Step 3: Do preliminary research to find journal articles, books, newspaper articles and other materials related to the proposed study. (In-depth research will be done after the proposed study is approved.)

Step 4: Draft a description of the background and history of the problem or issue to be studied, including the facts, statistics, quotes and other preliminary research information that have been gathered.

Step 5: Keep revising the description until it clearly and comprehensively describes the background and history of the proposed study.

Research Question(s)

Restate the problem or issue to be studied as a question or questions to be answered by the research. The following steps will help formulate the research question(s).

Writing the Research Question(s)

Step 1: Determine the kinds of questions that can be answered based on the type of research being performed (see the descriptions of various types of research on pages 19-20) and draft as many appropriate research questions as possible.

Step 2: Keep revising the research question(s) until it/they focus (es) the research and yield the desired information.

Hypothesis (es)

Hypotheses are educated guesses concerning specific answers to research questions. For certain kinds of studies (such as evaluations and descriptive studies) hypotheses cannot be specified in advance with much clarity or precision. Depending on the type of research conducted, the hypothesis(es) may need to be stated in a general form until preliminary data is collected and analyzed.

Use the following steps to clearly and succinctly state what is hoped to be learned from the research study. If a clinical study is chosen, consult with the research advisor regarding specific formats for writing the hypotheses for an analysis of statistical data.

Determining Hypothesis(es)

Step 1: List the specific results expected from the study.

Step 2: Determine how each result relates to the problem or issue being researched.

Step 3: Draft the research hypothesis(es) based on the information in the first two steps. If a clinical study is chosen, draft the null and research hypotheses.

Step 4: Keep revising the research hypothesis(es) until it/they is/are appropriate for the study.

Significance of the Study

As the following steps are completed, remember that the purpose of this section of Chapter 1 of the dissertation is to clearly and accurately describe *the study*, not the problem or issue being studied.

The Significance of the Study

Step 1: List as many reasons as possible concerning why the study is important to society. Consider the difference it can make in helping to improve a problematic situation or raising awareness of an issue.

Step 2: Draft a statement describing the importance of the study and why it should be done.

Step 3: Keep revising the statement until it clearly and accurately describes the significance of the study.

Definition of Terms

The Definition of Terms section of the dissertation should include clear, accurate definitions of word and phrases related to the specific field of research as well as any common words or phrases that might have a different meaning outside the context of this research.

Defining Terms

Step 1: List all of the words in Chapters 1-3 that need clarification.

Step 2: Consult dictionaries, encyclopaedias and other standard reference materials for the precise definitions of these words. List the source reference at the end of each definition. Be sure to properly cite all definitions of words and phrases in quoted material.

Step 3: Review Chapter 1 entirely and clarify or revise as necessary.

5.2. Chapter 2: Review of Related Literature and Research

Chapter 2 of the dissertation links the original research to similar studies on the same or related problem or issue completed recently (usually within the last five years). The Review of Related Literature and Research should provide a comprehensive listing, but it does not necessarily list every related study.

Review of Related Literature and Research

Step 1: List as many topics as possible related to the problem or issue being researched.

Step 2: Use appropriate resource materials, including publication indexes and Internet searches, to locate related studies.

Step 3: Select the studies that most closely relate to the study; support the motivation for studying the specific problem or issue; and have yielded results and conclusions similar to the ones anticipated from the proposed study.

Step 4: Revise and clarify the literature review as necessary.

5.3. Chapter 3: Design of the Study

Chapter 3 of the dissertation details how the problem or issue will be researched. The Design of the Study describes the specific data-collecting and/or information-gathering instruments and methods that will be used; how the data or information gathered will be evaluated, assessed or analyzed; the human population, documents or other materials that will be studied; the underlying assumptions of the data analysis; and the scope and limitations of the study.

The study may yield results similar to other studies on the same or related topic, but the specific design of it makes it original research. The perspective, or methodology, used when approaching and investigating the problem or issue and how conclusions are drawn from the results help distinguish it from similar studies.

In his *Dissertation, Thesis, and Research Project Workbook — A Step by Step Writing Guide for Success*, Bobby K. Jordan, Ed.D., describes methodologies appropriate for approaching a topic from a past (Historical and Causal-Comparative Research), present (Developmental, Descriptive, Correlation and Experimental Research), or future (Evaluation and Action Research) viewpoint. (Jordan, 1993, pages 23-26)

Historical Research, as described by Jordan, collects data and other information concerning a significant past event and analyzes the data and information to provide a comprehensive, objective description of it. This methodology may include reconstructing a past event as it relates to a specific theory or conceptual framework. An example of historical research might be studying the typical diet of people living in the Birmingham, Alabama, area in 1900 based on period cookbooks, magazine and newspaper accounts, food-related advertisements, historical accounts and other documentation.

Jordan describes **Causal-Comparative Research** as a study that examines a current event or situation with the purpose of determining the past underlying factors which caused it. This methodology usually involves clinical or other scientific research and includes identifying groups of subjects that differ in a specific way. The subject groups are compared on the basis of past factors that may have caused the difference.

An example of causal-comparative research may be to compare the general diet of 16-year-olds from two socio-economic populations and determining what socio-economic factors in each individual's personal history might account for any differences in food choices.

Developmental Research, according to Jordan, investigates how *present-day* patterns and sequences of growth change during a period of time. This type of research usually involves documenting changes either in the same study population for a specific length of time (a longitudinal study) or in a carefully selected study population that includes people of different ages from a range of socio-economic levels, etc. (a cross-sectional study).

An example of developmental research may be to study different groups of people for signs of chronic illness. A longitudinal study might involve documenting changes in each individual in the two or more study populations for a specific period of time; a cross-sectional study might involve a one-time examination of each individual in seven groups, with each group having distinct and measurable differences.

Jordan defines **Descriptive Research** as a study involving a systematic analysis that produces a comprehensive description of a *present-day* population or event. The goal of descriptive research is to formulate, test and analyze hypotheses concerning the population or event and determine problems that need to be addressed.

An example of descriptive research may be to study the diets of school children in a low socio-economic neighbourhoods with the goal of assessing nutritional values and determining needs, if any.

Co relational Research, as Jordan describes it, investigates specific characteristics of a *present-day* population and uses statistical analysis to learn how these characteristics interrelate. This type of research usually involves cross-tabulation and correlation techniques.

An example of co relational research may be to document the diets of adult diabetics and investigate the relationship, if any, between sugar intake and the incidence of type II diabetes.

Experimental Research, according to Jordan, involves exposing a *present-day* study population to specific conditions (the independent variables in the study) and comparing their performance (the dependent variables) with the performance of subjects in one or more control groups not exposed to the condition. This type of research uses statistical analysis to investigate possible cause-and-effect relationships.

An example of experimental research may be adding a carefully chosen food to the diet of people in one study population; determining if consuming that food affected the health or behaviours of the subjects as compared to one or more groups of subjects who did not consume the food; and investigating any possible cause-and-effect relationships between the food and health or behaviours. Jordan describes **Evaluation Research** as undertaking an exhaustive investigation of an ongoing program or method, focusing on the program's or method's efficiency and effectiveness and determining ways to improve it.

An example of evaluation research may be investigating the addition of calcium to orange juice, determining its efficiency and effectiveness in helping orange-juice drinkers obtain the daily recommended amount of dietary calcium and determining ways to increase the amount of calcium provided in orange juice.

Action Research, as described by Jordan, involves implementing a program designed specifically to accomplish a corresponding specific desired effect. Action research focuses on the effectiveness of the program and how it can be modified to be more effective. This type of research involves using the formative evaluation technique both before and during the development of a program.

An example of action research may be to initiate a pilot program of providing a nutritious breakfast for school children in two or more study populations, closely monitoring the results of the pilot program, and continuously modifying the pilot program to increase its effectiveness in producing the desired results. Jordan notes that there are many other possible research methodologies not described in his book. However, his descriptions, when used with the steps below, may help determine the best methodology for obtaining the desired information from the study.

Formulate the Appropriate Methodology

Step 1: Determine whether it would be best to approach the problem or issue being studied from a past, present or future viewpoint. Consider studying an event or situation that occurred in the *past* with the goal of better understanding it, studying a *present-day* event or situation with the goal of better understanding it and how it changes, or studying a present-day event or situation with the goal of changing it in some way in the *future*.

Step 2: If studying the topic from the perspective of the past will yield the desired information, consider using a historical or causal-comparative research methodology. If taking a present perspective would yield more desired results, consider using a developmental, descriptive, co relational or experimental methodology. If the study is to improve a situation in the future, consider using an evaluation or action research methodology.

Step 3: After determining what perspective is most appropriate for studying the topic, determine the logical sequence of steps and the techniques to be used for gathering and analyzing the data and/or other information then list these specific steps and techniques.

Step 4: Consult the research advisor concerning the perspective and techniques to be used. Refine the design of the study until it is the most appropriate methodology to obtain the needed information.

Underlying Assumptions

Personal beliefs, ideologies, values, world view and philosophy of research will lead the student to make some assumptions regarding various aspects of the study. For instance, if the student believes that objective data-gathering techniques provide more accurate information than subjective techniques, then he or she may use laboratory tests rather than one-on-one interviews in the study. To help validate the results of the study, clearly state the assumptions underlying its design.

Determining Underlying Assumptions

Step 1: State as clearly as possible why the perspective (past, present or future) is the most appropriate one for the study.

Step 2: List the specific techniques for gathering data and collecting other information and state as clearly as possible why they are the most appropriate choices.

Step 3: List the specific techniques to be used when analyzing the data and information and state as clearly as possible why they are the most appropriate choices.

Step 4: Consult the research advisor concerning the underlying assumptions of the study. Modify the statements until they state these assumptions as clearly as possible.

Scope and Limitations

Remember that no one study can comprehensively investigate all aspects of a particular problem or issue. This research will probably build on the results of previous studies of the problem or issue being studied, and the results should provide additional information on the topic that will lead to future studies. By focusing and carefully designing the study, it will be more likely to yield accurate, valid and usable information that will increase understanding of the topic and contribute to the general body of scholarship related to it. Use the following steps to identify and clearly state the factors that will determine the scope and limitations of the study.

Determining Scope and Limitations

Step 1: Determine the amount of time allocated to complete the research project based on time devoted to family, work and other responsibilities; any preset deadline for completing the dissertation; or any other time constraints.

Step 2: Determine what resources are available to complete the study, including the availability of subjects, written materials needed for background information or data collection, data collection and management tools, statistical techniques, etc.

Step 3: Determine the inherent limitations of the specific methods to be used for collecting data and gathering other information and of the specific techniques and tools to use for analyzing and evaluating the data and information.

Step 4: State as clearly and precisely as possible the scope and limitations of the study based on available time, available resources and research techniques.

Step 5: If necessary, modify the study design until the scope and limitations are reasonable and the study will probably yield valuable results.

5.4. Chapter 4: Results and Findings

Chapter 4 of the dissertation contains an analysis of the data collected or information gathered a statement of the findings and a summary statement of the study. Also state whether the results and findings support the expected conclusions and stated hypothesis(es), failed to support them or are more or less equivocal.

Provide a factual report of the results and findings in narrative form with appropriate tabular or graphic documentation. Report the results of the statistical analysis (if appropriate) at the beginning of the chapter and then convert the information to narrative and commentary form.

Be careful in this chapter to focus on factually reporting and documenting results related to the research question(s) stated in Chapter 1. Do not elaborate on extraneous points. Review the stated research question(s) and hypothesis(es), if any, to determine what is or is not important regarding the findings of the study. Include as many subheadings, tables, figures and/or graphs as necessary to fully describe and support the findings. See *The Writer's Harbrace Handbook* (Miller, Webb and Horner, 2001), pages 123-126 for examples of appropriate tables, figures and graphs.

Remember to be an impartial researcher and objective reporter and report *all* findings of the study that relate to the stated research question(s) and hypothesis(es), if any. It is not appropriate to report only those findings that support the premises and ideas of the study. Also remember that the task in writing a dissertation is not to prove the hypothesis(es), but rather to research and uncover data that supports or fails to support the stated hypothesis(es). The dissertation does not defend research question(s) and hypothesis(es) — it is research to discover and offer additional information concerning the problem or issue being studied.

Use the following steps to write the results and findings of the study.

Results and Findings

Step 1: List the results of the study.

Step 2: State as clearly and precisely as possible what the results indicate in relation to the stated research question(s) and hypothesis(es), if any.

Step 3: List the results of the analysis of the data and other information gathered during the study. Determine what visual illustrations (graphs, charts, etc.) will best report the factual results of the study.

Step 4: State as clearly and precisely as possible what the results of the interpretation of information or data analysis indicate in relation to the stated research question(s) and hypothesis(es).

Step 5: Describe as clearly and precisely as possible how the results of the research may impact the problem or issue being studied.

Step 6: Consult the research advisor concerning the results and findings of the study and how to clearly and precisely report them, including appropriate graphic illustrations.

5.5. Chapter 5: Conclusions, Discussion and Recommendations

Chapter 5 of the dissertation requires the student to state as comprehensively and clearly as possible the conclusions, discussion and implications of the results of the study and offer recommendations for further research on the topic. Restate why the study was significant and how the results of the study contribute to the body of scholarship on the topic.

This chapter is more flexible in format and creativity, which allows for personal thoughts on conducting the study and ways to modify the study design in follow-up research projects. Be sure to comment on *all* implications, both positive and negative, of the study. Remember that the dissertation does not defend the study — it only provides information that will be of value for future research.

Use the following steps to write the conclusions, discussion, implications and recommendations for further research.

Conclusions, Discussion, Implications and Recommendations for Further Research

Step 1: List all conclusions that can be logically drawn from the results of the study.

Step 2: Describe the possible impact(s) the conclusions listed in Step 1 might have on understanding the problem or issue being studied, the potential improvement of the problematic situation, the overall benefit to society, etc.

Step 3: List the implications the study has for future research on the same or related topic.

Step 4: List specific discussion and recommendations for the topic as well as the study design for future research.

Step 5: State the conclusions, discussion, implications and recommendations as clearly and concisely as possible.

Step 6: Review, clarify and revise until the draft statement is clear, concise and accurate.

5.6. Writing the Abstract

The abstract is a brief summary (approximately 300 words) designed to provide a synopsis of the dissertation that will allow other researchers to quickly review it and determine if the study is relevant to their work. It should highlight the main reason for the study; concisely describe the content, scope and limitations of the study; and review the dissertation in abbreviated form.

The abstract should succinctly and clearly state the problem or issue studied as well as the methodology, results and conclusions of the study. Start by stating the purpose of the study and provide a brief description of the study population, if any; followed by a brief discussion of the research question(s) and hypothesis(es), if any; the results and findings; and the conclusions, implications and recommendations for further research.

Although the abstract will be placed at the beginning of the completed dissertation, it will be the last item written since it is a summary of the entire dissertation. The following steps and tips will help create an effective abstract.

Writing an Effective Abstract

Step 1: Review the dissertation and list the main ideas in each chapter.

Step 2: Use an introduction/body/conclusion format to describe the dissertation's purpose, results, conclusions and recommendations. Follow the chronology, structure and logic of the dissertation and provide logical connections and transitions between the information and ideas presented.

Step 3: Remember the following tips when writing the abstract:

- Do not add any new information — only summarize the information in the dissertation.
- Try to summarize the information without copying key sentences or using the same phrases — use different words and summary statements whenever possible.
- Make the wording easy to understand so that anyone reading the abstract can immediately understand the purpose of the dissertation.
- Write as succinctly, concisely and clearly as possible and avoid wordiness.

Step 4: After completing the first draft, continue to refine the wording until it summarizes the entire dissertation clearly and concisely.

Appendices of Writing Dissertation Guidelines

Appendix A: Glossary of Terms

abstract: a summary of the study performed, including the main reason for the study, the content and scope of the study and any conclusions or recommendations by the writer

analogy: a comparison between two apparently unrelated things used as an example or to illustrate a point

analysis, analyze: a breaking down into parts and examination of each part as it relates to the whole

annotated bibliography: a list of references with a brief description of the work following each entry

assertion: a positive declaration, a strong claim

assumption: an idea or statement taken for granted to be true without proof, but based on evidence

body: the main part of the essay, that which supports the thesis

citing the text: directly referencing the source for documented support of ideas and claims

comparison/contrast: mode of writing that illustrates the similarities and the differences between two subjects

composition/contrast: mode of writing that focuses on a singular subject with a sense of unity

conclusion: the final component of the composition that includes a restatement of the thesis, any assumptions, unanswered questions, further qualifications of the thesis and relevance of the thesis to other issues

data analysis: the close examination of information collected from research

definition: an application of meaning, a description of function

description, descriptive: a characterization of qualities conveying a dominant impression

example: something used to show how something is done

explication: an explanation in detail with the intent of making something clear

evaluate: to determine the value of; examine carefully

evidence: specific facts or signs on which a conclusion can be based; indication

hypothesis, hypotheses: a theory (or theories) that explain(s) a set of facts that can be tested by further investigation; an assumption used as a basis for investigation

introduction: the beginning or preface of a work that may provide general background information regarding the topic, narrowing down to a specific statement (thesis) concerning the topic that will be discussed in the work

meta-analysis: the close examination of a topic within a large perspective on data spanning a period of time, used to expend parameters of research scope

narration, narrative: the telling of a story in such a manner that a story as a whole has a point

opinion: thoughts, feelings, impressions or ideas a person has toward a particular topic

opposition: the other side of a debate or controversy of which a writer needs to be conscious of and address when formulating an argument

perspective: viewpoint or point of origin that may affect a person's position on an issue

persuasion (argumentation): mode of rhetoric that requires the audience to consider, if not convert, to the presenter's way of examining an issue; the causing to do or believe by means of reasoning, argument or entreaty

phenomenon: a fact or occurrence that can be perceived or observed

problem statement: the main idea central in the development of an essay that is proven by evidence and examples

process analysis: the act of explaining a series of steps or operations toward a desired result

proof: evidence that establishes the truth or validity of something

reliability: how worthy or dependable a study or other form of information is, especially in regard to proving an idea, theory or hypothesis

significance: the importance, relevance or value of a particular study, fact or other form of information

support: corroboration or substantiation for a conclusion, idea, theory, etc.

survey: to examine in detail

title: the original name of an essay that needs to reflect the nature of the work or assignment

topic: the subject of an essay

topic sentence: a sentence that introduces the subject of the essay and also expresses the author's attitude concerning the subject

transitions: words, phrases and even paragraphs used as bridges between thoughts and ideas within the composition itself

validity: the foundation of truth or fact

viewpoint: in writing, the vantage point of the writer's narrative; refers to the voice in the telling of a story

Appendix B: Supplemental Information

Authorship and Co-authorship

Any articles, books or other publications in any format written as the result of collaboration between two students or between students and faculty should be published as per ethical, professional standards, with credit being properly provided as to authorship. According to Huth (1987), those who make a significant contribution to a published work and who hold primary responsibility for the data, concepts and interpretation of findings of a written work are considered to hold authorship. Authorship also includes those who have made substantial scientific contribution to a study, in addition to those who do the writing (APA, 2001).

Binding the Dissertation

The Graduate School at Assumption University recommended all dissertations bind at the same standard please call 02-275-4000 and 02-275-4202 for the service.

Internet Links

Internet links for research and related information are available on the Ph.D. in eLearning Methodology Program website, elearning.au.edu/phdelm/ click on Current Students then Resources.

Reference Materials for Format and Style

Students may order *The Publication Manual of the American Psychological Association*, 5th edition, ISBN 1-55798-790-4, directly from the American Psychological Association, Book Order Department, P.O. Box 92984, Washington, DC 20090-2984; (800) 374-2721; www.apa.org.

Appendix C: Acceptance Form

The Acceptance Form on the following page is a sample of what the student should create. The correct dissertation title, student name and year should be substituted in the form in the final draft of the dissertation.

Title of Dissertation

By

Student Name

A Thesis submitted in partial fulfillment
of the requirement for the degree of

Doctor of Philosophy
in eLearning Methodology

Examination Committee:

- | | | |
|--------|---------------------------|-------|
| 1..... | (Major Advisor) | |
| 2..... | (Co-advisor) | |
| 3..... | (Member) | |
| 4..... | (Member) | |
| 5..... | (MOE Representative)..... | |

Examined on: Month day, year

Approved for Graduation on: Month day, year

College of Internet Distance Education
Assumption University
Bangkok, Thailand
Month
Year

Bibliography

- Bolker, J. (1998). *Writing Your Dissertation in Fifteen Minutes a Day*. New York: Henry Holt and Company, Inc.
- Chissom, B. S., McLean, J. E. and Hoenes, R. L. (1980). *A Student Guide for Educational Research*. Tuscaloosa: Capstone College of Education Society.
- Horner, W. B., Webb, S. S. and Miller, R. K. (1998). *Hodges' Harbrace Handbook*. Fort Worth: Harcourt Brace College Publishers.
- Huth, E. J. (1987) *Prose Style*. In *Medical Style and Format* (pp. 260 - 287). Philadelphia: ISI Press.
- Jordan, B. K. (1993). *Dissertation, Thesis, and Research Project Workbook*. Abbeville: Jordan.
- Miller, R. K., Webb, S. S. and Horner, W. B. (2001). *The Writer's Harbrace Handbook*. Fort Worth: Harcourt College Publishers.
- Publication Manual of the American Psychological Association*. (2001). Washington, D.C.: American Psychological Association.